

AGENDA
REGULAR MEETING OF VILLAGE COUNCIL
JULY 20, 2017
6:30 P.M.

1. Mayor Smith calls the meeting to order

2. Roll Call:

Randall Atkins
James Boerio
Sue Johnson

Bill Madison
Steve Riley
George Teasdale

3. Guests:

4. Floor open to the public:

5. New Business: Emergency Resolution 2017-41 Authorizing Agreement
for Audit of BMV Registrations

First Reading 2017-42 Approving 2018 Solid Waste
Management Plan

First Reading 2017-43 Authorizing Maintenance
Agreement with Buckeye Power Sales for Lift Station
Generator Servicing

Authorization of Invoices

Authorization of June Financial Reports

6. Old Business: Third Reading Resolution 2017-36 Authorizing
Agreement with Jani-King for Janitorial Services
(Updated)

Third Reading 2017-38 Establishing Compensation for
the Assistant Superintendent Position in Public Works
Department

7. Executive Session

8. Communications and reports from Village Officials and Committees

- a. Mayor
- b. Fiscal Officer
- c. Solicitor
- d. Administrator
- e. Sgt.
- f. Council Members

9. Adjournment

**VILLAGE OF SOUTH LEBANON, OHIO
RESOLUTION NO. 2017-41**

**A RESOLUTION AUTHORIZING THE MAYOR TO SIGN AN AGREEMENT
WITH DALENE M. PRIDE RELATING TO AN AUDIT OF BMV REGISTRATIONS,
AND DECLARING AN EMERGENCY**

WHEREAS, the Fiscal Officer has been contacted by Dalene M. Pride, an independent consultant, who submitted the attached contract to perform a BMV audit of registered vehicles to ensure the proper funds are being distributed to the Village; and,

WHEREAS, Ms. Pride will receive a commission for registrations she discovers are misallocated;

WHEREAS, immediate action is required as Ms. Pride recently discovered funds that should have been allocated to the Village when conducting an audit for another municipality and other funds may be misallocated for the benefit of the Village, and such action is necessary in order to preserve the public peace, health, safety or welfare of the Village.

NOW, THEREFORE, BE IT RESOLVED by the Council of the Village of South Lebanon, at least two-thirds of all members elected thereto concurring:

Section 1. The Village Council does hereby authorize the Mayor to execute the attached Agreement, as approved as to form by the Village Solicitor, attached hereto and incorporated by reference.

Section 2. That the Council is acting in its administrative capacity in passing this Resolution.

Section 3. That the recitals contained within the Whereas Clauses set forth above are incorporated by reference herein.

Section 4. That this Resolution is hereby declared to be an emergency measure in accordance with Ohio Rev. Code § 731.30 for the immediate preservation of the public peace, health, safety and general welfare; and, this Resolution shall be in full force and effective immediately upon its passage.

Section 5. That it is found and determined that all formal actions of the Council concerning and relating to passing this Resolution were adopted in an open meeting of Council in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.

Adopted this ____ day of July, 2017.

Attest: _____

Nicole Armstrong, Fiscal Officer/Clerk

James D. Smith, Mayor

Rules Suspended: / /2017 (if applicable)

Effective Date – / /2017

Vote - ____ Yeas

____ Nays

First Reading – / /2017

Effective Date – / /2017

Second Reading – / /2017

Third Reading– / /2017

Vote - ____ Yeas

____ Nays

Prepared by and approved as to form:

PAUL R. REVELSON
VILLAGE SOLICITOR
SOUTH LEBANON, OHIO

By: _____

Date: ____ / ____ /2017



Village of South Lebanon
99 N. High Street, South Lebanon, Ohio 45065
513-494-2296
fax: 513-494-1656
www.southlebanonohio.org

MEMORANDUM

To: Mayor & Village Council
From: Jerry Haddix, Village Administrator
Date: July 18, 2017
Subject: Solid Waste Management Plan

Attached is a resolution and summary for County Solid Waste District's 2018 Updated Plan. Every municipality in the County must approve or disapprove the Plan.

The complete plan can be viewed at <http://www.co.warren.oh.us/solidwaste/GenInfo/Plan.pdf>.

Let me know if you have any questions or need additional information.

2018 SOLID WASTE MANAGEMENT PLAN

Final for Ratification

Warren County Solid Waste
Management District

Written by



416 Longshore Drive
Ann Arbor, Michigan 48105
1-800-517-9634
1-734-996-1361

This page intentionally left blank

TABLE OF CONTENTS

Table of Contents.....	i
Glossary.....	v
ii Solid Waste Management District Personnel and Contacts.....	1
Chapter 1: Introduction	3
A. Brief Introduction to Solid Waste Planning in Ohio.....	3
B. Requirements of County and Joint Solid Waste Management Districts	3
C. District Overview	4
D. Waste Reduction and Recycling Goals	4
Chapter 2: District Profile.....	7
A. Profile of Political Jurisdictions	7
B. Population	8
C. Profile of Commercial and Institutional Sector.....	10
D. Profile of Industrial Sector	10
E. Other Characteristics	10
Chapter 3: Waste Generation	11
A. Solid Waste Generated in Reference Year	11
B. Historical Waste Generated	12
C. Waste Generation Projections	13
Chapter 4: Waste Management	15
A. Waste Management Overview	15
B. Profile of Waste Management Infrastructure	16
C. Solid Waste Facilities Used in the Reference Year	17
D. Use of Solid Waste Facilities During the Planning Period	19
E. Siting Strategy	20
F. Designation	20
Chapter 5: Waste Reduction and Recycling.....	23
A. Program Evaluation and Priorities	23
B. Program Descriptions	26
C. Waste Reduction and Recycling Rates	31
Chapter 6: Budget.....	33
A. Overview of the SWMD's Budget	33
B. Revenue.....	34
C. Expenses	38
D. Budget Summary	39
Appendix A: Miscellaneous Information	1
A. Reference Year	1
B. Planning Period	1
C. Goal Statement.....	1
D. Material Change in Circumstances/Contingencies.....	1
E. Explanations of differences between data previously reported and data used in the solid waste management plan	2

Appendix B: Recycling Infrastructure Inventory	1
A. Inventory of Residential Recycling Infrastructure Available in the Reference Year	1
B. Inventory of Curbside Recycling and Trash Collection Service Providers	5
C. Inventory of Composting Facilities/Yard Waste Management Programs Available in the Reference Year	6
Appendix C: Population Data	1
Appendix D: Disposal Data	1
A. Reference Year Waste Disposed	1
B. Historical Waste Analysis	3
C. Disposal Projections	5
Appendix E: Residential/Commercial Recovery Data	1
A. Reference Year Recovery Data	1
B. Historical Recovery	6
C. Residential/Commercial Recovery Projections	8
Appendix F: Industrial Waste Reduction and Recycling Data	1
A. Reference Year Recovery Data	1
B. Historical Recovery	4
C. Industrial Recovery Projections	5
Appendix G: Waste Generation	1
A. Historical Year Waste Generated	1
B. Generation Projections	2
Appendix H: Strategic Evaluation	1
Appendix I: Conclusion, Priorities, and Program Descriptions	1
A. Conclusions, Actions, and Priorities	1
B. Programs	3
Appendix J: Reference Year Opportunity to Recycle and Demonstration of Achieving Goal 1	1
A. Residential Sector Opportunity to Recycle in the Reference Year	1
B. Commercial Sector Opportunity to Recycle	3
C. Demonstration of Other Requirements for Achieving Goal 1	4
Appendix K Waste Reduction and Recycling Rates and Demonstration of Achieving Goal 2	1
Appendix L Minimum Required Education programs: Outreach and Marketing Plan and General Education Requirements	1
A. Minimum Required Education Programs	1
B. Outreach and Education – Outreach Plan and General Education Requirements	1
Appendix M Waste Management Capacity Analysis	1
A. Access to Publicly-Available Landfill Facilities	1
B. Access to Captive Landfill Facilities	1
C. Access to Processing Capacity for Recovered Materials	1
D. Incinerators and Energy Recovery Facilities	2
Appendix N Evaluating Greenhouse Gas Emissions	1
Appendix O Financial Data	1
A. Funding Mechanisms and Revenue Generated	1
B. Cost of Implementing Plan	5
C. Alternative Budget	12
D. Major Facility Project	15

Appendix P Designation	1
A. Statement Authorizing/Precluding Designation	1
Appendix Q District Rules	1
A. Existing Rules.....	1
B. Proposed Rules.....	1
Appendix R Performance Agreement.....	1
Appendix S Monitoring Forms	1
Appendix T Additional Provisions (not specified in Format 4.0 but included here as a reference)	1
A. Inventory of Existing Facilities	1
B. Inventory of Open Dump Sites.....	2
C. Amounts of Solid Waste Originating Outside the District.....	2
Appendix U Certification Statement	1
Appendix V Ratification Results	1

This page intentionally left blank

GLOSSARY

Access – For purposes of this document, access is associated with the availability of waste reduction and recycling services to waste generation within a district. In most cases, access is used as the presence or absence of waste reduction and/or recycling opportunities, and as a component of measuring compliance with Goal #1 of the State Plan.

Annual District Report – Requirement established in state plan due annually to Ohio EPA. This serves an annual review of the implementation of the solid waste management plan. Must be prepared in accordance with OAC 3745-27-90 (F).

Board and Board of Directors – The Warren County Board of Commissioners acts in its capacity as the solid waste management district Board of Directors.

Broker – For purposes of the this document, a business which accepts recyclables from collection or processing activities, sometimes pays a fee for the materials, and then finds an end-user or another processor to purchase the materials. A broker can also be a processor of solid waste recyclables.

Commingled – Single stream (also known as “fully commingled” or “single-sort” recycling refers to a system in which all paper fibers, cardboard, plastics, metals, and other containers are mixed for collection.

Commercial wastes – Solid waste resulting from businesses and institutional activities. This category includes shopping centers, stores, banks, theaters, gas stations, medical facilities, business offices, motels, and similar establishments. Institutional activities include government and non-profit offices, schools, prisons, religious facilities, parks and a variety of other activities that is not residential or industrial.

Composting – The controlled biological decomposition of organic solid wastes which stabilizes the organic fraction of material.

Construction & Demolition Debris – Those materials resulting from the alteration, construction, destruction, rehabilitation, or repair of manmade physical structure, including houses, buildings, roadways. Construction and demolition debris does not include solid waste or hazardous wastes, materials from mining operations, non-toxic fly ash, spent non-toxic foundry sand or slag.

Designated Solid Waste Facility – Those solid waste facilities designated in the initial or amended plan or as are designated pursuant to Ohio Revised Code Sections 343.013, 343.014, or 343.015.

District – The Warren County Solid Waste Management District operated under the direction of the Board of Commissioners.

Daily Processing Capacity – This should be the amount of materials or waste which can be processed during a normal operating day for a facility or activity. If the facility normally operates eight hours per day, the daily processing capacity would be based upon eight hours. If the facility normally operates ten hours per day, the daily processing capacity should be based upon ten hours.

Don't Bag It – An educational program originally developed by the Texas Cooperative Extension Service to discourage individuals from collecting the clippings from lawn mowing activities by promoting proper lawn care.

Dual Stream Recycling – A system in which paper fibers and cardboard are separated from plastics, metals, and other containers for collection.

Exempt Waste – Material excluded from the definition of solid waste in ORC 3734.01(E) including slag, uncontaminated earth, non-toxic fly ash, spent non-toxic foundry sand, and material from mining, construction, or demolition operations. Please note that non-toxic fly ash and non-toxic foundry sand and spent foundry sand determined to be non-toxic in accordance with Ohio EPA Division of Surface Water Policy 0400.007.

Fee Exempt Waste – This term refers to all waste which is exempt from the fees authorized in accordance with Sections 3734.57, 3734.572, and 3734.573 of the ORC. All exempt waste, as defined above, is also fee exempt waste. In addition, fee exempt waste also includes solid waste which is disposed in captive landfills as defined above.

Generation - This term refers to the amount (weight, volume, or percentage of the overall waste stream) of materials and products as they enter the waste stream and before materials recovery, composting, or combustion takes place.

Generation Fee – A fee established pursuant to Ohio Revised Code Section 3734.573 (A) and assessed on each ton of solid waste generated within the District.

Household Hazardous Waste (HHW) – Materials used in the home/apartment such as cleaners, paints, solvents, pesticides, used oil, batteries, and other automotive products that potentially can cause injuries to refuse workers, damage to equipment, and/or harm to the environment if disposed in the solid waste stream. HHW typically exhibits one or more characteristics of hazardous wastes, but is exempted from regulation as a hazardous waste because of generation by households.

Incineration – The controlled process by which solid wastes are burned and changed into gases and ash.

Industrial Solid Waste – Includes any non-hazardous solid waste which results from, or is the residue of an industrial process. Some examples are industrial sludges, paint, petrochemicals, fly ash, bottom ash, slag, and foundry sand. Waste streams such as fly ash, bottom ash, slag and foundry sand are characterized as solid waste in accordance with Ohio EPA Division of Surface Water policy 0400.007. Industrial solid waste includes both industrial process wastes such as sludges, trimmings, and filter cake, and industrial non-process wastes such as cafeteria and packaging wastes. For purposes of this document, industrial wastes are generated by industries in Standard Industrial Classification (SIC) category 20 and 22 through 39.

MRF (Materials Recovery Facility) – Any type of facility used for separating, sorting or processing waste in order to segregate materials with value (e.g. aluminum, glass, plastics). The type of processing conducted at a MRF can range widely from buildings in which recyclables are sorted primarily by hand, to mechanical facilities that attempt to recover recyclables from mixed solid waste (sometimes called a “dirty MRF”). Note that MRF’s as such are not regulated as a solid waste facility in Ohio, unless the facility accepts mixed waste and total recovery of recyclables is less than 60 percent of total receipts in weight. Any facility recovering less than 60 percent is regulated as a solid waste transfer station.

Non-ferrous – Metals not including iron or its alloys or compounds.

Ohio Administrative Code (OAC) – A compilation of the rules governing the actions of all state agencies. The OAC is based upon the authority granted in the Ohio Revised Code.

Ohio Revised Code (ORC) – All statutes of the State of Ohio as revised and consolidated into general provisions, chapters, and sections.

Open dumping – The deposit of solid wastes into a body or stream of water or onto the surface of the ground at a site that is not licensed as a solid waste facility under Section 3734.05 of the ORC. For the purposes of the solid waste

management plan, open dumps should be considered areas off the road or right-of-way on which solid wastes are dumped. Occasional debris or litter found in road right-of-ways should not be considered open dumps.

Other Waste – This term, refers to materials disposed in sanitary landfills which were not classified as solid wastes. In this document, the term “exempt wastes” is used to refer to these materials disposed in sanitary landfills which are not classified as solid wastes.

Participation Rate – As defined by the National Recycling Coalition, a participation rate is the number of households that separate out materials for recycling, divided by the total number of households serviced by the recycling program at least once over an established time period or number of collection events. In the case of a curbside recycling program, the participation rate is commonly measured by tracking whether a particular household (by address), sets out materials during the time period examined. In contrast, the set-out rate is defined as a count of the “set-outs” on the observed collection day, as a percent of the total number of households or entities serviced.

Processing Capacity – For purposes of this document, processing capacity refers to the design capacity of the facility (or the maximum amount of materials which could be processed), and not the actual amount of materials processed during a given time period.

Recycling - The systematic collection, sorting, decontaminating and returning of waste materials to commerce as commodities for use or exchange. Recycling also means to use, reuse or reclaim a material. It does not include incineration.

Reference Year – The calendar year selected by the solid waste management district as a basis for data collection in preparation of the district’s amended plan. For example, a district beginning to prepare an amended plan in 1996 would typically use calendar year 1995 as the reference year. All facilities used by the district in 1995, and all industries and haulers operating in the district during 1995 would be surveyed to collect data for 1995. Data from the reference year would then be used to adjust the projections in the previous plan, and make any other changes necessary resulting from this new information.

Residential Wastes – Solid wastes resulting from residential dwellings such as single-family homes, apartment buildings, condominiums, cooperatives, and mobile homes. Domiciles such as nursing homes, campgrounds, and other types of group quarters and institutions should be considered generating commercial waste.

Reuse – The reuse of waste means the re-utilization of a material in an environmentally sound manner, that will not result in a hazard to human health or the environment. From a manufacturing perspective, a material is reused if it is either: 1) employed as an ingredient, including use as an intermediate in an industrial production process, or 2) used in a particular function or application as an effective substitute for a commercial product.

Resource Recovery – This term refers to the conversion of solid waste into energy, or some material which can be used to create energy at any stage before ultimate disposal. As used in this document, resource recovery does not include the recovery of materials through mechanical and advanced technology methods.

Set-out Rate – The National Recycling Coalition defines a set-out rate as the number of households that set out materials on their assigned collection day, divided by the total number of households served. A set-out rate is a measurement commonly used in assessing curbside collection programs.

SIC Code - Standard Industrial Classification used to categorize industries, institutions, and businesses according to the product manufactured or services offered.

Single Stream Recycling – A system in which all paper fibers, cardboard, plastics, metals, and other containers are mixed together for collection. In single-stream, both the collection and processing systems are designed to handle this fully commingled mixture of recyclables.

Solid Waste – Unwanted residual solid or semi-solid materials resulting from industrial, commercial, agricultural, and community operations, but excluding earth or material from construction, mining, or demolition operations, or other waste materials of the type that would normally be included in demolition debris, non-toxic foundry sand, slag, and other substances that are not harmful to public health. It includes, but is not limited to, garbage, tires, combustible and non-combustible material, street dirt, and debris. Solid waste does not include any material that is an infectious waste or a hazardous waste.

Source Reduction – Any effort to reduce, at the source, the quantity of waste generated, toxic chemical use, or any release to the environment. Source reduction in generation of commercial or industrial wastes could result from process modifications, improvement in feedstock purity, better operating and management practices, and increases in the efficiency of machinery. It includes reducing the amount of materials entering the waste stream by voluntary or mandatory programs to eliminate the initial generation of waste.

SWMD – Solid Waste Management District

TPD – Tons Per Day.

TPY – Tons Per Year.

Transfer Station (Transfer Facility) – A facility which receives deliveries of solid waste by local collection vehicles and provides for transfer to larger vehicles which deliver wastes more economically to resource recovery or landfill facilities.

Volume Reduction – Activities such as incineration which reduce the volume of waste to be disposed.

Waste Generation – This term refers to the amount (weight, volume, or percentage of the overall waste stream) of materials and products as they enter the waste stream and before materials recovery, composting, or combustion takes place.

Waste Minimization – Any effort to reduce or recycle the quantity of hazardous waste generated, and where feasible, to reduce or eliminate toxicity. Treatment of hazardous waste is not waste minimization, unless such treatment is part of a recycling process. (Please note that the definition of this term as used in this document does not include solid wastes.)

Waste Reduction – As used in this document, this term means source reduction, recycling, MSW composting, incineration, and resource recovery.

Waste Stream – The amount of materials that are destined for disposal. The waste stream may refer to specific, homogenous material or numerous materials mixed together.

White Goods – Discarded kitchen and other large appliances (washing machines, clothes dryer, etc.) May include fencing, swing sets, buckets, television sets, and furniture.

ii SOLID WASTE MANAGEMENT DISTRICT PERSONNEL AND CONTACTS

Table ii-1 Solid Waste Management District Information

SWMD Name	Warren County Solid Waste Management District
Member Counties	Warren County
Coordinator's Name (main contact)	Susanne Mason
Job Title	Program Manager
Street Address	406 Justice Drive
City, State, Zip Code	Lebanon, Ohio 45036
Phone	513-695-1209
Fax	513-695-2980
E-mail address	Susanne.Mason@co.warren.oh.us
Webpage	www.co.warren.oh.us/solidwaste

Table ii-2 Members of the Policy Committee/Board of Trustees

Member Name	Representing
Warren County	
David Gully	County Commissioners
Betty Davis	Municipal Corporations
David Crisenberry	Townships
Duane Stansbury	Health District
William Romaine	Generators
Chris Brausch	Citizens
Jeff Thomas	Public
Additional Public Representative	
Name	County

Table ii-3 Chairperson of the Policy Committee or Board of Trustees

Name	David Crisenberry
Street Address	P.O. Box 136
City, State, Zip Code	Harveysburg, Ohio 45032
Phone	937-672-4909
Fax	na
E-mail Address	dcrisenberry@yahoo.com

Table ii-4 Board of County Commissioners/Board of Directors

Commissioner Name	County	Chairperson/President
Tom Grossmann	Warren	
Pat South	Warren	
David G. Young	Warren	President

Table ii-5 Technical Advisory Committee

Table ii-5 is not provided. A Technical Advisory Committee was not used to prepare this plan update and has not been appointed.

This page intentionally left blank

CHAPTER 1: INTRODUCTION

A. Brief Introduction to Solid Waste Planning in Ohio

In 1988, Ohio faced a combination of solid waste management problems, including rapidly declining disposal capacity at existing landfills, increasing quantities of waste being generated and disposed, environmental problems at many existing solid waste disposal facilities, and increasing quantities of waste being imported into Ohio from other states. These issues combined with Ohio's outdated and incomplete solid waste regulations caused Ohio's General Assembly to pass House Bill (H.B.) 592. H.B. 592 dramatically revised Ohio's outdated solid waste regulatory program and established a comprehensive solid waste planning process.

There are three overriding purposes of this planning process: to reduce the amount of waste Ohioans generated and dispose of; to ensure that Ohio has adequate, protective capacity at landfills to dispose of its waste; and to reduce Ohio's reliance on landfills.

B. Requirements of County and Joint Solid Waste Management Districts

1. Structure

As a result of H.B. 592, each of the 88 counties in Ohio must be a member of a solid waste management district (SWMD). A SWMD is formed by county commissioners. A board of county commissioners has the option of forming a single county SWMD or joining with the board(s) of county commissioners from one or more other counties to form a multi county SWMD. Ohio currently has 52 SWMDs. Of these, 37 are single county SWMDs and 15 are multi county SWMDs¹.

A SWMD is governed by two bodies. The first is the board of directors which consists of the county commissioners from all counties in the SWMD. The second is a policy committee. The policy committee is responsible for developing a solid waste management plan for the SWMD. The board of directors is responsible for implementing the policy committee's solid waste management plan.²

2. Solid Waste Management Plan

In its solid waste management plan, the policy committee must, among other things, demonstrate that the SWMD will have access to at least 10 years of landfill capacity to manage all of the SWMD's solid wastes that will be disposed. The solid waste management plan must also show how the SWMD will meet the waste reduction and recycling goals established in Ohio's state solid waste management plan and present a budget for implementing the solid waste management plan.

Solid waste management plans must contain the information and data prescribed in Ohio Revised Code (ORC) 3734.53, Ohio Administrative Code (OAC) Rule 3745-27-90. Ohio EPA prescribes the format that details the information that is provided and the manner in which that information is presented. The format is very similar in concept to a permit application for a solid waste landfill.

¹ Counties have the option of forming either a SWMD or a regional solid waste management Authority (Authority). The majority of planning districts in Ohio are SWMDs, and Ohio EPA generally uses "solid waste management district", or "SWMD", to refer to both SWMDs and Authorities.

² In the case of an Authority, it is a board of trustees that prepares, adopts, and submits the solid waste management plan. Whereas a SWMD has two governing bodies, a policy committee and board of directors, an Authority has one governing body, the board of trustees. The board of trustees performs all of the duties of a SWMD's board of directors and policy committee.

The policy committee begins by preparing a draft of the solid waste management plan. After completing the draft version, the policy committee submits the draft to Ohio EPA. Ohio EPA reviews the draft and provides the policy committee with comments. After revising the draft to address Ohio EPA's comments, the policy committee makes the plan available to the public for comment, holds a public hearing, and revises the plan as necessary to address the public comments.

Next, the policy committee ratifies the plan. Ratification is the process that the policy committee must follow to give the SWMD's communities the opportunity to approve or reject the draft plan. Once the plan is ratified, the policy committee submits the ratified plan to Ohio EPA for review and approval or disapproval. From start to finish, preparing a solid waste management plan can take up to 33 months.

The policy committee is required to submit periodic updates to its solid waste management plan to Ohio EPA. How often the policy committee must update its plan depends upon the number of years in the planning period. For an approved plan that covers a planning period of between 10 and 14 years, the policy committee must submit a revised plan to Ohio EPA within three years of the date the plan was approved. For an approved plan that covers a planning period of 15 or more years, the policy committee must submit a revised plan to Ohio EPA within five years of the date the plan was approved.

C. District Overview

The SWMD was formed as a single county district in 1993 after splitting with Clinton County. The SWMD consists of one centralized office. The role of the SWMD is facilitator. The solid waste management system, of hauling, processing, landfilling, composting, and recycling, is operated exclusively by private companies. The structure and role of the SWMD remains consistent but continues to achieve progress. One of the SWMD's major accomplishments is the implementation of sustainable programming through partnerships between public and private sectors. The system is deliberately designed to bring convenient programs to the residents.

D. Waste Reduction and Recycling Goals

As explained earlier, a SWMD must achieve goals established in the state solid waste management plan. The current state solid waste management plan is the *2009 Solid Waste Management Plan* (2009 State Plan). The 2009 State Plan established nine goals as follows:

1. The SWMD shall ensure that there is adequate infrastructure to give residents and commercial businesses opportunities to recycle solid waste.
2. The SWMD shall reduce and recycle at least 25 percent of the solid waste generated by the residential/commercial sector and at least 66 percent of the solid waste generated by the industrial sector.
3. The SWMD shall provide the following required programs: a Web site; a comprehensive resource guide; an inventory of available infrastructure; and a speaker or presenter.
4. The SWMD shall provide education, outreach, marketing and technical assistance regarding reduction, recycling, composting, reuse and other alternative waste management methods to identified target audiences using best practices.
5. The SWMD shall provide strategies for managing scrap tires, yard waste, lead-acid batteries, household hazardous wastes and obsolete/end-of-life electronic devices.
6. The SWMD shall explore how to incorporate economic incentives into source reduction and recycling programs.
7. The SWMD will use U.S. EPA's Waste Reduction Model (WARM) (or an equivalent model) to evaluate the impact of recycling programs on reducing greenhouse gas emissions.
8. The SWMD has the option of providing programs to develop markets for recyclable materials and the use of recycled-content materials.
9. The SWMD shall report annually to Ohio EPA regarding implementation of the SWMD's solid waste management plan.

All nine SWMD goals in this state plan are crucial to furthering solid waste reduction and recycling in Ohio. However, by virtue of the challenges posed by Goals 1 and 2, SWMDs typically have to devote more resources to achieving those two goals than to the remaining goals. Thus, Goals 1 and 2 are considered to be the primary goals of the state plan.

Each SWMD is encouraged to devote resources to achieving both goals. However, each of the 52 SWMDs varies in its ability to achieve both goals. Thus, a SWMD is not required to demonstrate that it will achieve both goals. Instead, SWMDs have the option of choosing either Goal 1 or Goal 2 for their solid waste management plans. This affords SWMDs with two methods of demonstrating compliance with the State's solid waste reduction and recycling goals. Many of the programs and services that a SWMD uses to achieve Goal 1 help the SWMD make progress toward achieving Goal 2 and vice versa.

A SWMD's solid waste management plan will provide programs to meet up to eight of the goals. Goal 8 (market development) is an optional goal. Goal 9 requires submitting annual reports to Ohio EPA, and no demonstration of achieving that goal is needed for the solid waste management plan.

See Chapter 5 and Appendix I for descriptions of the programs the SWMD will use to achieve the nine goals.

This page intentionally left blank

CHAPTER 2: DISTRICT PROFILE

This chapter provides context for the SWMD's solid waste management plan by providing an overview of general characteristics of the SWMD. Characteristics discussed in this chapter include:

- The communities and political jurisdictions within the SWMD;
- The SWMD's population in the reference year and throughout the planning period;
- The available infrastructure for managing waste and recyclable materials within the SWMD;
- The commercial businesses and institutional entities located within the SWMD;
- The industrial businesses located within the SWMD; and
- Any other characteristics that are unique to the SWMD and affect waste management within the SWMD or provide challenges to the SWMD.

Understanding these characteristics helps the policy committee make decisions about the types of programs that will most effectively address the needs of residents, businesses, and other waste generators within the SWMD's jurisdiction.

Population distribution, density, and change affect the types of recycling opportunities that make sense for a particular community and for the SWMD as a whole.

The make-up of the commercial and industrial sectors within the SWMD influences the types of wastes generated and the types of programs the SWMD provides to assist those sectors with their recycling and waste reduction efforts.

Unique circumstances, such as hosting an amusement park, a large university, or a coal burning power plant present challenges, particularly for providing waste reduction and recycling programs.

The policy committee takes all of these circumstances into account to develop the overall waste management strategy.

A. Profile of Political Jurisdictions

The SWMD is a single county District geographically located in Warren County. Warren County encompasses 408 square miles and according to "Ohio County Profile of Warren County" prepared by Office of Research the land use/land cover is:

- 7.6% urban (residential/commercial/industrial/transportation and urban grasses),
- 55.8% cropland,
- 6.45% pasture,
- 29.35% forest,
- 0.65% open water, and
- 0.15% bare/mines.

Warren County is located in Southwestern Ohio and ranks as one of the top growth areas in the country. Two main interstate highway corridors I-75 and I-71 border Warren County. These transportation corridors give both businesses and residents easy access to the metropolitan centers of Cincinnati (to the south) and Dayton (to the north) and because of this the county has experienced growth pressure from the two major metropolitan areas. Municipalities such as Lebanon, Mason, and Springboro have been transformed from rural communities to growing suburban areas in the process. With its location and available land and infrastructure, Warren County is expected to continue to experience growth rates for the foreseeable future.

There are 24 political entities (13 incorporated municipalities and 11 townships) within the SWMD. The largest township is Deerfield Township. The City of Mason is the largest City. Lebanon is the county seat and the third largest urban area.

The City of Mason has a relatively well-balanced mix of land uses. The single largest land use is single-family residential, although the community contains substantial percentages of recreation/open space, industrial park, agricultural and vacant or undeveloped land. Multi-family residential makes up a small percentage of land usage because the City strives to be a community of single-family, owner-occupied homes. Mason is a thriving tourism destination with a premier location for high-tech industry, corporate campuses and light industrial development. The City has a diversified mix of businesses – high tech, research facilities, and corporate headquarters. Mason is one of the most visited cities in Ohio being home to Kings Island Amusement Park, The Beach Waterpark, Lindner Family Tennis Center and private driving ranges. Commercial uses consist mainly of strip shopping centers that serve the local community or surrounding neighborhoods with convenience orientated goods and services such as gas stations, convenience stores, drug stores, restaurants, and grocery stores, etc. Regional shopping centers are located near the City limits offering a wide range of stores and merchandise. Mason’s household incomes are considerably higher than the Cincinnati region.

B. Population

1. Reference Year Population

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 SWMD has four communities that are located in more than one solid waste management District: Springboro, Middletown, Monroe and Loveland. The majority of Springboro resides in Warren County; however, the majority of population for the other three municipalities is outside of Warren County. Adjustments were made to add the portion of Springboro located in Montgomery County to the Warren County population and to subtract the portion of the municipalities located in Warren County from the Warren County population.

The reference year population is 219,257, as shown in Table 2-1 “Population of District in the Reference Year”.

Table 2-1 Population of District in the Reference Year

County		Largest Political Jurisdiction		
Name	Population	Community Name	Population	Percent of Total County Population
Warren	219,257	Deerfield Township	38,228	17%
Total	219,257			

2. Population Distribution

Warren County has 11 townships, 4 municipalities, and 9 villages. Table 2-2 “Population Distribution” shows a higher percentage of population distributed in the unincorporated townships. Of the 11 unincorporated townships 5 are densely populated and heavily developed. The county has a population density of 555 people per square mile with 83 percent of population residing in urban areas.

Table 2-2 Population Distribution

County	Percent of Population in Cities	Percent of Population in Villages	Percent of Population in Unincorporated Township
Warren	39%	5%	56%

3. Population Change

Population change in Warren County increased over 25 percent from 2000 to 2010. This population increase was equally distributed among rural and urban areas. Over the same time period in Ohio, the population increased only 2 percent. Warren County population growth over this time was rapid compared to the state and other Counties.

Population is expected to continue to grow over the planning period. The estimated projection is 5 percent and is based on ODSA Planning Research and Strategic Planning Office projected estimates for 2015, 2020, 2025, 2030, and 2035. To determine population estimates between these years, straight-line interpolation was used.

Population projections can gauge future demand for services, but in projection calculations there are room for errors because of the difficulty associated with forecasting. As projected by ODSA, population is expected to increase. However, when compared to historical population growth, the projected growth is modest.

Table 2-3 District Population Change

Time Period	Area	Warren
2000 to 2010	County	25.53%
	Largest City	28.31%
	Unincorporated areas	30.53%
Planning Period (2018 to 2032)	County	5.03%
	Largest City	5.03%
	Unincorporated areas	5.03%

4. Implications for Waste Management

Population is projected to increase through the planning period but per capita waste generation is projected to decrease.

Population affects waste generation rates but factors of population growth such as household income, people per household, and economic activity also contribute. Economic activity and population growth affect household income and household income impacts per capita waste generation; and higher income households tend to produce higher amounts of waste. But, it is believed that higher income households tend to achieve higher participation rates of recycling. Not to mention the demographic make-up of households in today's society. These complex factors are all simultaneously involved and affect each other because they dynamically occur over time.

Warren County's generation has historically fluctuated but within 30,000 tons. This relative consistency explains why the increasing population continually calculates a lower generation rate. Examine the equation for calculating waste generation rates:

$$\frac{\text{Waste Generation (lbs/day)}}{\text{Population (persons)}} = \text{Waste Generation Rate (lbs/person/day)}$$

Looking at the equation the numerator is staying constant while the denominator is increasing resulting in a lower calculated rate.

Population increases are not expected to have incremental increases on program volumes.

C. Profile of Commercial and Institutional Sector

Southwestern Ohio ranks as one of the top growth areas in the country. Warren County is a growth leader in the region. Two main interstate highway corridors I-75 and I-71 border Warren County. These transportation corridors give both businesses and residents easy access to the metropolitan centers of Cincinnati and Dayton. The proximity of the two major metropolitan centers and the accessibility provided by the interstate highways are a driving force behind the growth taking place in the County.

The County's top employers are sales, service, or manufacturing industries. The County also has a sizable tourist industry. In fact, Warren County is referred to as "Ohio's Largest Playground". The County is home to area attractions, festivals, sporting events, an amusement park, and outdoor recreation activities and is easy access to two international airports and major interstates, making it a great hub-and-spoke destination for visitors. Geographically Warren County offers a metropolitan lifestyle with many major shopping, dining, and cultural attractions.

Businesses and institutions are concentrated within either a Central Business District (CBD) or more local concentrations within business and residential districts. There are clusters of concentrated commercial businesses/institutions, amusement attractions, entertainment areas, etc. throughout the County.

Service-providing businesses account for more employment and business establishments than goods-producing businesses. The two largest employment sectors fall under the trade, transportation and utilities service and the leisure and hospitality service.

D. Profile of Industrial Sector

The majority of the County's labor force is actually employed outside of the County. Industry has grown to employ over 75,000 persons but still has opportunity to grow. Warren County showed employment concentrations at least 20% above the national concentration in 2012 for NAICS 31 through 33³. Such high concentration of employment is a broad indicator of the County's economic strengths. The County is continually developing diversification economically for employment in County. Agriculture is important and predominantly occupied in northern, northeastern and southeastern sections of the County. Tourism takes a lead role in the economy with area attractions and outdoor recreation opportunities.

E. Other Characteristics

The county is complex and multi-faceted with many different kinds of areas: rural, urban (low and high density), and natural. Warren County is as much a rural community as it is an urban community. Residents, planners, and commissioners continue to develop highly livable communities throughout the County that respect the rural traditions mixing natural and man-made environments. Warren County has attracted population and new development from urbanization activities generated in Dayton and Cincinnati.

³ A Workforce Analysis of the Southwest Region". Ohio Department of Job and Family Services.

CHAPTER 3: WASTE GENERATION

This chapter of the solid waste management plan provides a summary of the SWMD's historical and projected solid waste generation. The policy committee needs to understand the waste the SWMD will generate before it can make decisions regarding how to manage the waste. Thus, the policy committee analyzed the amounts and types of waste that were generated within the SWMD in the past and that could be generated in the future.

The SWMD's policy committee calculated how much solid waste was generated for the residential/commercial and industrial sectors. Residential/commercial waste is essentially municipal solid waste and is the waste that is generated by a typical community. Industrial solid waste is generated by manufacturing operations. To calculate how much waste was generated, the policy committee added the quantities of waste disposed of in landfills and reduced/recycled.

The SWMD's policy committee obtained reduction and recycling data by surveying communities, recycling service providers, collection and processing centers, commercial and industrial businesses, owners and operators of composting facilities, and other entities that recycle. Responding to a survey is voluntary, meaning that the policy committee relies upon an entity's ability and willingness to provide data. When entities do not respond to surveys, the policy committee gets only a partial picture of recycling activity. How much data the policy committee obtains has a direct effect on the SWMD's waste reduction and recycling generation rates.

The policy committee obtained disposal data from Ohio EPA. Owners/operators of solid waste facilities submit annual reports to Ohio EPA. In these reports, owners/operators summarize the types, origins, and amounts of waste that were accepted at their facilities. Ohio EPA adjusts the reported disposal data by adding in waste disposed in out-of-state landfills.

The policy committee analyzed historic quantities of waste generated to project future waste generation. The details of this analysis are presented in Appendix G. The policy committee used the projections to make decisions on how best to manage waste and to ensure future access to adequate waste management capacity, including recycling infrastructure and disposal facilities.

A. Solid Waste Generated in Reference Year

Table 3-1, "Solid Waste Generated in the Reference Year", presents the SWMD's waste generation for year 2014.

Table 3-1 Solid Waste Generated in the Reference Year

Type of Waste	Quantity Generated (tons)
Residential/ Commercial	219,426
Industrial	58,726
Excluded	0
Total	278,151

1. Residential/Commercial Waste Generated in the Reference Year

During the reference year, the SWMD generated 219,426 tons of waste in the residential/commercial sector. Using the 2014 County population of 219,257 people, calculates a residential/commercial waste generation rate of 5.48 pounds per person per day. The SWMD collected recycling and waste disposal data to calculate waste generation.

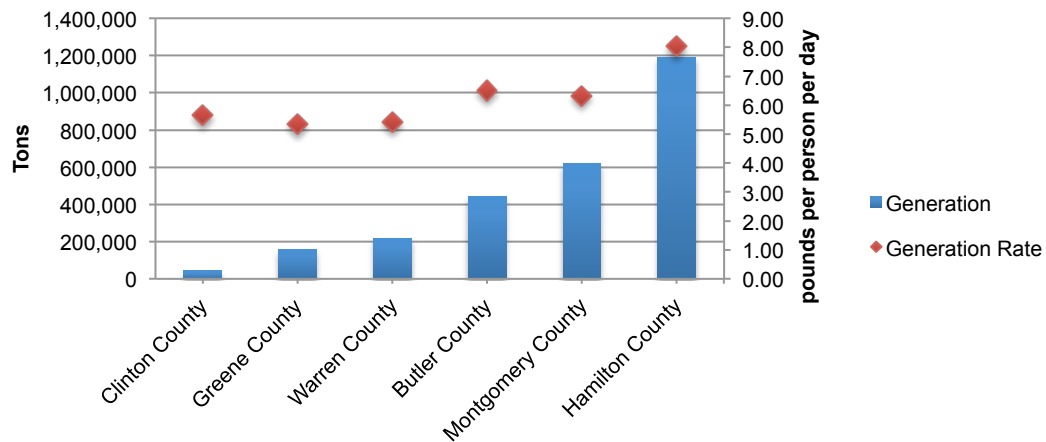


Figure 3-1 Regional SWMD's Residential/Commercial Waste Generation

As shown in Figure 3-1 "Regional SWMD's Residential/Commercial Waste Generation", the SWMD's waste generation falls in the middle of the pack of other SWMD's in the region and the generation rate is comparable to Clinton County and Greene County, both of whom have a smaller population.

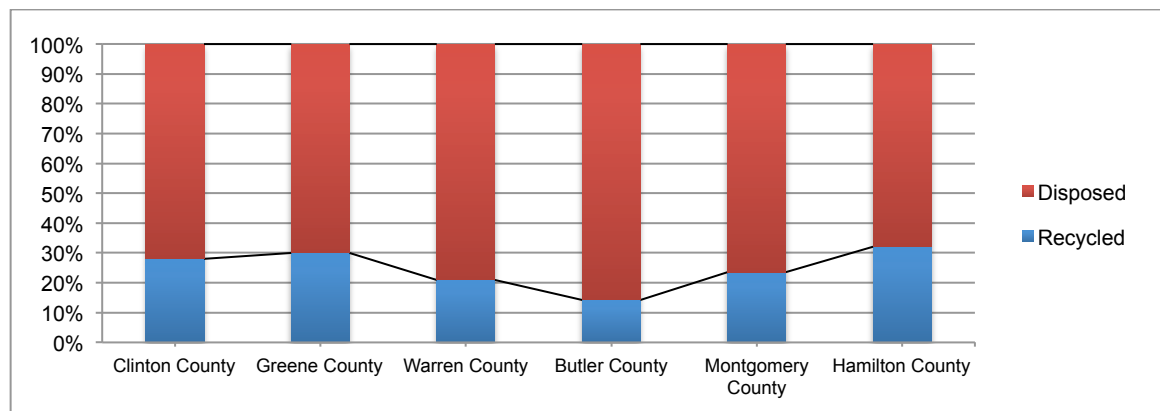


Figure 3-2 Regional SWMD Residential/Commercial Waste Generation

Of SWMD waste generated approximately 21 percent was recycled and 79 percent was disposed. In comparison to SWMD's in the region, as shown in Figure 3-2 "Regional SWMD Residential/Commercial Waste Generation", 4 other SWMD's recycle a higher percentage of their total waste generation.

2. Industrial Waste Generated in the Reference Year

The District determined that a total of 15,889 tons of industrial waste was sent to the landfill, while approximately 42,837 tons were recycled during the reference year.

B. Historical Waste Generated

1. Historical Residential/Commercial Waste Generated

Historically the residential/commercial generation has remained between 200,000 and 220,000 tons. The SWMD demonstrates a relatively flat generation.

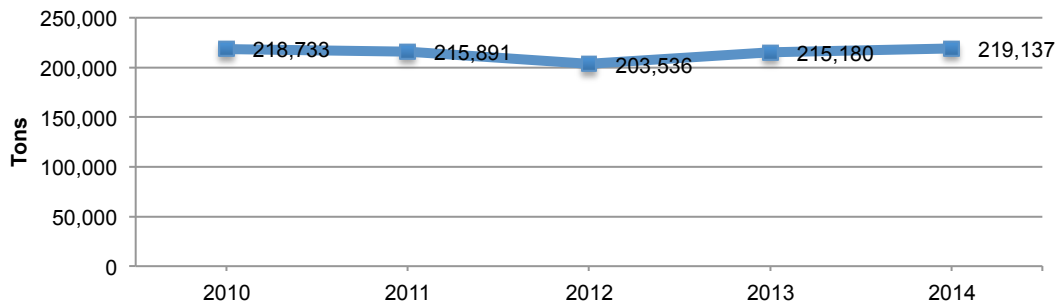


Figure 3-3 Historical Residential/Commercial Waste Generation

2. Historical Industrial Waste Generated

Historically the industrial generation has remained between 45,000 and 70,000 tons. Analyzing the components that make up generation shows a decreased disposal and relatively flat recycling. Most of the largest employers have an environmental sustainability plan or program to guide them in reducing environmental impacts. In many sustainability plans a change in manufacturing develops better reuse or reduction of the waste disposal stream.

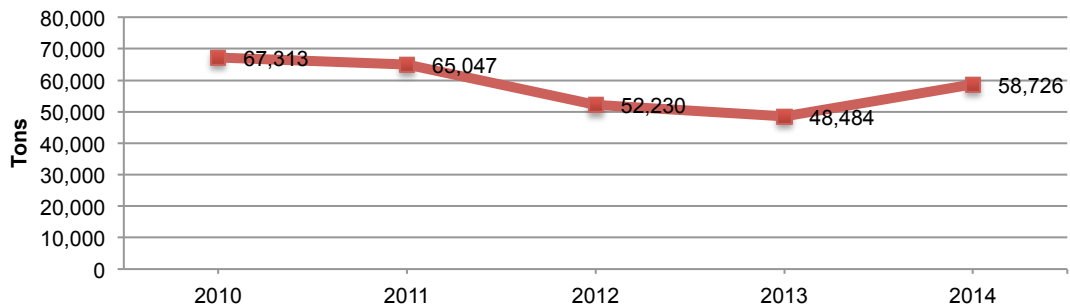


Figure 3-4 Historical Industrial Waste Generation

C. Waste Generation Projections

Table 3-2, “Waste Generation Projections”, presents the SWMD’s waste generation for the first 6 years of the planning period.

Table 3-2 Waste Generation Projections

Year	Residential Commercial Waste	Industrial Waste	Excluded Waste	Total
	Waste (tons)	Waste (tons)	Waste (tons)	Waste (tons)
2018	233,959	59,032	0	292,991
2019	237,196	59,108	0	296,305
2020	234,719	59,185	0	293,904
2021	233,005	59,262	0	292,267
2022	231,247	59,339	0	290,586
2023	229,565	59,416	0	288,982

1. Residential/Commercial Waste Projections

Waste generation projections were estimated by analyzing historical trends of waste generation, disposal, and recycling and planning period program design impacts. The waste disposal analysis in Appendix D uses linear regression of the slope and intercept to forecast beyond 2014. The negative slope forecasts a declining residential/commercial waste disposal. The waste reduction analysis in Appendix E projects a 2 percent increase for recycling. This places the waste generation projections over the 6-year period shown on Table 3-2 with a slight rise till 2019 then slight fall after.

2. Industrial Waste Projections

Waste generation projections were estimated by analyzing historical trends of waste generation, disposal, and recycling and predicted Ohio manufacturing employment for the region. The waste disposal analysis in Appendix D projects a slight increase at 0.13 percent annually. As indicated in “2022 Job Outlook, Southwest Ohio” produced by Ohio Department of Job and Family Services, manufacturing employment is projected to increase through 2022 about 1.3 percent, 0.13 percent per year. Applying an annual increase models industrial waste disposal projections after the historical linear positive slope trend line. The waste reduction analysis in Appendix F projects industrial recovery is projected to increase based on employment projections. This places the waste generation projections over the 6-year period shown on Table 3-2 with a slight rise.

CHAPTER 4: WASTE MANAGEMENT

Chapter 3 provided a summary of how much waste the SWMD generated in the reference year and how much waste the policy committee estimates the SWMD will generate during the planning period. This chapter summarizes the policy committee's strategy for how the SWMD will manage that waste during the planning period.

A SWMD must have access to facilities that can manage the waste the SWMD will generate. This includes landfills, transfer facilities, incinerator/waste-to-energy facilities, compost facilities, and facilities to process recyclable materials. This chapter describes the policy committee's strategy for managing the waste that will be generated within the SWMD during the planning period.

To ensure that the SWMD has access to facilities, the solid waste management plan identifies the facilities the policy committee expects will take the SWMD's trash, compost, and recyclables. Those facilities must be adequate to manage all of the SWMD's solid waste. The SWMD does not have to own or operate the identified facilities. In fact, most solid waste facilities in Ohio are owned and operated by entities other than the SWMD. Further, identified facilities can be any combination of facilities located within and outside of the SWMD (including facilities located in other states).

Although the policy committee needs to ensure that the SWMD will have access to all types of needed facilities, Ohio law emphasizes access to disposal capacity. In the solid waste management plan, the policy committee must demonstrate that the SWMD will have access to enough landfill capacity for all of the waste the SWMD will need to dispose of. If there isn't adequate landfill capacity, then the policy committee develops a strategy for obtaining adequate capacity.

Ohio has more than 30 years of remaining landfill capacity. That is more than enough capacity to dispose of all of Ohio's waste. However, landfills are not distributed equally around the state. Therefore, there is still the potential for a regional shortage of available landfill capacity, particularly if an existing landfill closes. If that happens, then the SWMDs in that region would likely rely on transfer facilities to get waste to an existing landfill instead of building a new landfill.

Finally SWMD has the ability to control which landfill and transfer facilities can, and by extension cannot, accept waste that was generated within the SWMD. The SWMD accomplishes this by designating solid waste facilities (often referred to as flow control). A SWMD's authority to designate facilities is explained in more detail later in this chapter.

A. Waste Management Overview

Table 4-1, "Methods of Managing Waste" projects the amounts of waste expected to be managed by each management method.

Table 4-1 Methods for Managing Waste

Year	Generate	Recycle	Compost	Transfer	Landfill
2014	278,152	83,206	5,771	21,640	167,535
2018	292,991	84,312	5,817	23,205	179,656
2019	296,305	84,548	5,829	23,556	182,372
2020	293,904	84,725	5,841	23,260	180,079
2021	292,267	84,963	5,852	23,044	178,408
2022	290,586	85,142	5,864	22,830	176,750
2023	288,982	85,383	5,876	22,618	175,105

The District has managed waste through a combination of landfills, recycling programs and facilities, transfer stations, and composting facilities. Figure 4-1, “Reference Year Waste Management Methods” depicts the how much of the total waste generation was managed by the various waste management methods. This distribution has been the historic trend and is expected for the planning period.

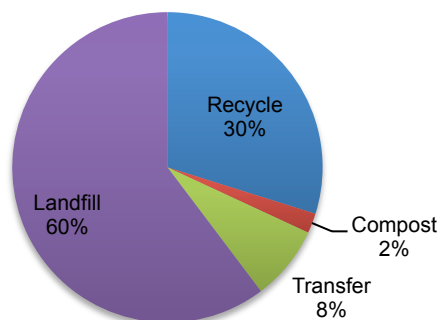


Figure 4-1 Reference Year Waste Management Methods

B. Profile of Waste Management Infrastructure

1. Solid Waste Management Facilities

a. Landfills

Landfills used by the SWMD include six out-of-district but in-state landfills, and two out-of-state landfills located in the State of Kentucky. In addition five out-of-state treatment facilities were used. All of the facilities are owned and operated by the private sector. The source of information is Ohio EPA. Table 4-2, “Landfill Facilities Used by the District in the Reference Year” contains the information concerning waste that was disposed of at these facilities.

b. Transfer Facilities

There are six transfer facilities that accepted waste from the SWMD during the reference year. There were four located outside the District but within the state, and two facilities located out-of-state. Information for this section was obtained from Ohio EPA.

c. Compost Facilities

There were ten composting and yard waste management facilities that provided services to the SWMD in 2014. During 2014, these facilities composted approximately 5,771 tons of material. Eight of the facilities are located within the SWMD and two facilities are located out-of-District.

2. Waste Collection

There were three haulers providing collection services for solid waste and recyclables to District residents in 2014. Warren County requires that all solid waste haulers operating in the County obtain a license. The three haulers providing services include Republic Waste Services, Rumpke Waste, and Waste Management.

All cities and villages in the SWMD have non-subscription curbside achieved through contracts between the municipality and a trash hauler. Provision of solid waste services is privatized in the SWMD, no public haulers provide hauling services. Municipalities take proposals/quotes from private sector service providers to deliver the specified services. Some contracting approaches still leave the billing of customers up to the service providers while others do their own billing and pay the hauler independently. Public-private contracts determine collection frequency, materials collected, size of containers, and type of collection.

All townships in the SWMD have non-subscription curbside achieved through Performance Obligation agreements between the SWMD and waste haulers. All residents living in a township who have subscription trash service must be enrolled in non-subscription curbside recycling. All waste haulers providing trash service in the SWMD are required to offer non-subscription curbside recycling service to their customers in the unincorporated areas of the townships. To provide service in these areas, waste haulers must sign and adhere to a Performance Obligation agreement which specifies materials be collected on a weekly basis, containers to be provided, and with educational and awareness responsibilities.

C. Solid Waste Facilities Used in the Reference Year

1. Landfill Facilities

As seen in Table 4-2, "Landfill Facilities Used by the District in the Reference Year", Rumpke Sanitary Landfill in Hamilton County, Ohio reported receiving 87 percent of the SWMD's waste.

Table 4-2 Landfill Facilities Used by the District in the Reference Year

Facility Name	Location		Waste Accepted from SWMD (tons)	Percent of all SWMD Waste Disposed	Remaining Capacity (years)
	County	State			
In-District					
none		Ohio		0%	
Out-of-District					
Rumpke Brown County Landfill	Brown	Ohio	641	0%	88.1
Rumpke Sanitary Landfill	Hamilton	Ohio	147,086	87%	14.1
Stony Hollow Landfill, Inc	Montgomery	Ohio	21,416	13%	15.9
Suburban Landfill, Inc	Perry	Ohio	89	0%	34.3
Celina Sanitary Landfill	Mercer	Ohio	1	0%	not available
Pine Grove Regional Facility	Fairfield	Ohio	10	0%	72.6
Out-of-State					
Republic Epperson		KY	80	0%	not available
Rumpke Pendleton County		KY	4	0%	not available
EQ Industrial Services Processing Facility		IN	0	0%	not available
Indianapolis Resource Recovery Facility		IN	3266	2%	not available
Medassure of Indiana Treatment Facility		IN	2	0%	not available
Merrell Bros Inc, Indy Disposal Solutions		IN	33	0%	not available
Tradebe Treatment & Recycling, LLC		IN	121	0%	not available
Total			172,749	2%	73

2. Transfer Facilities

As seen in Table 4-3, "Transfer Facilities Used by the District in the Reference Year", Evendale Transfer in Hamilton County, Ohio reported receiving 52 percent of the SWMD's transferred waste.

Table 4-3 Transfer Facilities Used by the District in the Reference Year

Facility Name	Location		Waste Accepted from District (tons)	Percent of all District Waste Transferred	Landfill Where Waste was Taken to be Disposed
	County	State			
In-District					
none		Ohio		0%	
Out-of-District					
Evendale Transfer Station	Hamilton	Ohio	13,066	52%	Epperson Landfill (KY), Rumpke (OH)
Montgomery County North	Montgomery	Ohio	2	0%	Cherokee Run (OH)
Montgomery County South	Montgomery	Ohio	3,142	12%	n/a
Waste Management Transfer Station Fairborn	Greene	Ohio	46	0%	not identified
Out-of-State					
Bavarian Trucking Co		Kentucky	8,241	33%	not identifid
Dearborn County Trash and Recycling Transfer Station		Kentucky	690	3%	not identified
Total			25,187	100%	0

In cases where waste is hauled from a transfer facility to a landfill, the county of origin is not recorded at the landfill. 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.

Approximately 11 percent of the waste was transferred, meaning a refuse truck picked up waste from clients and hauled that waste to a transfer facility. Waste was tipped, reloaded into transfer trucks, and hauled to landfills for disposal. Approximately 25,187 tons of waste was transferred to these facilities from the District.

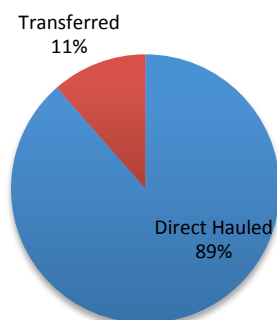


Figure 4-2 Reference Year Transferred and Direct Haul Waste

3. Composting Facilities

There are approximately 7 composting and yard waste facilities that provided services to the SWMD during the reference year. During 2014, these facilities composted a total of 5,771 tons of material. As seen in Table 4-4, "Compost Facilities Used by the District in the Reference Year" approximately 5 of those facilities are within the SWMD itself and two facilities are located outside of the SWMD. The majority of the compost and yard waste materials collected during the reference year were processed within the SWMD.

Table 4-4 Compost Facilities Used by the District in the Reference Year

Facility Name	Location	Material Composted (tons)	Percent of all Material Composted
<i>In District</i>			
Brausch Farms	1715 Gum Grove Rd	226	4%
Swartz Mulch	2440 E Lytle 5-Point Rd	1,134	20%
Tepe Nursery Inc	200 S Nixon Camp Rd	-	0%
Klasmuch	788 Reading Rd	568	10%
Hauler/Kroger/Walmart food waste data	n/a	1,113	19%
Marvins Organic Gardens	3268 US Rte 42 S	2,277	39%
Marvins Organic Gardens Composting Fac	2055 S US Rte 42 S	-	0%
Marvins Organic Gardens	3989 US Rte 42 S	-	0%
Marvins Organic Gardens	3268 US Rte 42 S	-	0%
<i>Out-of-District</i>			
NPK Compost Facility	10795 Hughes Rd	296	5%
The Siebenthaler Company	5250 Cobblegate Dr	158	3%
Total		5,771	100%

Note: Material composted includes food and yard waste.

4. Processing Facilities

Three processing facilities provided recycling services to the District in 2014. Waste Management Dayton MRF closed operations in 2015. All processing facilities are located out-of-District, but within the state of Ohio. Rumpke operates one facility located in Dayton, Ohio as a pre-sort facility which sorts materials, compacts and transfers materials to their main facility. Rumpke's main processing facility is located in Cincinnati and is classified as a Materials Recovery Facility (MRF).

Table 4-5 Facilities that Processed Recyclables in the Reference Year

Name of Facility	Location		Facility Type	Recyclables Accepted from District (tons)
	County	State		
In-District				
none		OH		
Out-of-District				
Rumpke Cincinnati MRF	Hamilton	OH	MRF (Processing)	12,040
Rumpke Dayton MRF	Montgomery	OH	Pre-sort, compaction, and transfer	3,537
Waste Management Dayton MRF	Greene	OH	MRF (Processing)	1,456
Out-of-State				
none				
Total				17,033

5. Other Waste Management

There are currently no other facilities providing services to the District at this time.

D. Use of Solid Waste Facilities During the Planning Period

Landfills listed on Table 4-2 "Landfill Facilities Used by the District in the Reference Year" have adequate remaining capacity to operate during the planning period. The SWMD expects waste to be disposed of similarly to how waste was disposed in the reference year.

The SWMD expects flows through transfer facilities to be similar to flows in the reference year. As shown in Figure 4-3, "Historic Waste Distribution Transferred and Direct Hauled" this distribution has been the historic trend. In the

reference year, approximately 11% of the wastes landfilled passed through transfer stations. The District however, does not direct any wastes to any facility. Therefore, the actual amount of wastes taken to a transfer station for any year is dependent upon the waste haulers and their method of operation.

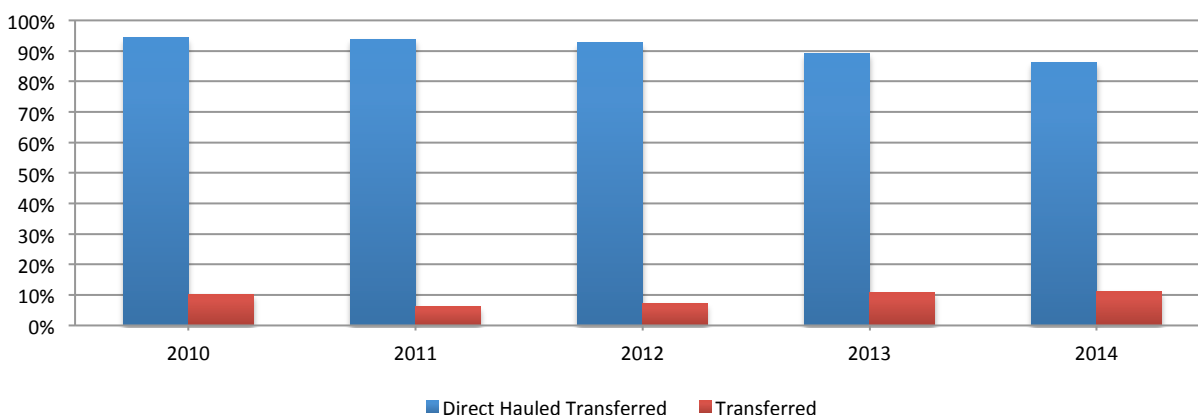


Figure 4-3 Historic Waste Distribution Transferred and Direct Hauled

Facilities processing recyclables will change slightly. In 2015, Waste Management Dayton MRF closed. The SWMD understands arrangements have been made between Rumpke and Waste Management for processing recyclables collected by Waste Management.

E. Siting Strategy

As explained earlier, the solid waste management plan must demonstrate that the SWMD will have access to enough capacity at landfill facilities to accept all of the waste the SWMD will need to dispose of during the planning period. If existing facilities cannot provide that capacity, then the policy committee must develop a plan for obtaining additional disposal capacity.

Although unlikely, the policy committee can conclude that it is in the SWMD's best interest to construct a new solid waste landfill facility to secure disposal capacity. In that situation, Ohio law requires the policy committee to develop a strategy for identifying a suitable location for the facility. That requirement is found in Ohio Revised Code Section 3734.53(A)(8). This strategy is referred to as a siting strategy. The Policy Committee must include its siting strategy in the solid waste management plan.

If a solid waste facility should be proposed for Warren County, the SWMD will defer the authority to the siting strategy contained in the Ohio Administrative Code 3734-27, 3734-30, and 3734-37 including any amendments.

F. Designation

Ohio law gives each SWMD the ability to control where waste generated from within the SWMD can be taken. Such control is generally referred to as flow control. In Ohio, SWMDs establish flow control by designating facilities. SWMDs can designate any type of solid waste facility, including recycling, transfer, and landfill facilities.

Even though a SWMD has the legal right to designate, it cannot do so until the policy committee specifically conveys that authority to the board of directors. The policy committee does this through a solid waste management plan. If it wants the SWMD to have the ability to designate facilities, then the policy committee includes a clear statement in the solid waste management plan giving the designation authority to the board of directors. The policy committee can also prevent the board of directors from designating facilities by withholding that authority in the solid waste management plan.

Even if the policy committee grants the board of directors the authority to designate in a solid waste management plan, the board of directors decides whether or not to act on that authority. If it chooses to use its authority to designate facilities, then the board of directors must follow the process that is prescribed in ORC Section 343.014. If it chooses not to designate facilities, then the board of directors simply takes no action.

Once the board of directors designates facilities, only designated facilities can take the SWMD's waste. That means, no one can legally take waste from the SWMD to undesignated facilities and undesignated facilities cannot legally accept waste from the SWMD. The only exception is in a situation where, the board of directors grants a waiver to allow an undesignated facility to take the SWMD's waste. Ohio law prescribes the criteria that the board must consider when deciding whether to grant a waiver and how long the board has to make a decision on a waiver request.

If the board of directors designates facilities, then the next section will provide a summary of the designation process and Table 4-6 will list currently designated facilities.

1. Description of the SWMD's Designation Process

The Board of Directors of the Warren County Solid Waste Management District is precluded from establishing facility designation in accordance with Section 343.014 of the ORC.

2. List of Designated Facilities

Table 4-6 Facilities Currently Designated

Facility Name	Location		Facility Type
	County	State	
In-District			
n/a		Ohio	
Out-of-District			
n/a		Ohio	
Out-of-State			
n/a			

This page intentionally left blank

CHAPTER 5: WASTE REDUCTION AND RECYCLING

As was explained in Chapter 1, a SWMD must have programs and services to achieve reduction and recycling goals established in the state solid waste management plan. A SWMD also ensures that there are programs and services available to meet local needs. The SWMD may directly provide some of these programs and services, may rely on private companies and non-profit organizations to provide programs and services, and may act as an intermediary between the entity providing the program or service and the party receiving the program or service.

Between achieving the goals of the state plan and meeting local needs, the SWMD ensure that a wide variety of stakeholders have access to reduction and recycling programs. These stakeholders include residents, businesses, institutions, schools, and community leaders. These programs and services collectively represent the SWMD's strategy for furthering reduction and recycling in its member counties.

Before deciding upon the programs and services that are necessary and will be provided, the policy committee performed a strategic, in-depth review of the SWMD's existing programs and services, recycling infrastructure, recovery efforts, finances, and overall expectations. This review consisted of a series of 13 analyses that allowed the policy committee to obtain a holistic understanding of the SWMD by answering questions such as:

- Is the SWMD adequately serving all waste generating sectors?
- Is the SWMD recovering high volume wastes such as yard waste and cardboard?
- How well is the SWMD's recycling infrastructure being used/how well is it performing?
- What is the SWMD's financial situation and ability to fund programs?

Using what it learned, the policy committee drew conclusions about the SWMD's abilities, strengths and weaknesses, operations, existing programs and services, outstanding needs, available resources, etc. The policy committee then compiled a list of actions the SWMD could take, programs the SWMD could implement, or other things the SWMD could do to address its conclusions. The policy committee used that list to make decisions about the programs and services that will be available in the SWMD during the upcoming planning period.

After deciding on programs and services, the policy committee projected the quantities of recyclable materials that would be collected through those programs and services. This in turn allowed the policy committee to project its waste reduction and recycling rates for both the residential/commercial sector and the industrial sector (See Appendix E for the residential/commercial sector and Appendix F for the industrial sector).

A. Program Evaluation and Priorities

1. Strategic Analysis

During these analyses, the Policy Committee completed a strategic process of evaluating its reduction and recycling efforts. To do this, the status of the reduction and recycling efforts were evaluated in the context of factors presented in the 13 analyses described in Format 4.0. This strategic program evaluation was performed on the following analyses:

- Residential Recycling Infrastructure Analysis
- Commercial/Institutional Sector Analysis
- Industrial Sector Analysis
- Waste Composition Analysis
- Economic Incentive Analysis
- Restricted and Difficult to Manage Waste Analysis
- Diversion Analysis

- Special Program Needs Analysis
- Financial Analysis
- Regional Analysis
- Population Analysis
- Data Collection Analysis
- Processing Capacity Analysis

In preparation of this strategic evaluation the Policy Committee engaged in a strength, weakness, opportunity, and threat (SWOT) analysis able to elicit essential insight and feedback on the current state and status of recycling and other waste reduction activities within the County. The purpose of the SWOT was to identify the District's current waste management system strengths and weaknesses as well as broader opportunities and threats, explore untapped opportunities, understand weaknesses, and to decide where to improve.

Appendix H contains the full strategic evaluation which uses historical comparisons, performance, weaknesses, participation, impacts, costs, etc. where applicable. For the full evaluation turn to Appendix H, a quick summary of the residential analysis demonstrates the SWMD made a concerted effort to maximize recycling in the County. Working with municipalities and local haulers the SWMD facilitated contracts and Performance Obligation Agreements to bring single-stream non-subscription curbside recycling programs to all 24 political entities (13 incorporated municipalities and 11 townships). Since the 2011 Plan Update, non-subscription curbside recycling increased from 9,802 to 13,735 tons; a 40 percent increase. Overall, curbside programs continue to capture more recyclables, as shown in Figure 5-1 "Historical Trend for Curbside Recycling".

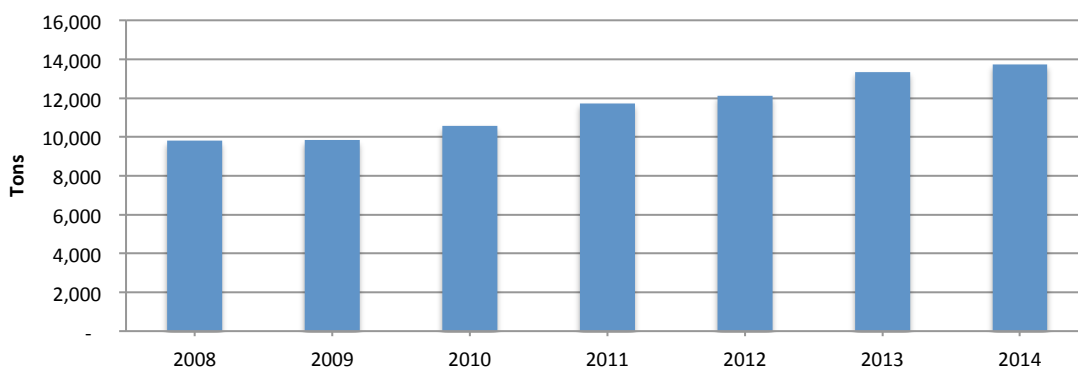


Figure 5-1 Historical Trend for Curbside Recycling

2. Conclusions

Using what the Policy Committee learned from the analyses performed in Appendix H and L a list of conclusions was developed. These conclusions represent what was learned about the SWMD's structure, abilities, strengths and weaknesses, operation, existing programs, outstanding needs, and available resources. Identified conclusions include:

- Residential recycling programs provide adequate infrastructure and performance. Maintaining countywide curbside recycling is a high support and priority item for the Policy Committee. Untapped opportunities or weaknesses identified include: participation, incentives, multi-family units, outreach and education, monitoring, and resident perception of costs. It was also identified that not all 24 political jurisdictions maintain community recycling program information on their webpages.
- Commercial/Institutional Sector infrastructure is largely unknown. This sector has previously not been a targeted focus area. There are clusters of central business districts and large entertainment style venues that might have recycling programs or could benefit from recycling services.

- The SWMD is not engaged with the industrial sector; however, most of the largest industry employers have a corporate sustainability plan/program.
- Using the US EPA's "Advancing Sustainable Materials Management: Facts and Figures 2013" the SWMD estimated the largest components of the residential/commercial waste stream are food, plastics, paper and paperboard, and rubber, leather & textiles.
- The SWMD could support incentivized recycling programs in several ways. Initially, providing clear and easy to understand information on PAYT and other economic incentive programs to communities. Subsequently, connecting with leaders and staff within the District to discover their individual community's needs; recommending a realistic economic incentive program based on that community's resources, needs and current recycling infrastructure.
- The SWMD has strategies and alternative management options to address restricted and difficult to manage waste. The SWOT identified several weaknesses, opportunities, and threats for managing HHW. Weaknesses include: high management costs, inconvenient outlets, and lack of HHW collection. Opportunities include: additional education and outreach, convenient outlets, partnerships, and assessment of user fees. Threats balance the act of doing nothing and the cost burden of doing something.
- The material categories reported as most recycled in 2014 include commingled recyclables, other paper, and cardboard. Based on reported data, commingled recyclables are largely being captured by the curbside and drop-off recycling programs and paper and cardboard are being captured by MRFs.
- Current opportunities for waste minimization and reuse are largely unexploited for the residential/commercial sectors.
- Regional partnerships could help with costs and provide more opportunities for programs.
- Collecting recycling data from commercial and industry businesses is challenging due to a variety of factors and takes considerable time and effort to gather and analyze. Issues encountered include: low participation rates, time commitment, and lack of response.
- The region has access to two residential/commercial material processing facilities with ample processing capacity for the SWMD.

3. Priorities

After evaluating the list of actions, the Policy Committee identified priorities the SWMD is targeting for implementation during this planning period. To do this all Policy Committee members participated in a priority survey used to identify key issues, ascertain views on waste management, and help in prioritizing future programming. Based on the most supported and highest priority issues, identified priorities include (Note: the number system does not place the priorities in a defined level of priority placement):

- Maintain countywide curbside recycling.
This is a priority because it is a very effective way to encourage residents to recycle. Plus, countywide curbside recycling is the SWMD's strategy to meeting Goal 1 of the 2009 State Plan Goal. Actions identified below can help strengthen and improve sustainability and will be incorporated in programs for this planning period.
 - Improve monitoring of Performance Obligation Agreements.
 - Offer contract assistance to incorporated jurisdictions to ensure residents have best services at competitive prices.
 - Develop an education and outreach campaign for non-subscription curbside recycling.
 - Develop a recognition or reward for residential curbside recycling users.
- Engage the commercial sector.
Little engagement has occurred between the SWMD and commercial entities. More engagement and additional data from this sector could help raise the SWMD waste reduction and recycling rate. Actions identified will be incorporated in programs for this planning period.
 - Identify commercial sector recycling activities.

- b. Encourage commercial recycling activities with outreach and technical assistance.
- c. Develop a HHW feasibility strategy.
The SWOT analysis identified balancing the act of doing nothing and the cost burden of doing something as a threat. With the development of this plan the timing seems right to develop a feasibility strategy and assess it.
- d. Develop a food waste management program focused on reduction and recovery.
The SWMD has had its share of issues with Class II compost facilities. A strategy to inform and guide reduction of food waste and recovery are preferred management methods.
- e. Develop an outreach and marketing plan.

Some actions the Policy Committee believes are priorities but which the SWMD doesn't have the time or resources to address in this 2018 Solid Waste Management Plan include:

- 1. Streamline Data Collection.
- 2. Explore Regional Partnerships.

B. Program Descriptions

This section briefly describes major programs and services available during the planning period.

Curbside Recycling Services

Table 5-1 Curbside Recycling Services

Name of Curbside Service	Community Served	Service Provider
Butlerville Village	Warren	Republic Waste, Rumpke Waste, Waste Management
Carlisle Village	Warren	Rumpke Waste
Clearcreek Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Corwin Village	Warren	Republic Waste
Deerfield Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Franklin City	Warren	Rumpke Waste
Franklin Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Hamilton Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Harlan Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Harveysburg Village	Warren	Republic Waste
Lebanon City	Warren	Rumpke Waste
Maineville Village	Warren	Republic Waste , Rumpke Waste, Waste Management
Mason City	Warren	Rumpke Waste
Massie Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Morrow Village	Warren	Rumpke Waste
Pleasant Plain Village	Warren	Republic Waste , Rumpke Waste, Waste Management
Salem Township	Warren	Republic Waste , Rumpke Waste, Waste Management
South Lebanon Village	Warren	Republic Waste , Rumpke Waste, Waste Management
Springboro City	Warren	Waste Management
Turtlecreek Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Union Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Washington Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Wayne Township	Warren	Republic Waste , Rumpke Waste, Waste Management
Waynesville Village	Warren	Rumpke Waste

All cities and villages in the SWMD have non-subscription curbside achieved through contracts between the municipality and a trash hauler. Municipalities take proposals/quotes from private sector service providers to deliver the specified services. Some contracting approaches still leave the billing of customers up to the service providers while others do their own billing and pay the hauler independently. Public-private contracts determine collection frequency, materials collected, size of containers, and type of collection. In 2014, all curbside materials were collected single stream (commingled) with either a bin or cart-based system.

All townships in the SWMD have non-subscription curbside achieved through Performance Obligation agreements between the SWMD and waste haulers. All residents living in a township who have subscription trash service must be enrolled in non-subscription curbside recycling. All waste haulers providing trash service in the SWMD are required to offer non-subscription curbside recycling service to their customers in the unincorporated areas of the townships. To provide service in these areas, waste haulers must sign and adhere to a Performance Obligation agreement which specifies materials be collected on a weekly basis, containers to be provided, and with educational and awareness responsibilities. In 2014, all curbside materials were collected single stream (commingled) with either a bin or cart-based system.

Markets guide the materials collected. The standard recyclables collected in 2014 were: paper, plastic containers, metal, and glass. Each community maintains an updated list of recyclables accepted by their waste hauler.

Drop-off Recycling Locations

Table 5-2 Drop-off Recycling Locations

Location of Drop-off	Community Served	Service Provider
8395 Snider Road	Deerfield Township	Rumpke Waste
406 Justice Drive	Lebanon City	Rumpke Waste
50 S Broadway	Lebanon City	Rumpke Waste
2095 Kings Mill Road	Mason City	Rumpke Waste

All drop-offs are open to the public and are available at least 40 hours a week. Markets guide the materials collected. The standard recyclables collected in 2014 were: paper, plastic containers, metal, and glass. The SWMD relies on the County and the municipalities to provide and service drop-offs.

Other Residential Recycling Programs

Private paper Collection and recycling drop-offs

Dayton Daily Newspapers and SP Recycling operate six drop-off containers that accept newspapers in the northern half of the District. Any resident or business can take newspapers to these locations for recycling.

Commercial/Institutional Source Reduction and Recycling Programs

Solid Waste and Recycling Assessments

Upon request, the SWMD will direct businesses desiring waste audits to local businesses that can help. Waste Audit How-To Guide will be added to the SWMD website.

Waste Exchange – The Interchange

In conjunction with the Hamilton County Department of Environmental Services, Office of Solid Waste Management, the SWMD is providing “The Interchange” to over 150 industrial and large commercial businesses in Warren County. The Ohio Materials Marketplace is another platform available.

Restricted/Difficult to Manage Waste Programs

Annual Electronics Collection Event

The SWMD offers an annual electronic collection event. The SWMD contracts with a private business to manage electronics at the collection event and remove for furthering processing. The SWMD charges a nominal fee for TVs and CTR monitors; but reserves the right to charge user fees for any electronics collected.

HHW Information - Website

Locations where residents may dispose of HHW are listed on the District’s web page. Residents are encouraged to call the District for information. Providing costs and manageability are reasonable latex paint will be collected at an un-attended shed located behind the SWMD offices.

HHW Management Strategy

Study to explore various convenient outlets for management of HHW for the SWMD.

Lead-Acid Battery Information

Locations where residents may dispose of lead-acid batteries are listed on the District's web page.

Scrap Tire Disposal Information - Website

Locations that accept tires are listed on the District's web page.

Yard Waste Collection from Municipalities/Private Haulers

Yard waste management is decentralized. Collection or drop-off opportunities are made available by some cities, villages, and townships (Springboro, Mason, and Deerfield Township, Lebanon, and Franklin). Either the public entity provides the service or contracts with a private business/hauler. Collection frequency varies (each city or village maintains their own level of service list). Two private haulers, Waste Management and Rumpke offer subscription based curbside yard waste from their customers.

Yard Waste Information - Website

The SWMD's website guides residents to the city, village, and township websites for information about their programs. There are four registered Class IV compost facilities operating within the SWMD.

Other Material Specific Programs

Food Waste Management

This program will focus on food waste reduction and recovery. The website will include education focused on minimizing the amount of organics generated and disposed for both the residential and commercial sectors. Research will be conducted to identify opportunities and existing donation programs. The SWMD will promote and assist distribution networks of food donation programs by identifying local outlets (such as food banks) on the website.

Outreach, Education, Awareness, and Technical Assistance

District Website

The SWMD maintains a website meeting the requirements prescribed by Goal 3 of the 2009 State Plan. The website was updated in 2014. The site promotes recycling and includes locations where materials may be taken and information about the Education and Awareness Program.

The website has the essential information and ease of navigability. To build upon its success the SWMD will monitor and update the site at least quarterly to contain accurate and up-to-date information at all times. The SWMD will work with all 24 political jurisdictions to add the SWMD's website link to their home webpages and help to add community recycling information to their specific websites. The District will also begin developing a common suite of materials and messaging to promote and enhance recycling information which will be made available on the website and promoted to the 24 political jurisdictions to include on their websites.

The website will add a Business content page which will include recycling resources such as the 6 drop-off containers accepting newspapers, Waste Audit How-To Guide and Steps to Better Business Recycling.

Resource Guide

The SWMD maintains a Resource Guide on the website identify materials and locations where materials may be taken for recycling.

Education Provider

The SWMD employs a part-time educator which meets the requirements prescribed by Goal 3 of the 2009 State Plan.

Outreach Marketing Plan

1. Residential Sector

Strategy	Description
Adult Education	Classes presented by Educator are available upon request. Main focus is reducing waste, recycling, and composting. Adult education focuses on small audience bases and specific messaging for the audience group. In 2014, no requests to adult groups were requested. The SWMD will develop a list of civic groups and garden clubs and compile a list of contacts. Presentations available will be emailed to the contact list and posted on social media.
Educational Displays	In 2014, SWMD displays were set at the County Fair, Coney Island, and Cincinnati Zoo. Goal is to provide information. Displays at large venues offer a wider audience base for SWMD messaging. The Educator and/or Coordinator staff the display for one-on-one engagement.
Get Caught Recycling	Once a week throughout the month of October the SWMD will visit communities and reward a resident who is "caught" curbside recycling. The SWMD will publicize the person caught recycling by placing ads in the community newspaper journals and post on social media. The SWMD hopes to encourage peer influence through social diffusion.
Curbside Campaign	<p>Goal is to increase communication to residents. SWMD will utilize social media and haulers. The SWMD will host a meeting with the haulers to discuss participation, contamination, and any other issues for solutions or targeted outreach messages needed. The SWMD will work with the haulers to deliver the messages via various media platforms (flyers, mailers, recycling containers, newsprint, etc). Social media message campaigns targeted to be posted monthly include:</p> <ul style="list-style-type: none"> • Vivid portrayal of Warren County garbage produced annually describing in terms relatable to County residents. Messaging will be followed with a specific action (curbside recycling) to solve the refuse problem. • Vivid portrayal of materials causing the MRF problems and why. Messaging will be followed with a specific photo list of acceptable materials. • Thank you messaging to residents for recycling the correct materials. • True cost of recycling to residents. Messaging will be followed with recycling statistics. <p>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.</p>

2. Commercial/Institutional Sector

Strategy	Description
Away From Home	Focus will be placed to contact away from home venues via phone solicitation to identify recycling activities. The SWMD believes more recycling occurs than is captured via data survey efforts. A target of 5 phone calls is planned each year beginning in 2018. The 2018 target is on amusement parks and event venues. Goal will be to inventory recycling activities, offer provision of technical assistance for reducing waste and promoting recycling, and create long-term partnerships. If recycling programs are in place the SWMD may expand to other venues: local park district, libraries, hotels, service stations, etc.
Recognition	Businesses (commercial/institutional/industrial) demonstrating commitment to waste reduction and recycling are eligible for recognition. The Board of Commissioners, Policy Committee, or SWMD staff nominates businesses. At a minimum once a year the SWMD will review the nominations and identify four businesses that qualify for recognition. In 2014, exactly four businesses were nominated. Recognition includes an annual recognition breakfast with the Board of Commissioners, Policy Committee and SWMD staff. In 2018, recognized businesses will be added to the Business Content page on the SWMD website.

3. Industrial Sector

Strategy	Description
Recognition	Businesses (commercial/institutional/industrial) demonstrating commitment to waste reduction and recycling are eligible for recognition. The Board of Commissioners, Policy Committee, or SWMD staff nominates businesses. At a minimum once a year the SWMD will review the nominations and identify four businesses that qualify for recognition. In 2014, exactly four businesses were nominated. Recognition includes an annual recognition breakfast with the Board of Commissioners, Policy Committee and SWMD staff. In 2018, recognized businesses will be added to the Business Content page on the SWMD website.

4. Political Leaders

Strategy	Description
Community Report	SWMD will develop a community report tracking recycling, composting and refuse tonnages for each community within the District. The report will be produced annually, posted on the website and mailed to political jurisdictions.
Presentations	The SWMD will be available to speak at meetings on recycling, trash, etc. Political jurisdictions request presentations by emailing or phoning the SWMD.
Contract Assistance	The SWMD is available to assist political jurisdictions with collection service contracts. Political

	jurisdictions may request assistance by emailing or phoning the SWMD.
Community Website Updating	Political jurisdictions could benefit by providing a link to the SWMD's website on their webpages. The SWMD will contact each of the political jurisdictions not offering a link to request setting a link.

5. Schools

Strategy	Description
Classroom Lessons	Every school district in the county receives classes at no charge. Currently, there are 17 lessons available. The lessons are appropriate for students in preschool through adult age and are hands-on. Examples of the lessons include recycling paper or plastics. Each lesson is correlated to State Proficiency Learning Outcomes. The main focus of the classes is recycling, reducing waste, and composting.
School Administrators	The SWMD is available to assist schools in setting up recycling programs. Schools request assistance by emailing or phoning the SWMD. In 2015, the SWMD met with Kings Local School District to discuss lunchroom recycling.

Other Programs

Funding/Grants

In 2015, the SWMD began offering Recycling Mini-Grants to Warren County schools, scouts and non-profit groups of up to \$250 for use in composting and recycling projects. The number of grants awarded depends on the amount requested and funds available. Grants are competitive.

Data Collection

The SWMD surveys the waste haulers annually to determine the amount of materials collected for recycling from residents and businesses in the District. Commercial and industrial surveying is administered at a minimum every five years. The SWMD utilizes Ohio EPA's annual data for commercial recycling information and plans to annually target a small portion of commercial businesses to survey beginning in 2018.

Curbside Recycling Monitoring Plan

Monitoring Plan was developed to identify and detect any waste hauler deviating from the standards set forth in the Performance Obligations. Anonymous calls are made on a semi-annual basis, to each waste hauler requesting service information for an address within their service area. These are made for each of the 11 townships located within the District.

Contingency 1 – Drop Off Recycling

Contingency 1 was developed if a waste hauler was determined to be in violation of the Performance Obligation Agreement due to not offering non-subscription curbside recycling service to households in the unincorporated areas of the townships, and exceeded the 90-day grace period to be back in compliance. Contingency 1 allows the District to site and operate drop-off recycling stations in specific areas of the townships. Each site would have two 6-cubic yard dumpsters to collect at a minimum paper, glass, plastics, and metals. Drop-off recycling stations would be available 24 hours a day, 365 days a year.

Contingency 2 – Franchise Service Areas

Contingency 2 was developed if Contingency Plan 1 was in operation for two consecutive years. Contingency 2 would allow the District to franchise the service areas in the unincorporated portions of the townships in the District for households to receive waste and non-subscription curbside recycling service.

Performance Obligation Agreements – All Haulers

Copies of Obligation Agreements are on file with the District. All trash haulers operating with the District have signed agreements.

Roadside Litter Collection Programs

The District has two full-time employees that utilize people sentenced to community service through the courts to aid in the cleanup activities. The number of road miles serviced, the number of parks served, bags of trash, tires, etc. collected and total hours worked by employee and community service worker are recorded annually.

C. Waste Reduction and Recycling Rates

1. Residential/Commercial Recycling in the District

Table 5-3 Residential/Commercial Waste Reduction and Recycling Rate

Year	Projected Quantity Collected (tons)	Residential/ Commercial WRR ¹ (%)
2018	47,069	20%
2019	47,261	20%
2020	47,393	20%
2021	47,587	20%
2022	47,722	21%
2023	47,918	21%

The SWMD consistently receives great data from haulers servicing curbside programs. Curbside programs account for recycling about 30 percent of the residential/commercial reported recycling, as shown below.

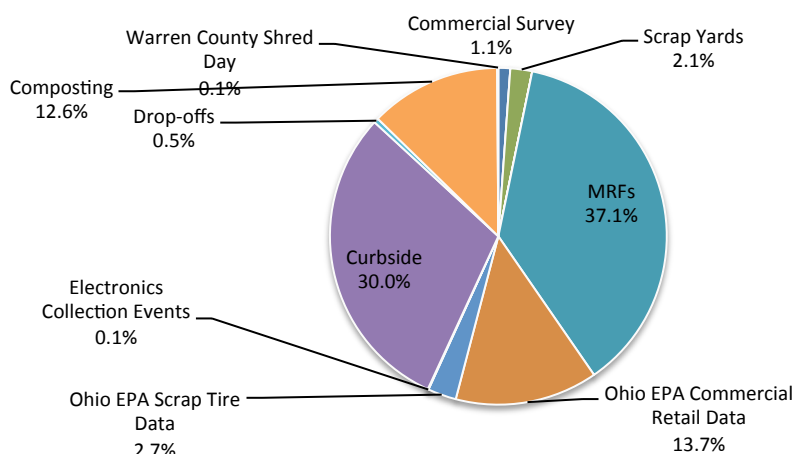


Figure 5-2 Reported Residential/Commercial Recycling

If the SWMD could capture more data from the commercial sector the recycling rate would most likely calculate higher than demonstrated. Commercial data obtained is from Ohio EPA data efforts. The SWMD is limited in staff and resources to conduct commercial sector surveys and spend the time necessary to follow up for responses. During this planning period an outreach effort will be made in efforts to capture more commercial sector information. This outreach effort is described in Appendix I.

2. Industrial Recycling in the District

Table 5-4 Industrial Waste Reduction and Recycling Rate

Year	Projected Quantity Collected (tons)	Industrial WRR ¹ (%)
2018	43,060	73%
2019	43,116	73%
2020	43,172	73%
2021	43,228	73%
2022	43,284	73%
2023	43,341	73%

This page intentionally left blank

CHAPTER 6: BUDGET

Ohio Revised Code Section 3734.53(B) requires a solid waste management plan to present a budget. This budget accounts for how the SWMD will obtain money to pay for operating the SWMD and how the SWMD will spend that money. For revenue, the solid waste management plan identifies the sources of funding the SWMD will use to implement its approved solid waste management plan. The plan also provides estimates of how much revenue the SWMD expects to receive from each source. For expenses, the solid waste management plan identifies the programs the SWMD intends to fund during the planning period and estimates how much the SWMD will spend on each program. The plan must also demonstrate that planned expenses will be made in accordance with ten allowable uses that are prescribed in ORC Section 3734.57(G).

Ultimately, the solid waste management plan must demonstrate that the SWMD will have adequate money to implement the approved solid waste management plan. The plan does this by providing annual projections for revenues, expenses, and cash balances.

If projections show that the SWMD will not have enough money to pay for all planned expenses or if the SWMD has reason to believe that uncertain circumstances could change its future financial position, then the plan must demonstrate how the SWMD will balance its budget. This can be done by increasing revenues, decreasing expenses, or some combination of both.

This chapter of the solid waste management plan provides an overview of the SWMD's budget. Detailed information about the budget is provided in Appendix O.

A. Overview of the SWMD's Budget

The SWMD uses generation fees, local funding from the County Courts, and the District's Reserve Fund for implementation of the Plan. The generation fee is \$0.50 per ton on solid waste generated in Warren County and disposed at transfer facility or landfills located in Ohio. The fee is collected at the first facility that accepts the SWMD's waste. Funding from County Courts reinforces the Litter Collection Program and uses court directed people that are required to perform community service work as part of a judgment (The Courts provide the District with \$30,000 per year for this activity). The District Reserve Fund was generated over time and came from the Tier Fees charged at Bigfoot Run Sanitary Landfill when it was operating.

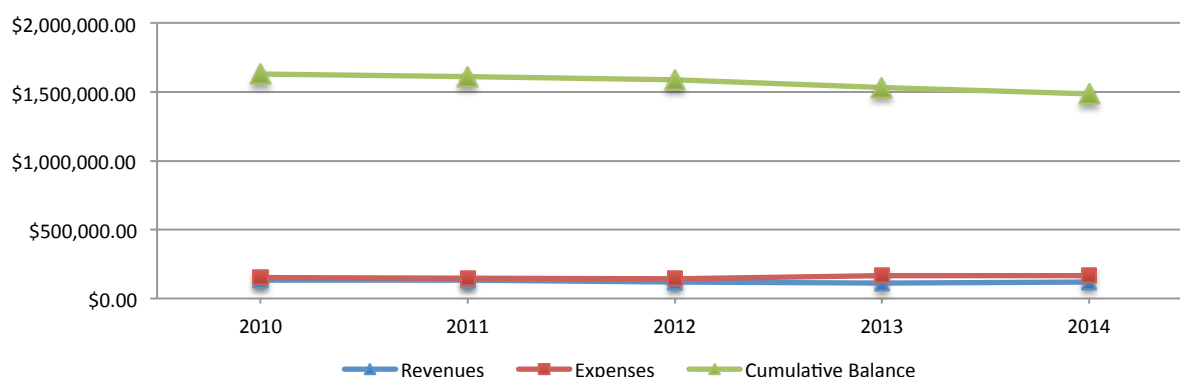


Figure 6-1 Historical Revenues and Expenses

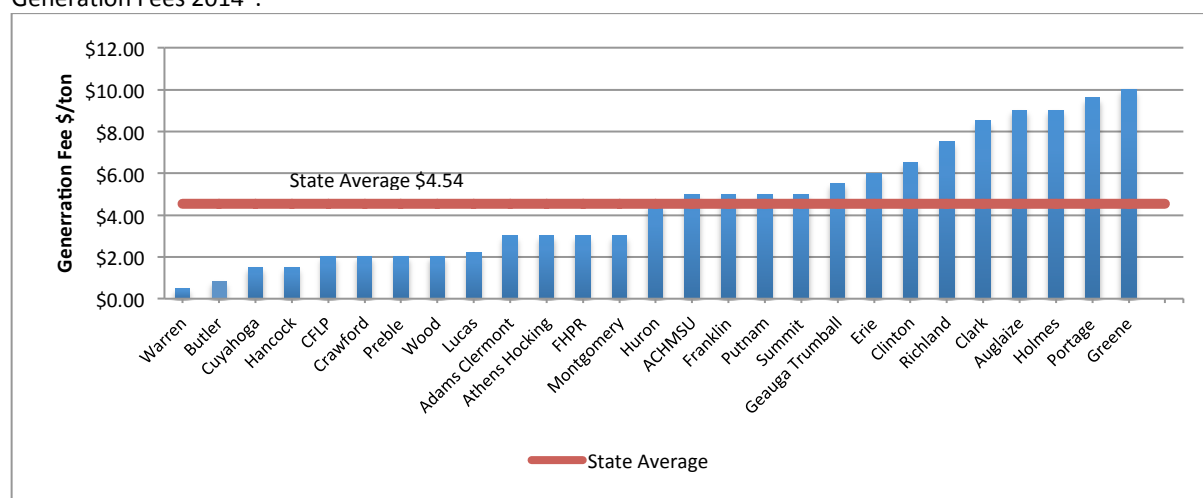
As shown in Figure 6-1, "Historical Revenues and Expenses", cash balances were drawn down.

Table 6-1 Regional SWMD Budget Comparison CY 2014

SWMD	Revenue	Expenses	Account Balance	Per Capita Revenue	Per Capita Expenses
Clinton County	\$205,874	\$193,724	\$642,837	\$4.90	\$4.61
Greene County	\$1,253,665	\$947,381	\$2,324,614	\$7.67	\$5.80
Warren County	\$118,607	\$166,026	\$1,484,276	\$0.54	\$0.75
Butler County	\$549,214	\$810,049	\$1,347,646	\$1.47	\$2.16
Montgomery County	\$2,477,096	\$2,399,382	\$9,669,774	\$4.63	\$4.48
Hamilton County	\$2,110,167	\$2,443,823	\$2,477,323	\$2.60	\$3.01

In comparison to regional solid waste management districts, the SWMD has the lowest per capita revenues and expenses, as shown in Table 6-1 “Regional SWMD Budget Comparison CY 2014”.

At \$1.00 per ton the SWMD’s generation fee will remain the lowest in the state, shown in Figure 6-2, “Ohio SWMD Generation Fees 2014”.

**Figure 6-2 Ohio SWMD Generation Fees 2014**

Plan implementation expenses are projected to average \$220,000 annually over the 15-year planning period, while revenues are projected to average \$130,000 annually. This deficit in spending will continue to draw down the District’s Reserve Fund.

Budgeted program expenses allows for new programming and/or enhancement of programs. An emphasis is placed on education and outreach to residents, schools, political leaders, commercial/institutional, and industry providing a well-rounded program to complement the planned strategies and provide information to assist them in making wise environmental choices.

The District and Board do not consider funding to be an issue of concern during this planning period. Before a discussion to revise generation fees would begin, the District would first re-evaluate the estimated expenditures to determine the minimum annual budget to sustain the SWMD’s core operations as mandated by Ohio EPA through the Ohio Revised Code. If a revision in the generation fee would be required, a separate ratification process would be required to implement any projected change.

B. Revenue

There are a number of mechanisms SWMDs can use to raise the revenue necessary to finance their solid waste management plans. Two of the most commonly used mechanisms are disposal fees and generation fees. These fees are often referred to as “statutory” fees because SWMDs’ authority to levy the fees is established in Ohio law.

A SWMD's policy committee (or board of trustees for a regional solid waste authority) has the authority to establish fees. Before a SWMD can collect a generation or disposal fee, the SWMD's policy committee must first obtain approval from local communities through a ratification process. That process is detailed in ORC Section 3734.57. Ratification allows communities in the SWMD to vote on whether they support levying the proposed fee. If enough communities ratify (i.e. approve), the proposed fee, then the SWMD can collect the fee.

Types of Fees:

Disposal Fees (See Ohio Revised Code Section 3734.57(B))

Disposal fees are collected on each ton of solid waste that is disposed at landfills in the levying SWMD. There are three components, or tiers, to the fee. The tiers correspond to where waste was generated – in-district, out-of-district, and out-of-state. In-district waste is solid waste generated by counties within the levying SWMD and disposed at landfills in that SWMD. Out-of-district waste is solid waste generated in Ohio counties that are not part of the SWMD and disposed at landfills in the SWMD. Out-of-state waste is solid waste generated in other states and disposed at landfills in the SWMD.

Ohio's law prescribes the following limits on disposal fees:

- The in-district fee must be $\geq \$1.00$ and $\leq \$2.00$;
- The out-of-district fee must be $\geq \$2.00$ and $\leq \$4.00$; and
- The out-of-state fee must be equal to the in-district fee.

Generation Fees (See Ohio Revised Code Section 3734.573)

Generation fees are collected on each ton of solid waste that is generated within the levying SWMD and accepted at either a transfer facility or landfill located in Ohio. The fee is collected at the first facility that accepts the SWMD's waste. The statute does not set minimum or maximum limits on the per ton amount for generation fees.

Rates and Charges (See Ohio Revised Code Section 343.08)

The board of directors can collect money for a SWMD through what are called rates and charges. The board can require anyone that receives solid waste services from the SWMD to pay for those services. The board does this by establishing and collecting rates and charges on behalf of the SWMD. Rates and charges must be paid by anyone that owns an improved lot or parcel that receives services from the SWMD. Qualifying services include solid waste collection, transfer, disposal, recycling, and processing services.

Rate and charges can be collected in two ways:

1. Through periodic billings made by the SWMD. The SWMD can bill for services through either a direct bill or through a utility bill issued by a county waste district, a county sewer district, or another political jurisdiction that provides a public utility service.
2. Through an improved parcel assessment (collected as a property tax).

Contracts (See Ohio Revised Code Sections 343.02 and 343.03)

The board of directors can enter into contracts with owners/operators of solid waste facilities or transporters of solid waste to collect generation or disposal fees on behalf of a SWMD.

Other Sources of Revenue

There are a variety of other sources that SWMDs can use to earn revenue. Some of these sources include:

- Revenue from the sale of recyclable materials
- User fees (such as fees charged to participate in scrap tire and appliance collections)
- County contributions (such as from the general revenue fund or revenues from publicly-operated solid waste facilities (i.e. landfills, transfer facilities))
- Interest earned on cash balances
- Grants

- Loans
- Bonds

1. Disposal Fees

The District does not receive revenues from disposal fees. The District previously levied fees in accordance with ORC Section 3734.57(B) on waste disposal at a solid waste facility located within the District. The District's fee structure is \$1.00 collected on each ton of solid waste that is generated within the District and disposed at a solid waste landfill located within the District, \$2.00 collected on each ton of solid waste generated outside the District but within Ohio and disposed at a solid waste landfill located within the District, and \$1.00 collected on each ton of solid waste generated outside of Ohio and disposed at a solid waste landfill located within the District. The District is not proposing to adopt or impose a tiered disposal fee with the ratification of the Plan Update or at any juncture during the current planning period.

2. Generation Fees

In accordance with ORC 3734.573, a solid waste management policy committee may levy fees on the generation of solid wastes within the district. In 2005, the District adopted, ratified, and implemented a \$0.50 per ton generation fee. This fee amount has remained unchanged and will remain unchanged for this planning period.

To project revenues from generation fees the SWMD analyzed historic fees, specifically, collected fees and fees collected relative to disposal tonnages. Historically, tonnage disposed and tonnages the SWMD received fees on parallel each other. Since there is little variation the SWMD can confidently use waste disposal tonnages to estimate generation fee revenues.

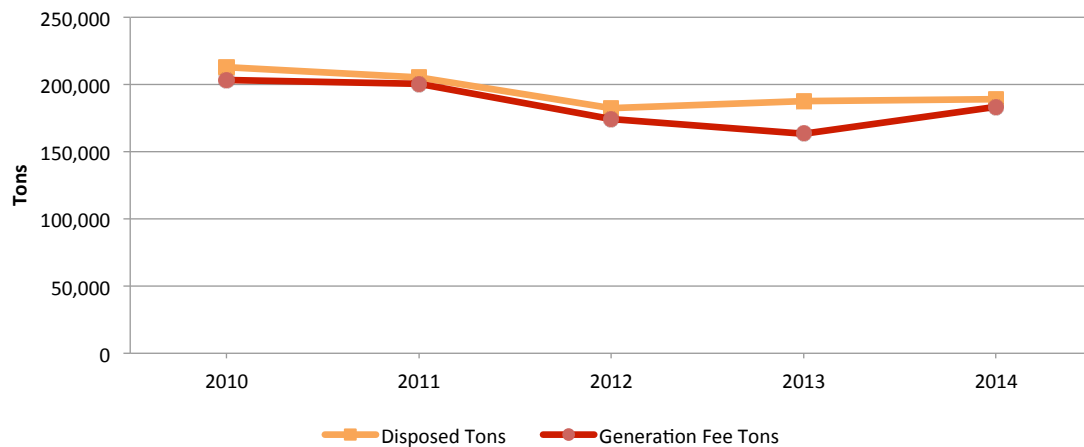


Figure 6-3 Historic Trend of Generation Fees Collected

Appendix H analyzes historic revenues which was used to forecast future revenues anticipated from the generation fee. Over the past five years the quantity of waste the SWMD collected its generation fee on followed a declining trend until the uptick in year 2014. Historically waste disposal followed a rise and fall curve and thus, the Policy Committee projects revenue will follow the waste disposal rise and fall curve. The estimated rise is 8 percent and fall is 4 percent (based on historical waste disposal).

Table 6-2 Generation Fee Schedule and Revenue

Year	Generation Fee Schedule (\$ per ton)	Waste Disposed (tons)	Total Revenue from Generation Fee (\$)
2010	\$0.50	203,210	\$101,605

Year	Generation Fee Schedule (\$ per ton)	Waste Disposed (tons)	Total Revenue from Generation Fee (\$)
2011	\$0.50	200,522	\$100,261
2012	\$0.50	174,269	\$87,135
2013	\$0.50	163,199	\$81,600
2014	\$0.50	189,283	\$94,642
2015	\$0.50	194,504	\$97,252
2016	\$0.50	196,873	\$98,437
2017	\$0.50	199,843	\$99,922
2018	\$0.50	202,862	\$101,431
2019	\$0.50	205,928	\$102,964
2020	\$0.50	203,339	\$101,669
2021	\$0.50	201,452	\$100,726
2022	\$0.50	199,580	\$99,790
2023	\$0.50	197,723	\$98,862
2024	\$0.50	195,881	\$97,941
2025	\$0.50	199,474	\$99,737
2026	\$0.50	202,963	\$101,481
2027	\$0.50	206,514	\$103,257
2028	\$0.50	210,129	\$105,065
2029	\$0.50	213,810	\$106,905
2030	\$0.50	211,606	\$105,803
2031	\$0.50	209,257	\$104,629
2032	\$0.50	206,936	\$103,468

Source(s) of Information:

CY 2010-2014 revenues sourced from quarterly fee reports. All other amounts are projections.

CY 2010-2014 waste disposed sourced from quarterly fee reports. All other amounts projected from Appendix Table K-3.

Sample Calculations:

Total Revenue from Generation fee (2014) = Generation Fee Schedule x Waste Disposed

Total Revenue from Generation fee (2014) = \$0.50 x 189,283 tons

Total Revenue from Generation fee (2014) = \$94,642

Assumptions:

Revenue was calculated based on waste disposal projections calculated in Appendix K. Rise is 8% and fall is 4%.

3. Designation Fees

The SWMD does not receive revenues from designation fees.

4. Other Funding Mechanisms

The SWMD reserves the right to consider other funding mechanisms including but not limited to disposal fees, contract fees and designation with contract fees. The District's Board of Directors may choose to use these mechanisms as a replacement-funding source to generation fees, whichever is in the best interest of the SWMD. Any changes in the generation fee funding mechanism such as increases, decreases or abolishment or the creation of disposal fees will require the District Policy Committee to approve along with the appropriate ratification process by the communities within the SWMD.

Miscellaneous Contributions

The Warren County Courts provides the SWMD with \$30,000 per year to support the use of community service works for Litter Collection program activity. The District does not see any other funding mechanisms like reimbursement or other recycling revenues to be occurring during the planning period.

5. Summary of Revenues

Table 6-3, "Summary of Revenue" includes all funding mechanisms that will be used and the total amount of revenue generated by each method for each year of the planning period. The SWMD's primary funding mechanism is the generation fee. The SWMD also receives alternate revenues from other contributions, reimbursements, recycling revenue and other.

Table 6-3 Summary of Revenue

Year	Disposal Fees	Generation Fees	Contract Fees	Other Revenue					Total Revenue
				Other Contributions	Reimbursement	Recycling Revenue	Other	Enter Revenue Source	
Reference Year									
2014	\$0	\$94,642	n/a	\$22,500	\$30	\$0	\$1,435	\$0	\$118,607
Planning Period									
2018	\$0	\$101,431	n/a	\$30,000	\$0	\$0	\$0	\$0	\$131,431
2019	\$0	\$102,964	n/a	\$30,000	\$0	\$0	\$0	\$0	\$132,964
2020	\$0	\$101,669	n/a	\$30,000	\$0	\$0	\$0	\$0	\$131,669
2021	\$0	\$100,726	n/a	\$30,000	\$0	\$0	\$0	\$0	\$130,726
2022	\$0	\$99,790	n/a	\$30,000	\$0	\$0	\$0	\$0	\$129,790
2023	\$0	\$98,862	n/a	\$30,000	\$0	\$0	\$0	\$0	\$128,862

Source(s) of information:

CY 2010-2014 revenues sourced from quarterly fee reports. All other amounts are projections (refer to Table O-2 and O-5).

Sample Calculations:

Total Revenue (2014) = Disposal Fees + Generation Fees + Contract Fees + Other Revenue

Total Revenue (2014) = \$0 + \$94,642 + N/A + \$22,500 + \$0 + \$0 + \$1,435 + \$0

Total Revenue (2014) = \$118,607

C. Expenses

Ohio's law authorizes SWMDs to spend revenue on 10 specified purposes (often referred to as the 10 allowable uses). All of the uses are directly related to managing solid waste or for dealing with the effects of hosting a solid waste facility. The 10 uses are as follows:

1. Preparing, monitoring, and reviewing implementation of a solid waste management plan.
2. Implementing the approved solid waste management plan.
3. Financial assistance to approved boards of health to enforce Ohio's solid waste laws and regulations.
4. Financial assistance to counties for the added costs of hosting a solid waste facility.
5. Sampling public or private wells on properties adjacent to a solid waste facility.
6. Inspecting solid wastes generated outside of Ohio and disposed within the SWMD.
7. Financial assistance to boards of health for enforcing open burning and open dumping laws, and to law enforcement agencies for enforcing anti-littering laws and ordinances.
8. Financial assistance to approved boards of health for operator certification training.
9. Financial assistance to municipal corporations and townships for the added costs of hosting a solid waste facility that is not a landfill.
10. Financial assistance to communities adjacent to and affected by a publicly-owned landfill when those communities are not located within the SWMD or do not host the landfill.

In most cases, the majority of a SWMD's budget is used to implement the approved solid waste management plan (allowable use 2). Allowable use 2 authorizes SWMDs to spend money for a wide range of purposes. Furthermore, there are many types of expenses that a solid waste management district incurs to implement a solid waste management plan. Examples include: salaries and benefits; purchasing and operating equipment (such as collection vehicles and drop-off containers); operating facilities (such as recycling centers, solid waste transfer facilities, and composting facilities); offering collection programs (such as yard waste and scrap tires); providing outreach and education; providing services (such as curbside recycling services); and paying for community clean-up programs.

Conversely, Ohio's law provides narrow definitions for how a SWMD can spend money in accordance with the other nine uses. For example, allowable use 4 authorizes a SWMD to give a county money to compensate the county for costs it incurs because it hosts a solid waste facility. The SWMD can give the county money for maintaining roads and public facilities impacted by the solid waste facility and for providing emergency and other public services. Those are the only ways a SWMD can spend money under allowable use 4.

Table 6-4, "Summary of Expenses" summarizes the SWMD's overall budget for the first six years of the planning period.

Table 6-4 Summary of Expenses

Expense Category	Year						
	Reference	Planning Period					
	2014	2018	2019	2020	2021	2022	2023
Personnel and Administration	\$130,199	\$136,200	\$140,286	\$144,495	\$148,830	\$153,294	\$157,893
Household Hazardous Waste (HHW)	\$0	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Electronics Collection	\$0	\$500	\$500	\$500	\$500	\$500	\$500
Education and Outreach	\$12,926	\$18,500	\$24,040	\$21,596	\$22,169	\$22,759	\$23,367
Litter Collection and Education	\$16,521	\$60,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Service Contracts	\$200						
Other (Plan Preparation	\$6,180						\$25,000
Total Expenses	\$166,026	\$217,200	\$186,826	\$188,591	\$193,499	\$198,553	\$228,760

D. Budget Summary

Table 6-3 Budget Summary

Year	Revenue	Expenses	Net Difference	Ending Balance
Reference Year				
2014	\$118,607	\$166,026	-\$47,419	\$1,484,276
Planning Period				
2018	\$131,431	\$217,200	(\$85,769)	\$1,250,574
2019	\$132,964	\$186,826	(\$53,862)	\$1,196,712
2020	\$131,669	\$188,591	(\$56,921)	\$1,139,790
2021	\$130,726	\$193,499	(\$62,773)	\$1,077,017
2022	\$129,790	\$198,554	(\$68,764)	\$1,008,254
2023	\$128,862	\$228,760	(\$99,899)	\$908,355

The SWMD Reserve Account comprises funds that the SWMD received through tier fees from the Big Foot Run Sanitary Landfill, which closed in 1999. Additional revenues are not expected, however, revenues could increase beyond what is projected. In the event additional revenues are received, and projected expenses remain within budgeted allowances, additional revenues will be added to the carryover balance.

This page intentionally left blank

APPENDIX A: MISCELLANEOUS INFORMATION

A. Reference Year

The reference year for this solid waste management plan is:

2014

B. Planning Period

The planning period for this solid waste management plan is:

First Year	Last Year
2018	2032

C. Goal Statement

The SWMD will achieve the following Goal(s):

Goal 1	X
Goal 2	
Goal 1 and Goal 2	

D. Material Change in Circumstances/Contingencies

The SWMD will use its normal operational procedures to monitor plan implementation activities and determine whether and when a material change in circumstances has occurred affecting the District that requires a formal solid waste management plan amendment. The Warren County Board of County Commissioners and the policy committee meet at least twice per year, to receive updates on District implementation activities, enact necessary legislative actions, and perform the annual review of the implementation of the solid waste management plan. The frequency of these meetings are as necessary to allow both the County Commissioners and the policy committee to detect and respond to changing circumstances.

The SWMD continually monitors and evaluates solid waste activities within the District that would indicate significant changes in how the solid waste stream is managed. Circumstances that may result in a material change include, but are not limited to the following:

- Solid Waste Generation in the District decreases by 25%
- Solid Waste Facilities accepting District waste
 - Landfill(s) permitted and daily capacity decreases by 25%
 - Landfill(s) remaining life is less than 2 years
 - Transfer Facility permitted and daily capacity decreases 25%
 - Transfer Facility(s) recycling activities decreases by 25%
 - Waste Hauler activities
- Projected Solid Waste Generation decreases by 25%
- Private Recycling Activities decreases by 25%
- Financing for Plan Implementation decreases by 20%
- Changes in Strategies for Waste Reduction or Recycling
- Delay of more than One Year in Program Implementation
- Legislative Changes

If any member of the Board of County Commissioners or the District Director believes that a material change has occurred, the member or the Director will notify the Chairperson of the Board of County Commissioners and place an item on the agenda for the next meeting, or schedule a special meeting, as appropriate. The County Commissioners will review the changed circumstances, and utilizing any of the applicable criteria described above, or based on the estimated impact of the change on the projections, timetables, programs, and activities contained in the approved District Plan, approve or disapprove a resolution to recommend the preparation of a formal Plan Amendment. The County Commissioners may refer this matter to the Policy Committee for further analysis or for a preliminary recommendation. The County Commissioners will make a determination on whether to request that a Plan Amendment be prepared by the Policy Committee within 90 days after the matter is first placed on its agenda, unless the time period is formally extended by the County Commissioners. Upon making the determination, the County Commissioners will provide press releases to newspapers of general circulation within the District informing the public of its decision. If a recommendation for a Plan Amendment is adopted, the Policy Committee will prepare the Plan Amendment to address the material change in circumstances. The schedule for the development of the Plan Amendment, and the approval, ratification, and implementation, will be established by the Policy Committee, depending upon the extent of the amendment required to address the change in circumstances.

E. Explanations of differences between data previously reported and data used in the solid waste management plan

- a. Differences in quantities of materials recovered between the annual district report and the solid waste management plan.

Data does not differ.

- b. Differences in financial information reported in quarterly fee reports and the financial data used in the solid waste management plan.

Data does not differ

APPENDIX B: RECYCLING INFRASTRUCTURE INVENTORY

A. Inventory of Residential Recycling Infrastructure Available in the Reference Year

Table B-1a: Inventory of Non-Subscription Curbside Recycling Services Available in the Reference Year

ID #	Name of Curbside Service	County	How Service is Provided	Collection Frequency	Materials Collected ⁽¹⁾	Type of Collection	PAYT	Weight of Materials Collected from SWMD (tons)
							✓	
Non-subscription curbside								
NSC#-1	Butlerville Village	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		included with Harlan Township
NSC#-1	Carlisle Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		163
NSC#-1	Clearcreek Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		2,140
NSC#-2	Corwin Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		1
NSC#-3	Deerfield Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		2,500
NSC#-4	Franklin City	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		442
NSC#-5	Franklin Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		542
NSC#-6	Hamilton Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		1,485
NSC#-7	Harlan Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		194
NSC#-8	Harveysburg Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		2
NSC#-9	Lebanon City	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		941
NSC#-10	Maineville Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		29
NSC#-11	Mason City	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		2,733

ID #	Name of Curbside Service	County	How Service is Provided	Collection Frequency	Materials Collected ⁽¹⁾	Type of Collection	PAYT	Weight of Materials Collected from SWMD (tons)
							✓	
NSC#-12	Massie Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		70
NSC#-13	Morrow Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		93
NSC#-14	Pleasant Plain Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		included in Harlan Township
NSC#-15	Salem Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		150
NSC#-16	South Lebanon Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		247
NSC#-17	Springboro City	Warren	Contract between a political jurisdiction and a private hauler	Bi-Weekly	Paper, Plastic, Metals, Glass	Single Stream Manual		728
NSC#-18	Turtlecreek Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		646
NSC#-19	Union Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		98
NSC#-20	Washington Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		126
NSC#-21	Wayne Township	Warren	Agreement between SWMD and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		242
NSC#-22	Waynesville Village	Warren	Contract between a political jurisdiction and a private hauler	Weekly	Paper, Plastic, Cartons, Metals, Glass	Single Stream Manual		164
Total								13,736
¹ Paper includes: Newspaper, Cardboard, Other Paper, Paper, & Junk Mail; Plastic includes: any plastic container shaped like a bottle or jug; Metals includes: Aluminum containers, Steel Cans, & Tin Cans; Glass includes: Brown Glass, Clear Glass, & Green Glass								

All cities and villages in the SWMD have non-subscription curbside achieved through contracts between the municipality and a trash hauler. Provision of solid waste services is privatized in the SWMD, no public haulers provide hauling services. Municipalities take proposals/quotes from private sector service providers to deliver the specified services. Some contracting approaches still leave the billing of customers up to the service providers while others do their own billing and pay the hauler independently. Public-private contracts determine collection frequency, materials collected, size of containers, and type of collection.

All townships in the SWMD have non-subscription curbside achieved through Performance Obligation agreements between the SWMD and waste haulers. All residents living in a township who have subscription trash service must be enrolled in non-subscription curbside recycling. All waste haulers providing trash service in the SWMD are required to offer non-subscription curbside recycling service to their customers in the unincorporated areas of the townships. To provide service in these areas, waste haulers must sign and adhere to a Performance Obligation agreement which specifies materials be collected on a weekly basis, containers to be provided, and with educational and awareness responsibilities.

Residents mix all recyclables (single stream) in bins or carts for curb collection.

Table B-1b Inventory of Subscription Curbside Recycling Services Available in Reference Year

ID #	Name of Curbside Service	County	How Service is Provided	Collection Frequency	Materials Collected ⁽¹⁾	Type of Collection	PAYT	Weight of Materials Collected from SWMD
							✓	
Subscription curbside								
none								
Total								0

Table B-2a Inventory of Full-Time, Urban Drop-off Sites Available in the Reference Year

ID#	Name of Drop-off Site	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected ⁽¹⁾	Drop-off Meets All Minimum Standards? (yes or no)	Weight of Materials Collected from the SWMD (tons)
Full-time, urban drop-offs							
FTU1	Deerfield Township - 8395 Snider Road	Warren	Contract with political jurisdiction and private hauler	24/7	Paper, Plastic, Cartons, Metals, Glass	yes	Included in Mason totals
FTU2	Lebanon City - 406 Justice Drive	Warren	Contract with County and private hauler	24/7	Paper, Plastic, Cartons, Metals, Glass	yes	9
FTU3	Lebanon City - 50 S Broadway	Warren	Contract between political jurisdiction and private hauler	24/7	Paper, Plastic, Cartons, Metals, Glass	yes	33
FTU4	Mason - 2095 Kings Mill Road	Warren	Contract between political jurisdiction and private hauler	24/7	Paper, Plastic, Cartons, Metals, Glass	yes	167
TOTAL							209

¹Paper includes: Newspaper, Cardboard, Other Paper, Paper, & Junk Mail; Plastic includes: any plastic container shaped like a bottle or jug; Metals includes: Aluminum containers, Steel Cans, & Tin Cans; Glass includes: Brown Glass, Clear Glass, & Green Glass

Drop-off recycling opportunities consist of two 6-cubic yard containers located at each site. Recyclables are commingled. Containers are emptied weekly.

Table B-2b Inventory of Part-Time, Urban Drop-off Sites Available in the Reference Year

ID#	Name of Drop-off Site	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected ⁽¹⁾	Drop-off Meets All Minimum Standards? (yes or no)	Weight of Materials Collected from the SWMD
Part-time, urban drop-offs							
none							
TOTAL							0

Table B-2c Inventory of Full-Time, Rural Drop-off Sites Available in the Reference Year

ID#	Name of Drop-off Site	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected ⁽¹⁾	Drop-off Meets All Minimum Standards? (yes or no)	Weight of Materials Collected from the SWMD
-----	-----------------------	--------	-------------------------	--	------------------------------------	---	---

Full-time, rural drop-offs							
none							
TOTAL							0

Table B-2d Inventory of Part-Time, Rural Drop-off Sites Available in the Reference Year

ID#	Name of Drop-off Site	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected ⁽¹⁾	Drop-off Meets All Minimum Standards? (yes or no)	Weight of Materials Collected from the SWMD (tons)
Part-time, rural drop-offs							
none							
TOTAL							0

Table B-2e Inventory of Other Drop-off Sites Available in the Reference Year

ID#	Name of Drop-off Site	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected ⁽¹⁾	Drop-off Meets All Minimum Standards? (yes or no)	Weight of Materials Collected from the SWMD (tons)
Other Drop-offs							
ODO1	Private Paper drop-offs (6 locations)	Warren	Private business	24/7	Newspaper	no	467
TOTAL							467

Dayton Daily Newspapers and SP Recycling provide and maintain six 30-cubic yard open top containers for recycling of newspaper. Any resident and business can take newspapers to the following locations for recycling:

- 1st Union Methodist Church, 60 E. North Street, Springboro, Ohio
- Franklin Township Administration Building, 418 Fairview, Carlisle, Ohio
- Turtlecreek Township Fire Station, 1550 St. Rt. 741, Lebanon, Ohio
- Franklin Township Park Hunter, St. Rt. 122, Hunter, Ohio
- St. Mary's Church, 115 S. Main Street, Franklin, Ohio
- S.P. Recycling, 666 S. Riley Blvd., Franklin, Ohio

Table B-3 Mixed Municipal Solid Waste Material Recovery Facility

Name of Material Recovery Facility	Location (County, City)	Communities Served	Types of Materials Recovered ⁽¹⁾	Weight of Materials Recovered (tons)	Waste Processed (tons)	Bypass Waste (tons)	Total Waste (tons)	Recovery Rate in Reference Year (percent)
none							0	#DIV/0!
							0	#DIV/0!

A mixed solid waste materials recovery facility provides residents with access to recycling opportunities by removing recyclables from the trash for the residents. The District does not use a mixed waste material recovery facility (aka dirty MRF) to separate recyclables from trash.

B. Inventory of Curbside Recycling and Trash Collection Service Providers

B-4: Inventory of Curbside Recycling and Trash Collection Service Providers in the Reference Year

Name of Provider	County(ies) Served	Trash Collection Service				Curbside Recycling Service		
		PAYT	Residential	Com-mercial	Industrial	Residential	Com-mercial	Industrial
Republic Waste Services	Warren		✓	✓	✓	✓	✓	✓
Rumpke Waste, Inc.	Warren		✓	✓	✓	✓	✓	✓
Waste Management	Warren		✓	✓	✓	✓	✓	✓

Three private haulers operate in the county providing recycling and trash collection services. According to agreements, private haulers are required to offer recycling services to residential customers. Residents living in unincorporated areas directly contract services with private haulers. Incorporated cities negotiate hauling contracts for the residents.

C. Inventory of Composting/Facilities/Yard Waste Management Programs Available in the Reference Year

Table B-5 Inventory of Composting/Yard Waste Management Activities Available in the Reference Year

ID#	Facility or Activity Name	Compost Class	Publicly Accessible	Location	Waste Received from the SWMD	
					Food Waste (tons)	Yard Waste (tons)
Compost Facilities						
YW1	NPK Compost Facility	IV		10795 Hughes Rd Hamilton County, Ohio		296
YW2	The Siebenthaler Company	IV		5250 Cobblegate Dr Montgomery County, Ohio		158
YW3	Brausch Farms	II		1715 Gum Grove Rd Warren County, Ohio	181	45
YW4	Swartz Mulch	III		2440 E Lytle 5-Point Rd Warren County, Ohio		1,134
YW5	Tepe Nursery Inc	IV		200 S Nixon Camp Rd Warren County, Ohio		0
YW6	Klasmuch	IV		788 Reading Rd Warren County, Ohio		568
YW7	Hauler/Kroger/Walmart food waste data	n/a		n/a	1,113	
YW8	Marvins Organic Gardens	II		3268 US Rte 42 S Warren County, Ohio	1,233	1,044
YW9	Marvins Organic Gardens Composting Fac	IV		2055 S US Rte 42 S Warren County, Ohio		
YW10	Marvins Organic Gardens	IV		3989 US Rte 42 S Warren County, Ohio		
YW11	Marvins Organic Gardens	III		3268 US Rte 42 S Warren County, Ohio		
Total					2,527	3,244
Community Yard Waste Collection Programs						
YW12	City of Mason leaf collection			Mason, Ohio		na
YW13	City of Lebanon			Lebanon, Ohio		na
YW14	City of Springboro			Springboro, Ohio		na
YW15	Deerfield Township			Deerfield Township, Ohio		na
Total						0
Mulching Operations						
YW16	City of Mason brush collection			Mason, Ohio		na
Total						0
Land Application						
	none					
Total					0	0
Anaerobic Digestion						
	none					
Total					0	0

Source of Information: 2014 Draft Compost Facility Planning Report dated 12/02/2015 from Ohio EPA's website.

Note: All listed facilities are not available to the public for dropping off materials.

Two private sector haulers, Waste Management and Rumpke, provide yard waste collection service to customers. Hauling trucks do not have truck scales so individual hauler quantities are not available. Compost facilities (all classes) track material volumes delivered and report to Ohio EPA, which is how the District tracks composting activities.

Three municipalities and one township, Mason, Lebanon, Springboro, and Deerfield Township, provide some form of curbside yard waste pick-up. In the reference year, Mason provides their residents the opportunity to place brush and leaves at the curb utilizing the Public Works Department to haul materials. Crews chip the brush making it available for residents and municipality use while leaves are delivered to local nurseries. Lebanon provides their residents the opportunity to place yard waste, small limbs, brush, and grass at the curb. Curbside yard waste collection is part of the refuse collection contract held with Rumpke and composted at their facility. In addition, Lebanon utilizes the Service Department to collect yard waste at two drop-off days per year (spring and fall). Brush is chipped and used by the municipality. Springboro provides their residents the opportunity to place yard waste, small limbs, brush, and grass at the curb as part of the refuse contract held with Waste Management. Yard waste is delivered to a compost facility. Springboro also utilizes the Service Department to collect leaves at the curb during the fall. Leaves are delivered to Swartz Mulch where it's utilized as mulch. Deerfield Township's Service Department provides brush and leaf pickups yearly on a predetermined schedule.

This page intentionally left blank

APPENDIX C: POPULATION DATA

Table C-1: Population Adjustments

	Warren
Before Adjustment	221,659
Additions	
Springboro	1,241
Subtractions	
Middletown	2,703
Monroe	142
Loveland	798
After Adjustment	219,257

Source: Office of Research, Ohio Development Services Agency, "2014 Population Estimates by County, City, Village and Township", May 2015

Total Reference Year Population	
Before Adjustment Population	After Adjustment Population
221,659	219,257

Source: Office of Research, Ohio Development Services Agency, "2014 Population Estimates by County, City, Village and Township", May 2015

Reference year population is taken from Ohio Department of Development's Office of Strategic Research (ODOD, OSR). OSR provided estimate populations for 2014 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 District has four communities that are located in more than one solid waste management District: Springboro, Middletown, Monroe and Loveland. The majority of Springboro resides in Warren County; however, the majority of population for the other three municipalities is outside of Warren County. Adjustments were made to add the portion of Springboro located in Montgomery County to the Warren County population and to subtract the portion of the municipalities located in Warren County from the Warren County population.

Table C-2 Population Projections

Year	Warren	Total District Population
2014	219,257	219,257
2015	221,944	221,944
2016	222,229	222,229
2017	222,514	222,514
2018	222,798	222,798
2019	223,083	223,083
2020	223,368	223,368
2021	224,460	224,460
2022	225,552	225,552
2023	226,644	226,644
2024	227,736	227,736
2025	228,828	228,828
2026	229,710	229,710
2027	230,592	230,592
2028	231,474	231,474
2029	232,356	232,356
2030	233,238	233,238
2031	233,918	233,918
2032	234,598	234,598

Source: Office of Research, Ohio Development Services Agency, "2014 Population Estimates by County, City, Village and Township", May 2015

Sample Calculations:

Projected population in 2014 = 221,659

Projected population in 2020 = 225,770

Annual population change = $(225,770 - 221,659) / 6 = 285$

Projected population in 2015 = 2014 population + 285 = 221,659 + 285 = 221,944

Projections of population through the planning period are based on the latest population projections from the Ohio Development Services Agency (ODSA), Office of Statistical Research. The ODSA Planning Research and Strategic Planning Office provided year 2010 census data and projected estimates for 2015, 2020, 2025, 2030, and 2035. To determine population estimates between these years, straight-line interpolation was used.

Over the fifteen-year planning period, population figures are expected to increase 5 percent, averaging a 0.4 percent annual increase.

Population projections can gauge future demand for services, but in projection calculations there are room for errors because of the difficulty associated with forecasting. As projected by ODSA, population is expected to increase. However, when compared to historical population growth, the projected growth is modest. According to the United States Census Bureau between the years 2000 and 2014 population for Warren County grew by 28 percent, averaging a 2 percent annual increase. Housing construction and boom experienced in the County slowed after the economic downturn in 2009, thus, for planning purposes the District is basing population projections on the projected 5 percent increase.

APPENDIX D: DISPOSAL DATA

A. Reference Year Waste Disposed

Table D-1a: Reference Year Waste Disposed - Publicly-Available Landfills (Direct Haul)

Facility Name	Location		Waste Received from SWMD (TPY)			
	County	State	Residential/ Commercial	Industrial	Excluded	Total
In-district facilities						
none		OH				0
Out-of-district facilities						
Rumpke Brown County Landfill	Brown	OH	604		38	641
Rumpke Sanitary Landfill	Hamilton	OH	141,403	783	4,899	147,086
Stony Hollow Landfill, Inc	Montgomery	OH	13,571	7,657	188	21,416
Suburban Landfill, Inc	Perry	OH			89	89
Celina Sanitary Landfill	Mercer	OH			1	1
Pine Grove Regional Facility	Fairfield	OH		10		10
Out-of-state facilities						
Republic Epperson		KY		80		80
Rumpke Pendleton County		KY		4		4
EQ Industrial Services Processing Facility		IN	0			0
Indianapolis Resource Recovery Facility		IN		3,266		3,266
Medassure of Indiana Treatment Facility		IN	2			2
Merrell Bros Inc, Indy Disposal Solutions		IN		33		33
Tradebe Treatment & Recycling, LLC		IN		121		121
Total Direct Haul Waste Disposed in Landfills			155,580	11,955	5,215	172,749

* The facilities listed in Table D-1a and identified as able to accept waste from the SWMD (in Appendix M) will constitute those identified for purposes of Ohio Revised Code Section 3734.53(13)(a).

Source(s) of Information: Facility Annual Operational Reports for 2014

Waste flows to the landfills either by direct haul or through a transfer facility. Approximately 89 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. Direct hauled waste is disposed in in-state and out-of-state landfill facilities. The majority of direct hauled waste was disposed in one privately owned landfill located in Ohio in neighboring Hamilton County. A small percentage, 2 percent, was disposed in out-of-state landfill facilities.

A wide variety of wastes are disposed in municipal solid waste landfills. Waste generated from households, commercial businesses, institutions, and industrial plants. In addition, asbestos (if permitted to do so), construction and demolition debris, dewatered sludge, contaminated soil, and incinerator ash. More District waste from residential and commercial sources was disposed than from industrial sources.

Table D-1b: Reference Year Waste Disposed - Captive Landfills

Facility Name	Location		Waste Received from SWMD (TPY)		
	County	State	Industrial	Excluded	Total
In-district facilities					
none		OH			0
Total Waste Disposed in Captive Landfills			0	0	0

Captive landfills are landfills used to dispose of waste generated exclusively by the manufacturing company that owns the landfill. District waste was not disposed in a captive landfill in the reference year.

Table D-2: Reference Year Waste Transferred

Facility Name	Location		Waste Received from the SWMD (TPY)				Destination
	County	State	Residential/ Commercial	Industrial	Excluded	Total	
In-district facilities							
none		OH				0	
Out-of-district facilities							
Evendale Transfer Station	Hamilton	OH	13,066			13,066	Epperson Landfill (KY), Rumpke (OH)
Montgomery County North	Montgomery	OH	2			2	Cherokee Run (OH)
Montgomery County South	Montgomery	OH	3,142			3,142	
Waste Management Transfer Station Fairborn	Greene	OH	46			46	
Out-of-state facilities							
Bavarian Trucking Co		KY	760	3,934	3,547	8,241	unknown
Dearborn County Trash and Recycling Transfer Station		IN	690			690	unknown
Total Transferred Waste			17,706	3,934	3,547	25,187	

¹ The facilities listed in Table D-1a and identified as able to accept waste from the SWMD (in Appendix M) will constitute those identified for purposes of Ohio Revised Code Section 3734.53(13)(a).

In cases where waste is hauled from a transfer facility to a landfill, the county of origin is not recorded at the landfill. 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 identifying possible destination landfills. Approximately 13 percent of the waste was transferred, meaning a refuse truck picked up waste from clients and hauled that waste to a transfer facility. Waste was tipped, reloaded into transfer trucks, and hauled to landfills for disposal.

Table D-3: Reference Year Total Waste Disposed

	Residential/ Commercial	Industrial	Excluded	Total	% of Total Waste Disposed
Direct Hauled	155,580	11,955	6,215	172,749	87%
Transferred	17,706	3,934	3,547	25,187	13%
Total	173,286	15,889	9,762	197,936	100%

Percent of Total	88%	8%	4%	100%
-----------------------------	-----	----	----	------

Total disposal refers to the sum of waste direct hauled and transferred. According to Ohio EPA Format 4.0, if excluded waste is 10 percent or less of total disposal in the reference year, then SWMD's are not required to account for excluded waste in the solid waste management plan.

B. Historical Waste Analysis

Table D-4 Historical Disposal Data

Year	Population	Residential/ Commercial Solid Waste		Industrial Solid Waste	Excluded Waste	Total Waste
		Rate (ppd)	Weight (tons)	Weight (tons)	Weight (tons)	Weight (tons)
2005	194,167	4.59	162,551	11,924	21,802	196,277
2006	199,298	5.45	198,209	13,426	22,882	234,517
2007	201,871	5.41	199,491	15,181	16,378	231,050
2008	204,390	5.18	193,050	15,638	13,433	222,121
2009	207,353	4.67	176,680	20,193	6,688	203,561
2010	212,693	4.45	172,905	32,326	7,850	213,081
2011	212,693	4.33	168,021	30,060	7,425	205,506
2012	217,240	3.95	156,792	17,243	8,253	182,288
2013	219,169	4.11	164,517	13,671	9,515	187,703
2014	219,257	4.33	173,286	15,889	0	189,175

Source(s) of Information: Population retrieved from Annual District Reports.

If excluded waste is 10 percent or less of total disposal in the reference year, then SWMD's are not required to account for excluded waste in the solid waste management plan.

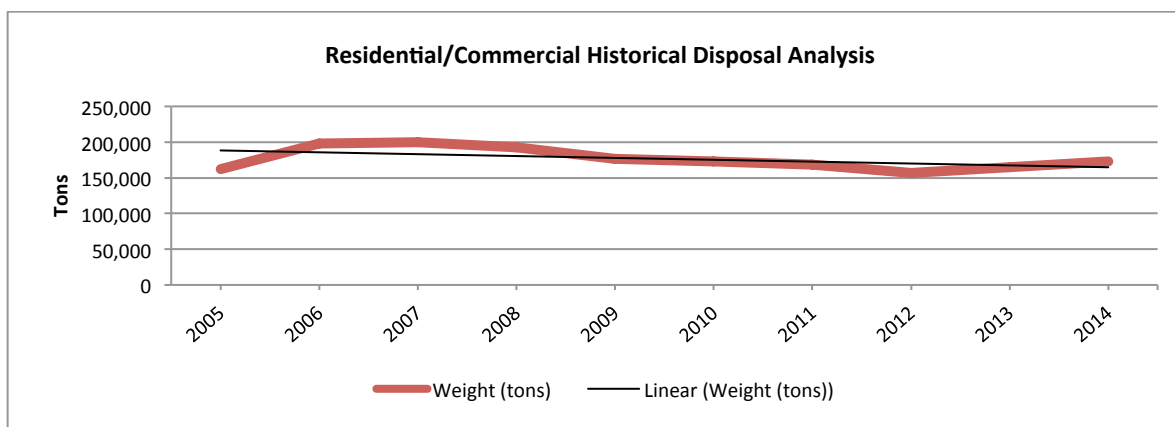
1. Residential/Commercial Waste

Disposal decreased consistently from 2007 to 2012 and increased every year since 2012. Even though recent waste disposal is increasing, when graphed, the historical waste disposal data depicts a linear negative slope. Interestingly, over the past 10 years waste disposal has consistently ranged between 150,000 and 200,000 tons, peaking at close to 200,000 tons and bottoming at just below 157,000 tons. The lowest dip occurred in 2012.

The year with the highest population, year 2014, demonstrates one of the lowest per capita disposal rates of 4.33 pounds/person/day. It appears population increases have no measured effect on per capita waste disposal. Interestingly per capita disposal cycles up and down following a rise and fall curve, which is consistent with disposal tonnages.

Table D-4a Calculated Average and Median

Residential/Commercial Solid Waste (Tons)	
10-year Average	176,550
Median	173,095
Tonnage Change	41,417



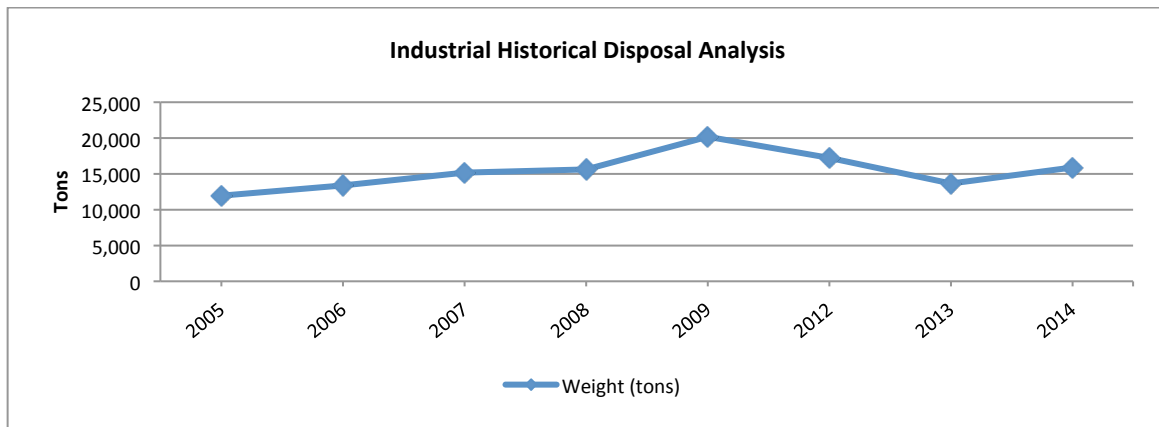
The table below compares the historical data to projections made in the 2010 Plan. Disposal projections made in the 2010 Plan were significantly higher than actual disposal. The difference is a result of population and how the disposal projections were determined in the 2010 Plan. Disposal projections in the 2010 Plan are based on a per capita waste generation growth. It was anticipated population would significantly increase to 237,171 persons by 2014. Applying a rising population to disposal resulted in a rising disposal projection. In actuality population increased but not at the expected rate predicted in the 2010 Plan.

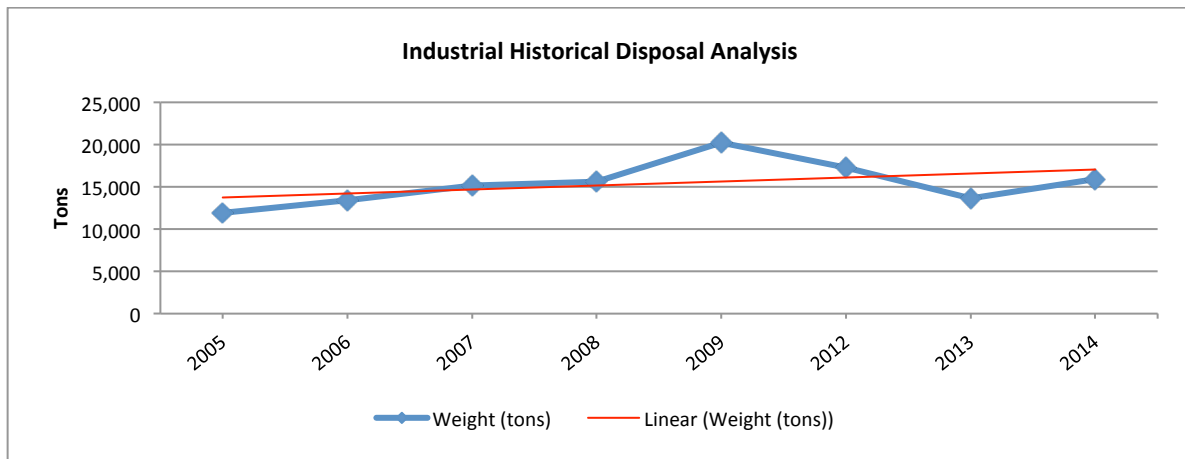
Year	Residential/ Commercial Solid Waste (tons)	
	Projected in 2010 Plan	Actual
2010	202,484	172,905
2011	208,101	168,021
2012	213,739	156,792
2013	219,397	164,517
2014	225,076	173,286

Reflecting on the 2010 Plan projections and actual disposal, the District is changing the approach used in this 2018 Plan and will base disposal projections from historical waste disposal.

2. Industrial Waste

Both graphs below show historical industrial waste disposal. Data years 2010 and 2011 are considered outliers because disposal tonnages were considerably higher. The waste disposal increase was most likely a result of special circumstances or a one-occurrence production disposal. This data was excluded for historical analysis. Projections made in the 2010 Plan are very close to waste disposal shown in Table D-4 Historical Disposal Data. The 2010 Plan straight lined industrial waste generation based on a pounds per capita rate.





The table below compares the historical data to projections made in the 2010 Plan. Disposal projections made in the 2010 Plan were slightly higher than actual disposal. The 2010 Plan based industrial projections on a per capita growth. The difference is minimal, thus the method seems reliable for determining industrial projections.

Year	Industrial Solid Waste (tons)	
	Projected in 2010 Plan	Actual
2010	16,477	32,326
2011	16,901	30,060
2012	17,325	17,243
2013	17,750	13,671
2014	18,174	15,889

3. Excluded Waste

According to Ohio EPA Format 4.0, if excluded waste is 10 percent or less of total disposal in the reference year, then SWMD's are not required to account for excluded waste in the solid waste management plan. An analysis of excluded waste was not performed for this plan.

C. Disposal Projections

Table D-5 Waste Disposal Projections

Year	Population	Per capita	Residential/Commercial Solid Waste	Industrial Solid Waste	Excluded Waste	Total Waste
			Weight (tons)	Weight (tons)	Weight (tons)	Weight (tons)
2014	221,659	4.33	173,286	15,889	0	189,175
2015	221,944	4.40	178,041	15,909	0	193,950
2016	222,229	4.46	180,943	15,930	0	196,873
2017	222,514	4.53	183,893	15,951	0	199,843
2018	222,798	4.60	186,890	15,972	0	202,862
2019	223,083	4.67	189,936	15,992	0	205,928
2020	223,368	4.60	187,326	16,013	0	203,339
2021	224,460	4.53	185,418	16,034	0	201,452
2022	225,552	4.46	183,525	16,055	0	199,580
2023	226,644	4.39	181,647	16,076	0	197,723
2024	227,736	4.33	179,785	16,097	0	195,881

Waste Transferred (as part of Total Disposal)	Waste Transferred (as part of Total Disposal)
Weight (tons)	Percent
21,640	11.44%
22,186	11.44%
22,520	11.44%
22,860	11.44%
23,205	11.44%
23,556	11.44%
23,260	11.44%
23,044	11.44%
22,830	11.44%
22,618	11.44%
22,407	11.44%

Year	Population	Per capita	Residential/Commercial Solid Waste	Industrial Solid Waste	Excluded Waste	Total Waste
			Weight (tons)	Weight (tons)	Weight (tons)	Weight (tons)
2025	228,828	4.39	183,357	16,117	0	199,474
2026	229,710	4.46	186,824	16,138	0	202,963
2027	230,592	4.52	190,355	16,159	0	206,514
2028	231,474	4.59	193,949	16,180	0	210,129
2029	232,356	4.66	197,608	16,201	0	213,810
2030	233,238	4.59	195,383	16,223	0	211,606
2031	233,918	4.52	193,013	16,244	0	209,257
2032	234,598	4.45	190,671	16,265	0	206,936

Waste Transferred (as part of Total Disposal)	Waste Transferred (as part of Total Disposal)
Weight (tons)	Percent
22,818	11.44%
23,217	11.44%
23,623	11.44%
24,037	11.44%
24,458	11.44%
24,206	11.44%
23,937	11.44%
23,671	11.44%

Source(s) of Information: Population retrieved Appendix C.

Sample Calculation: Per capita disposal = 2014 per capita x 1.5%

Residential/Commercial Solid Waste 173,286 tons x 365 days x 4.33 lbs/person/day / 2000 lbs/ton = 189,175 tons

Industrial Solid Waste = 2014 tonnage x 1.0013 = 2015 tonnage

Total Waste = Residential/Commercial Solid Waste + Industrial Solid Waste

1. Residential/Commercial Waste

As discussed earlier per capita waste disposal cycles up and down following a rising and fall curve. Projections for the planning period were modeled after the historical rise and fall curve. Per capita waste disposal decreases or increases 5 percent or more annually. Conservative projections were made for this plan update. Rise and fall projections are set at 1.5 percent annually. The rise and fall multiplier is applied to the per capita waste disposal. Projected per capita disposal fluctuates between 4.65 and 4.24 pounds per person per day.

Average Annual Percentage Change	
Residential/Commercial	1.05%
Industrial	7.08%
Excluded	0.00%
Average Per Capita Over Time (10 Years)	
Residential/Commercial	4.65
Average per Capita Over Time (5 years)	
Residential/Commercial	4.24

In the reference year, of the 189,175 tons of the District's waste that was disposed in landfills, 21,640 tons or 11 percent was routed through a transfer facility. Based on analysis of available capacity for disposing waste, the policy committee did not identify any reasons to suspect that the amount of waste managed through transfer facilities will change during the planning period. For the first year of the planning period, it is expected 11 percent of total waste will be routed through transfer facilities.

2. Industrial Waste

Industrial waste disposal is projected to increase annually at 0.13 percent. As indicated in "2022 Job Outlook, Southwest Ohio" produced by Ohio Department of Job and Family Services, manufacturing employment is projected to increase through 2022 about 1.3 percent, 0.13 percent per year. Applying an annual increase models industrial waste disposal projections after the historical linear positive slope trend line.

Total projected waste disposal follows a rise and fall curve for the planning period. Based on these analyses the District is expecting the waste disposal over the next 15 years to continue to remain in the 15,000 and 17,000 ton range.

This page intentionally left blank

APPENDIX E: RESIDENTIAL/COMMERCIAL RECOVERY DATA

A. Reference Year Recovery Data

Tables E-1 through E-4 account for all material being credited to the waste reduction and recycling rate for the residential/commercial sector.

Table E-1 Commercial Survey Results

NAICS	Appliances /"White Goods"	Electronics	Lead-Acid Batteries	Food	Glass	Ferrous Metals	Non- Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingle d Recyclable s (Mixed)	Yard Waste	Other:	Unadjusted Quantities	Adjustment s	Adjusted Quantities
42																	0		0
44																	0		0
45																	0		0
48																	0		0
49																	0		0
51																	0		0
52																	0		0
53																	0		0
54																	0		0
55																	0		0
56																	0		0
61																	0		0
62																	0		0
71																	0		0
72																	0		0
81																	0		0
92																	0		0
Other:														212			212		212
Other:		17				2			9		283						310		310
Unadjusted Total	0	17	0	0	0	2	0	0	9	0	283	0	0	212	0	0	522	0	522
Adjustments																	0		
Adjusted Total	0	17	0	0	0	2	0	0	9	0	283	0	0	212	0	0	522		

Source(s) of information: District sourced data from businesses.

Table E-1 is reserved for commercial data obtained from SWMD survey efforts. A commercial survey was not performed for calendar year 2014. Data shown in Table E-1 includes: reported 2014 data from one non-profit; and reported 2014 data from small commercial front load customer.

Table E-2 Data From Buybacks, Scrap Yards, Processors & MRF's

Program and/or Source of Materials/Data	Appliances / "White Goods"	Electronics	Lead-Acid Batteries	Food	Glass	Ferrous Metals	Non-Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingled Recyclables (Mixed)	Yard Waste	Other:	Unadjusted Total	Adjustments	Adjusted Total
Buybacks																			
Mindlin Recycling									960								960		960
Unadjusted Total	0	0	0	0	0	0	0	0	960	0	0	0	0	0	0	0	960	0	960
Adjustments																	0		
Adjusted Total	0	0	0	0	0	0	0	0	960	0	0	0	0	0	0	0	960		
Scrap Yards																			
none																	0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																	0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Processors																			
Dayton Glass Plant	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	6	0
Unadjusted Total	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	6	0
Adjustments					6												6		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MRF's																			
Waste Management - Dayton MRF - Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	1,360	0	0	1,360		1,360
Rumpke Center City Recycling - Residential	0	0	0	0	1,640	257	151	1,685	5,270	883	0	0	0	0	0	0	9,886		9,886
Waste Management - Dayton MRF - Commercial	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0	0	96		96
Rumpke Center City Recycling - Commercial	0	0	0	0	122	19	11	1,542	393	66	0	1	0	0	0	0	2,154		2,154
Rumpke Recycling - Dayton - Commercial	0	0	0	0	0	0	0	2	3,533	0	0	1	0	0	0	0	3,537		3,537
Unadjusted Total	0	0	0	0	1,763	277	162	3,229	9,293	949	0	2	0	1,360	0	0	17,033	0	17,033
Adjustments																	0		
Adjusted Total	0	0	0	0	1,763	277	162	3,229	9,293	949	0	2	0	1,360	0	0	17,033		
Grand Total	0	0	0	0	1,763	277	162	3,229	10,253	949	0	2	0	1,360	0	0	17,994		

Source(s) of Information: 2014 Material Recovery Facility and Commercial Recycling Data dated July 10, 2015 from Ohio EPA website. Also referred to as Ohio EPA MRF Data Report. District sourced data from scrap yard.

Table E-2 reports recycling data from scrap yards, brokers, buybacks, processors and MRFs. The SWMD surveyed these entities in 2014 but did not receive responses. Processors and MRF quantities reported in Table E-2 are obtained from Ohio EPA MRF Data Reports. Buyback data was taken from 2013 survey reports. Adjustments were made to exclude glass reported from the processor because the data was already included in the MRF Data Report.

Table E-3 Data Reported to Ohio EPA

Ohio EPA Data Source	Glass	Plastic	Newspaper	Cardboard	Mixed Paper	Nonferrous	Ferrous	Wood	Food: Compost	Food: Other	Commingled	Other	Unadjusted Total	Adjustments	Adjusted Total
Aldi, Inc.	0	2	0	139	0	0	0	0	0	0	0	0	141		141
Big Lots	0	0	0	25	0	0	0	0	0	0	0	0	25	25	0
Buehler's													0		0
Dollar General	0	0	0	164	0	0	0	0	0	0	0	0	164		164
Home Depot	0	3	0	121	0	0	12	326	0	0	0	0	462		462
Jo-Ann Fabrics	0	0	0	0	0	0	0	0	0	0	31		31		31
Kohl's	0	22	0	147	0	0	0	0	0	0	0	0	170		170
Kroger	0	59	0	2,016	31	0	0		0	0	0	0	2,106		2,106
Lowe's	0	4	0	261	0	0	397	145	0	0	0	0	807		807
Meijer	0	0	0	394	0	0	0	0	0	0	0	0	394		394
Michaels Corp.													0		0
Target	0	13	0	648	4	0	3	0	0	0	1	0	670		670
Wal-mart	0	25	0	1,273	11	0	0	0	0	0	0	314	1,624		1,624
Unadjusted Total	0	128	0	5,187	46	0	413	471	0	0	32	314	6,593	25	6,568
Adjustments				25									25		
Adjusted Total	0	128	0	5,162	46	0	413	471	0	0	32	314	6,568		

Source(s) of Information: 2014 Material Recovery Facility and Commercial Recycling Data dated July 10, 2015 from Ohio EPA website.

Quantities reported in Table E-3 are obtained from the Ohio EPA MRF Data Report. Adjustments were made to exclude 25 tons of cardboard to prevent double counting. Ohio EPA reported 25 tons from Big Lots is processed at Waste Management and could be included on Table E-2. The 25 tons is excluded from Table E-3 and included in Table E-4.

Table E-4 Other Recycling Programs/Other Sources of Data

Other Recycling Programs or Other Sources of Data	Appliances/ "White Goods"	HHW	Used Motor Oil	Electronics	Scrap Tires	Dry Cell Batteries	Lead-Acid Batteries	Food	Glass	Ferrous Metals	Non-Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingled Recyclables (Mixed)	Yard Waste	Other:	Unadjusted Total	Adjustments	Adjusted Total
Ohio EPA Scrap Tire Data					1,256																1,256		1,256
Household Hazardous Waste Collection																					0		0
Electronics Collection Events				32																	32		32
Curbside																		13,736			13,736		13,736
Drop-offs													467					209			676	467	209
Composting								2,527											3,244		5,771		5,771
Warren County Shred Day													53								53		53
Unadjusted Total	0	0	0	32	1,256	0	0	2,527	0	0	0	0	520	0	0	0	0	13,945	3,244	0	21,524	467	21,057
Adjustments													467					0			467		
Adjusted Total	0	0	0	32	1,256	0	0	2,527	0	0	0	0	53	0	0	0	0	13,945	3,244	0	21,057		

Source(s) of Information: 2014 County Scrap Tire Numbers dated August 11, 2015 from Ohio EPA website. District sourced data from haulers. 2014 Draft Compost Facility Planning Report dated 12/02/2015 from Ohio EPA's website.

Quantities reported in Table E-4 is a compilation of quantities diverted through programs and services. Adjustments were made to exclude 467 tons of "All Other Paper" because it is included from other sources.

Table E-5 Reference Year Residential/Commercial Material Reduced/Recycled

Material	Quantity (tons)
Appliances/ "White Goods"	0
Household Hazardous Waste	0
Used Motor Oil	0
Electronics	49
Scrap Tires	1,256
Dry Cell Batteries	0
Lead-Acid Batteries	0
Food	2,527
Glass	1,763
Ferrous Metals	691
Non-Ferrous Metals	162
Corrugated Cardboard	8,391
All Other Paper	10,361
Plastics	1,077
Textiles	283
Wood	473
Rubber	0
Commingled Recyclables (Mixed)	15,549
Yard Waste	3,244
Other (Aggregated)	314
Recycling Subtotals	46,140
Incineration	
Grand Total	46,140

The SWMD diverted 46,140 tons from the residential/commercial sector. Table E-5 reports quantities of each material diverted.

Table E-6 Quantities Recovered by Program/Source

Program/Source of R/C Recycling Data	Quantities (Tons)
Commercial Survey	522
Buybacks	960
Scrap Yards	0
Processors	0
MRFs	17,033
Ohio EPA Commercial Retail Data	6,568
Ohio EPA Scrap Tire Data	1,256
Household Hazardous Waste Collection	0
Electronics Collection Events	32
Curbside	13,736
Drop-offs	209
Composting	5,771
Warren County Shred Day	53
Total	46,140

Table E-6 reports quantities diverted for each program/source.

B. Historical Recovery

Tables E-6a1 through E-6b analyze recovery over a five year period.

Table E-6a1 Historical Residential/Commercial Recovery

Year	Commercial Survey	Buybacks	MRFs	Ohio EPA Commercial Retail Data	Ohio EPA Scrap Tire Data	Household Hazardous Waste Collection	Electronics Collection Events	Curbside	Drop-offs	Composting	Warren County Shred Day	Totals
2010	10,011	DNR	12,336	2,294	1,062		10	10,647	292	9,176		45,828
2011	10,975	1,200	12,643	4,103	2,140		9	11,730	395	4,676		47,870
2012	12,683	1,200	10,571	4,013	1,278		6	12,092	381	4,521		46,744
2013	21,110	960	5,248	3,299	1,654		17	13,347	379	4,638		50,663
2014	522	960	17,033	6,568	1,256	0	32	13,736	209	5,771	53	46,140

Table E-6a2 Annual % Change

2010												
2011	10%	0%	2%	79%	101%		-17%	10%	35%	-49%		4%
2012	16%	0%	-16%	-2%	-40%		-29%	3%	-4%	-3%		-2%
2013	66%	-20%	-50%	-18%	29%		172%	10%	-1%	3%		8%
2014	-98%	0%	225%	99%	-24%		93%	3%	-45%	24%		-9%

Average Annual %
Change

-1%	-5%	40%	39%	17%		55%	7%	-3%	-6%		0.4%
-----	-----	-----	-----	-----	--	-----	----	-----	-----	--	------

Table E-6a3 Tonnage Change/Year

2010												
2011	964	0	306	1,809	1,077	0	-2	1,083	103	-4,500	0	2,041
2012	1,708	0	-2,072	-90	-862	0	-3	362	-14	-155	0	-1,126
2013	8,427	-240	-5,322	-713	376	0	10	1,255	-2	117	0	3,919
2014	-20,588	0	11,785	3,268	-398	0	15	389	-170	1,133	53	-4,523

Average Tonnage
Change/Year

-2,372	-60	1,174	1,068	48	0	5	772	-21	-851	13	78
--------	-----	-------	-------	----	---	---	-----	-----	------	----	----

Average Tons of
Material Over 5
Years

11,060	1,080	11,566	4,055	1,478	0	15	12,310	331	5,756	53	47,449
--------	-------	--------	-------	-------	---	----	--------	-----	-------	----	--------

Source(s) of Information: 2010-2014 Annual District Review Forms.

Table E-6a1 identifies historical recycling from program/source. Historically:

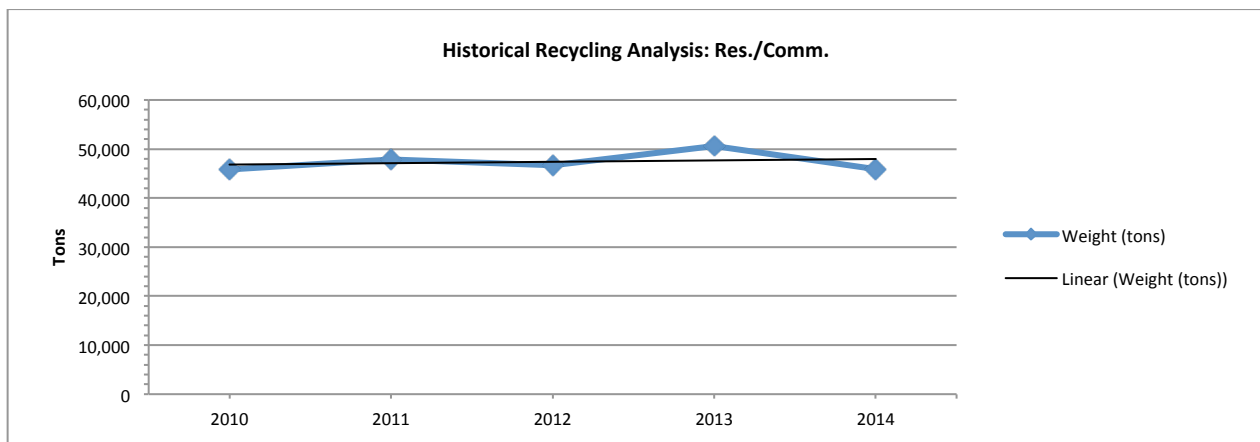
- Commercial survey data fluctuates based on responses received and where double counted materials were removed. Data increased in 2013 and then decreased substantially in 2014. The increase in 2013 is believed to be re-routing of the recyclables from the Rumpke Cincinnati MRF fire. In 2014, the SWMD did not survey the commercial sector because Ohio EPA's commercial survey was capturing the big box store commercial base. Over the 5-year period commercial recycling decreased an average of 2,372 tons per year.
- Buybacks are facilities that buy recyclable materials from the public. Buybacks are a challenging sector to receive data from. In 2014, the SWMD used 2013 data because data for 2014 was not received.
- In 2012, a fire at the Rumpke Cincinnati MRF suspended operations. As seen from Table E-6a1 data reported from MRFs declined in 2012 and 2013. Materials were routed to other facilities during this time. Over the 5-year period MRF data increased an average of 1,174 tons per year.
- Ohio EPA Commercial Retail data and Ohio EPA Scrap Tire data fluctuate based on reporting entities. In 2014, the large increase in Ohio EPA Commercial Retail data increased partly due to Kroger submitting data

in 2014 that had not been submitted in 2013. Ohio EPA Commercial Retail data increased an average of 1,068 tons per year over the 5-year period. Ohio EPA Scrap Tire data increased an average of 48 tons per year.

- Program sources:
 - Electronics Collection Events collections increased to 17 tons in 2013 and rose significantly in 2014. In 2014, there were two collection events. One provided by the SWMD and the other provided by the City of Mason. Electronics collected through the collection events increased an average of 5 tons per year over the 5-year period.
 - Curbside reporting increased an average of 772 tons per year over the 5-year period.
 - Drop-off data in 2011, 2012, and 2013 included data from paper drop-offs that were included in other categories in 2010 and 2014. Drop-offs demonstrate an average decrease of 21 tons per year over the 5-year period.
 - Composting data demonstrates an average decrease of 851 tons per year over the 5-year period.
 - Warren County Shred Day was a new event in 2014 and has no historical data to compare.

Table E-6b Historical Recycling Analysis

Year	Residential/ Commercial		
	Weight (tons)	Annual Percentage Change	Annual Tonnage Change
2010	45,828	-----	-----
2011	47,870	4%	2,041
2012	46,744	-2%	-1,126
2013	50,663	8%	3,919
2014	46,140	-9%	-4,523
2010-2014 Average			
Average Annual Percentage Change			0.4%
Average Tons Over 5 Year Period			47,449
Average Annual Tonnage Change			78



Historical residential/commercial recovery over the five years shows an 0.4 percent annual average percent change.

C. Residential/Commercial Recovery Projections

Table E-7 Residential/Commercial Recovery Projections by Program/Source

Year	Commercial Survey	Buybacks	MRFs	Ohio EPA Commercial Retail Data	Ohio EPA Scrap Tire Data	Household Hazardous Waste Collection	Electronics Collection Events	Curbside	Drop-offs	Composting	Warren County Shred Day	Totals (tons)
2014	522	960	17,033	6,568	1,256	0	32	13,736	209	5,771	53	46,140
2015	523	962	17,067	6,581	1,478	0	17	13,861	209	5,783	53	46,534
2016	521	958	17,101	6,594	1,478	0	17	13,986	208	5,794	53	46,711
2017	517	952	17,136	6,607	1,478	0	17	14,113	207	5,806	53	46,886
2018	523	944	17,170	6,620	1,478	0	17	14,241	205	5,817	53	47,069
2019	528	944	17,204	6,634	1,478	0	17	14,371	203	5,829	53	47,261
2020	533	884	17,239	6,647	1,478	0	17	14,501	201	5,841	53	47,393
2021	538	884	17,273	6,660	1,478	0	17	14,633	198	5,852	53	47,587
2022	544	824	17,308	6,673	1,478	0	17	14,765	195	5,864	53	47,722
2023	549	824	17,342	6,687	1,478	0	17	14,899	192	5,876	53	47,918
2024	555	824	17,377	6,700	1,478	0	17	15,035	189	5,887	53	48,115
2025	560	824	17,412	6,714	1,478	0	17	15,171	185	5,899	53	48,313
2026	566	824	17,446	6,727	1,478	0	17	15,309	181	5,911	53	48,512
2027	571	824	17,481	6,740	1,478	0	17	15,447	177	5,923	53	48,713
2028	577	824	17,516	6,754	1,478	0	17	15,588	172	5,935	53	48,914
2029	583	824	17,551	6,767	1,478	0	17	15,729	167	5,947	53	49,117
2030	589	824	17,586	6,781	1,478	0	17	15,872	162	5,958	53	49,321
2031	595	824	17,622	6,795	1,478	0	17	16,016	157	5,970	53	49,527
2032	601	824	17,657	6,808	1,478	0	17	16,161	152	5,982	53	49,733

Source(s) of Information: Table E-6a

Sample Calculations:

Commercial Survey = Increase by 5 tons every year. 2018 tons + 5 tons/year = 2019 tons

Buybacks = Decrease by 60 tons every 2 years till 2024. In 2024 held tonnages constant through remainder of planning period.

MRFs = Increase by 0.2 percent. 2018 tons x 1.002 = 2019 tons

Ohio EPA Commercial Retail Data = 2018 tons x 1.002 = 2019 tons

Ohio EPA Scrap Tire Data = 1,478 tons

Electronics Collection Events = 17 tons

Curbside = 2018 tons x 1.0091 = 2019 tons

Drop-offs = Decrease by 0.2 percent. 2018 tons x 1.002 = 2019 tons

Composting = Increase by 0.2 percent. 2018 tons x 1.002 = 2019 tons

Warren County Shred Day = held constant

Historical recovery trends for the planning period follow the linear increasing trend of 0.2 percent. This trend is applied to the following recycling program/source: commercial survey (until year 2018), scrap yards, MRFs, Ohio EPA Commercial Retail Data, Ohio EPA Scrap Tire Data, Electronics Collection Events, Drop-offs, and Composting. The remaining programs/sources apply different recovery projections.

- Commercial survey data is projected to increase 5 tons per year beginning in 2018. Commercial surveying planned is expected to achieve tonnage data increases.
- Buyback data is projected to decrease 60 tons every 2 years. This follows the 5-year historical average tonnage change per year.
- MRF data is projected to increase 0.2 percent annually. Historical tonnage increases seen from 2013 to 2014 are not expected. Year 2014 represents a full year of data from the main processing facility is used by the SWMD.
- Ohio EPA Commercial Retail data is projected to increase 0.2 percent annually. This could be conservative. Very dependent on retailer outreach conducted by Ohio EPA.
- Ohio EPA Scrap Tire data is projected to hold constant through the planning period at the 5-year average tons calculated (1,478 tons, see Table E-6a1).
- Electronics Collection Event data is projected to remain constant at 17 tons through the planning period. The SWMD is using 17 tons because it is consistent with one collection event data. The SWMD is planning to hold only one collection event a year.
- Curbside data is projected to increase 0.91 percent annually. A goal of increasing curbside programs by 14 percent over the planning period equates to an annual increase of 0.91 percent.
- Drop-off data is projected to decrease 0.2 percent annually.
- Composting data is projected to increase 0.2 percent annually.
- Warren County Shred Day data is projected to remain constant at 53 tons through the planning period.

This page intentionally left blank

APPENDIX F: INDUSTRIAL WASTE REDUCTION AND RECYCLING DATA

A. Reference Year Recovery Data

Tables F-1 through F-4 account for all material being credited to the waste reduction and recycling rate for the industrial sector.

Table F-1 Industrial Survey Results

NAICS	Food	Glass	Ferrous Metals	Non-Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingled Recyclables (Mixed)	Ash	Non-Excluded Foundry Sand	Flue Gas Disulfurization	Vegetable Oil	Ethanol	Cleaning Solution	Batteries	Lightbulb	Electronics	Flammable Waste Liquid	Motor Oil	Unadjusted Quantities	Adjustments	Adjusted Quantities
22																							0		0
31					9										40	1							50	41	9
32	0	0	300	0	49	9,488	388		1								293	0	0				10,519	293	10,226
33			8,756	620	570	44	92		201									0	1	4	27	1	10,317	32	10,285
42			1,270	935	1,574	360	313		679														5,131		5,131
44		0		7	1,745	4	198		5									0		45			2,004	45	1,959
Other:			162		4,962	9,575	174	16	338														15,227		15,227
Unadjusted Total	0	0	10,487	1,563	8,909	19,471	1,165	16	1,224	0	0	0	0	0	40	1	293	1	1	49	27	1	43,248	-411	42,837
Adjustments															40	1	293			49	27	1	411		
Adjusted Total	0	0	10,487	1,563	8,909	19,471	1,165	16	1,224	0	0	0	0	0	0	0	0	1	1	0	0	0	42,837		

Source(s) of Information: Calendar year 2014 survey data as reported by industrial businesses. 2013 survey data was used for non-responding industries.

Notes: Other aggregates the following NAICS codes: 23, 48, 51, 56, 81, and unknown,

Table F-1 accounts for material credited for waste reduction and recycling as reported by the industrial businesses. In some instances an industrial business did not respond to the reference year survey but did respond to a previous survey. Supplemental data was used in this table when the business was verified as operating in the reference year, the nature of the business did not significantly change, and the business still produced the same type of recyclables. Some materials reported as recycled are considered non-creditable. These materials include: train boxcars, construction and demolition debris, metals from vehicles, liquid industrial waste, and hazardous waste. Adjustments were made on Table F-1 to exclude these materials.

Data on Table F-1 is organized by North American Industry Classification System (NAICS). Manufacturing industries are classified under sectors 31-33. Table F-1 aggregates the quantities from all returned surveys for an NAICS code. The SWMD mailed almost 400 surveys and received an 11% response rate.

Table F-2 Data From Buybacks, Scrap Yards, Processors & MRFs

Program and/or Source of Materials/Data	Food	Glass	Ferrous Metals	Non-Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingled Recyclables (Mixed)	Ash	Non-Excluded Foundry Sand	Flue Gas Desulfurization	Other	Unadjusted Total	Adjustments	Adjusted Total
Buybacks																		
none																0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Scrap Yards																		
none																0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Processors																		
none																0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MRFs																		
none																0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0

Source(s) of Information:

Table F-3 Other Recycling Programs/Other Sources of Data

Other Recycling Programs or Other Sources of Data	Food	Glass	Ferrous Metals	Non-Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Wood	Rubber	Commingle Recyclables (Mixed)	Ash	Non-Excluded Foundry Sand	Flue Gas Disulfurization	Other:	Unadjusted Total	Adjustments	Adjusted Total
none																0		0
Unadjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjustments																0		
Adjusted Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Source(s) of Information:

The District does not survey or source industrial data from buybacks, processors, scrap yards and MRFs.

Table F-4 Reference Year Industrial Material Recovered

Material	Quantity (tons)
Food	0
Glass	0
Ferrous Metals	10,487
Non-Ferrous Metals	1,563
Corrugated Cardboard	8,909
All Other Paper	19,471
Plastics	1,165
Textiles	16
Wood	1,224
Rubber	0
Commingle Recyclables (Mixed)	0
Ash	0
Non-Excluded Foundry Sand	0
Flue Gas Disulfurization	0
Other (Aggregated)	1
Recycling Subtotals	42,837
Incineration	
Grand Total	42,837

Source(s) of Information:

The SWMD diverted 42,837 tons from the industrial sector. Table F-4 reports quantities of each material diverted.

Table F-5 Quantities Recovered by Program/Source

Program/Source of Industrial Recycling Data	Quantities (Tons)
Industrial Survey	42,837
Buybacks	0
Scrap Yards	0
Processors	0
MRFs	0
none	0
Total	42,837

Table F-5 reports quantities for each program/source.

B. Historical Recovery

Table F-5a1 Recycling Program/Source

Year	Industrial Survey	Buybacks	Scrap Yards	Processors	MRFs	none	Totals
2010	34,987						34,987
2011	34,987						34,987
2012	34,987						34,987
2013	34,813						34,813
2014	42,837	0	0	0	0	0	42,837

Source(s) of Information: Annual District Reports for 2010- 2014

Data from the industrial sector is obtained from surveys, as seen from Table F-5a1. An industrial survey was conducted annually. Historical data shown for industrial surveys is the same in years 2010, 2011, and 2012 because of low response and the use of supplemental data. Supplemental data is a response to a previous survey. Supplemental data is used when the business was verified as operating in the reference year, the nature of the business did not significantly change, and the business still produced the same type of recyclables. Supplemental data is not used if it is more than three years old. This historical recycling graph depicts three years of supplemental data.

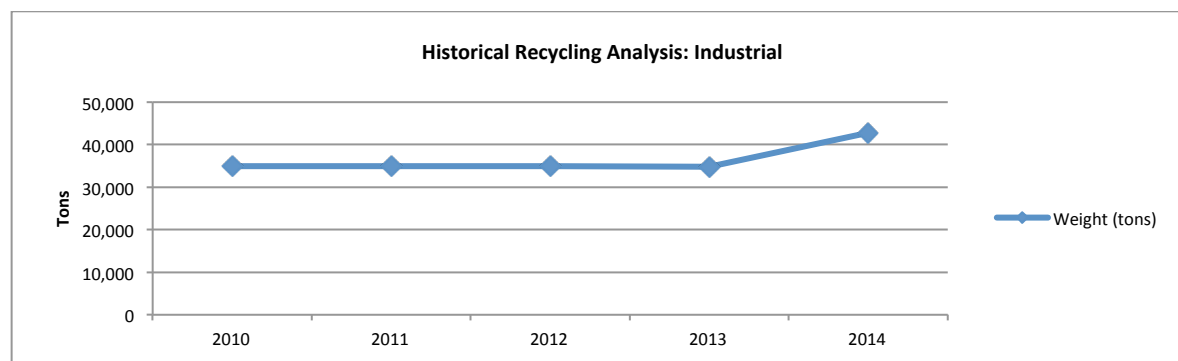


Table F-5b: Historical Recycling Analysis

Year	Industrial
	Weight (tons)
2010	34,987
2011	34,987
2012	34,987
2013	34,813
2014	42,837

Annual Percentage Change	

	0
	0
	-0.5%
	23.0%

Average Annual Percentage Change	
Industrial	4.49%

Average Tons Over 5 Year Period	
Industrial	36,522

Average Annual Tonnage Change	
Industrial	1,962

Lack of yearly survey responses makes analyzing historical data challenging. Average recovery from 2010 to 2014 is 36,522 tons and in 2014 recycling increased. The 2010 Approved Plan projected industrial recovery to grow to 50,647 tons.

C. Industrial Recovery Projections

Table F-6 Industrial Recovery Projections by Program/Source

Year	Industrial Survey	Buybacks	Scrap Yards	Processors	MRFs	none	Totals
2014	42,837	0	0	0	0	0	42,837
2015	42,893	0	0	0	0	0	42,893
2016	42,948	0	0	0	0	0	42,948
2017	43,004	0	0	0	0	0	43,004
2018	43,060	0	0	0	0	0	43,060
2019	43,116	0	0	0	0	0	43,116
2020	43,172	0	0	0	0	0	43,172
2021	43,228	0	0	0	0	0	43,228
2022	43,284	0	0	0	0	0	43,284
2023	43,341	0	0	0	0	0	43,341
2024	43,397	0	0	0	0	0	43,397
2025	43,453	0	0	0	0	0	43,453
2026	43,510	0	0	0	0	0	43,510
2027	43,566	0	0	0	0	0	43,566
2028	43,623	0	0	0	0	0	43,623
2029	43,680	0	0	0	0	0	43,680
2030	43,737	0	0	0	0	0	43,737
2031	43,793	0	0	0	0	0	43,793
2032	43,850	0	0	0	0	0	43,850

Sample Calculation:

2014 Industrial Survey Recovery x 1.0013 = Total Industrial Recovery

In order to estimate recovery projections through the planning period, the SWMD consulted research conducted by Ohio Department of Job and Family Services, Bureau of Labor Market Information (BLMI) for employment projections. BLMI updates employment projections every two years for use in long-range economic and employment trends. Warren County is included in the Southwest Ohio region. "2022 Job Outlook, JobsOhio Network Southwest Ohio" indicates manufacturing employment is expected to increase 1.3% from 2012 – 2022. The industries surveyed fall within the manufacturing categories that are expected to increase.

Warren County showed employment concentrations at least 20% above the national concentration in 2012 for NAICS 31 through 33⁴. Such high concentration of employment is a broad indicator of the County's economic strengths. Taking into account the projected increase predicted by the BLMI, industrial recovery is projected to increase 1.3% from 2012 – 2022, an annual increase of 0.13%. The SWMDs industrial recovery projections are presented in Table F-6.

⁴ A Workforce Analysis of the Southwest Region". Ohio Department of Job and Family Services.

APPENDIX G: WASTE GENERATION

A. Historical Year Waste Generated

Table G-1 Reference Year and Historical Waste Generated

Year	Population	Residential/ Commercial		Industrial		Excluded (tons)	Total (tons)	Per Capita Generation (ppd)	Annual % Change (tons)
		Disposal (tons)	Recycled (tons)	Disposal (tons)	Recycled (tons)				
2010	212,693	172,905	45,828	32,326	34,987	7,850	293,896	7.6	-
2011	212,693	168,021	47,870	30,060	34,987	7,425	288,363	7.4	-1.9%
2012	217,240	156,792	46,744	17,243	34,987	8,253	264,019	6.7	-8.4%
2013	219,169	164,517	50,663	13,671	34,813	9,515	273,179	6.8	3.5%
2014	219,257	173,286	46,140	15,889	42,837	0	278,151	7.0	1.8%

Source(s) of Information:

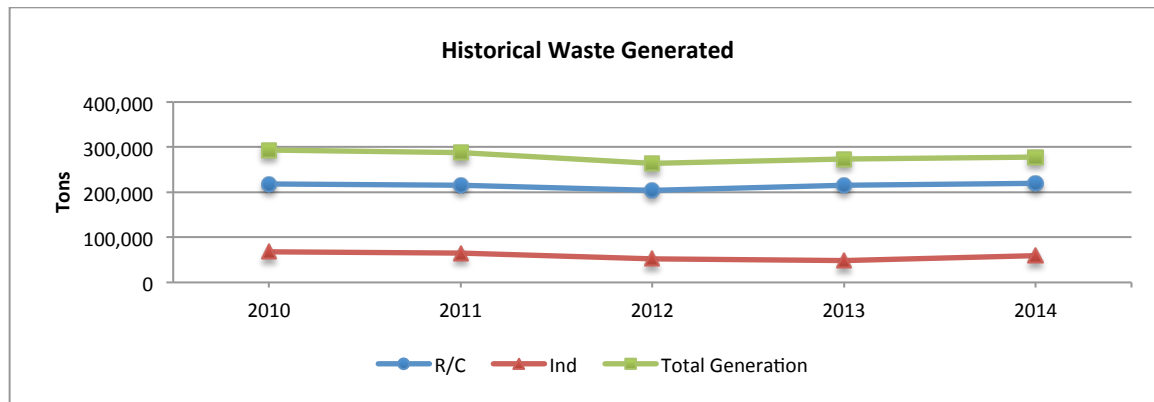
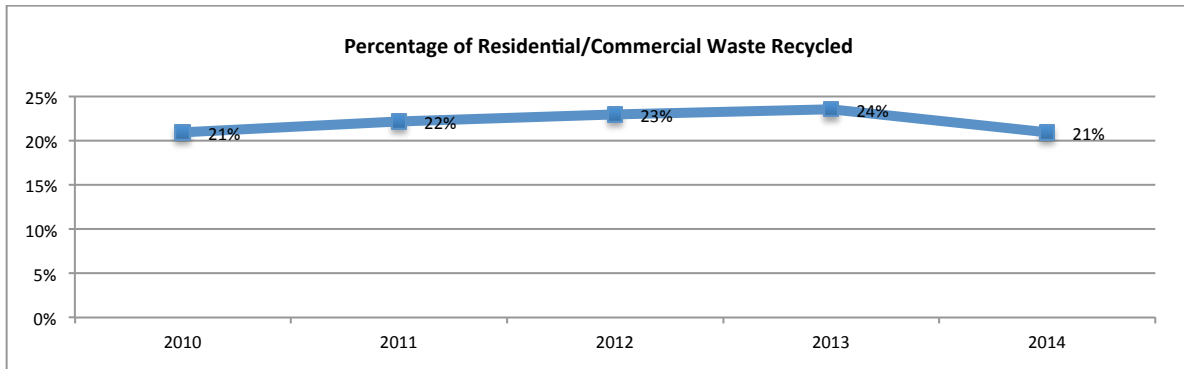


Table G-1 provides another opportunity to evaluate the SWMD's historical data to ensure that the data is as accurate as possible. Some of the information needed to complete the generation analysis was completed with the analysis of the disposal and recycling information in Appendices D, E, and F.

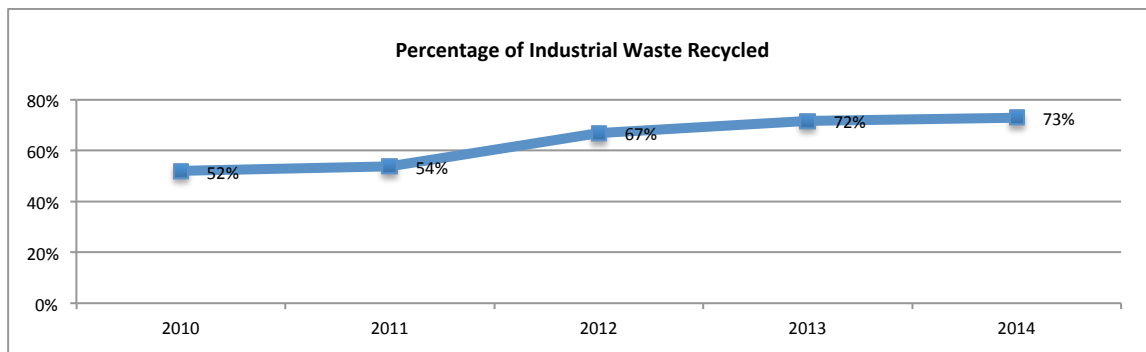
1. Residential/Commercial Waste

Historically the residential/commercial generation demonstrates a steady and relatively flat waste generation ranging between 200,000 and 250,000 tons. Steady waste generation appears to have no correlation to decreasing waste disposal through increased recycling. The percent of waste generated that is recycled also demonstrates a steady and relatively flat generation.



2. Industrial Waste

Historically the industrial generation has remained between 50,000 and 100,000 tons. Analyzing the components that make up generation shows a decreased disposal and relatively flat recycling. The decreased disposal results in a increasing calculated recycling rates for the industrial sector as shown on the figure below.



3. Excluded Waste

Excluded waste has historically reported less than 10,000 tons and has been recorded as construction and demolition debris.

B. Generation Projections

Table G-2 Generation Projections

Year	Population	Residential/ Commercial		Industrial		Total (tons)	Per Capita Generation (ppd)	Annual % Change (tons)
		Disposal (tons)	Recycle (tons)	Disposal (tons)	Recycle (tons)			
2014	219,257	173,286	46,140	15,889	42,837	278,151	6.95	-----
2015	221,944	178,041	46,534	15,909	42,893	283,376	7.00	1.9%
2016	222,229	180,943	46,711	15,930	42,948	286,532	7.06	1.1%
2017	222,514	183,893	46,886	15,951	43,004	289,734	7.13	1.1%
2018	222,798	186,890	47,069	15,972	43,060	292,991	7.21	1.1%
2019	223,083	189,936	47,261	15,992	43,116	296,305	7.28	1.1%
2020	223,368	187,326	47,393	16,013	43,172	293,904	7.21	-0.8%
2021	224,460	185,418	47,587	16,034	43,228	292,267	7.13	-0.6%
2022	225,552	183,525	47,722	16,055	43,284	290,586	7.06	-0.6%
2023	226,644	181,647	47,918	16,076	43,341	288,982	6.99	-0.6%
2024	227,736	179,785	48,115	16,097	43,397	287,393	6.91	-0.5%
2025	228,828	183,357	48,313	16,117	43,453	291,241	6.97	1.3%
2026	229,710	186,824	48,512	16,138	43,510	294,985	7.04	1.3%

Year	Population	Residential/ Commercial		Industrial		Total (tons)	Per Capita Generation (ppd)	Annual % Change (tons)
		Disposal (tons)	Recycle (tons)	Disposal (tons)	Recycle (tons)			
2027	230,592	190,355	48,713	16,159	43,566	298,793	7.10	1.3%
2028	231,474	193,949	48,914	16,180	43,623	302,667	7.16	1.3%
2029	232,356	197,608	49,117	16,201	43,680	306,607	7.23	1.3%
2030	233,238	195,383	49,321	16,223	43,737	304,663	7.16	-0.6%
2031	233,918	193,013	49,527	16,244	43,793	302,577	7.09	-0.7%
2032	234,598	190,671	49,733	16,265	43,850	300,519	7.02	-0.7%

Sample Calculation:

Total Generation = Residential/Commercial Generation (Disposal + Recycle) + Industrial Generation (Disposal + Recycle)

278,151 tons = 173,286 tons + 46,140 tons + 15,889 tons + 42,837 tons

Per Capita Generation = (Generation x 2,000) / 365 x Population

6.95pounds/person/day = (278,151 tons x 2,000 / 365) / 219,257

Total waste generation for each year of the planning period is displayed in Table G-2 Generation Projections. Excluding year 2012, historical generation has little fluctuation. (Year 2012 experienced a lower than normal residential/commercial waste disposal ton.) The planning period projections also demonstrate little fluctuation.

This page intentionally left blank

APPENDIX H: STRATEGIC EVALUATION

In this Appendix the Policy Committee completed a strategic process of evaluating its reduction and recycling efforts. To do this, the status of the reduction and recycling efforts were evaluated in the context of factors presented in the 13 analyses described in Format 4.0. This strategic program evaluation was performed on the following analyses:

- Residential Recycling Infrastructure Analysis
- Commercial/Institutional Sector Analysis
- Industrial Sector Analysis
- Waste Composition Analysis
- Economic Incentive Analysis
- Restricted and Difficult to Manage Waste Analysis
- Diversion Analysis
- Special Program Needs Analysis
- Financial Analysis
- Regional Analysis
- Population Analysis
- Data Collection Analysis
- Processing Capacity Analysis

In preparation of this strategic evaluation the Policy Committee engaged in a strength, weakness, opportunity, and threat (SWOT) analysis able to elicit essential insight and feedback on the current state and status of recycling and other waste reduction activities within the County. The purpose of the SWOT was to identify the District's current waste management system strengths and weaknesses as well as broader opportunities and threats, explore untapped opportunities, understand weaknesses, and to decide where to improve. The results of the SWOT are presented below and webbed within this strategic evaluation:

Recycling		Special Waste	
Strengths	Weaknesses	Strengths	Weaknesses
Curbside Long-Term Benefits	No incentive Participation What to recycle education Fragile system	Paint E-cycle events	Cost No HHW Tires Inconvenience
Opportunities	Threats	Opportunities	Threats
Increase participation Commercial sector and economics to recycle Restaurant food waste Yard waste for entire county – more opp. Consortium	Resident perception and costs Class II facilities within County boundaries	Education Making convenient opportunities Nonprofit partnership User fees Possible semi-permanent events Partner with Cities	Do nothing Costs
Education		Other Programs	
Strengths	Weaknesses	Strengths	Weaknesses
Website Education Coordinator – children Integral part of program	Adult education Decision makers Recyclable materials – ex. Grocery bags HHW education	Litter Program Mini Grants Bidding assistance Recognition breakfast	
Opportunities	Threats	Opportunities	Threats
Website link to haulers for recyclable material list Educate adult groups, ex. Library Flyers	Costs Changes in recyclable materials	Incentives Recycling competition Goals Partnership with non-profits (Miami Conservatory)	Rules

Residential Recycling Infrastructure Analysis

This evaluation of the SWMD's existing residential recycling infrastructure determines whether the needs of the residential sector are being met and if the infrastructure is adequately performing. The analysis conducted here for this plan update is extensive diving deep into the residential infrastructure. The residential recycling infrastructure consists of curbside programs, drop-off recycling programs, take-back retailers, reuse centers, thrift stores, network of food banks, and compost facilities. The SWMD's role instituting this network of available opportunities varies. This analysis provides a detailed discussion of the SWMD's role and analyzes the system.

1. Curbside

Single stream curbside recycling programs are available to all 24 political entities (13 incorporated municipalities and 11 townships). The incorporated municipalities have non-subscription curbside achieved through contracts between the municipality and the hauler. As shown in Table H.1, recycling increased since the last plan update from 3,890 to 5,542 tons; a 42% increase.

Table H.1 Incorporated Municipality Curbside Recycling

Political Entity	2008 Tons	2014 Tons	2008 lb/HH	2014 lb/HH
Butler Village	-	included with Harlan Township	-	-
Carlisle City	165	163	186	183
Corwin Village	21	1	236	11
Franklin City	628	442	269	189
Harveysburg Village	unknown	2	-	20
Lebanon City	698	941	188	253
Maine Village	26	29	128	146
Mason City	2024	2,733	367	496
Morrow Village	69	93	304	407
Pleasant Plain Village	-	included in Harlan Township	-	-
South Lebanon Village	166	247	216	322
Waynesville Village	94	164	167	291
Springboro City	unknown	728	-	243
Total	3,890	5,542		

Townships have non-subscription curbside achieved through Performance Obligation agreements between the SWMD and the haulers. As shown in Table H.2, recycling increased since the last plan update from 5,912 to 7,809 tons; a 32% increase.

Table H.2 Township Curbside Recycling

Political Entity	2008 Tons	2014 Tons	2008 lb/HH	2014 lb/HH
Clearcreek Township	667	2,140	278	892
Deerfield Township	2,032	2,500	303	373
Franklin Township	425	542	195	249
Hamilton Township	1,342	1,485	359	397
Harlan Township	236	194	297	244
Massie Township	69	70	603	614
Salem Township	99	150	165	249
Turtlecreek Township	590	646	316	346
Union Township	118	98	266	220
Washington Township	151	126	309	258
Wayne Township	182	242	201	266

Political Entity	2008 Tons	2014 Tons	2008 lb/HH	2014 lb/HH
Total	5,912	8,193		

Both Tables H.1 and H.2 show calculated data of pounds recovered per household. Household counts are taken from “Population and Household Counts for Governmental Units: 2010, 2000, 1990” dated August, 2011 published by Ohio Department of Development Policy Research and Strategic Planning Office. The report determines households based on the number of persons in a home. It does not publish if the households are residing in single family or multi-family units. For purposes of this analysis the number of single versus multi-family units being serviced are unknown. The Performance Obligation Agreements require waste haulers to provide non-subscription curbside recycling to District residents. The agreements further call out “all residential units located in the District”. The language in the agreement is not definitive as to whether residential units refer to both single family and multi-family units. There is ambiguity in regards to the types of units serviced with curbside recycling.

The pounds recovered per household are a performance measure used to determine how well a program is performing. One hauler reports recycling data for each community while two haulers report combined tonnages. To determine community data for the combined tonnages, total reported tons are divided by the percentage of population for the total number of communities. This calculation provides a rough estimate of per community recycling. This method probably skews results to demonstrate more recycling in a community than what is actually occurring or vice versa. All townships, Corwin, Harveysburg, and Springboro have estimated data from two of the haulers.

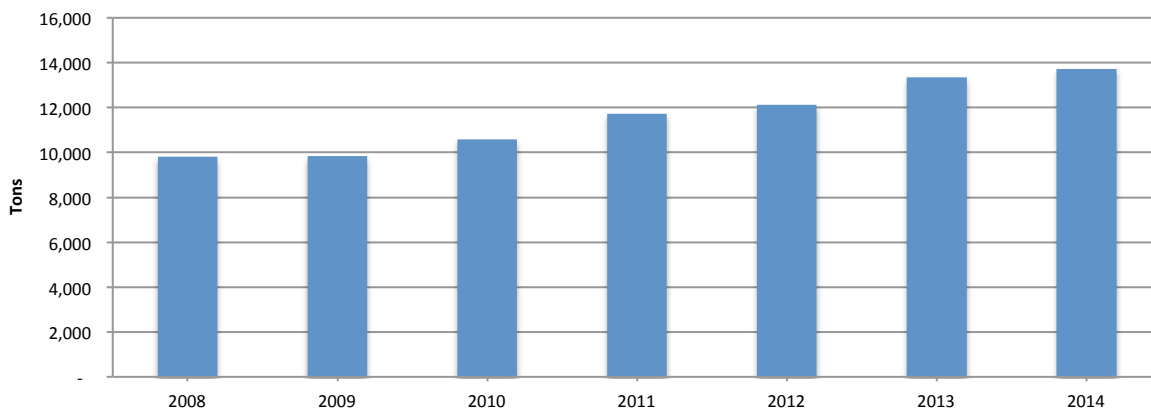


Figure H.1 Historical Trend for Curbside Recycling

Overall curbside programs are performing well and continue to capture more recyclables, as shown in Figure H.1.

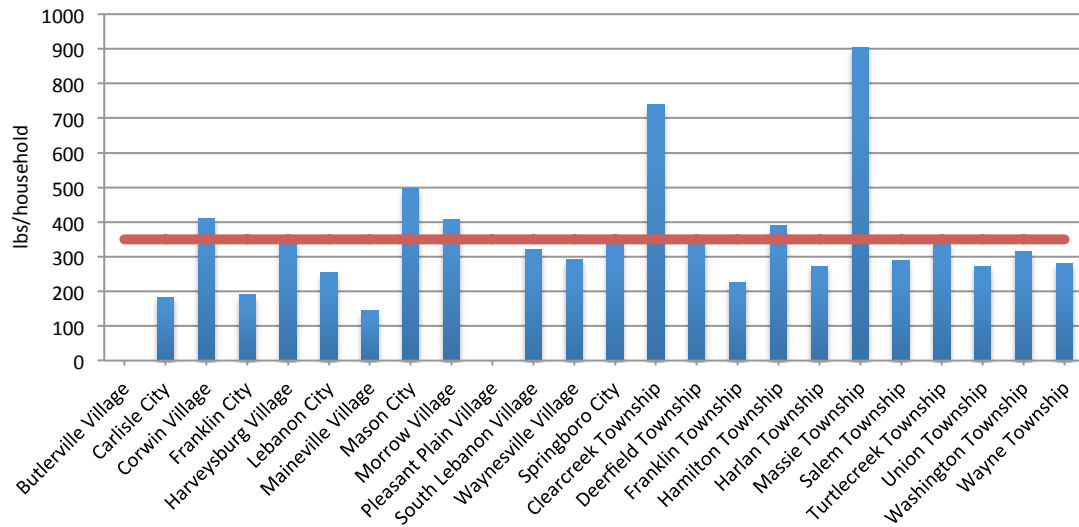


Figure H.2 Community Pounds per Household Recycled in 2014

While the Policy Committee sees the measured tonnage growth successful, the SWOT identified concerns to improve community participation in the curbside programs. As shown in Figure H.2, setting a benchmark of 350 pounds per household a number of communities fall below.

Another aspect of curbside recycling that was analyzed is the Performance Obligation agreement. These agreements are key for the 11 townships receiving non-subscription curbside recycling services. Haulers providing residential waste hauling service in the County must provide non-subscription curbside recycling services to residents. The system is unique, works, and places the entire residential sector on non-subscription curbside recycling to meet Goal 1 (access) of the 2009 State Plan. This system has been successfully been in place since 2003. However, the nature of the agreements surfaces a question of enforcement and brings to light the possibility that the Performance Obligation agreements may not provide the desired results of non-subscription curbside recycling services for the unincorporated townships. Thus a strong monitoring program is beneficial to ensuring the program continues successfully.

Monitoring phone calls are performed annually to the haulers to gather township curbside data. Tonnages and number of customers are requested. In addition the SWMD calls one household in each township and visually monitors (completed by driving down a selected road to check for recycling containers) recycling activity.

In addition since the Performance Obligation agreements state all residents living in a township who have subscription trash service must be enrolled in non-subscription curbside recycling one of the perceived threats is the resident perception of costs for the service.

2. Drop-off

One drop-off recycling program is funded by the SWMD, the other 3 are provided by political entities. All provision and servicing of drop-off locations achieved through contracts between the SWMD or political entity and the hauler.

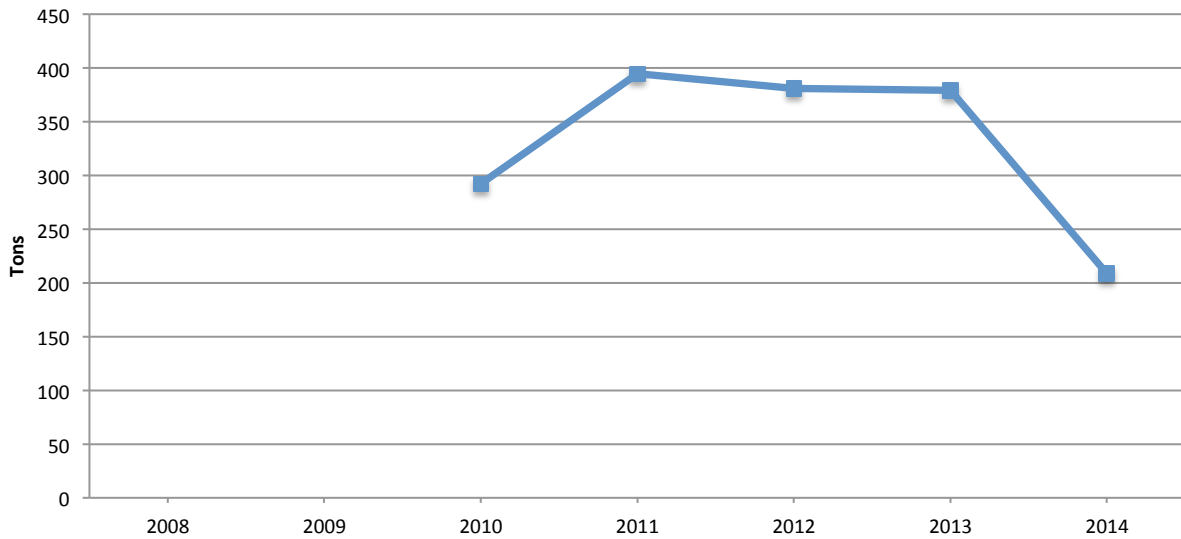


Figure H.3 Historical Trend for Drop-Off Recycling

Recycling tonnages reported historically are shown in Figure H.3. Years 2011, 2012, and 2013 demonstrate slightly inflated recycling tonnages because private paper drop off data was included in the drop-off figures. The District relies on the service hauler (which is also the processor) to provide data. Data has improved and reports of recycling tonnages are now being received but it is difficult to determine how well the sites are performing. The Policy Committee identified this as a challenge for the program.

Other challenges include identifying contamination, contamination rates, and population served by the drop-offs.

Figure H.4 depicts the curbside and recycling tonnages plotted on the same chart.

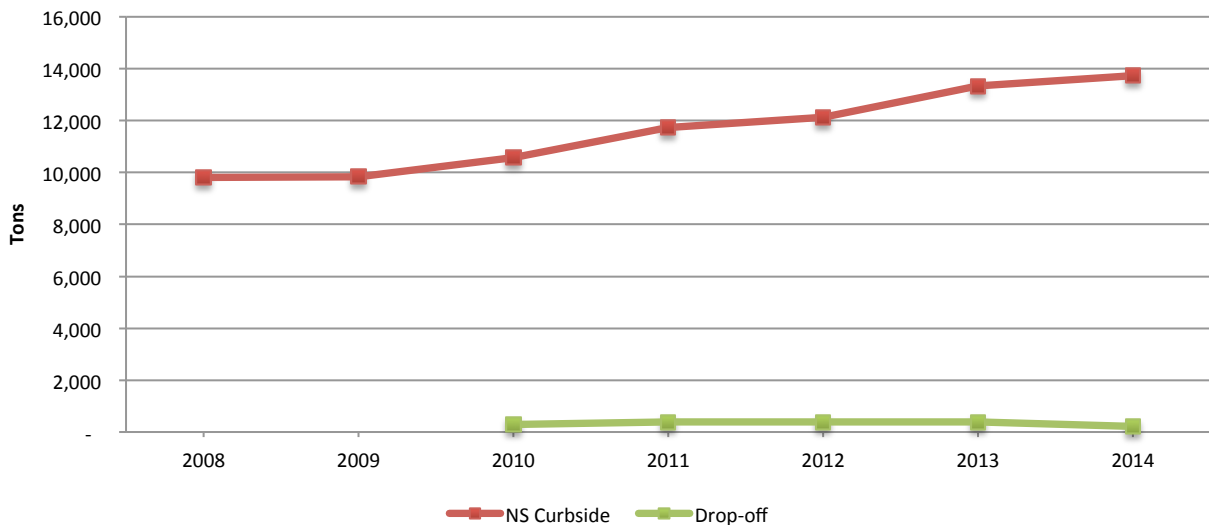


Figure H.4 Curbside and Drop-off Recycling Tonnages

Commercial/Institutional Sector Analysis

This evaluation of the SWMD's existing commercial/institutional determines if existing programs are adequate to serve the sector or if there are needs that are not being met. The analysis conducted here for this plan update evaluates the strengths and weaknesses of existing programs. The ultimate goal is to determine if the commercial/institutional sector is already adequately served or if the SWMD can do more to address the commercial sector. Commercial/institutional sector within the SWMD consists of the following (non-exhaustive list): commercial businesses, schools and Universities, government agencies, office buildings, stadiums, amusement parks, event venues (stadiums, concert halls), hospitals and non-profit organizations.

GEOGRAPHICAL

The SWMD is a single county District geographically located in Warren County. According to "Ohio County Profile of Warren County" prepared by Office of Research the land use/land cover is:

- 7.6% urban (residential/commercial/industrial/transportation and urban grasses),
- 55.8% cropland,
- 6.45% pasture,
- 29.35% forest,
- 0.65% open water, and
- 0.15% bare/mines.

The county is complex and multi-faceted with many different kinds of areas: rural, urban (low and high density), and natural. Warren County is as much a rural community as it is an urban community. Residents, planners, and commissioners continue to develop highly livable communities throughout the County that respect the rural traditions mixing natural and man-made environments. Warren County has attracted population and new development from urbanization activities generated in Dayton and Cincinnati.

The City of Cincinnati or its suburbs cover a portion of the county's four hundred square miles mostly in southwest corner of the County. The county's largest township, Deerfield Township and the largest City, City of Mason, are located in that portion of the County. Lebanon is the county seat and the third largest urban area and is located in the center of the County. Much commercial development has been along the southwest and central west of the Interstate 71 corridor. Warren County also experienced extended growth east of Interstate 71 in the southern portion of the County. The northwest corner of the County is the "new" growth area. This area along Interstate 75 is developing with residential and commercial growth. For now, the eastern portion of the County remains rural.

Businesses and institutions are concentrated within either a Central Business District (CBD) or more local concentrations within business and residential districts. There are clusters of concentrated commercial businesses/institutions, retail, entertainment areas, etc. throughout the County. In addition to these commercial urban development areas, the County is home to a 364-acre amusement park, an amusement park focused resort, a casino featuring a 1,000-seat grandstand, and tennis center that expands 19 acres.

Commercial businesses or landlords contract with a private service providers for recycling services.

FUNCTIONALITY

The SWMD does not assist or track commercial/institutional recycling efforts. Recycling activities and opportunities in this sector are largely unknown. Throughout the clusters similar waste streams could be generated. One of the challenges of analyzing this sector is the lack of information regarding the services available and received throughout the County. While it is assumed the SWMD could assist this sector, at this time it is unknown. However, one of the SWMD's strengths is the relationship and ability to work with private sector haulers.

Stadiums, Amusement Parks, Event Venues: Very little is known of away from home recycling activities. Private haulers offer collection services but it is unknown if these venues contract for services. The County has a sizable tourist industry. In fact, Warren County is referred to as "Ohio's Largest Playground". The County is home to area

attractions, festivals, sporting events, an amusement park, and outdoor recreation activities and is easy access to two international airports and major interstates, making it a great hub-and-spoke destination for visitors. Geographically Warren County offers a metropolitan lifestyle with many major shopping, dining, and cultural attractions. There is a large employment sector in the leisure and hospitality service.

Commercial Businesses: Very little is known of commercial business recycling activities. Private haulers offer collection services but it is unknown how many businesses contract for services.

Schools, Universities: There are forty-four K-12 public schools in Warren County. Other leaning centers, technical, vocational and private schools also exist. Recycling activities at schools is on the onus of the school to subscribe with a private sector service provider. The SWMD provides technical assistance when approached by the schools and will provide some financial assistance for in-school use recycling containers. Several of the schools have recycling programs to collect paper.

Government Agencies, Office Buildings: Very little is known of government and office business recycling activities. Private haulers offer collection services but it is unknown how many businesses contract for services.

DIVERSION

As mentioned earlier, the SWMD does not assist or track commercial/institutional recycling efforts. Recycling data obtained from this sector is diversion data sourced from Ohio EPA (includes commercial businesses and material recovery facilities (MRFs)). Collecting data from this sector has historically been time consuming and a challenge to obtain. However, efforts of data collection to the commercial sector, buybacks (scrap yards) and processors could contribute additional diversion.

As shown in Table H.3 a total of 13,336 tons are estimated as commercial recycling activities.

Table H.3 Commercial Recycling

Program/Source of R/C Recycling Data	Quantities (Tons)
Commercial Survey	1,270
MRFs	5,787
Ohio EPA Commercial Retail Data	6,279
Total Commercial Recycling	13,336

Note: Program quantities shown are from 2014.

PROGRAMS

Solid Waste and Recycling Assessments are offered to commercial and institutional businesses upon request. In 2014, waste and recycling assessments were not requested. At this time, SWMD staff does not have the expertise to conduct assessments. Also, businesses are not always responsive.

Industrial Sector Analysis

This evaluation of the SWMD's industrial sector determines if existing programs are adequate to serve the sector or if there are needs that are not being met. The analysis conducted here for this plan update evaluates the strengths and weaknesses of existing programs. The ultimate goal is to determine if the industrial sector is already adequately served or if the SWMD can do more to address the industrial sector.

Manufacturing has grown in Warren County through the years. In 2015, manufacturing employment of total county employment is 10.4 percent⁵. A few of the largest manufacturing businesses and what they manufacture include:

Largest Manufacturers	Manufacturers
Aisin Seiki/ADVICS Co. Ltd	Brake systems
Cintas Corporation	Corporate identity uniforms, entrance mats, etc.
HJ Heinz/Portion Pac, Inc	Individual portion control condiments
L-3 Cincinnati Electronics	Electronic equipment for communications and space
Luxottica Group	Eyewear
Proctor & Gamble Company	Family, personal, and household care products

Based on a web search most of these largest industry employers have a corporate sustainability plan. Materials recovered are known for three of the above-identified manufacturers because of responses to SWMD survey requests. The SWMD surveyed close to 400 businesses receiving an 11 percent response rate. Of the surveys returned most fell in NAICS 32 or 33, which includes manufacturing of food, textile, apparel, wood, paper, petroleum, chemical, plastics and rubber. The SWMD did not receive a report from two of the largest employers in the County.

As shown in Table H.4, paper, ferrous metals and cardboard account for the largest material volumes recycled.

Table H.4 Industrial Recycling

Materials	Quantities (Tons)
Ferrous Metals	10,487
Non-Ferrous Metals	1,563
Cardboard	8,909
Paper	19,471
Plastics	1,165
Textiles	16
Wood	1,224
Batteries	1
Other	1
<i>Total</i>	<i>42,837</i>

Note: Material quantities shown for 2014 are after adjustments for double counting.

The SWMD does not assist industrial recycling efforts. Recycling activities and opportunities in this sector are largely unknown. Reports seen from other Ohio Counties with higher manufacturing employment demonstrate manufacturing industries leading the way in waste reduction and recycling. Industry is also demonstrated as an enormous consumer of recycled materials. One of the challenges of analyzing this sector is the lack of information regarding the services available and received throughout the County. Reporting is voluntary. There could be opportunity to assist this sector however there would be limitations on time available of SWMD staff.

Residential/Commercial Waste Composition Analysis

This evaluation looks at the wastes that typically make up the largest portions of the residential/commercial waste stream and determines whether the SWMD currently has or should have programs to address those wastes.

⁵ Source: Ohio Development Services Agency, Research Office, Ohio County Indicators, July 2015

GENERATION COMPOSITION

Municipal solid waste (MSW) also referred to as residential/commercial waste includes common items thrown away after being used such as packaging, food, grass clippings, sofas, computers, tires, and refrigerators. According to US EPA's "Advancing Sustainable Materials Management: Facts and Figures 2013" wastes that typically make up the largest portions of the residential/commercial waste stream are food (21.1%), plastics (17.7%), paper and paperboard (15.1%), and rubber, leather & textiles (11.6%).

The SWMD generated 218,639 tons of municipal solid waste in 2014. Applying the US EPA waste generation estimates to the SWMD's waste generation gives an approximation of materials generated. As shown in Table H.5 paper, food, and yard trimmings are the three largest categories of materials generated. This evaluation looks at the availability of and need for programs to recover these three largest categories.

Table H.5 Estimated Waste Generated by Material

Material	US EPA % Generated	Estimated Warren County Tons Generated
Paper	27%	59,033
Food	15%	31,921
Yard Trimmings	14%	29,516
Plastics	13%	27,986
Metals	9%	19,896
Rubber, Leather & Textiles	9%	19,678
Wood	6%	13,556
Glass	5%	9,839
Other	3%	7,215
Total	100%	218,639

Available Programs

1. Paper

Waste minimization and recycling are two available options to manage paper waste. Waste minimization stops the waste before it starts and recycling is separating the materials from the waste stream and using them as virgin feedstock to manufacture new products. Waste minimization is a management method that has had little promotion by the SWMD. Recycling of paper comes down to available collection methods. Paper is one of the common suite of materials accepted by all service providers through curbside and drop-off collections. Single-family households have curbside recycling arranged by an incorporated political jurisdiction or by Performance Obligation agreements by the SWMD. Multi-family and commercial businesses have opportunities but the extent of the service outreach is unknown. It is assumed many gaps exist in collection services to these entities. Drop-off recycling containers are available in three political jurisdictions.

2. Food

There are several available options to manage food waste including waste minimization, donation, composting, and technologies (anaerobic digesters, in-vessel technologies, etc.). Waste minimization is a management method that has had little promotion by the SWMD. Teaching about making better use of food through storage, portion size, recipe suggestions for leftovers can help prevent food waste. Two permitted Class II facilities are located in the SWMD, however, over 2 years of complaints and Ohio EPA issued violations has led to stricter County policy limiting the activity at these facilities. The SWMD provides limited outreach to the residential/commercial sector regarding the available options to manage food waste.

3. Yard Trimmings

Composting and technologies (anaerobic digesters, in-vessel technologies, etc.) are available options to manage yard trimmings. These management methods can be small, medium, or large scale. Two service providers, Waste Management and Rumpke, provide yard waste collection service to customers. Hauling trucks do not have truck scales so individual hauler quantities are not available. Compost facilities (all classes) track material volumes delivered and report to Ohio EPA, which is how the District tracks composting activities.

Three municipalities and one township, Mason, Lebanon, Springboro, and Deerfield Township, provide some form of curbside yard waste pick-up. In the reference year, Mason provides their residents the opportunity to place brush and leaves at the curb utilizing the Public Works Department to haul materials. Crews chip the brush making it available for residents and municipality use while leaves are delivered to local nurseries. Lebanon provides their residents the opportunity to place yard waste, small limbs, brush, and grass at the curb. Curbside yard waste collection is part of the refuse collection contract held with Rumpke. In addition, Lebanon utilizes the Service Department to collect yard waste at two drop-off days per year (spring and fall). Springboro provides their residents the opportunity to place yard waste, small limbs, brush, and grass at the curb as part of the refuse contract held with Waste Management. Springboro also utilizes the Service Department to collect leaves at the curb during the fall. Deerfield Township's Service Department provides brush and leaf pickups yearly on a predetermined schedule.

The SWMD provides limited outreach on small, medium, and large scale composting management methods.

DISPOSAL COMPOSITION

The SWMD disposed 173,186 tons of municipal solid waste in 2014. About 45,851 tons were recycled and composted, which leaves a large amount of material still being landfilled. Applying the US EPA waste disposal estimates to the SWMD's waste landfilled gives an approximation of materials landfilled. As shown in Table H.9 food waste, plastics, paper and paperboard are the three largest categories of materials being landfilled.

Table H.9 US EPA Estimated Waste Disposal by Material

Material	US EPA % Discards ¹	Estimated Landfilled (Tons)
Food	21%	36,342
Plastics	18%	30,654
Paper and Paperboard	15%	26,151
Rubber, Leather & Textiles	12%	20,090
Metals	9%	15,760
Yard Trimmings	8%	14,028
Wood	8%	13,855
Glass	5%	8,659
Other	4%	7,620
Total	100%	173,186

¹Source: US EPA Facts and Figures 2013

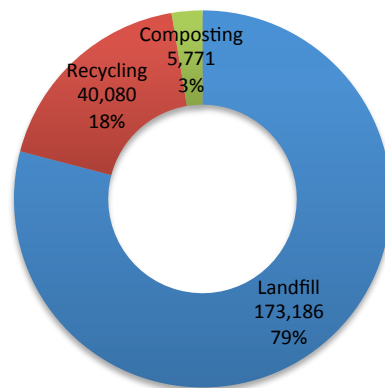
Neighboring Montgomery County conducted a waste characterization study in 2014-15 of waste being sent to the landfill from Montgomery County residents (includes some commercial stream and very limited industrial stream). Results of this waste characterization study below are slightly different than US EPA estimates. Applying Montgomery County disposal waste stream percentages to the SWMD's waste landfilled gives an approximation of materials landfilled. As shown in Table H.10, fiber (paper materials), plastics and food are among the largest categories of materials being landfilled.

Table H.10 Montgomery County Estimated Waste Disposal by Material

Material	Montgomery County % Discards ¹	Estimated Landfilled (Tons)
Fiber	27.3%	47,280
Other	20.3%	35,157
Plastics	17.3%	29,961
Food	14.3%	24,766
Textiles	6.1%	10,564
Yard Trimmings	4.9%	8,486
Glass	3.6%	6,235
Metals	3.3%	5,715
Wood	2.9%	5,022
Total	100%	173,186

Source: Montgomery County 2020 Solid Waste Management Plan Update

As shown in Figure H.5 the majority of waste managed is landfilled.

**Figure H.5 Managed Municipal Waste 2014**

Applying the percentages of discards (both US EPA and Montgomery County) to the SWMD's landfill disposal calculates disposal quantities larger than generation quantities for some material categories. Estimates are not accurate. Without a county specific waste characterization it is difficult to accurately depict quantities. Quantities estimated by the calculations above will be used for demonstration purposes only and not for accurate quantities.

Need for Programs

1. Paper

Paper (includes cardboard) is one of the largest streams of materials reported as recycled historically as shown in Table H.6. Other than year 2013, paper accounts for approximately 30 percent of the recycled stream.

Table H.6 Historical Paper Recycling

Material	2010	2011	2012	2013	2014
Paper and Corrugated Cardboard	14,698	15,376	13,104	11,442	17,755

Note: Only includes Ohio EPA data from MRF reports.

Results of the Montgomery County waste characterization study show 27.3 percent of material disposed as fiber (paper products) material. If the SWMD applies this percentage to the residential/commercial disposal data of 173,186 tons, approximately 47,280 tons of paper is being landfilled, or has potential for recovery.

There are available programs, however the SWOT analysis exercise identified opportunities in the commercial sector with economics identified as a barrier.

2. Food

Historically food waste recycling has been inconsistent as shown in Table H.7.

H.7. Historical Food Waste Composting

Material	2010	2011	2012	2013	2014
Food Waste	-	1,204	398	247	2,527

Results of the Montgomery County waste characterization study show 14.3 percent of material disposed as food. If the SWMD applies this percentage to the residential/commercial disposal data of 173,186 tons, approximately 24,766 tons of food is being landfilled, or has potential for recovery.

Food waste is a difficult stream to manage in large part because of the collection methods and monitoring of composting and technology approaches. The SWOT analysis identified siting and operating Class II compost facilities as a threat within County boundaries because of the historical issues and problems with operating such facilities. However, waste minimization and donation are methods of managing that have not received concerted focus by the District.

3. Yard Trimmings

Historically yard waste averages 10 percent of the recycled stream. Historical tonnages recycled are shown in Table H.8.

H.8. Historical Composting

Material	2010	2011	2012	2013	2014
Yard trimmings	5,872	4,118	4,753	6,897	3,244

Results of the Montgomery County waste characterization study show 4.9 percent of material disposed as yard trimmings. If the SWMD applies this percentage to the residential/commercial disposal data of 173,186 tons, approximately 8,486 tons of yard trimmings are being landfilled, or has potential for recovery.

Composting can be small, medium, or large scale. A diversely developed system reinforces sustainability and environmental stewardship. The Policy Committee discussed these systems and the benefits of these opportunities, especially decentralized approaches. The SWOT analysis identified more opportunities for residents would be an opportunity.

Economic Incentive Analysis

By definition, economic incentives encourage increased participation in recycling programs. In accordance with Goal 6 of the 2009 State Solid Waste Management Plan, the SWMD is required to explore how to incorporate economic incentives into source reduction and recycling programs. Since the SWMD does not offer economic incentives, this analysis, evaluates the feasibility of implementing incentives.

In 2014, the SWMD did not offer economic incentives to encourage into source reduction or recycling programs. One of the weaknesses identified during the SWOT analysis was the lack of incentives for people to recycle. There are various incentive models available as described in this analysis.

Pay as you throw (PAYT) is an economic incentive for curbside residents to pay for only the amount of MSW disposed per household. Also referred to as unit pricing, variable rate pricing or user-pay, this per-usage-pricing model has been effective in reducing waste by 50% and increasing recycling while seeing significant savings in tipping fees depending on the community.

PAYT communities often charge a flat-rate based on their waste consumption; similar to other household utilities (electricity, water, gas). The household waste generation can be calculated through by variable billing based on container weight, size or service frequency using Radio Frequency Identification (RFID). Some popular models require the purchase of custom bags or tags at a cost of typically around \$1-\$2.

Cities have seen success with the use of automated carts with RFID readers for curbside collection. Once the garbage cart is serviced customers are charged only for the number of cart tips, this method can also provide varying cart sizes. Larger recycling containers and a custom-built recycling rewards program, called mygrcitypoints, incentivizes recycling participation, resulting in increased recycling rates and tonnages. Rather than accounting for individual household performance, the points are based on per route recycling weight. Each recycling truck has an assigned neighborhood route, and throughout its route, it is scanning RFID tags on carts and collecting material. At the end of the route, the weight of recyclable material in the truck is divided by the number of RFID tags scanned on the route, the average weight per cart is determined, and each participating household on that neighborhood route receives 10 points per pound based on the determined average. This method encourages neighbors to increase recycling frequency as the more individual households serviced will increase the neighborhood average and result in more points earned. In addition, residents earn points by recycling, community service and volunteering. Points can be redeemed at small local businesses, services and restaurants. Residents can also choose to donate their points to a community project like upgrades to a local park.

As consumers, we have been trained to expect points, rebates and other similar rewards for our purchases or other behaviors desired by advertisers and marketers. A recent trend in the waste industry is to reward residents that participate in recycling programs in a similar fashion. RecycleBank is the most publicized and widely known system; however, other forms of this rewards program are now available from local contractors. The premise of the system is that people receive points for the tons of recyclables collected. The points are redeemable discount coupons for retail purchases. Older programs were based on individual efforts, but recent versions provide rewards on a collective tonnage per route system, which divides the points among the residents on the route who place a tagged recycling container at the curb. Another simple system is to catch a resident in the act of recycling "Get Caught". Residents caught recycling can be presented with gift certificates to local commercial venues as a reward for recycling. While not as effective as a PAYT program, these rewards programs are an acceptable choice where infrastructure or rate structure changes are prohibitive. The costs of such a program vary but typically range from \$0.50 to \$1.50 per home per month depending on the number of participating households. This option is probably cheaper than a new billing system and it is likely to have greater public acceptance.

Contract assistance such as aggregating similar services or communities/businesses can increase negotiating power to reduce costs for services.

The SWMD could support these incentivized recycling programs in several ways. Initially, providing clear and easy to understand information on PAYT and other economic incentive programs to communities within the District on their website. Subsequently, connecting with leaders and staff within the District to discover their individual community's needs; recommending a realistic economic incentive program based on that community's resources, needs and current recycling infrastructure. If it is a right fit the SWMD could encourage the community to apply for applicable grant funds to get these programs started. For example, a city with automated cart collection could recommend grant assistance for RFID readers for trucks to initiate a PAYT program. For communities that have manual collection, the SWMD could offer the initial capital to purchase the bags until bag revenue is neutral.

Restricted and Difficult to Manage Waste Streams Analysis

Goal 5 of the 2009 State Solid Waste Management Plan requires SWMDs to provide strategies for managing scrap tires, yard waste, lead-acid batteries, household hazardous waste (HHW), and obsolete/end-of-life electronic devices. This analysis evaluates the existing programs offered for managing restricted wastes and difficult to manage wastes. For waste streams where programs are not available the SWMD evaluates the need for and feasibility of providing programs.

There are strategies and alternative management options to address all of the wastes (scrap tires, yard waste, lead-acid batteries, HHW, and obsolete/end-of-life electronic devices) required by Goal 5 available for SWMD residents. Strategies are education web-based which include: identifying available outlets, benefits of recycling, and hazards of improper handling. Scrap tires and lead-acid batteries are directed to retailer take-back outlets within the SWMD. HHW is directed to permanent facilities located in neighboring Hamilton County. This is possible by an agreement between the two SWMDs and the permanent facilities. The SWMD contracts for an electronic recycling event and a latex paint collection drop-off. Annually the SWMD hosts a computer and electronics recycling event. Everyday from dawn to dusk residents have the opportunity to drop off latex paint (limit of 6 cans per week) at shed located behind the SWMD office.

Other materials that are difficult to manage which have outlet opportunities include: pharmaceuticals, appliances, and florescent lamp and ballasts. Pharmaceutical diversion is a statewide initiative directed to local police and sheriff offices.

The electronics and paint collections were successful in diverting materials from the landfill and recovered for recycling. Opportunity and service of these two collections programs are considered strengths.

The SWOT identified several weaknesses, opportunities, and threats for managing restricted and difficult to manage waste streams. Weaknesses include: high management costs, inconvenient outlets, and lack of HHW collection. Opportunities include: additional education and outreach, convenient outlets, partnerships, and assessment of user fees. Threats balance the act of doing nothing and the cost burden of doing something.

Diversion Analysis

This analysis evaluates the quantities of waste reduced/recycled in 2014 and four prior years.

Waste diversion is defined as the amount of waste recycled and the amount of waste diverted from entering the waste stream through source reduction activities. Waste diversion activities include waste minimization (also called source reduction), reuse, recycling, and composting. The diversion analysis takes a look at the diversion programs, infrastructure, rate and trends, and materials.

Residential/commercial diversion in the SWMD trends a relatively linear line as shown in Figure H.6. The slight peak in 2013 is attributed to higher reported yard waste composting.

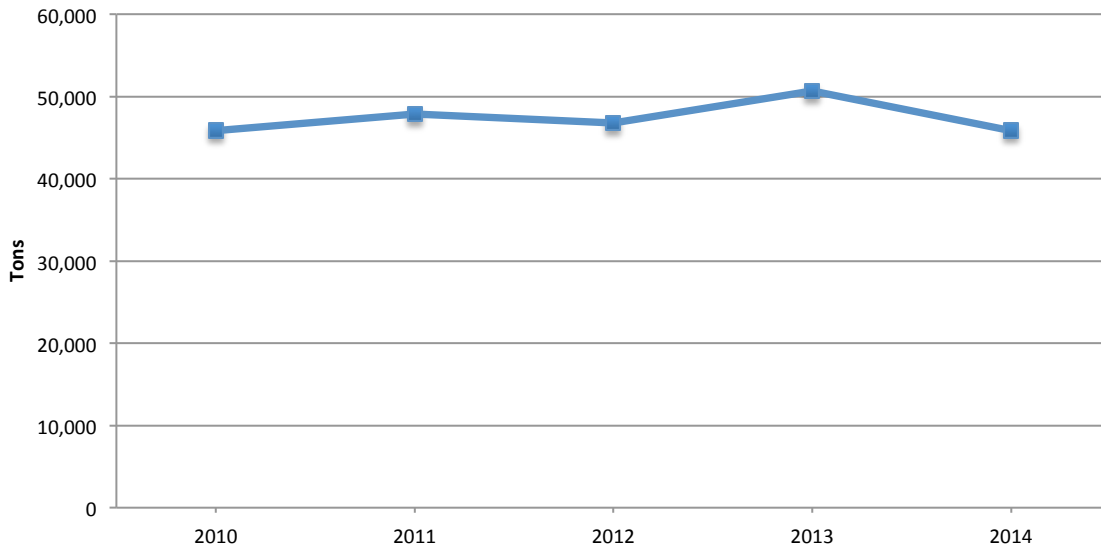


Figure H.6 Residential/Commercial Diversion

The material categories reported as most recycled in 2014 include commingled recyclables, other paper, and cardboard. Based on reported data, commingled recyclables are largely being captured by the curbside and drop-off recycling programs and paper and cardboard are being captured by MRFs. Figure H.7 shows the residential/commercial material categories diverted in 2014.

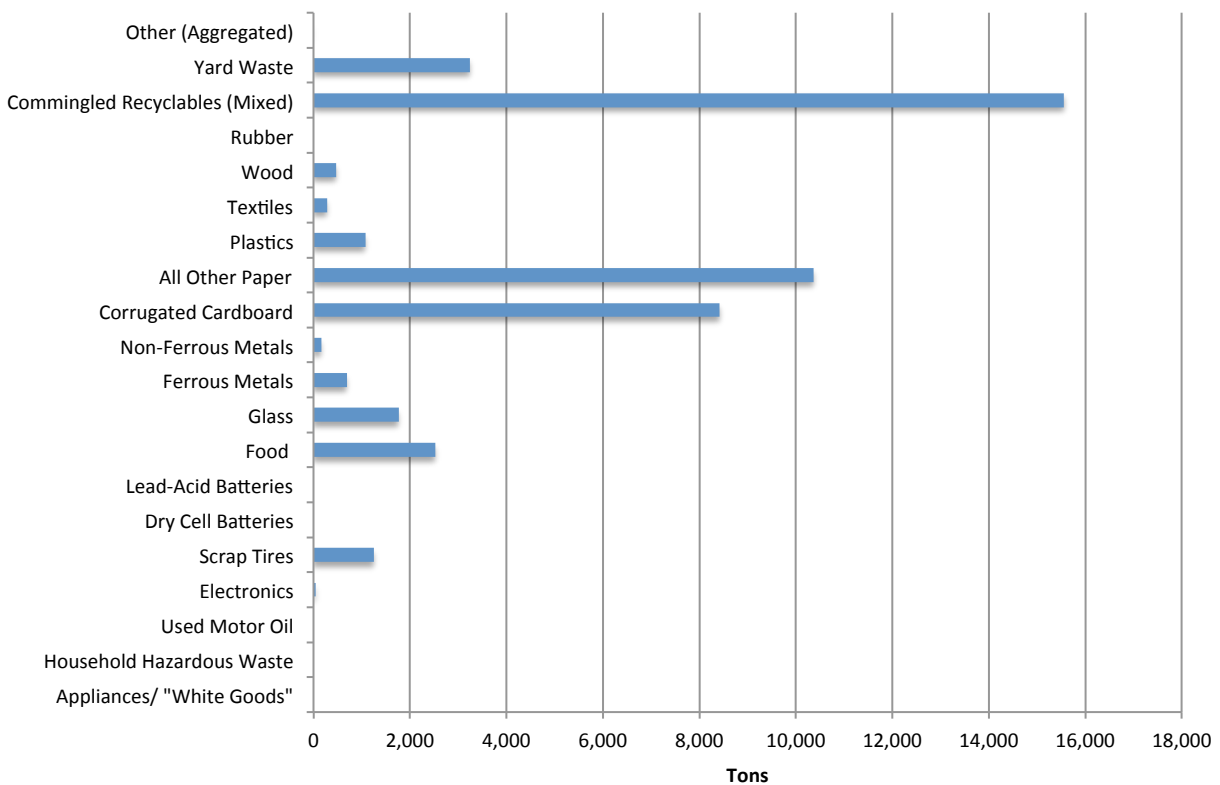


Figure H.7 Residential/Commercial Materials Diverted

The diversion trend is relatively flat. Figure H.8 shows the diversion achieved over the past seven years in comparison to the State residential/commercial waste diversion goal, represented by the red line. The higher peaks in 2011 and 2014 are attributed to increased volumes of yard waste diversion.

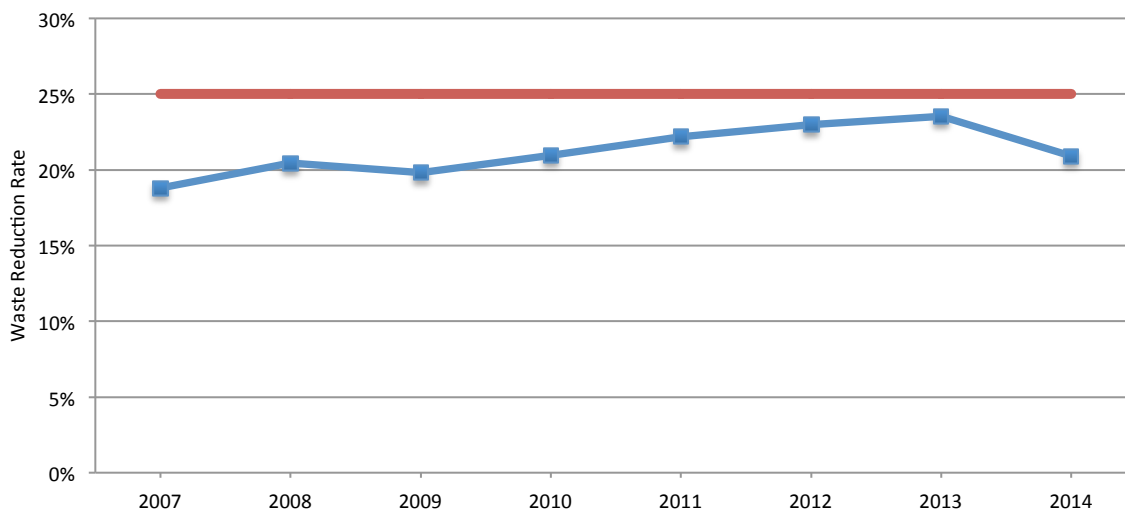


Figure H.8 Residential/Commercial Waste Reduction Rate

The SWMD's waste reduction rate compared to other regional districts is outlined in Figure H.9.

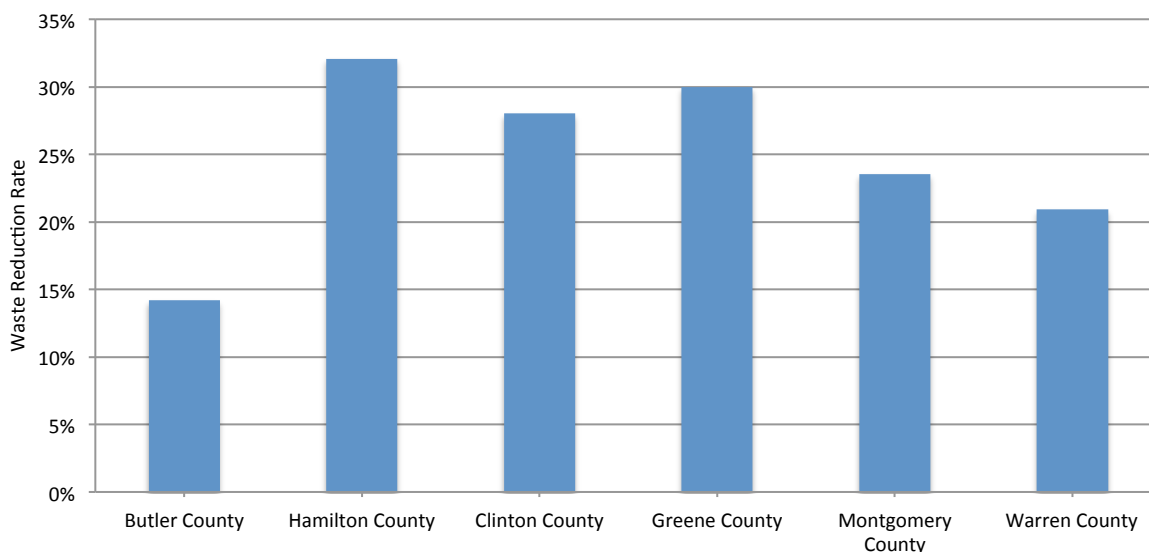


Figure H.9 Waste Reduction Rate Comparison

While the SWMD is achieving consistent diversion there are more materials being landfilled that could potentially be reduced or recycled to increase the diversion.

Also, current opportunities for waste minimization and reuse are largely unexploited for the residential/commercial sectors. Reuse infrastructure heavily falls on non-profits and their development of reuse centers. Potential opportunities to consider include compiling a resource guide to donating as well as assisting in the development of reuse centers. Program areas to consider implementing for this plan update to address waste minimization and reuse

models are volume-based incentive-fee collection systems, education and outreach approaches, creation and promotion of a reuse and repair network.

Special Program Needs Analysis

Ohio Revised Code 3734.57(G) gives SWMDs the authority to fund a number of activities that are not related to achieving the goals of the state solid waste management plan. In addition, there are other programs that SWMDs fund that are not addressed in either the state plan or law. The SWMD does fund and provide activities and programs that fall into this category. The only special program is Roadside Litter Collection Program.

Roadside Litter Collection is about 10 percent of total SWMD expenses, making it the second largest expense. The In comparison to other SWMDs Program expenses include xxxxxx.

Litter is an eyesore, nuisance, and if not managed can lead to crime. Studies show there is a direct relationship between the presence of trash and crime. Removing litter throughout the County costs money. The SWMD strategy is to use a combination of employees and people sentenced to community service through the courts. Through this program 412 miles of roadsides and many parks in the County were cleaned. This work generated 7091 bags of trash and approximately 500 tires. The SWMD coordinates the program in conjunction with the Warren County Court, Warren County Common Pleas Court, Adult probation, Municipal Courts of Lebanon, Franklin, Mason, Waynesville, South Lebanon plus Warren County Juvenile Court.

Some counties are well served by volunteer programs to help remove litter. In Warren County the only other volunteer program is Adopt-a-Highway. The SWMD is serving a need and filling a gap in programming which has direct impact on the community and has strong leadership support.

Financial Analysis

This analysis evaluates the SWMD's financial position currently and during the planning period.

Figure H.10 depicts the revenues received in 2014.

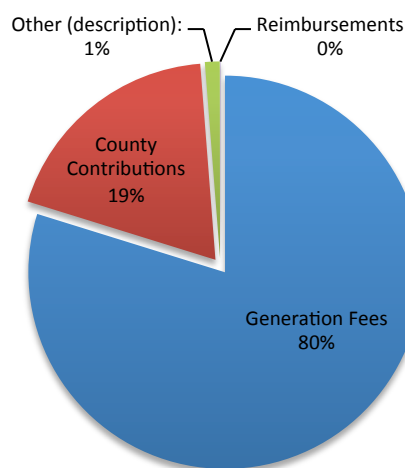


Figure H.10 Revenue Distribution in 2014

In accordance with ORC 3734.573, a solid waste management policy committee may levy fees on the generation of solid wastes within the district. Levying a generation fee means any landfill or transfer facility receiving district waste, regardless of where in Ohio the waste is disposed, remits the generation fee. The SWMD's generation fee funds solid waste recycling, reuse, and reduction programs as outlined in the solid waste management plan. Management of

these programs includes fulfilling obligations to organize and/or provide programs, funding, enforcement, and education. In 2014, the District's expenses fell into the following distribution categories as shown in Figure H.11.

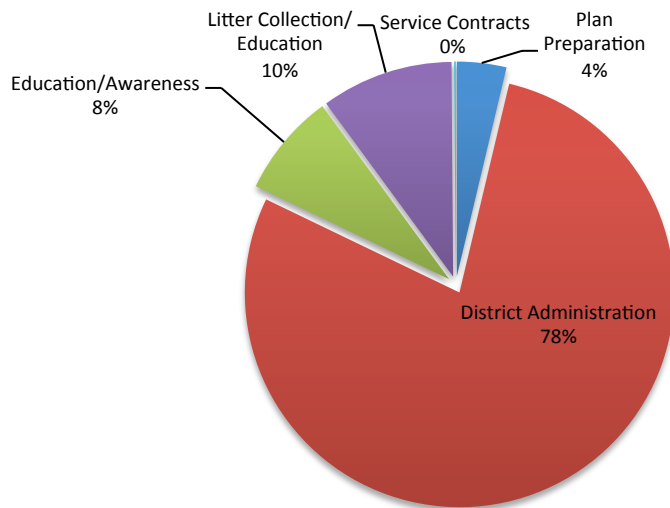


Figure H.11 Expense Distribution in 2014

Over the past few years, the District has been extracting from the carryover balance to cover the deficit. Figure H.12 shows revenues in comparison to expenses.

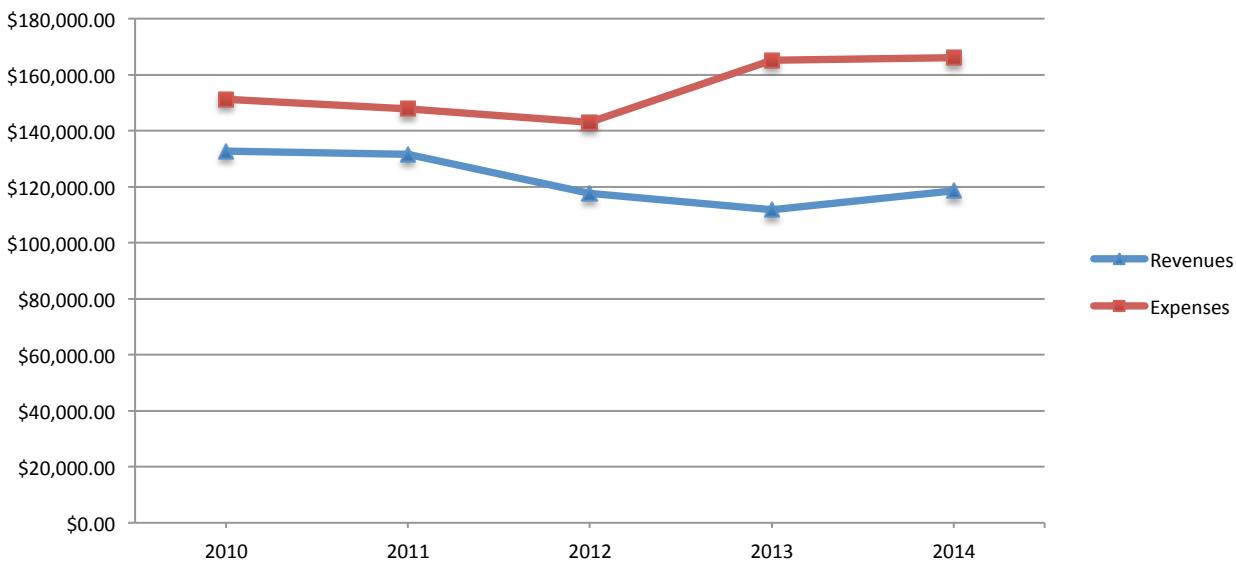


Figure H.12 Historical Revenues versus Expenses

As shown in Table H.10 the average generation fee revenue collected was \$93,048. The analysis demonstrates a steady decline until year 2014.

Table H.10 Historical Generation Fee Analysis

Year	Generation Fee (tons)	Total Revenue from Generation Fee (\$)
2010	203,210	\$101,605
2011	200,522	\$100,261
2012	174,269	\$87,135
2013	163,199	\$81,600
2014	183,283	\$94,642
Analysis	Waste Disposed (tons)	Total Revenue from Generation Fee (\$)
Average Tonnage/Revenue	186,097	\$93,048
Average Annual Tonnage +/-	(2,785)	(\$1,393)
Average Annual Percent +/-	-1%	-1%

Source(s) of information: Disposed tons were sourced from Annual District Review Forms. Generation fee tons were sourced from quarterly fee reports

Actual received generation fee revenues declined compared to the projections in the 2010 Approved Plan.

Table H.11 Historical Generation Revenue Compared to Approved Plan Projections

Year	Plan Generation Fee Revenue Projections	Actual Generation Fee Revenue Received	Difference
2010	\$109,481	\$101,605	\$7,875
2011	\$112,501	\$100,261	\$12,240
2012	\$115,532	\$87,135	\$28,397
2013	\$118,574	\$81,600	\$36,974
2014	\$121,625	\$94,642	\$26,983

Regional Analysis

The purpose of the regional analysis is to consider regional opportunities for collaboration and partnerships, and to also consider how the policy committee's decisions may impact other stakeholders in the region.

Collaboration is a process where people or organizations come together to solve problems with a common goal. Through the process of sharing differing perspectives, experiences and resources we can expand opportunity and improve performance. Collaboration enables decision makers to realize several benefits, including mutual respect for agency/jurisdictional authority, unified efforts, collective support with mutually beneficial financial outcomes. Geographically differing economic challenges, program performance, constituent demands and emerging technologies, issues faced by all Ohio's MSWDs, dictate that regional concepts be explored.

Jurisdictional collaboration is not new. Medical, public safety, utilities, water/sewer, entertainment entities have all capitalized upon the beneficial dynamics of regionalization. Solid waste managers are similarly familiar as RCRA's Sub-Title D lined landfill mandates (late 1980's) and there subsequent waste reduction and recycling goals were all catalyst for the formation of Ohio's MSWD (HB 592) and similar governing agencies across the US. As such, by joining forces and economies of scale, communities have been able to explore best available technologies while implementing projects that individually would have been too expensive to develop for a single entity. Urban, rural plus small and large communities have benefited as costs and volume responsibilities are spread over a larger population of participants while educational, management and purchasing power are shared.

The SWMD identified stakeholders in the region that may have a key interest and involvement in SWMD programs, problems, and solutions.

- Neighboring SWMD's (Clinton, Butler, Hamilton, Adams-Clermont, Montgomery, and Greene)
- Warren County Soil and Water Conservation District
- Neighboring Soil and Water Conservation Districts
- Private service providers (Rumpke, Waste Management, CSI)
- Non-profit organizations
- Chamber of Commerce

Regional partnerships could help with costs and provide more opportunities for programs. A partnership opportunity explored could be HHW management. Costs and convenient outlets are similar issues for neighboring SWMDs that partnerships could benefit.

Population Analysis

This analysis evaluates whether the population changes will affect the programs.

Population change in Warren County increased over 25 percent from 2000 to 2010 as shown in Figure H.13. This population increase was equally distributed among rural and urban areas. Over the same time period in Ohio, the population increased only 2 percent. Warren County population growth over this time was rapid compared to the state and other Counties.

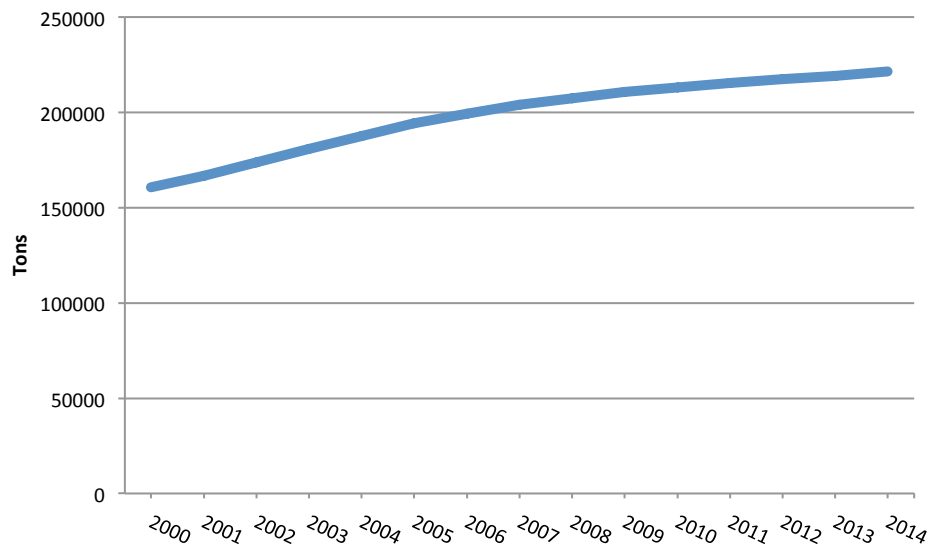


Figure H.13 Historical Population

Population over time has had little impacts on SWMD programs, largely in part to the design of the programs. Most of the SWMD's programs are self-sufficient and self-supporting that is operated almost exclusively by private companies. As shown in Figure H.14, population increased and generation dipped slightly.

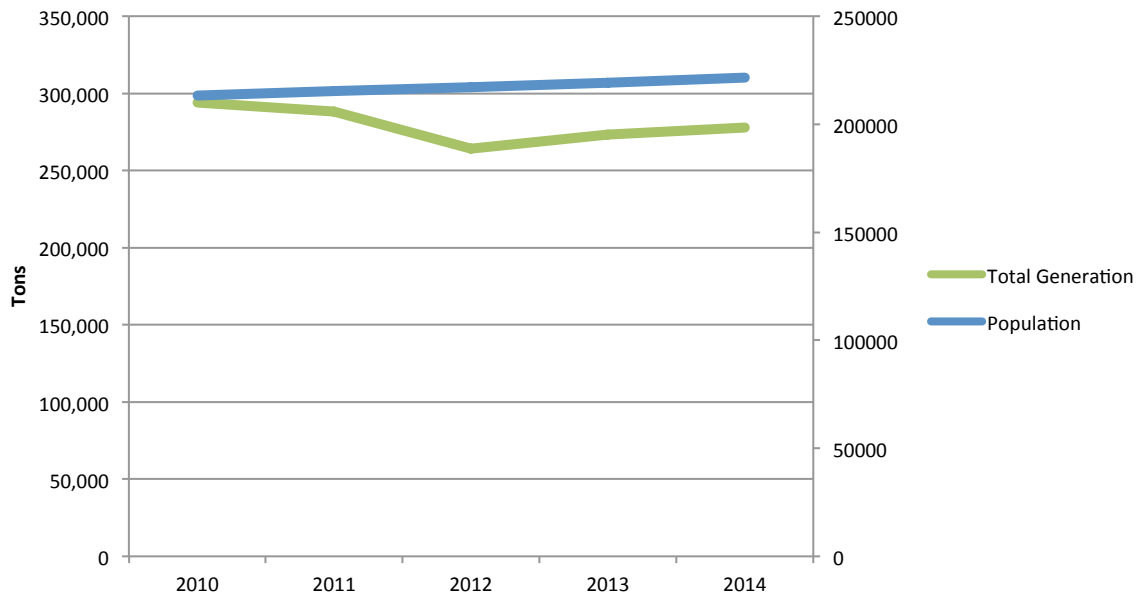


Figure H.14 Historical Generation and Population

Population is expected to continue to grow over the planning period. The estimated projection is 5 percent and is based on ODSA Planning Research and Strategic Planning Office projected estimates for 2015, 2020, 2025, 2030, and 2035. To determine population estimates between these years, straight-line interpolation was used.

Population projections gauge future demand for services, but in projection calculations there are room for errors because of the difficulty associated with forecasting. As projected by ODSA, population is expected to increase. However, when compared to historical population growth, the projected growth is modest.

Data Collection Analysis

This analysis evaluates the SWMDs current data collection efforts and identifies ways to improve its data.

Waste is generated by three sectors: residential, commercial and industrial. Waste source reduced, recycled, composted, incinerated, and disposed are measured to establish a baseline and determine waste generation, and measure recycling rates. Collecting data is challenging due to a variety of factors and takes considerable time and effort to gather and analyze. Regardless, the primary objective of the SWMD is to divert materials from landfills, therefore an accurate measurement of diversion from landfills is needed. The data collection process for each sector is described below.

RESIDENTIAL

The SWMD gathers data from service providers and Ohio EPA annual published data. Service providers are contacted to identify recycling that occurred within the SWMD. Phone call requests are made.

COMMERCIAL

The SWMD gathers data from Ohio EPA annual published data. A SWMD survey is not distributed for the commercial sector.

INDUSTRIAL

The SWMD gathers data by surveying the industrial sector businesses. Paper surveys are mailed a cover letter, survey, and postage-paid return envelope. Recipients are also given the option of fax completed surveys. The SWMD follows up with survey recipients two to three weeks after the initial request. Non-responders are prioritized. Priority is placed on obtaining responses from prior year responders and recipients that are assumed to be managing significant volumes of materials.

The SWMD uses the Ohio Recycles Survey, a collaborative statewide recycling survey effort promoted by Ohio's solid waste management districts, the Ohio Council of Retail Merchants, the Ohio Chamber of Commerce, the Ohio Manufacturers' Association, and the Ohio Environmental Protection Agency (Ohio EPA). Businesses also have the opportunity to complete the Ohio Recycles Survey online.

The SWMD mailed almost 400 surveys in 2014. Out of 398 surveys mailed, 38 were undeliverable, 11 were out of business, and 37 responses were received. Mailed surveys had a response rate of approximately 11%.

Issues encountered when surveying include:

- Low participation rates
- SWMD time commitment
- Lack of response

The SWMD makes an effort to understand how materials are obtained and managed by entities that submit recycling information. The SWMD tries to identify if there are any materials that might be reported by more than one entity.

Recyclable Material Processing Capacity Analysis

Both residential and commercial curbside collection and drop-off materials are processed at Rumpke Dayton, Ohio Facility, which is located in Montgomery County, Rumpke Cincinnati MRF, which is located in Hamilton County, and Waste Management's Dayton facility.

Rumpke's Dayton, Ohio facility is a Category III facility that pre-sorts, compacts and transfers recyclables. This facility sorts out inbound materials, screening glass to send to a processor and sending the other materials to the Cincinnati MRF. Rumpke's Cincinnati facility processes 27 tons per hour. Rumpke processes a large range of materials including glass bottles & jars, aluminum & steel cans, plastic bottles & jugs, mixed paper, and cartons.

In addition to Rumpke's services, Waste Management is the second processor for the District. However in year 2015 Waste Management closed the Dayton facility. The SWMD is aware Waste Management has made arrangements with Rumpke to accept recyclables.

APPENDIX I: CONCLUSION, PRIORITIES, AND PROGRAM DESCRIPTIONS

A. Conclusions, Actions, and Priorities

All Policy Committee members participated in a priority survey used to identify key issues, ascertain views on waste management, and help in prioritizing future programming. The exercise demonstrated a strong desire of support for the issues. Based on the most supported and highest priority issues, this exercise demonstrated:

- Support for recycling and waste minimization.
- Support and priority for improved waste minimization education.
- Support and priority for improved reuse education.
- Support and priority for maintaining countywide curbside recycling.
- Support for exploring, offering and providing special waste opportunities with a priority tie of providing more HHW and yard waste opportunities.
- Support and priority to ensure programs are sustainable.

1. Conclusions

Using what the Policy Committee learned from the analyses performed in Appendix H and L a list of conclusions was developed. These conclusions represent what was learned about the SWMD's structure, abilities, strengths and weaknesses, operation, existing programs, outstanding needs, and available resources. Identified conclusions include:

- Residential recycling programs provide adequate infrastructure and performance. Maintaining countywide curbside recycling is a high support and priority item for the Policy Committee. Untapped opportunities or weaknesses identified include: participation, incentives, multi-family units, outreach and education, monitoring, and resident perception of costs. It was also identified that not all 24 political jurisdictions maintain community recycling program information on their webpages.
- Commercial/Institutional Sector infrastructure is largely unknown. This sector has previously not been a targeted focus area. There are clusters of central business districts and large entertainment style venues that might have recycling programs or could benefit from recycling services.
- The SWMD is not engaged with the industrial sector; however, most of the largest industry employers have a corporate sustainability plan/program.
- Using the US EPA's "Advancing Sustainable Materials Management: Facts and Figures 2013" the SWMD estimated the largest components of the residential/commercial waste stream are food, plastics, paper and paperboard, and rubber, leather & textiles.
- The SWMD could support incentivized recycling programs in several ways. Initially, providing clear and easy to understand information on PAYT and other economic incentive programs to communities. Subsequently, connecting with leaders and staff within the District to discover their individual community's needs; recommending a realistic economic incentive program based on that community's resources, needs and current recycling infrastructure.
- The SWMD has strategies and alternative management options to address restricted and difficult to manage waste. The SWOT identified several weaknesses, opportunities, and threats for managing HHW. Weaknesses include: high management costs, inconvenient outlets, and lack of HHW collection. Opportunities include: additional education and outreach, convenient outlets,

partnerships, and assessment of user fees. Threats balance the act of doing nothing and the cost burden of doing something.

- The material categories reported as most recycled in 2014 include commingled recyclables, other paper, and cardboard. Based on reported data, commingled recyclables are largely being captured by the curbside and drop-off recycling programs and paper and cardboard are being captured by MRFs.
- Current opportunities for waste minimization and reuse are largely unexploited for the residential/commercial sectors.
- Regional partnerships could help with costs and provide more opportunities for programs.
- Collecting recycling data from commercial and industry businesses is challenging due to a variety of factors and takes considerable time and effort to gather and analyze. Issues encountered include: low participation rates, time commitment, and lack of response.
- The region has access to two residential/commercial material processing facilities with ample processing capacity for the SWMD.

2. Actions

Based on these conclusions the Policy Committee has made a list of actions the SWMD could take, programs the SWMD could implement, or other things the SWMD could do to address the identified conclusions. Below is a list of identified actions. Including an item on the list does not mean the Policy Committee has committed the SWMD to do anything with that item. The goal for compiling a list is to provide the Policy Committee with a comprehensive list of ideas to address for this planning period.

- Maintain countywide curbside recycling.
- Work with haulers to identify accurate households counts (single and multi-family) serviced.
- Improve monitoring of Performance Obligation Agreements.
- Develop a robust education and outreach campaign for non-subscription curbside recycling.
- Expand curbside recycling to multi-family units.
- Develop a recognition or reward for residential curbside recycling users.
- Identify commercial sector recycling activities.
- Encourage commercial recycling activities with outreach and technical assistance.
- Develop a food waste management program focused on reduction and recovery.
- Develop incentive programs to encourage recycling for both residential and commercial.
- Develop a HHW feasibility strategy that will: 1.) Survey residents and communities to identify the need and program elements they would like to see to manage HHW in the District; 2.) Develop a pilot program; and 3.) Test the pilot program.
- Dedicate webpage space for Reuse and develop a reuse network resource guide.
- Dedicate webpage space for Waste Minimization.
- Explore regional partnerships.
- Streamline data collection efforts and set internal response rate goals.
- Spearhead development of an internship program across several branches of Warren County's Government Campus.

3. Priorities

After evaluating the list of actions, the Policy Committee identified priorities the SWMD is targeting for implementation during this planning period. Identified priorities include:

- Maintain countywide curbside recycling.
This is a priority because it is a very effective way to encourage residents to recycle. Plus, countywide curbside recycling is the SWMD's strategy to meeting Goal 1 of the 2009 State Plan Goal. Actions identified below can help strengthen and improve sustainability and will be incorporated in programs for this planning period.
 - a. Improve monitoring of Performance Obligation Agreements.

- b. Offer contract assistance to incorporated jurisdictions to ensure residents have best services at competitive prices.
 - c. Develop a robust education and outreach campaign for non-subscription curbside recycling.
 - d. Develop a recognition or reward for residential curbside recycling users.
- Engage the commercial sector.
 Little engagement has occurred between the SWMD and commercial entities. More engagement and additional data from this sector could help raise the SWMD waste reduction and recycling rate. Actions identified will be incorporated in programs for this planning period.
 - e. Identify commercial sector recycling activities.
 - f. Encourage commercial recycling activities with outreach and technical assistance.
- Develop a HHW feasibility strategy.
 The SWOT analysis identified balancing the act of doing nothing and the cost burden of doing something as a threat. With the development of this plan the timing seems right to develop a feasibility strategy and assess it.
- Develop a food waste management program focused on reduction and recovery.
 The SWMD has had its share of issues with Class II compost facilities. A strategy to inform and guide reduction of food waste and recovery are preferred management methods.
- Develop an outreach and marketing plan.

Some actions the Policy Committee believes are priorities but which the SWMD doesn't have the time or resources to address in this 2018 Solid Waste Management Plan include:

- Streamline Data Collection.
- Explore Regional Partnerships.

B. Programs

Residential Recycling Programs

ID	Name	Start Date	End Date	Goal(s)
NSC 1 - 24	Non-Subscription Curbside Recycling	Existing	Ongoing	Goals 1 and 2

All cities and villages in the SWMD have non-subscription curbside achieved through contracts between the municipality and a trash hauler. Municipalities take proposals/quotes from private sector service providers to deliver the specified services. Some contracting approaches still leave the billing of customers up to the service providers while others do their own billing and pay the hauler independently. Public-private contracts determine collection frequency, materials collected, size of containers, and type of collection. In 2014, all curbside materials were collected single stream (commingled) with either a bin or cart-based system.

All townships in the SWMD have non-subscription curbside achieved through Performance Obligation agreements between the SWMD and waste haulers. All residents living in a township who have subscription trash service must be enrolled in non-subscription curbside recycling. All waste haulers providing trash service in the SWMD are required to offer non-subscription curbside recycling service to their customers in the unincorporated areas of the townships. To provide service in these areas, waste haulers must sign and adhere to a Performance Obligation agreement which specifies materials be collected on a weekly basis, containers to be provided, and with educational and awareness responsibilities. In 2014, all curbside materials were collected single stream (commingled) with either a bin or cart-based system.

Markets guide the materials collected. The standard recyclables collected in 2014 were: paper, plastic containers, metal, and glass. Each community maintains an updated list of recyclables accepted by their waste hauler.

The SWMD provides contract assistance to municipalities and townships. Assistance includes meetings with political jurisdiction representatives and haulers, contract review and guidance, and cost analysis. Each political jurisdiction contract terms vary. Assistance is offered when the SWMD attends political jurisdiction meetings and communicated by Policy Committee to constituents they represent.

Political jurisdictions with curbside include:

• Butlerville Village	• Mason City
• Carlisle Village	• Massie Township
• Clearcreek Township	• Morrow Village
• Corwin Village	• Pleasant Plain Village
• Deerfield Township	• Salem Township
• Franklin City	• South Lebanon Village
• Franklin Township	• Springboro City
• Hamilton Township	• Turtlecreek Township
• Harlan Township	• Union Township
• Harveysburg Village	• Washington Township
• Lebanon City	• Wayne Township
• Maineville Village	• Waynesville Village

ID	Name	Start Date	End Date	Goal(s)
ODO1	Private paper Collection and recycling drop-offs	Existing	Ongoing	Goal 2

Dayton Daily Newspapers and SP Recycling operate six drop-off containers that accept newspapers in the northern half of the District. Any resident or business can take newspapers to these locations for recycling. A 2014 survey indicated 467 tons of newspapers were being recycled annually.

ID	Name	Start Date	End Date	Goal(s)
FTU1	Deerfield Township – Snider Road	Existing	Ongoing	Goal 2

Drop-off open to the public 24/7 collecting 117 tons of commingled recyclable material (includes Mason location) in 2014. This location has two 6-cubic yard dumpsters that are emptied once a week. The municipal jurisdiction directly contracts with a private business to provide and service this drop-off location.

ID	Name	Start Date	End Date	Goal(s)
FTU2	Lebanon City – Justice Drive	Existing	Ongoing	Goal 2

Drop-off open to the public 24/7 collecting 33 tons of commingled recyclable material (includes both Lebanon locations) in 2014. This location has two 6-cubic yard dumpsters that are emptied once a week. The standard recyclables collected in 2014 were: cardboard, paper, plastic containers, metal, and glass. The County directly contracts with a private business to provide and service this drop-off location.

ID	Name	Start Date	End Date	Goal(s)
FTU3	Lebanon City – South Broadway	Existing	Ongoing	Goal 2

Drop-off open to the public 24/7 collecting 33 tons of commingled recyclable material (includes both Lebanon locations) in 2014. This location has two 6-cubic yard dumpsters that are emptied once a week. The standard recyclables collected in 2014 were: cardboard, paper, plastic containers, metal, and glass. The City of Lebanon directly contracts with a private business to provide and service this drop-off location.

ID	Name	Start Date	End Date	Goal(s)
----	------	------------	----------	---------

FTU4	Mason – Kings Mill Road	Existing	Ongoing	Goal 2
------	-------------------------	----------	---------	--------

Drop-off open to the public 24/7 collecting 117 tons of commingled recyclable material (includes Deerfield Township location) in 2014. This location has two 6-cubic yard dumpsters that are emptied once a week. The standard recyclables collected in 2014 were: cardboard, paper, plastic containers, metal, and glass. The City of Mason directly contracts with a private business to provide and service this drop-off location.

Commercial/Institutional Source Reduction and Recycling Programs

Name	Start Date	End Date	Goal(s)
Solid Waste and Recycling Assessments	Existing	Ongoing	Goals 3 and 4

No companies requested audits in 2014. Companies desiring audits are welcome to contact the District and will be directed to businesses that can help with conducting waste audits. The SWMD will add a Business Content page on the website which will contain a Waste Audit How-To Guide and Steps to Better Business Recycling. A flyer will be developed and included as an insert when conducting the annual surveys which will direct businesses to the SWMD website and available resources.

Name	Start Date	End Date	Goal(s)
Waste Exchange – The Interchange	Existing	Ongoing	N/A

In conjunction with the Hamilton County Department of Environmental Services, Office of Solid Waste Management, the SWMD is providing “The Interchange” to over 150 industrial and large commercial businesses in Warren County. The District is grateful to Hamilton County for providing this service to Warren. The Interchange is a materials exchange service. The publication is updated and distributed quarterly.

In 2017, Ohio EPA plans to release a new online service for Ohio businesses, not-for-profits and government organizations. The Ohio Materials Marketplace will be an online platform where businesses can advertise and acquire potentially useful products and materials that might otherwise be destined for disposal in landfills. Once launched the website link will be added to the SWMD webpage.

Restricted/Difficult to Manage Waste Programs

Name	Start Date	End Date	Goal(s)
Annual Electronics Collection Event	Existing	Ongoing	Goals 5 and 2

The SWMD offers an annual electronic collection event. The SWMD contracts with a private business to manage electronics at the collection event and remove for further processing. At the Spring 2014 collection event 16 tons of computers, TVs, monitors, etc. were collected. In 2014, Cohen Recycling provided the contracted services. The SWMD charged a nominal fee for TVs and CTR monitors; all other electronic devices were accepted for free. The SWMD reserves the right to charge user fees for any electronics collected. The City of Mason also conducted a free e-cycle day, which resulted in 16 tons of materials recycled.

Name	Start Date	End Date	Goal(s)
HHW Information - Website	Existing	Ongoing	Goals 5, 3 and 4

Locations where residents may dispose of HHW are listed on the District’s web page. Residents are encouraged to call the District for information. January 2015 the SWMD began a latex paint collection program. The District built a shed to serve as a drop-off location for residents to drop-off leftover latex paint. The site is un-attended but monitored on a routine basis. Once the shed has a larger quantity of paint cans, District staff delivers the paint cans to a private facility for recycling. Providing costs and manageability are reasonable, paint will continue to be collected.

Name	Start Date	End Date	Goal(s)
HHW Management Strategy	2019	2021	Goals 5

Currently the SWMD directs residents to businesses accepting HHW for proper treatment or disposal. Unfortunately all of these outlets are located out of district. To explore more convenient outlets for residents the SWMD will conduct a study over this planning period. As outlined below the study will help the SWMD identify resident and stakeholder interest and management costs. Residents and community stakeholders will be engaged to ascertain resident and stakeholder interest and need. The SWMD hopes to understand if:

1. Residents want/need convenient opportunities.
2. Stakeholders want/need convenient services for residents.
3. Residents will/will not pay for services.
4. Stakeholders will/will not pay for services.
5. Partnerships are feasible (political jurisdictions, large businesses)

Engagement may include surveys, focus groups, and presentations. In addition the SWMD will research service opportunities and costs. Service opportunities to explore include:

- One-day collection events
- Multiple-day collection events
- Semi-permanent collection

The SWMD has a goal to conduct the study over the next three years using the following timeline as a guide:

- 2019: Engage residents and community stakeholders.
- 2020: Research options, costs, benefits, user fees, and partnerships.
- 2021: Develop a strategy/program if study based on research and engagement.

Information and research obtained from the study will be presented to the policy committee. Based on this information many program options could be explored. The SWMD will be looking for a solution that is sustainable and may provide assistance and be resourceful. Minimal program expenses are budgeted annually and might be used for program solutions and research.

Name	Start Date	End Date	Goal(s)
Lead-Acid Battery Information	Existing	Ongoing	Goals 5, 3 and 4

Locations where residents may dispose of lead-acid batteries are listed on the District's web page. As retailers and materials are identified the website will be updated. Take-back programs vary so residents are guided to contact retailers prior to dropping off materials.

Name	Start Date	End Date	Goal(s)
Scrap Tire Disposal Information - Website	Existing	Ongoing	Goals 5, 3 and 4

Locations that accept tires are listed on the District's web page. As retailers and materials are identified the website will be updated. Take-back programs vary so residents are guided to contact retailers prior to dropping off materials. According to Ohio EPA's Scrap Tire Report 1,256 tons of tires were recycled in 2014. It is believed that this amount includes tires recycled from the District's Litter Program.

Name	Start Date	End Date	Goal(s)
Yard Waste Collection from Municipalities/Private Haulers	Existing	Ongoing	Goals 5 and 2

Some cities, villages, and townships (Springboro, Mason, and Deerfield Township, Lebanon, and Franklin) in the SWMD have curbside yard waste pickup of some or all yard waste materials and/or drop-off locations. Either the public entity provides the service or contracts with a private business/hauler. Collection frequency varies (each city or

village maintains their own level of service list). The District's website guides residents to the city, village, and township websites for information about their programs. Two private haulers, Waste Management and Rumpke offer subscription based curbside yard waste from their customers.

Amounts collected by the public entities or from private haulers are unknown.

Name	Start Date	End Date	Goal(s)
Yard Waste Information - Website	Existing	Ongoing	Goals 5, 3 and 4

Yard waste management is decentralized. Collection or drop-off opportunities are made available by the city, village or township. The District's website guides residents to the city, village, and township websites for information about their programs. There are four registered Class IV compost facilities operating within the District.

According to Ohio EPA's Annual Composting Report, Warren County composted 3,244 tons of yard waste, 2,527 tons of food waste.

Other Material Specific Programs

Name	Start Date	End Date	Goal(s)
Food Waste Management	2018	Ongoing	N/A

This program will focus on food waste reduction and recovery. A food waste content page will be added to the SWMD website to depict the Food Waste Hierarchy and link to US EPA's Food Recovery Challenge. The website will include education focused on minimizing the amount of food organics generated and disposed for both the residential and commercial sectors. Research will be conducted to identify opportunities and existing donation programs. The SWMD will promote and assist distribution networks of food donation programs by identifying local outlets (such as food banks) on the website.

Education and Outreach Programs

Name	Start Date	End Date	Goal(s)
District Website	Existing	Ongoing	Goals 3 and 4

The SWMD maintains a website meeting the requirements prescribed by Goal 3 of the 2009 State Plan. The website was updated in 2014. The site promotes recycling and includes locations where materials may be taken and information about the Education and Awareness Program.

The website has the essential information and ease of navigability. To build upon its success the SWMD will monitor and update the site at least quarterly to contain accurate and up-to-date information at all times. The SWMD will work with all 24 political jurisdictions to add the SWMD's website link to their home webpages and help to add community recycling information to their specific websites. The District will also begin developing a common suite of materials and messaging to promote and enhance recycling information which will be made available on the website and promoted to the 24 political jurisdictions to include on their websites.

The website will add a Business content page which will include recycling resources such as the 6 drop-off containers in the northern half of the District that accept newspapers, Waste Audit How-To Guide and Steps to Better Business Recycling.

Name	Start Date	End Date	Goal(s)
Resource Guide	Existing	Ongoing	Goals 3 and 4

The SWMD maintains a Resource Guide on the website to identify materials and locations where materials may be taken for recycling.

Name	Start Date	End Date	Goal(s)
Education Provider	Existing	Ongoing	Goals 3 and 4

The SWMD employs a part-time educator which meets the requirements prescribed by Goal 3 of the 2009 State Plan. The educator presents lessons on solid waste issues to classrooms, provides assistance in setting up classroom recycling and/or composting projects, and assists environmental clubs. Lessons to classrooms correlate to state standard, benchmarks, and grade-level indicators. Teachers can call to schedule a lesson presentation. In 2014, the educator presented 158 lessons to 4,025 individuals.

Name	Start Date	End Date	Goal(s)
Educational Presentations/Displays	Existing	2018	Goals 3 and 4

In 2014, educational displays were presented at the County Fair, Coney Island and the Cincinnati Zoo. Literature was distributed at several community events. This program will be incorporated in the outreach and marketing plan.

Name	Start Date	End Date	Goal(s)
Technical Assistance/Resource Information	Existing	2018	Goals 3 and 4

This program will be incorporated and expanded in the outreach and marketing plan.

Name	Start Date	End Date	Goal(s)
Outreach and Marketing Plan	2018	Ongoing	Goals 3 and 4

Target Audience Strategies

6. Residential Sector

Strategy	Description
Adult Education	Classes presented by Educator are available upon request. Main focus is reducing waste, recycling, and composting. Adult education focuses on small audience bases and specific messaging for the audience group. In 2014, no requests to adult groups were requested. The SWMD will develop a list of civic groups and garden clubs and compile a list of contacts. Presentations available will be emailed to the contact list and posted on social media.
Educational Displays	In 2014, SWMD displays were set at the County Fair, Coney Island, and Cincinnati Zoo. Goal is to provide information. Displays at large venues offer a wider audience base for SWMD messaging. The Educator and/or Coordinator staff the display for one-on-one engagement.
Get Caught Recycling	Once a week throughout the month of October the SWMD will visit communities and reward a resident who is "caught" curbside recycling. The SWMD will publicize the person caught recycling by placing ads in the community newspaper journals and post on social media. The SWMD hopes to encourage peer influence through social diffusion.
Curbside Campaign	Goal is to increase communication to residents. SWMD will utilize social media and haulers. The SWMD will host a meeting with the haulers to discuss participation, contamination, and any other issues for solutions or targeted outreach messages needed. The SWMD will work with the haulers to deliver the messages via various media platforms (flyers, mailers, recycling containers, newsprint, etc.) Social media message campaigns targeted to be posted monthly include: <ul style="list-style-type: none"> Vivid portrayal of Warren County garbage produced annually describing in terms relatable to County residents. Messaging will be followed with a specific action (curbside recycling) to solve the refuse problem. Vivid portrayal of materials causing the MRF problems and why. Messaging will be followed with a specific photo list of acceptable materials. Thank you messaging to residents for recycling the correct materials. True cost of recycling to residents. Messaging will be followed with recycling statistics. 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.

7. Commercial/Institutional Sector

Strategy	Description
Away From Home	Focus will be placed to contact away from home venues via phone solicitation to identify recycling activities. The SWMD believes more recycling occurs than is captured via data survey efforts. A target of 5 phone calls is planned each year beginning in 2018. The 2018 target is on amusement parks and event venues. Goal will be to inventory recycling activities, offer provision of technical assistance for reducing waste and promoting recycling, and create long-term partnerships. If recycling programs are in place the SWMD may expand to other venues: local park district, libraries, hotels, service stations, etc.
Recognition	Businesses (commercial/institutional/industrial) demonstrating commitment to waste reduction and recycling are eligible for recognition. The Board of Commissioners, Policy Committee, or SWMD staff nominates businesses. At a minimum once a year the SWMD will review the nominations and identify four businesses that qualify for recognition. In 2014, exactly four businesses were nominated. Recognition includes an annual recognition breakfast with the Board of Commissioners, Policy Committee and SWMD staff. In 2018, recognized businesses will be added to the Business Content page on the SWMD website.

8. Industrial Sector

Strategy	Description
Recognition	Businesses (commercial/institutional/industrial) demonstrating commitment to waste reduction and recycling are eligible for recognition. The Board of Commissioners, Policy Committee, or SWMD staff nominates businesses. At a minimum once a year the SWMD will review the nominations and identify four businesses that qualify for recognition. In 2014, exactly four businesses were nominated. Recognition includes an annual recognition breakfast with the Board of Commissioners, Policy Committee and SWMD staff. In 2018, recognized businesses will be added to the Business Content page on the SWMD website.

9. Political Leaders

Strategy	Description
Community Report	SWMD will develop a community report tracking recycling, composting and refuse tonnages for each community within the District. The report will be produced annually, posted on the website and mailed to political jurisdictions.
Presentations	The SWMD will be available to speak at meetings on recycling, trash, etc. Political jurisdictions request presentations by emailing or phoning the SWMD.
Contract Assistance	The SWMD is available to assist political jurisdictions with collection service contracts. Political jurisdictions may request assistance by emailing or phoning the SWMD.
Community Website Updating	Political jurisdictions could benefit by providing a link to the SWMD's website on their webpages. The SWMD will contact each of the political jurisdictions not offering a link to request setting a link.

10. Schools

Strategy	Description
Classroom Lessons	Every school district in the county receives classes at no charge. Currently, there are 17 lessons available. The lessons are appropriate for students in preschool through adult age and are hands-on. Examples of the lessons include recycling paper or plastics. Each lesson is correlated to State Proficiency Learning Outcomes. The main focus of the classes is recycling, reducing waste, and composting.
School Administrators	The SWMD is available to assist schools in setting up recycling programs. Schools request assistance by emailing or phoning the SWMD. In 2015, the SWMD met with Kings Local School District to discuss lunchroom recycling.

Grant Programs

Name	Start Date	End Date	Goal(s)
Recycling Mini-Grants	Existing	Ongoing	Goal 6

In 2015, the SWMD began offering Recycling Mini-Grants to Warren County schools, scouts and non-profit groups of up to \$250 for use in composting and recycling projects. The number of grants awarded depends on the amount

requested and funds available. Grants are competitive. In 2015 the SWMD provided grants to a school to provide recycling containers.

Economic Incentive Programs

Name	Start Date	End Date	Goal(s)
none			Goal 6

The SWMD has elected not to prepare an economic incentive strategy.

Market Development Programs

Name	Start Date	End Date	Goal(s)
none			Goal 8

The SWMD has elected not to prepare a market development strategy.

Data Collection

Name	Start Date	End Date	Goal(s)
District Recycling Surveying Program	Existing	Ongoing	Goals 2 and 9

The SWMD surveys the waste haulers annually to determine the amount of materials collected for recycling from residents and businesses in the District. Commercial and industrial surveying is administered at a minimum every five years.

In 2014, the District utilized Ohio EPA's data for commercial recycling information and conducted an industrial survey. Information from these surveys is included in Appendix E and F.

In 2018, the SWMD plans to annually target a small portion of commercial businesses. Phone surveys will be conducted to 4 different businesses a year. Providing the 4 businesses complete the phone survey, subsequent years will be followed with a paper survey. The SWMD has limited staffing and will not conduct a mass commercial survey effort. Targeting 4 businesses a year could grow into a large survey list, the SWMD will not exceed 20 annual surveys.

Other Programs

Name	Start Date	End Date	Goal(s)
Curbside Recycling Monitoring Plan	Existing	Ongoing	Goal 1

Monitoring Plan was developed to identify and detect any waste hauler deviating from the standards set forth in the Performance Obligations (see Appendix R Performance Obligations). On a semi-annual basis, anonymous calls are made to each waste hauler requesting service information for an address within their service area. These are made for each of the 11 townships located within the District.

If a waste hauler fails to offer non-subscription curbside recycling service as part of the service package, the specific company will be notified immediately that it is in violation of the Performance Obligation. The waste hauler will be given 30 days to rectify the situation, and return to compliance with the Performance Obligation. Since the monitoring will be done unannounced and semi-annually, any failure will be identified and resolved quickly. If a waste hauler fails to return to compliance, the District will implement Contingency 1 in which sufficient drop-off recycling stations will be set up until the District is again reaching 90% access.

Any new waste hauler that begins operation in the District must register with the Warren County Health Department. The County Health Department will notify the District and provide the information concerning the new hauler. The District will contact the new hauler and inform them of the Performance Agreement that must be signed. The waste hauler will be given 3 months to sign the agreement and begin offering non-subscription curbside recycling services along with the trash collection for the unincorporated township areas. Once the agreement is signed, the new hauler will be included in the monitoring program outlined above.

As part of the District's Annual Report, an annual Monitoring Report will be submitted to the Ohio EPA that includes the following information:

- a) Percentage of households receiving curbside recycling service.
- b) Results of monitoring phone calls, and
- c) Recycling tonnages from the curbside program.

A copy of the monitoring form can be found in Appendix S Monitoring Forms. Calls were made to trash haulers to ensure that curbside recycling was included as part of trash service to all county residents. All trash haulers are including curbside recycling as part of the trash package.

Name	Start Date	End Date	Goal(s)
Contingency 1 – Drop-off Recycling	Existing	Ongoing	Goal 1

Contingency 1 was developed if a waste hauler was determined to be in violation of the Performance Obligation Agreement due to not offering non-subscription curbside recycling service to households in the unincorporated areas of the townships, and exceeded the 90-day grace period to be back in compliance. Contingency 1 allows the District to site and operate drop-off recycling stations in specific areas of the townships. Each site would have two 6-cubic yard dumpsters to collect at a minimum paper, glass, plastics, and metals. Drop-off recycling stations would be available 24 hours a day, 365 days a year.

Contingency 1 will only be triggered if access drops below 90 percent. For planning purposes the SWMD calculated how many persons would equate to dropping below 90 percent access. Based on calculations, see table below, the SWMD's access demonstration will fall below 90 percent if more than 23,258 persons are no longer serviced with non-subscription curbside recycling. The below table is an example demonstration of unincorporated areas not receiving the population credit for a non-subscription curbside program.

ID #	Warren	Calendar Year 2022		
	Name of Community (City, Village, Township)	Community Population	Population Credit	Population Credit if Unincorporated Areas Not Serviced with Non-subscription Curbside
Non-subscription curbside				
NSC1	Butlerville Village	172	172	172
NSC2	Carlisle Village	5161	5161	5161
NSC3	Clearcreek Township	15508	15508	*
NSC4	Corwin Village	452	452	452
NSC5	Deerfield Township	39549	39549	39549
NSC6	Franklin City	12219	12219	12219
NSC7	Franklin Township	12658	12658	*
NSC8	Hamilton Township	22899	22899	22899
NSC9	Harlan Township	4802	4802	4802
NSC10	Harveysburg Village	571	571	571
NSC11	Lebanon City	21140	21140	21140
NSC12	Maineville Village	1002	1002	1002
NSC13	Mason City	32706	32706	32706
NSC14	Massie Township	651	651	*

ID #	Warren	Calendar Year 2022		
	Name of Community (City, Village, Township)	Community Population	Population Credit	Population Credit if Unincorporated Areas Not Serviced with Non-subscription Curbside
NSC15	Morrow Village	1305	1305	1305
NSC16	Pleasant Plain Village	160	160	160
NSC17	Salem Township	3485	3485	*
NSC18	South Lebanon Village	4452	4452	4452
NSC19	Springboro City	17356	17356	17356
NSC20	Turtlecreek Township	15275	15275	15275
NSC21	Union Township	2569	2569	*
NSC22	Washington Township	2966	2966	*
NSC23	Wayne Township	5421	5421	*
NSC24	Waynesville Village	3071	3071	3071
Subscription curbside				
	none			
Full-time, urban drop-off				
FTU1	Deerfield Township - 8395 Snider Road	39549	5000	5000
FTU2	Lebanon City - 406 Justice Drive	21140	5000	5000
FTU3	Lebanon City - 50 S Broadway	21140	5000	5000
FTU4	Mason - 2095 Kings Mill Road	32706	5000	5000
Part-time, urban drop-off				
	none			
Full-time, rural drop-off				
	none			
Part-time, rural drop-off				
	none			
Mixed municipal waste material recovery facility				
	none			
Total Warren County Population			225,552	225,552
Total Population Credit			245,552	202,294
Population Difference			0	23,258
Percent of Population			109%	90%

Note: * For example demonstration shows no population credit.

At this time specific townships and locations are not identified. Any combination of drop-offs could be needed, depending on whether the township is rural or urban. At most, the SWMD would need to locate 10 rural drop-offs. In the event the District implements Contingency 1, the District will maintain drop-off locations as it explores the feasibility of implementing Contingency 2.

All trash haulers operating in the county continue to require curbside recycling to their customers, therefore there has been no need to implement Contingency 1.

Name	Start Date	End Date	Goal(s)
Contingency 2 – Franchise Service Areas	Existing	Ongoing	Goal 1

Contingency 2 was developed if Contingency Plan 1 was in operation for two consecutive years. Contingency 2 would allow the District to franchise the service areas in the unincorporated portions of the townships in the District for households to receive waste and non-subscription curbside recycling service. The District will assist in the preparation of bid specifications that will minimally include all the provisions contained in the Performance Obligation

agreements and any language specified by the Ohio Revised Code. Bid consideration will not be given to any trash hauler that was out of compliance with the original Performance Obligation and caused the District to go into the Contingency Plan. While not finally determined at this time, billing for the services and collection of monies from households will lie primarily with the waste hauler receiving bid for the service. The bidding and evaluation of the process will be managed jointly by the District and the Township Trustees. Waste haulers will be responsible for fulfilling the requirements of the bid by collecting the waste and recyclables, preparing and submitting specified reporting information, and maintaining educational outreach efforts. The goal of this strategy is to return to compliance with Goal #1 Access utilizing non-subscription curbside recycling service for the households in these areas.

All trash haulers operating in the county continue to require curbside recycling to their customers, therefore there has been no need to implement Contingency 2.

Name	Start Date	End Date	Goal(s)
Performance Obligation Agreements – All Haulers	Existing	Ongoing	Goal 1

Copies of Obligation Agreements are on file with the District. All trash haulers operating with the District have signed agreements.

Name	Start Date	End Date	Goal(s)
Roadside Litter Collection Programs	Existing	Ongoing	none

The District has two full-time employees that utilize people sentenced to community service through the courts to aid in the cleanup activities. The number of road miles serviced, the number of parks served, bags of trash, tires, etc. collected and total hours worked by employee and community service worker are recorded annually. Through this program, in 2014, 412 miles of roadsides and many parks in the County were cleaned. This work generated 7091 bags of trash and approximately 500 tires. The District coordinates the program in conjunction with the Warren County Court, Warren County Common Pleas Court, Adult probation, Municipal Courts of Lebanon, Franklin, Mason, Waynesville, South Lebanon plus Warren County Juvenile Court.

This page intentionally left blank

APPENDIX J: REFERENCE YEAR OPPORTUNITY TO RECYCLE AND DEMONSTRATION OF ACHIEVING GOAL 1

A. Residential Sector Opportunity to Recycle in the Reference Year

Demonstrating compliance with Goal 1 means the SWMD shall ensure adequate infrastructure to give residents and commercial businesses opportunities to recycle solid waste.

Table J-1 Opportunity to Recycle

ID #	Warren	2014		2022		2027		2032	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit	Community Population	Population Credit	Community Population	Population Credit
<i>Non-subscription curbside</i>									
NSC1	Butlerville Village	166	166	172	172	176	176	179	179
NSC2	Carlisle Village	4989	4989	5161	5161	5277	5277	5368	5368
NSC3	Clearcreek Township	14990	14990	15508	15508	15855	15855	16130	16130
NSC4	Corwin Village	437	437	452	452	462	462	470	470
NSC5	Deerfield Township	38228	38228	39549	39549	40433	40433	41136	41136
NSC6	Franklin City	11811	11811	12219	12219	12492	12492	12709	12709
NSC7	Franklin Township	12235	12235	12658	12658	12941	12941	13166	13166
NSC8	Hamilton Township	22134	22134	22899	22899	23411	23411	23817	23817
NSC9	Harlan Township	4642	4642	4802	4802	4910	4910	4995	4995
NSC10	Harveysburg Village	552	552	571	571	584	584	594	594
NSC11	Lebanon City	20434	20434	21140	21140	21613	21613	21988	21988
NSC12	Maineville Village	969	969	1002	1002	1025	1025	1043	1043
NSC13	Mason City	31613	31613	32706	32706	33437	33437	34017	34017
NSC14	Massie Township	629	629	651	651	665	665	677	677
NSC15	Morrow Village	1261	1261	1305	1305	1334	1334	1357	1357
NSC16	Pleasant Plain Village	155	155	160	160	164	164	167	167
NSC17	Salem Township	3369	3369	3485	3485	3563	3563	3625	3625
NSC18	South Lebanon Village	4303	4303	4452	4452	4551	4551	4630	4630

ID #	Warren	2014		2022		2027		2032	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit	Community Population	Population Credit	Community Population	Population Credit
NSC19	Springboro City	16776	16776	17356	17356	17744	17744	18052	18052
NSC20	Turtlecreek Township	14765	14765	15275	15275	15617	15617	15888	15888
NSC21	Union Township	2483	2483	2569	2569	2626	2626	2672	2672
NSC22	Washington Township	2867	2867	2966	2966	3032	3032	3085	3085
NSC23	Wayne Township	5240	5240	5421	5421	5542	5542	5639	5639
NSC24	Waynesville Village	2968	2968	3071	3071	3139	3139	3194	3194
Subscription curbside									
	none								
Full-time, urban drop-off									
FTU1	Deerfield Township - 8395 Snider Road	38228	5000	39549	5000	40433	5000	41136	5000
FTU2	Lebanon City - 406 Justice Drive	20434	5000	21140	5000	21613	5000	21988	5000
FTU3	Lebanon City - 50 S Broadway	20434	5000	21140	5000	21613	5000	21988	5000
FTU4	Mason - 2095 Kings Mill Road	31613	5000	32706	5000	33437	5000	34017	5000
Part-time, urban drop-off									
	none								
Full-time, rural drop-off									
	none								
Part-time, rural drop-off									
	none								
Mixed municipal waste material recovery facility									
	none								
Total County Population		221,659		225,552		230,592		234,598	
Total Population Credit		238016		245552		250592		254598	
Percent of Population		107%		109%		109%		109%	

Source(s) of Information: Office of Research, Ohio Development Services Agency, "2014 Population Estimates by County, City, Village and Township", May 2015

Residential infrastructure the SWMD credits to achieving Goal 1 includes non-subscription curbside recycling and full-time urban drop-offs. The SWMD is using the standard demonstration established in the 2009 State Plan to show compliance with Goal 1. Demonstration involves assigning population credits to the opportunities. Generally the most convenient programs that serve the largest populations receive the most population credits.

Non-subscription curbside recycling programs credit the entire population of a jurisdiction that is served by a qualifying non-subscription curbside program toward the population that has the opportunity to recycle. The following five minimum materials are collected: newspaper, mixed paper, steel containers, aluminum containers and plastic containers.

Drop-offs, as demonstrated in this 2018 Plan Update, assign default population credit if the drop-offs: collect at least five of the materials listed in the Format 4.0 Appendix J Reference Table A; easily accessible to residents; meet minimum capacity standards; have adequate signage; and meets the demand of the population. The default population credit for full-time urban drop-offs is 5,000. The following five minimum materials are collected: newspaper, mixed paper, steel containers, aluminum containers and plastic containers. Two 6-cubic yard containers are located at each site thus meeting the minimum 10-cubic yards of capacity for urban drop-offs.

Format 4.0 limits the credit for infrastructure in a community to the population of an entire community, up to and including the entire credit for a drop-off that would be needed to achieve providing 100% of the residential population with access to recycling infrastructure. This limit affects the access credit demonstration for the SWMD. Deerfield Township and the Cities of Mason and Lebanon receive the full population credit for their non-subscription curbside recycling programs. Since these communities receive full population credit they cannot receive additional population credit for the full-time drop-off locations.

The SWMD achieved Goal 1 in the reference year and will continue to achieve Goal 1 throughout the planning period as shown in Table J-1.

Format 4.0 provides alternate demonstrations for achieving Goal 1 requiring completion of Tables J-2 or J-3. The SWMD demonstrated achieving Goal 1 using the default population credits thus Tables J-2 and J-3 are not used.

B. Commercial Sector Opportunity to Recycle

Table J-4 Demonstration of Commercial Opportunity to Recycle

Service Provider	Type of Recycling Service Provided	Corrugated Cardboard	Newspaper	Mixed Paper	Steel Containers	Aluminum Containers
Warren						
Republic Waste Services	Hauler Collection	x	x	x	x	x
Rumpke Waste, Inc.	Hauler Collection	x	x	x	x	x
Waste Management	Hauler Collection	x	x	x	x	x
Mindlin Recycling	Buyback	x	x		x	x
Private Paper Drop-off (First United Methodist Church)	Privately provided and operated paper only Drop off		x			
Private Paper Drop-off (Franklin Township)	Privately provided and operated paper only Drop off		x			
Private Paper Drop-off (St. Mary's Church)	Privately provided and operated paper only Drop off		x			
Private Paper Drop-off (Turtlecreek Township Fire Station)	Privately provided and operated paper only Drop off		x			
Private Paper Drop-off (Franklin Township Park at Hunter)	Privately provided and operated paper only Drop off		x			
Private Paper Drop-off (S.P. Recycling)	Privately provided and operated paper only Drop off		x			

Source(s) of Information: Phone calls with haulers and recyclers.

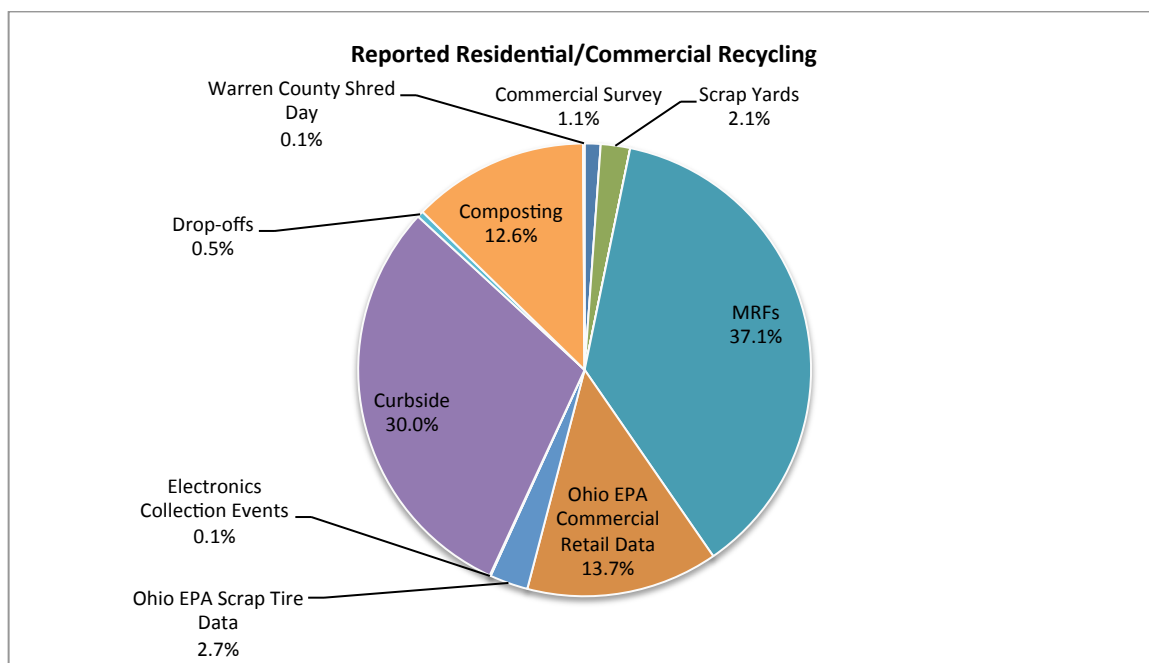
Commercial infrastructure the SWMD credits to achieving Goal 1 includes recycling service providers/haulers that offer collection services to commercial/institutional generators throughout the county and buybacks operations/scrap yards located within the county. The following five minimum materials are collected: corrugated cardboard, newspaper, mixed paper, steel containers, and aluminum containers.

C. Demonstration of Other Requirements for Achieving Goal 1

1. Residential/Commercial Waste Reduction and Recycling Rate

As a requirement to achieving Goal 1 the SWMD must demonstrate that the SWMD did achieve a 25 percent residential/commercial waste reduction and recycling rate or will achieve annual increases in the reduction and recycling rate during the planning period. Appendix K calculates the residential/commercial solid waste reduction and recycling rate for the reference year and the planning period. The reference year rate is 21 percent, less than 25 percent thus the SWMD is striving to raise this rate over the planning period.

The SWMD consistently receives great data from haulers servicing curbside programs. Curbside programs account for recycling about 30 percent of the residential/commercial reported recycling. As shown below, 30 percent of the waste reduction and recycling rate is attributed to the curbside program. While this is a good tonnage of recycling some of the curbside programs could be better performing. During this planning period an outreach effort will be made to the communities measuring low pounds per household in recycling. This outreach effort is described in Appendices I and L.



If the SWMD could capture more data from the commercial sector the recycling rate would most likely calculate higher than demonstrated. Commercial data obtained is from Ohio EPA data efforts. The SWMD is limited in staff and resources to conduct commercial sector surveys and spend the time necessary to follow up for responses. During this planning period an outreach effort will be made to capture more commercial sector information. This outreach effort is described in Appendices I and L.

2. Industrial Waste Reduction and Recycling Rate

As a requirement to achieving Goal 1 the SWMD must demonstrate that the SWMD did achieve a 66 percent industrial waste reduction and recycling rate in the reference year or will achieve annual increases in the reduction and recycling rate during the planning period. Appendix K calculates the industrial solid waste

reduction and recycling rate for the reference year and the planning period. The reference year rate is 72.9 percent, more than 66 percent thus the SWMD meets the industrial goal rate.

3. Encouraging Participation

The SWMD will encourage residents and commercial generators to participate in available recycling infrastructure. Programs include:

- District website
- Get Caught Recycling
- Curbside Campaign

Appendices I and L provide more explanation on outreach/education programs planned for this planning period.

This page intentionally left blank

APPENDIX K WASTE REDUCTION AND RECYCLING RATES AND DEMONSTRATION OF ACHIEVING GOAL 2

Table K-1 Annual Rate of Waste Reduction: Residential/Commercial Solid Waste

Year	Population	Recycled	Disposed	Total Generated	Waste Reduction & Recycling Rate (%)	Per Capita Waste Reduction & Recycling Rate (ppd)
2014	219,257	46,140	173,286	219,426	21.03%	1.2
2015	221,944	46,534	178,041	224,574	20.72%	1.1
2016	222,229	46,711	180,943	227,654	20.52%	1.2
2017	222,514	46,886	183,893	230,779	20.32%	1.2
2018	222,798	47,069	186,890	233,959	20.12%	1.2
2019	223,083	47,261	189,936	237,196	19.92%	1.2
2020	223,368	47,393	187,326	234,719	20.19%	1.2
2021	224,460	47,587	185,418	233,005	20.42%	1.2
2022	225,552	47,722	183,525	231,247	20.64%	1.2
2023	226,644	47,918	181,647	229,565	20.87%	1.2
2024	227,736	48,115	179,785	227,900	21.11%	1.2
2025	228,828	48,313	183,357	231,670	20.85%	1.2
2026	229,710	48,512	186,824	235,337	20.61%	1.2
2027	230,592	48,713	190,355	239,067	20.38%	1.2
2028	231,474	48,914	193,949	242,863	20.14%	1.2
2029	232,356	49,117	197,608	246,726	19.91%	1.2
2030	233,238	49,321	195,383	244,704	20.16%	1.2
2031	233,918	49,527	193,013	242,540	20.42%	1.2
2032	234,598	49,733	190,671	240,404	20.69%	1.2

Source(s) of Information

Appendix C, Table C-1

Appendix D, Table D-3

Appendix E, Table E-4 and Table E-5

Appendix G, Table G-1 and Table G-2

Table K-2 Annual Rate of Waste Reduction: Industrial Solid Waste

Year	Waste Reduced and Recycled (tons)	Waste Disposed (tons)	Waste Generated (tons)	Waste Reduction and Recycling Rate (percent)
2014	42,837	15,889	58,726	72.94%
2015	42,893	15,909	58,802	72.94%
2016	42,948	15,930	58,878	72.94%
2017	43,004	15,951	58,955	72.94%
2018	43,060	15,972	59,032	72.94%
2019	43,116	15,992	59,108	72.94%
2020	43,172	16,013	59,185	72.94%
2021	43,228	16,034	59,262	72.94%
2022	43,284	16,055	59,339	72.94%
2023	43,341	16,076	59,416	72.94%
2024	43,397	16,097	59,494	72.94%
2025	43,453	16,117	59,571	72.94%
2026	43,510	16,138	59,648	72.94%
2027	43,566	16,159	59,726	72.94%
2028	43,623	16,180	59,804	72.94%
2029	43,680	16,201	59,881	72.94%
2030	43,737	16,223	59,959	72.94%
2031	43,793	16,244	60,037	72.94%
2032	43,850	16,265	60,115	72.94%

Source(s) of Information
Appendix C, Table C-1
Appendix D, Table D-3
Appendix F, Table F-4 and Table F-5
Appendix G, Table G-1 and Table G-2

Table K-3 Annual Rate of Waste Reduction: Total Solid Waste

Year	Waste Reduced and Recycled (tons)	Waste Disposed (tons)	Waste Generated (tons)	Waste Reduction and Recycling Rate (percent)
2014	88,977	189,175	278,151	31.99%
2015	89,426	193,950	283,376	31.56%
2016	89,659	196,873	286,532	31.29%
2017	89,890	199,843	289,734	31.03%
2018	90,129	202,862	292,991	30.76%
2019	90,377	205,928	296,305	30.50%
2020	90,565	203,339	293,904	30.81%
2021	90,815	201,452	292,267	31.07%
2022	91,006	199,580	290,586	31.32%
2023	91,259	197,723	288,982	31.58%
2024	91,512	195,881	287,393	31.84%
2025	91,767	199,474	291,241	31.51%
2026	92,022	202,963	294,985	31.20%
2027	92,279	206,514	298,793	30.88%
2028	92,537	210,129	302,667	30.57%
2029	92,797	213,810	306,607	30.27%
2030	93,058	211,606	304,663	30.54%
2031	93,320	209,257	302,577	30.84%
2032	93,584	206,936	300,519	31.14%

Source(s) of Information
Appendix K, Table K-1 and Table K-2

APPENDIX L MINIMUM REQUIRED EDUCATION PROGRAMS: OUTREACH AND MARKETING PLAN AND GENERAL EDUCATION REQUIREMENTS

A. Minimum Required Education Programs

Website

The SWMD has a website that was recently “re-modeled” in 2014. The website is updated as often as needed or at least annually. The SWMD site is a County web address site but maintained by the District Coordinator.

Resource Guide

The SWMD has a resource guide that details the inventory of outlets available for recyclable materials. The resource guide is maintained on the website, reviewed and updated annually.

Infrastructure Inventory

The SWMD provides a complete infrastructure inventory within the solid waste management plan, which is updated every 5 years. In addition the SWMD website maintains a limited inventory. Items on the website include:

- Solid waste disposal facilities
- Construction and demolition debris facilities
- Service providers and hauling services for waste and recycling

Speaker/Presenter

The SWMD employs a part-time Environmental Educator. The duties of the educator include: conducting adult education, teacher, and school-aged classes that focus on recycling, reducing waste, and composting. Adult education classes were provided upon request at libraries and clubs. Educational displays were presented at the County Fair, Coney Island and the Cincinnati Zoo and literature was distributed at several community events. Designed and have available 17 classroom lessons. The lessons are appropriate for students in preschool through adult age and are hands-on. Examples of the lessons include recycling paper or plastics. Each lesson is correlated to State Proficiency Learning Outcomes. The District’s Environmental Educator presented 158 lessons to 4,025 individuals.

B. Outreach and Education – Outreach Plan and General Education Requirements

1. Evaluation

Each SWMD’s outreach and marketing plan must address, at a minimum, five target audiences (residents, schools, industries, institutions and commercial businesses, communities and elected officials).

a. Target audiences

The SWMD has education and outreach programs to address schools and residents. Assistance is provided to the other target audiences when they contact the SWMD. The SWMD has a small staff consisting of one district coordinator and one part-time educator which is limiting to the types and number of outreach and education programs that can be implemented. In addition, some types of marketing items can be costly.

There are several entertainment/event venues located within the SWMD that may need special attention. The SWMD has not been engaged with these audiences in the past.

b. Effectiveness of Existing Programs

1. Website

This program targets all audiences but is mostly geared for residents. Information is readily accessible and easy to navigate. The content is up-to-date. The website is very limited as a resource to industrial and commercial sectors. Web user feedback is not tracked.

2. Educational Presentations/Displays

This program is targeted at two audiences: school aged children and adults. These audiences fall under schools and residents.

Schools: The educator has developed 17 different classroom lessons for schools. The lessons are appropriate for students in preschool through adult age and are hands-on. Examples of the lessons include recycling paper or plastics. Each lesson is correlated to State Proficiency Learning Outcomes. The educator and the lessons are in high demand from the schools. This program is designed to be delivered by the educator and teachers if teachers participate in the Teacher Partnership program. School education meets the desired outcome of reaching and delivering the message to many students and teachers.

Residents: Adult education classes were provided upon request at libraries and clubs. Educational displays were presented at the County Fair, Coney Island and the Cincinnati Zoo and literature was distributed at several community events.

Challenges to education programs include: growing responsibilities exceeding part-time employment duties; school involvement depending on a continuous presence; and funding limiting to effectiveness.

The number of lessons and the attendance are quantitative measures. In 2014, the educator presented 158 lessons to 4,025 individuals.

3. Technical Assistance/Resource Information

Technical assistance is provided if the entity/person contacts the SWMD. All resource information is located on the webpage.

Challenges include limited staffing and little engagement.

In 2014, no technical assistance was provided.

2. Conclusions

These conclusions represent what was learned about the SWMD's education and outreach programs. Identified conclusions include:

- School education is stellar and meets state mandated learning requirements.
- School outreach is engaging, targeted, and meets the desired outcome.
- Staffing is limited.
- Budget is limited.
- The SWMD has not comprehensively focused on target audience sectors.
- The website is a great and easily navigable resource.
- The information and target audience sector on the website could be expanded.

- The “why” factor of why people are not utilizing curbside recycling is not understood.
- The SWMD has very limited messages delivered and messages are infrequent.
- All forms of marketing media are not fully utilized.
- Limited promotional items are utilized.

3. List of Actions

Based on the conclusions the Policy Committee has made a list of actions the SWMD could take, programs the SWMD could implement, or other things the SWMD could do to address the identified conclusions. Below is a list of identified actions. Including an item on the list does not mean the Policy Committee has committed the SWMD to do anything with that item. The goal for compiling a list is to provide the Policy Committee with a comprehensive list of ideas to address for this planning period. (Note: Some of the conclusions identified here are also listed in Appendix I.)

- Develop a robust education and outreach campaign for non-subscription curbside recycling.
- Develop a recognition or reward for residential curbside recycling users.
- Encourage commercial recycling activities with outreach and technical assistance.
- Develop incentive programs to encourage recycling for both residential and commercial.
- Dedicate webpage space for reuse and develop a reuse network resource guide.
- Dedicate webpage space for waste minimization.
- Increase District visibility.

4. Priorities

After evaluating the list of actions, the Policy Committee identified education and outreach priorities the SWMD is targeting for implementation during this planning period. Identified priorities include:

- Develop an education and outreach campaign for non-subscription curbside recycling.
- Develop a recognition or reward for residential curbside recycling users.
- Encourage commercial recycling activities with outreach and technical assistance.

5. Programs to Address Priorities

Education and outreach is changing direction with this plan update. New programs are not developed to address priorities. Rather, education and outreach strategies are developed for the 5 targeted audience areas.

Target Audience Strategies (programs are described in Appendix I)

- a. Residential Sector
 - 1) Adult education.
 - 2) Educational Displays.
 - 3) Get Caught Recycling.
 - 4) Curbside Campaign.
- b. Commercial/Institutional Sector
 - 1) Away From Home.
 - 2) Recognition.
- c. Industrial Sector
 - 1) Recognition.
- d. Political Leaders
 - 1) Community Report.
 - 2) Presentations.
 - 3) Contract Assistance.
 - 4) Website Updating.
- e. Schools
 - 1) Classroom Lessons.

2) School Administrators

6. Outreach and Marketing Plan

The SWMD 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 SWMD recycling, reuse and reduction events, list resources, and will also include state and national information.

7. Outreach Priority

After assessing residential recycling programs, the policy committee determines the participation in curbside recycling could improve. One reason is lack of direct communication on acceptable materials. Another reason is lack of outreach to change behaviors.

The Policy Committee chooses increasing residential curbside participation as the SWMD's overall outreach priority. The SWMD will first focus efforts on developing a robust education and outreach campaign.

Messages:

- Identify materials acceptable for recycling
- Promote advantages of curbside collection
- Facts of program and community rates

Types of Media:

- Website
- Social media
- Postcard flyers

Social Influence:

- Implement Get Caught Recycling
- Create social media site and recognize local residents recycling

Lastly, the SWMD may conduct resident surveys intended to probe numerous aspects of household recycling behaviors.

APPENDIX M WASTE MANAGEMENT CAPACITY ANALYSIS

A. Access to Publicly-Available Landfill Facilities

Table M-1 Remaining Operating Life of Publicly-Available Landfills

Facility	Location	Years of Remaining Capacity
In-District		
none		
Out-of-District		
Rumpke Brown County Landfill	Brown County, Ohio	88.1
Rumpke Sanitary Landfill	Hamilton County, Ohio	14.1
Stony Hollow Landfill, Inc	Montgomery County, Ohio	15.9
Suburban Landfill, Inc	Perry County, Ohio	34.3
Celina Sanitary Landfill	Mercer County, Ohio	Data not published
Pine Grove Regional Facility	Fairfield County, Ohio	72.6
Apex Sanitary Landfill	Jefferson County, Ohio	10.6
Pike Sanitation	Pike County, Ohio	74.9
Out-of-State		
Republic Epperson	KY	
Rumpke Pendleton County	KY	
EQ Industrial Services Processing Facility	IN	
Indianapolis Resource Recovery Facility	IN	
Medassure of Indiana Treatment Facility	IN	
Merrell Bros Inc, Indy Disposal Solutions	IN	
Tradebe Treatment & Recycling, LLC	IN	

Source(s) of Information
 Annual District Report Review Forms 2012, 2013, and 2014
 Ohio Solid Waste Facility Data Report 2014

Over the past three years, the SWMD disposed waste in 15 different in-state and out-of-state landfills. The majority of the SWMD's waste was disposed in state at the Rumpke Sanitary Landfill. Rumpke Sanitary Landfill reported 14.1 years of remaining capacity at the end of 2014. To demonstrate the SWMD has adequate disposal capacity the landfill that historically took the largest amounts of the SWMD's waste must have adequate remaining life for the first eight years of the planning period. Rumpke Sanitary Landfill has 14.1 years of remaining capacity which means the landfill has enough permitted airspace to accept waste through year 2028. The first 8 years of the SWMD's planning period are 2018 through 2025. Rumpke Sanitary Landfill has adequate remaining life to manage the SWMD's waste.

B. Access to Captive Landfill Facilities

Captive landfills are not located within the SWMD, thus this section does not relevant to the SWMD.

C. Access to Processing Capacity for Recovered Materials

Table M-4 Processing Facilities Used by the District in the Reference Year

Name of Facility	Location		Type of Facility	Recyclables Accepted from District	
	County	State		Types	Weight (tons)
In-District					
none		OH			
		OH			
		OH			
		OH			
Out-of-District					
Rumpke Cincinnati MRF	Hamilton	OH	MRF (Processing)	Paper, Plastic, Cartons, Metals, Glass, Cardboard	total amount by county not recorded
Rumpke Dayton MRF	Montgomery	OH	Pre-sort, compaction, and transfer	Paper, Plastic, Cartons, Metals, Glass, Cardboard	total amount by county not recorded
		OH			
Out-of-State					
none					
Total					0

Source(s) of Information
Phone Calls

Recycling processing facilities do not have unlimited capabilities for processing materials. In this planning period the SWMD needs to ensure that there is processing capacity for recyclables. The SWMD is projecting a conservative growth in recyclables and has adequate processing capacity available for processing recovered materials.

Two Rumpke owned processing facilities are readily available and within 30 miles from the SWMD. Rumpke Cincinnati MRF is capable of processing 50 tons per hour and can handle approximately 180,000 tons annually. Rumpke's Dayton MRF is a pre-sort, compaction, and transfer facility. Recycling transferred from this facility is hauled to the Rumpke Cincinnati MRF. Rumpke processes a large range of materials including glass bottles & jars, aluminum & steel cans, plastic bottles & jugs, mixed paper, and cartons.

Historically Rumpke, Waste Management, and CSI (Republic Services) haul recyclables. Rumpke has agreements with both Waste Management and CSI.

D. Incinerators and Energy Recovery Facilities

Table M-5 Incinerators and Energy Recovery Facilities Used by the District in the Reference Year

Facility Name	Location		Type of Facility	Waste Processed from the District
	County	State		
In-District				
none		Ohio		
		Ohio		
Out-of-District				
none		Ohio		
		Ohio		
Out-of-State				
none				
Total				0

Notes: If less than five percent of the solid waste generated was incinerated, then incineration is not accounted for.

Incinerating solid waste is not a major component of solid waste management for the SWMD. Less than five percent of the solid waste generated in the reference year was incinerated thus the policy committee does not need to account for incineration.

This page intentionally left blank

APPENDIX N EVALUATING GREENHOUSE GAS EMISSIONS

WARM is a tool that U.S. EPA developed to quantify the effects of waste management decision on greenhouse gas emissions. The model demonstrates the benefits of alternative management technologies over traditional management methods. WARM was applied to the reference year data and data projected for the sixth year of the planning period (year 2023). Both residential/commercial and industrial waste has been included in this analysis. Not all SWMD reported recycling and waste had specific material composition breakdown as identified in WARM's model material composition categories. Some of the category totals were combined to create corresponding input entries available in WARM.

The comparison of greenhouse gas emissions reductions for the reference year versus year 2023 suggests greenhouse gas emissions will be reduced by nearly 5,000 metric tons of carbon dioxide equivalents (MTCO₂E).

The results from WARM are shown below:

Baseline Data Generation WARM Model

GHG Emissions from Baseline Waste Management (MTCO₂E): **(96,963)**

Material	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Anaerobically Digested	Total MTCO ₂ E
Aluminum Cans	162.0	-	-	NA	NA	(1,475)
Glass	1,763.0	10,932.0	-	NA	NA	(266)
Corrugated Containers	8,416.0	-	-	NA	NA	(26,264)
Dimensional Lumber	473.0	17,491.0	-	NA	NA	(18,878)
Yard Trimmings	NA	17,710.0	-	3,244.0	-	(3,659)
Mixed Paper (general)	10,361.0	33,014.0	-	NA	NA	(32,406)
Mixed Metals	691.0	19,896.0	-	NA	NA	(2,596)
Mixed Plastics	1,077.0	38,699.0	-	NA	NA	(318)
Mixed Recyclables	15,549.0	-	-	NA	NA	(43,925)
Food Waste	NA	46,133.0	-	2,527.0	-	24,616
Mixed MSW	NA	25,362.0	-	NA	NA	8,803
Personal Computers	49.0	-	-	NA	NA	(123)
Tires	1,256.0	-	-	NA	NA	(472)

Projected Data

GHG Emissions from Baseline Waste Management (MTCO₂E):

(101,841)

Material	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Anaerobically Digested	Total MTCO₂E
Aluminum Cans	167.9	-	-	NA	NA	(1,530)
Glass	1,827.7	10,561.4	-	NA	NA	(291)
Corrugated Containers	8,724.0	-	-	NA	NA	(27,225)
Dimensional Lumber	490.4	16,898.1	-	NA	NA	(18,320)
Yard Trimmings	NA	17,109.6	-	3,461.3	-	(3,583)
Mixed Paper (general)	10,741.3	31,894.8	-	NA	NA	(33,890)
Mixed Metals	716.4	19,221.5	-	NA	NA	(2,720)
Mixed Plastics	1,116.5	37,387.1	-	NA	NA	(385)
Mixed Recyclables	16,119.0	-	-	NA	NA	(45,536)
Food Waste	NA	44,569.1	-	2,619.7	-	23,750
Mixed MSW	NA	24,502.2	-	NA	NA	8,505
Personal Computers	50.8	-	-	NA	NA	(127)
Tires	1,302.1	-	-	NA	NA	(490)

APPENDIX O FINANCIAL DATA

A. Funding Mechanisms and Revenue Generated

1. Disposal Fee

Table O-1 Disposal Fee Schedule and Revenue (in accordance with ORC Section 3734.57(B))

Year	Disposal Fee Schedule (\$/ton)			Waste Disposed at in-District Landfills (Tons)			Revenue (\$)			Total Disposal Fee Revenue (\$)
	In-District	Out-of-District	Out-of-State	In-District	Out-of-District	Out-of-State	In-District	Out-of-District	Out-of-State	
2010	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2011	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2012	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2013	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2014	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2021	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2022	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2023	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2024	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2025	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2026	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2027	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2028	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2029	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2030	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2031	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2032	\$1.00	\$2.00	\$1.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0

The District does not receive revenues from disposal fees. The District previously levied fees in accordance with ORC Section 3734.57(B) on waste disposal at a solid waste facility located within the District. The District's fee structure is \$1.00 collected on each ton of solid waste that is generated within the District and disposed at a solid waste landfill located within the District, \$2.00 collected on each ton of solid waste generated outside the District but within Ohio and disposed at a solid waste landfill located within the District, and \$1.00 collected on each ton of solid waste generated outside of Ohio and disposed at a solid waste landfill located within the District.

Revenues are not expected from solid waste disposal fees as shown in Table O-1.

2. Generation Fee

Table O-2 Generation Fee Schedule and Revenue

Year	Generation Fee Schedule (\$ per ton)	Waste Disposed (tons)	Total Revenue from Generation Fee (\$)
2010	\$0.50	203,210	\$101,605
2011	\$0.50	200,522	\$100,261
2012	\$0.50	174,269	\$87,135
2013	\$0.50	163,199	\$81,600
2014	\$0.50	189,283	\$94,642
2015	\$0.50	194,504	\$97,252
2016	\$0.50	196,873	\$98,437
2017	\$0.50	199,843	\$99,922
2018	\$0.50	202,862	\$101,431
2019	\$0.50	205,928	\$102,964
2020	\$0.50	203,339	\$101,669
2021	\$0.50	201,452	\$100,726
2022	\$0.50	199,580	\$99,790
2023	\$0.50	197,723	\$98,862
2024	\$0.50	195,881	\$97,941
2025	\$0.50	199,474	\$99,737
2026	\$0.50	202,963	\$101,481
2027	\$0.50	206,514	\$103,257
2028	\$0.50	210,129	\$105,065
2029	\$0.50	213,810	\$106,905
2030	\$0.50	211,606	\$105,803
2031	\$0.50	209,257	\$104,629
2032	\$0.50	206,936	\$103,468

Source(s) of Information:

CY 2010-2014 revenues sourced from quarterly fee reports. All other amounts are projections.

CY 2010-2014 waste disposed sourced from quarterly fee reports. All other amounts projected from Appendix Table K-3.

Sample Calculations:

Total Revenue from Generation fee (2014) = Generation Fee Schedule x Waste Disposed

Total Revenue from Generation fee (2014) = \$0.50 x 189,283 tons

Total Revenue from Generation fee (2014) = \$94,642

Assumptions:

Revenue was calculated based on waste disposal projections calculated in Appendix K. Rise is 8% and fall is 4%.

In accordance with ORC 3734.573, a solid waste management policy committee may levy fees on the generation of solid wastes within the district. In 2005, the District adopted, ratified, and implemented a \$0.50 per ton generation fee. This fee amount has remained unchanged and will remain unchanged for this planning period.

To forecast future revenues anticipated from the generation fee, the historic revenues were analyzed in Appendix H. Over the past five years the quantity of waste the SWMD collected its generation fee on followed a declining trend until the uptick in year 2014. Further analysis demonstrates the downward trend was preceded by an upward trend. The total waste disposal average over the past 10-years is 195,105 tons. Of note, the up and down experienced in waste disposal is very minimal. The Policy Committee projects waste disposal the SWMD will collect revenue on during the planning period will follow the historical plotted rise and fall curve. The estimated rise is 8 percent and fall is 4 percent.

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.

3. Designation Fees

Table O-3 Contract Fee Schedule and Revenue

Year	Contract Fee Schedule (\$ per ton)	Waste Disposed at Contracted Facilities (tons)	Total Contract Fee Revenue (\$)
2010	n/a	n/a	n/a
2011	n/a	n/a	n/a
2012	n/a	n/a	n/a
2013	n/a	n/a	n/a
2014	n/a	n/a	n/a
2015	n/a	n/a	n/a
2016	n/a	n/a	n/a
2017	n/a	n/a	n/a
2018	n/a	n/a	n/a
2019	n/a	n/a	n/a
2020	n/a	n/a	n/a
2021	n/a	n/a	n/a
2022	n/a	n/a	n/a
2023	n/a	n/a	n/a
2024	n/a	n/a	n/a
2025	n/a	n/a	n/a
2026	n/a	n/a	n/a
2027	n/a	n/a	n/a
2028	n/a	n/a	n/a
2029	n/a	n/a	n/a
2030	n/a	n/a	n/a
2031	n/a	n/a	n/a
2032	n/a	n/a	n/a

The District does not receive revenues from designation fees.

4. Loans

Table O-4 Loans

Year Loan Obtained	Outstanding Balance	Lending Institution	Loan Term (years)	Annual Debt Service (\$)
n/a				

The District does not anticipate securing loans during this planning period.

5. Other Sources of District Revenue

Table O-5 Other Revenues and Other Revenue Sources

Year	Other Contributions	Reimbursement	Recycling Revenue	Other	"Other Revenue" Total
2010	\$30,000	\$815	\$423	\$0	\$31,239
2011	\$30,000	\$306	\$922	\$0	\$31,228
2012	\$30,000	\$196	\$350	\$0	\$30,546
2013	\$30,000	\$157	\$0	\$43	\$30,199
2014	\$22,500	\$30	\$0	\$1,435	\$23,965
2015	\$30,000	\$117	\$0	\$14	\$30,131
2016	\$30,000	\$0	\$0	\$0	\$30,000
2017	\$30,000	\$0	\$0	\$0	\$30,000
2018	\$30,000	\$0	\$0	\$0	\$30,000
2019	\$30,000	\$0	\$0	\$0	\$30,000
2020	\$30,000	\$0	\$0	\$0	\$30,000
2021	\$30,000	\$0	\$0	\$0	\$30,000
2022	\$30,000	\$0	\$0	\$0	\$30,000
2023	\$30,000	\$0	\$0	\$0	\$30,000
2024	\$30,000	\$0	\$0	\$0	\$30,000
2025	\$30,000	\$0	\$0	\$0	\$30,000
2026	\$30,000	\$0	\$0	\$0	\$30,000
2027	\$30,000	\$0	\$0	\$0	\$30,000
2028	\$30,000	\$0	\$0	\$0	\$30,000
2029	\$30,000	\$0	\$0	\$0	\$30,000
2030	\$30,000	\$0	\$0	\$0	\$30,000
2031	\$30,000	\$0	\$0	\$0	\$30,000
2032	\$30,000	\$0	\$0	\$0	\$30,000

Source(s) of Information:

CY 2010-2014 revenues sourced from quarterly fee reports. All other amounts are projections.

Sample Calculations:

Other Revenue Total (2014) = Other Contributions + Reimbursement + Recycling Revenue + Other

Total Revenue from Generation fee (2014) = \$22,500 + \$30 + \$0 + \$1,435

Total Revenue from Generation fee (2014) = \$23,965

Assumptions:

Other Contributions

The Warren County Courts provides the SWMD with \$30,000 per year to support the use of community service works for Litter Collection program activity.

Reimbursement

Reimbursement revenues are miscellaneous monies resulting from worker's compensation refunds, unused community grant refunds, various rebates, and personnel reimbursements. Reimbursement revenue is not projected during the planning period.

Recycling Revenue

The SWMD previously collected an occasional revenue from sale of recyclables. Recycling revenue is not projected during the planning period.

Other

Other revenue is not projected during the planning period.

6. Summary of District Revenues

Table O-6 Total Revenue

Year	Disposal Fees	Generation Fees	Contract Fees	Other Revenue	Total Revenue
2010	\$0	\$101,605	n/a	\$31,239	\$132,844
2011	\$0	\$100,261	n/a	\$31,228	\$131,489
2012	\$0	\$87,135	n/a	\$30,546	\$117,680
2013	\$0	\$81,600	n/a	\$30,199	\$111,799
2014	\$0	\$94,642	n/a	\$23,965	\$118,607
2015	\$0	\$97,252	n/a	\$30,131	\$127,382
2016	\$0	\$98,437	n/a	\$30,000	\$128,437
2017	\$0	\$99,922	n/a	\$30,000	\$129,922
2018	\$0	\$101,431	n/a	\$30,000	\$131,431
2019	\$0	\$102,964	n/a	\$30,000	\$132,964
2020	\$0	\$101,669	n/a	\$30,000	\$131,669
2021	\$0	\$100,726	n/a	\$30,000	\$130,726
2022	\$0	\$99,790	n/a	\$30,000	\$129,790
2023	\$0	\$98,862	n/a	\$30,000	\$128,862
2024	\$0	\$97,941	n/a	\$30,000	\$127,941
2025	\$0	\$99,737	n/a	\$30,000	\$129,737
2026	\$0	\$101,481	n/a	\$30,000	\$131,481
2027	\$0	\$103,257	n/a	\$30,000	\$133,257
2028	\$0	\$105,065	n/a	\$30,000	\$135,065
2029	\$0	\$106,905	n/a	\$30,000	\$136,905
2030	\$0	\$105,803	n/a	\$30,000	\$135,803
2031	\$0	\$104,629	n/a	\$30,000	\$134,629
2032	\$0	\$103,468	n/a	\$30,000	\$133,468

Source(s) of Information:

CY 2010-2014 revenues sourced from quarterly fee reports. All other amounts are projections (refer to Table O-2 and O-5).

Sample Calculations:

Total Revenue (2014) = Disposal Fees + Generation Fees + Contract Fees + Other Revenue

Total Revenue (2014) = \$0 + \$94,642 + n/a + \$23,965

Total Revenue (2014) = \$118,607

Assumptions:

Table O-6 includes all funding mechanisms that will be used and the total amount of revenue generated by each method for each year of the planning period. The SWMD's primary funding mechanism is the generation fee. The SWMD also receives alternate revenues from other contributions, reimbursements, recycling revenue and other.

B. Cost of Implementing Plan

Table O-7 Expenses

Line #	Category/Program	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	1. Plan Monitoring/Prep.	\$15,028	\$9,426	\$3,200	\$6,253	\$6,180	\$13,715	\$17,000	\$10,275	\$0	\$0	\$0
1.a	a. Plan Preparation	\$3,058	\$3,116	\$3,200	\$6,253	\$6,180	\$8,489	\$17,000	\$10,275	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$11,970	\$6,310	\$0	\$0	\$0	\$5,226	\$0	\$0	\$0	\$0	\$0
1.c	c. Other											
2	2. Plan Implementation	\$136,176	\$138,305	\$139,325	\$162,134	\$159,846	\$137,618	\$189,169	\$165,897	\$217,200	\$186,826	\$188,591
2.a	a. District Administration	\$109,781	\$111,132	\$114,487	\$129,784	\$130,199	\$117,152	\$128,382	\$132,233	\$136,200	\$140,286	\$144,495
2.a.1	Personnel	\$104,407	\$107,342	\$110,512	\$123,903	\$126,600	\$112,396	\$123,018	\$126,708	\$130,509	\$134,425	\$138,457
2.a.2	Office Overhead	\$5,374	\$3,790	\$3,975	\$5,882	\$3,599	\$4,756	\$5,364	\$5,525	\$5,691	\$5,861	\$6,037
2.a.3	Other											
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center											
2.b.2	Compost											
2.b.3	Transfer											
2.b.4	Special Waste											
2.c	c. Landfill Closure/Post-Closure											
2.d	d. Recycling Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.1	Curbside											
2.d.2	Drop-off											
2.d.3	Combined Curbside/Drop-off											
2.d.4	Multi-family											
2.d.5	Business/Institutional											
2.d.6	Other											
2.e	e. Special Collections	\$0	\$0	\$0	\$189	\$0	\$1,759	\$2,000	\$2,000	\$2,500	\$2,500	\$2,500
2.e.1	Tire Collection											
2.e.2	HHW Collection						\$1,527	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
2.e.3	Electronics Collection				\$189		\$232			\$500	\$500	\$500
2.e.4	Appliance Collection											
2.e.5	Other Collection Drives											
2.f	f. Yard Waste/Other Organics											
2.g	g. Education/Awareness	\$10,396	\$9,937	\$11,372	\$10,387	\$12,926	\$11,244	\$11,324	\$11,664	\$18,500	\$24,040	\$21,596
2.g.1	Education Staff	\$10,396	\$9,937	\$11,372	\$10,387	\$12,926	\$10,994	\$11,324	\$11,664	\$18,000	\$18,540	\$19,096
2.g.2	Advertisement/Promotion										\$5,000	\$2,000
2.g.3	Other						\$250			\$500	\$500	\$500
2.h	h. Recycling Market Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.h.1	General Market Development Activities											
2.h.2	ODNR pass-through grant											
2.i	i. Service Contracts				\$200	\$200	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies											
2.k	k. Waste Assessments/Audits											
2.l	l. Dump Cleanup	\$1,919	\$1,101	\$675	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.m	m. Litter Collection/Education	\$14,080	\$16,135	\$12,790	\$21,573	\$16,521	\$7,463	\$47,463	\$20,000	\$60,000	\$20,000	\$20,000
2.n	n. Emergency Debris Management											
2.o	o. Loan Payment											
2.p	p. Other											
3	3. Health Dept. Enforcement											

Line #	Category/Program	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Health Department Name:											
4	4. County Assistance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4.a	a. Maintaining Roads											
4.b	b. Maintaining Public Facilities											
4.c	c. Providing Emergency Services											
4.d	d. Providing Other Public Services											
5	5. Well Testing											
6	6. Out-of-State Waste Inspection											
7	7. Open Dump, Litter Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Heath Departments											
7.b	b. Local Law Enforcement											
7.c	c. Other											
8	8. Heath Department Training											
9	9. Municipal/Township Assistance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.a	a. Maintaining Roads											
9.b	b. Maintaining Public Facilities											
9.c	c. Providing Emergency Services											
9.d	d. Providing other Public Services											
10	10. Compensation to Affected Community (ORC Section 3734.35)											
	Total Expenses	\$151,203	\$147,731	\$142,525	\$168,387	\$166,026	\$151,333	\$206,169	\$176,172	\$217,200	\$191,826	\$188,591

Table O-7 Expenses

Line #	Category/Program	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	1. Plan Monitoring/Prep.	\$0	\$0	\$25,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$25,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other												
2	2. Plan Implementation	\$193,499	\$198,554	\$203,760	\$209,123	\$214,647	\$220,336	\$226,196	\$232,232	\$238,449	\$244,852	\$251,448	\$258,241
2.a	a. District Administration	\$148,830	\$153,294	\$157,893	\$162,630	\$167,509	\$172,534	\$177,710	\$183,042	\$188,533	\$194,189	\$200,014	\$206,015
2.a.1	Personnel	\$142,611	\$146,889	\$151,296	\$155,835	\$160,510	\$165,325	\$170,285	\$175,394	\$180,655	\$186,075	\$191,657	\$197,407
2.a.2	Office Overhead	\$6,218	\$6,405	\$6,597	\$6,795	\$6,999	\$7,209	\$7,425	\$7,648	\$7,877	\$8,114	\$8,357	\$8,608
2.a.3	Other												
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center												
2.b.2	Compost												
2.b.3	Transfer												
2.b.4	Special Waste												
2.c	c. Landfill Closure/Post-Closure												
2.d	d. Recycling Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.1	Curbside												
2.d.2	Drop-off												
2.d.3	Combined Curbside/Drop-off												
2.d.4	Multi-family												
2.d.5	Business/Institutional												
2.d.6	Other												
2.e	e. Special Collections	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
2.e.1	Tire Collection												
2.e.2	HHW Collection	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
2.e.3	Electronics Collection	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
2.e.4	Appliance Collection												
2.e.5	Other Collection Drives												
2.f	f. Yard Waste/Other Organics												
2.g	g. Education/Awareness	\$22,169	\$22,759	\$23,367	\$23,993	\$24,638	\$25,302	\$25,986	\$26,690	\$27,416	\$28,164	\$28,934	\$29,727
2.g.1	Education Staff	\$19,669	\$20,259	\$20,867	\$21,493	\$22,138	\$22,802	\$23,486	\$24,190	\$24,916	\$25,664	\$26,434	\$27,227
2.g.2	Advertisement/Promotion	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
2.g.3	Other	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
2.h	h. Recycling Market Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.h.1	General Market Development Activities												
2.h.2	ODNR pass-through grant												
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies												
2.k	k. Waste Assessments/Audits												
2.l	l. Dump Cleanup	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.m	m. Litter Collection/Education	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.n	n. Emergency Debris Management												
2.o	o. Loan Payment												
2.p	p. Other												
3	3. Health Dept. Enforcement												
	Health Department Name:												
4	4. County Assistance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Line #	Category/Program	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
4.a	a. Maintaining Roads												
4.b	b. Maintaining Public Facilities												
4.c	c. Providing Emergency Services												
4.d	d. Providing Other Public Services												
5	5. Well Testing												
6	6. Out-of-State Waste Inspection												
7	7. Open Dump, Litter Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Heath Departments												
7.b	b. Local Law Enforcement												
7.c	c. Other												
8	8. Heath Department Training												
9	9. Municipal/Township Assistance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.a	a. Maintaining Roads												
9.b	b. Maintaining Public Facilities												
9.c	c. Providing Emergency Services												
9.d	d. Providing other Public Services												
10	10. Compensation to Affected Community (ORC Section 3734.35)												
Total Expenses		\$193,499	\$198,554	\$228,760	\$217,123	\$214,647	\$220,336	\$226,196	\$232,232	\$238,449	\$244,852	\$251,448	\$258,241

1.a Plan Preparation

2010-2032 - This cost includes staff and contracts with outside consultant to prepare the SWMD's solid waste management plan updates. The SWMD assumed the cost of the contract for all subsequent plan updates would be the same.

1.b Plan Monitoring

2010-2015 - This is the cost for a portion of staff time to monitor the plan.

2016-2032 - Costs are absorbed in line item 2.a District Administration for the planning period.

2.a District Administration

2010-2032 - This is the cost for payroll (one full-time coordinator and two full-time litter) and benefits (including PERS, Medicare, and insurance), supplies (including postage, reproductions, advertising, printing, utilities, etc.), webpage maintenance, office equipment, and travel. Administrative costs also include staffing time for some program costs which are difficult to separate into their own line item. The costs of the program in 2010 through 2015 are actual expenses. Administrative costs are increased 3 percent on an annual basis to account for raises and cost of living adjustment. Note: Warren County Courts provides \$30,000 annually to support the Litter Collection Program.

2.e.2 HHW Collection

2015 - This is the actual cost for latex paint collection.

2016-2032 - An inflated cost of \$2,000 to collect latex paint is budgeted flat through the planning period

2019 - The SWMD is conducting a study regarding interest and options. All costs for the study are expected to be absorbed in District Administration line costs.

2.e.3 Electronics Collection

2013-2015 - The costs of the program in 2013 through 2015 are actual expenses which include cost for staff and advertisement of the electronics collection events.

2018-2032 - In 2018, costs slightly inflated to cover any miscellaneous or inflation increases. Budget is flat through the planning period.

2.g.1 Education Staff

2010-2032 - This is the cost for a part-time educator and supplies. The costs of the program in 2010 through 2015 are actual expenses. Costs are increased 3 percent on an annual basis to account for raises and inflation.

2.g.2 Advertisement/Promotion

2019-2032 - This is the cost for outreach and education program supplies. Additional money is budgeted in 2019 for material development. A flat amount of \$2,000 is expected annually for print costs, meeting expenses, distribution of reports and flyers, etc. for the following programs: Adult Education, Educational Displays, Get Caught Recycling, Curbside Campaign, Away From Home, Recognition, Community Report, Presentations, Classroom Lessons, and School Administrators.

2.g.3 Other

2015-2032 - This is the cost budgeted for mini-grants.

2.l Dump Cleanup

2010-2012 - A portion of the litter collection costs were allocated to this line item.

2012-2022 - No costs are expected into the planning period.

2.m Litter Collection/Education

2010-2032 - This is the cost for operational costs which include fuel for litter and cleanup activities. Expenditures also include miscellaneous supplies such as providing bags, vests, gloves, and signs for cleanup projects. Costs slightly inflated to \$20,000 in 2018 to cover any miscellaneous or inflation increases. Budget is flat through the planning period.

2016 and 2018 - The SWMD will purchase two new litter crew trucks. The cost of each truck is estimated at \$40,000 each. The cost is based on the quoted price from the county service department.

Additional revenues are not expected, however, revenues could increase beyond what is projected. In the event additional revenues are received, and projected expenses remain within budgeted allowances, additional revenues will be added to the carryover balance.

Table O-8 Budget Summary

Year	Revenue	Expenses	Annual Surplus/Deficit (\$)	Balance (\$)
2009			Ending Balance	\$1,647,730
2010	\$132,844	\$151,203	-\$18,360	\$1,629,371
2011	\$131,489	\$147,731	-\$16,243	\$1,613,128
2012	\$117,680	\$142,525	-\$24,844	\$1,588,284
2013	\$111,799	\$168,387	-\$56,588	\$1,531,696
2014	\$118,607	\$166,026	-\$47,419	\$1,484,276
2015	\$127,382	\$151,333	-\$23,951	\$1,460,325
2016	\$128,437	\$206,169	-\$77,732	\$1,382,593
2017	\$129,922	\$176,172	-\$46,250	\$1,336,343
2018	\$131,431	\$217,200	-\$85,769	\$1,250,574
2019	\$132,964	\$186,826	-\$53,862	\$1,196,712
2020	\$131,669	\$188,591	-\$56,921	\$1,139,790
2021	\$130,726	\$193,499	-\$62,773	\$1,077,017
2022	\$129,790	\$198,554	-\$68,764	\$1,008,254
2023	\$128,862	\$228,760	-\$99,899	\$908,355
2024	\$127,941	\$217,123	-\$89,182	\$819,173
2025	\$129,737	\$214,647	-\$84,910	\$734,263
2026	\$131,481	\$220,336	-\$88,855	\$645,409
2027	\$133,257	\$226,196	-\$92,939	\$552,469
2028	\$135,065	\$232,232	-\$97,167	\$455,302
2029	\$136,905	\$238,449	-\$101,544	\$353,758
2030	\$135,803	\$244,852	-\$109,050	\$244,709
2031	\$134,629	\$251,448	-\$116,819	\$127,889

2032	\$133,468	\$258,241	-\$124,774	\$3,115
------	-----------	-----------	------------	---------

The SWMD Reserve Account comprises funds that the SWMD received through tier fees from the Big Foot Run Sanitary Landfill, which closed in 1999.

C. Alternative Budget

The SWMD does not anticipate the need to identify any type of contingent funding or financing that would be necessary to fund any type of program activity in conjunction with Plan implementation efforts. In the event of a revenue shortfall, the SWMD will obtain the necessary funds from its solid waste Reserve Account.

However, there is a contingency strategy that has a relative degree of probability that it may require implementation by the SWMD. As presented and discussed in Appendix I, this strategy involves the development of drop-off recycling stations in order to maintain access. To model the economical impact of implementing the drop-off stations, a contingency budget has been prepared. For planning and demonstration purposes, the SWMD incorporated the following assumptions:

1. 10 drop-off recycling stations provided by the SWMD
2. Recyclables will be commingled
3. Service costs assumed \$92 per week (estimated from neighboring SWMDs)
4. Impact would be in year 2018 (first planning year)
5. Generation fee increases to \$0.75 per ton in year 2025 to remain financially solvent (Fee increase is 8 years into the planning cycle. Fee increase is not scheduled for implementation in this plan update. Next plan update will be well underway before a fee increase is needed.)

To model the economic impact of implementing the drop-off stations, these tables are prepared:

Table O-9 Contingent Funding

Year	Funding Source A (\$)	Funding Source B (\$)	Total Funding from Contingent Sources (\$)
2018	\$30,000	\$101,431	\$131,431
2019	\$30,000	\$102,964	\$132,964
2020	\$30,000	\$101,669	\$131,669
2021	\$30,000	\$100,726	\$130,726
2022	\$30,000	\$99,790	\$129,790
2023	\$30,000	\$98,862	\$128,862
2024	\$30,000	\$97,941	\$127,941
2025	\$30,000	\$149,606	\$179,606
2026	\$30,000	\$152,222	\$182,222
2027	\$30,000	\$154,886	\$184,886
2028	\$30,000	\$157,597	\$187,597
2029	\$30,000	\$160,357	\$190,357
2030	\$30,000	\$158,704	\$188,704
2031	\$30,000	\$156,943	\$186,943
2032	\$30,000	\$155,202	\$185,202

Fee increase to \$0.75 per ton would be needed in 2025

Table O-10 Contingent Expenses

Line #	Category/Program	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	1. Plan Monitoring/Prep.	\$0	\$0	\$0	\$0	\$0	\$25,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$0	\$0	\$0	\$25,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other															
2	2. Plan Implementation	\$265,040	\$234,666	\$236,431	\$241,339	\$246,394	\$251,600	\$256,963	\$262,487	\$268,176	\$274,036	\$280,072	\$286,289	\$292,692	\$299,288	\$306,081
2.a	a. District Administration	\$136,200	\$140,286	\$144,495	\$148,830	\$153,294	\$157,893	\$162,630	\$167,509	\$172,534	\$177,710	\$183,042	\$188,533	\$194,189	\$200,014	\$206,015
2.a.1	Personnel	\$130,509	\$134,425	\$138,457	\$142,611	\$146,889	\$151,296	\$155,835	\$160,510	\$165,325	\$170,285	\$175,394	\$180,655	\$186,075	\$191,657	\$197,407
2.a.2	Office Overhead	\$5,691	\$5,861	\$6,037	\$6,218	\$6,405	\$6,597	\$6,795	\$6,999	\$7,209	\$7,425	\$7,648	\$7,877	\$8,114	\$8,357	\$8,608
2.a.3	Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.2	Compost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.c	c. Landfill Closure/Post-Closure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d	d. Recycling Collection	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840	\$47,840
2.d.3	Combined Curbside/Drop-off	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.5	Business/Institutional	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.e	e. Special Collections	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
2.e.1	Tire Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.e.2	HHW Collection	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
2.e.3	Electronics Collection	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.e.5	Other Collection Drives	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.f	f. Yard Waste/Other Organics	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.g	g. Education/Awareness	\$18,500	\$24,040	\$21,596	\$22,169	\$22,759	\$23,367	\$23,993	\$24,638	\$25,302	\$25,986	\$26,690	\$27,416	\$28,164	\$28,934	\$29,727
2.g.1	Education Staff	\$18,000	\$18,540	\$19,096	\$19,669	\$20,259	\$20,867	\$21,493	\$22,138	\$22,802	\$23,486	\$24,190	\$24,916	\$25,664	\$26,434	\$27,227
2.g.2	Advertisement/Promotion	\$0	\$5,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
2.g.3	Other	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500
2.h	h. Recycling Market Development	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Line #	Category/Program	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
2.h.1	General Market Development Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.h.2	ODNR pass-through grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.k	k. Waste Assessments/Audits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.l	l. Dump Cleanup	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.m	m. Litter Collection/Education	\$60,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.o	o. Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	3. Health Dept. Enforcement															
	Health Department Name:															
4	4. County Assistance															
4.a	a. Maintaining Roads															
4.b	b. Maintaining Public Facilities															
4.c	c. Providing Emergency Services															
4.d	d. Providing Other Public Services															
5	5. Well Testing															
6	6. Out-of-State Waste Inspection															
7	7. Open Dump, Litter Law Enforcement															
7.a	a. Heath Departments															
7.b	b. Local Law Enforcement															
7.c	c. Other															
8	8. Heath Department Training															
9	9. Municipal/Township Assistance															
9.a	a. Maintaining Roads															
9.b	b. Maintaining Public Facilities															
9.c	c. Providing Emergency Services															
9.d	d. Providing other Public Services															
10	10. Compensation to Affected Community (ORC Section 3734.35)															
	Total Expenditures	\$265,040	\$234,666	\$236,431	\$241,339	\$246,394	\$276,600	\$264,963	\$262,487	\$268,176	\$274,036	\$280,072	\$286,289	\$292,692	\$299,288	\$306,081

Table O-11 Contingent Budget Summary

Year	Revenue	Expenses	Balance (\$)
2018	\$131,431	\$265,040	\$1,514,121
2019	\$132,964	\$234,666	\$1,412,419
2020	\$131,669	\$236,431	\$1,307,658
2021	\$130,726	\$241,339	\$1,197,045
2022	\$129,790	\$246,394	\$1,080,441
2023	\$128,862	\$276,600	\$932,703
2024	\$127,941	\$264,963	\$795,680
2025	\$179,606	\$262,487	\$712,799
2026	\$182,222	\$268,176	\$626,845
2027	\$184,886	\$274,036	\$537,695
2028	\$187,597	\$280,072	\$445,220
2029	\$190,357	\$286,289	\$349,288
2030	\$188,704	\$292,692	\$245,300
2031	\$186,943	\$299,288	\$132,955
2032	\$185,202	\$306,081	\$12,075

D. Major Facility Project

The SWMD is not planning to construct or operate a new solid waste management facility during this planning period.

The SWMD does not anticipate the need to develop an in-District sanitary landfill or transfer station by either the private or public sector given the access to existing disposal capacity. However, the SWMD does recognize that over the planning period, reasonable economic access to disposal capacity may pose a problem to insure that District-generated solid waste continues to be disposed at an acceptable rate at licensed facilities. In the event that the SWMD determines that the access to, and the costs, for the disposal becomes an economic burden for residents and businesses, the SWMD reserves the right to explore the development of a transfer facility for District-generated solid waste.

This page intentionally left blank

APPENDIX P DESIGNATION

A. Statement Authorizing/Precluding Designation

The Board of Directors of the Warren County Solid Waste Management District is hereby precluded from establishing facility designations in accordance with Section 343.014 of the Ohio Revised Code.

Table P-1 Designation

Facility Name	Location		Facility Type	Year Designated
	County	State		
In-District				
none		Ohio		
		Ohio		
		Ohio		
		Ohio		
		Ohio		
Out-of-District				
		Ohio		
none		Ohio		
		Ohio		
		Ohio		
		Ohio		
Out-of-State				
none				

This page intentionally left blank

APPENDIX Q DISTRICT RULES

A. Existing Rules

The SWMD is currently authorized and has adopted rules governing the maintenance, protection, and use of solid waste collection, transfer, disposal, recycling, and resource recovery facilities.

A copy of the adopted rules can be found in this Appendix. The rules were adopted on February 24, 1994. Since no facilities have been developed to date, the full impact of the rules has not been tested.

B. Proposed Rules

The SWMD does not intend to adopt additional rules during this planning cycle. However, in the event it is determined necessary, the Policy Committee upon recommendation to the Board of County Commissioners, reserves the right to adopt any such rules as authorized by ORC 3734.53 that will support implementation of the Plan.

This page intentionally left blank

**BOARD OF COUNTY COMMISSIONERS
WARREN COUNTY, OHIO**

Resolution

Number 94-209

Adopted Date February 24, 1994

ADOPT THE WARREN COUNTY SOLID WASTE MANAGEMENT DISTRICT'S RULES GOVERNING THE MAINTENANCE, PROTECTION AND USE OF SOLID WASTE FACILITIES

WHEREAS, the Warren County Board of Commissioners have established the Warren County Solid Waste Management District to prepare, adopt, submit, and implement a solid waste management plan; and

WHEREAS, the Warren County Board of Commissioners established and convened a Solid Waste Management Policy Committee which prepared A Solid Waste Management Plan ("Plan") for the District; and

WHEREAS, that Plan was ratified by the Board of County Commissioners of Warren County and by the legislative authorities of a combination of municipal corporations and townships with a combined population within the District comprising at least sixty percent of the total population of the District including the municipal corporation having the largest population within the boundaries of the District; and

WHEREAS, the Plan was subsequently approved by the Director of the Ohio Environmental Protection Agency on December 27, 1993; and

WHEREAS, the District's Plan provides for rules governing the maintenance, protection and use of such facilities and requiring the submission of such plans and specifications to the Board of Directors of the District; and

WHEREAS, the adoption of such rules furthers the purposes of the District and is in the public interest;

BE IT RESOLVED, that the "Warren County Solid Waste Management District Rules Governing the Maintenance, Protection, and Use of Solid Waste Facilities" be, and hereby are, adopted in the form attached hereto; and

BE IT FURTHER RESOLVED, that any rules previously adopted by the Clinton-Warren Joint Solid Waste Management District or Warren County Solid Waste Management District be, and hereby are, superseded; and

BE IT FURTHER RESOLVED, that the District be, and hereby is directed to publish the "Warren County Solid Waste Management District Rules Governing the Maintenance, Protection and Use of Solid Waste Management Facilities," in their entirety; in The Western Star in the earliest possible issue; and

BE IT FURTHER RESOLVED, that any other and all actions required by law to make effective the "Warren County Solid Waste Management District Rules Governing the Maintenance, Protection and Use of Solid Waste Management Facilities" be, and hereby are, authorized.


RESOLUTION #94-
FEBRUARY 24, 1994
PAGE 2

Mr. Kilburn moved for adoption of the foregoing resolution, being seconded by Mrs. South. Upon call of the roll the following vote resulted:

Mr. Crisenbery - yea
Mrs. South - yea
Mr. Kilburn - yea

Resolution adopted this 24th day of February 1994.

BOARD OF COUNTY COMMISSIONERS


Tina Davis, Clerk

/dad

cc: Solid Waste (file)

**WARREN COUNTY SOLID WASTE MANAGEMENT DISTRICT
RULES GOVERNING THE MAINTENANCE, PROTECTION AND USE OF
SOLID WASTE FACILITIES**

I. Authority

These rules have been authorized by the Solid Waste Management Plan of the Warren County Solid Waste Management District, and are adopted, published and enforced pursuant to the authority provided in Revised Code Sections 343.01 (G)(2) and 3734.53 (C)(2).

II. Applicability

These rules shall be applicable to all solid waste collection, transfer, disposal, recycling or resource recovery facility within the District, except as provided in Section III hereof.

III. Exemptions

These rules shall not apply to:

- A. a solid waste facility owned by a generator of solid waste when the solid waste facility exclusively disposes of solid wastes generated at one or more premises owned by the generator, regardless of whether the facility is located on the premises where the wastes are generated; except that such facilities shall comply with Sections X and XIII of these rules;
- B. a solid waste facility that exclusively disposes of wastes that are generated from the combustion of coal that is not combined in any way with garbage at one or more premises owned by the generator; except that such facilities shall comply with Sections X and XIII of these rules;
- C. solid wastes generated on the premises of a single-family residence, and disposed of on the premises where they were generated;
- D. sites and facilities for feeding garbage to swine or poultry, and governed by Chapter 942 of the Revised Code;
- E. incinerators located on the premises where the wastes incinerated are generated;

- F. any establishment having facilities for processing iron, steel or non-ferrous scrap and whose principal product is scrap iron and/or steel or non-ferrous scrap for sale or remelting purposes;
- G. any facility used exclusively for the transfer of solid wastes that consists solely of portable containers and that has an aggregate volume of fifty cubic yards or less. For the purposes of this exemption, aggregate volume shall mean the total volume of all portable containers at a facility designated for receiving solid wastes, and shall not include the volume of an empty portable container being delivered to a facility by a transport vehicle, whose purpose includes removal of a full or partially full container of equal or greater volume, at the time of the delivery of the empty container.
- H. tree stumps which are disposed in a construction and demolition debris disposal licensed facility by the State of Ohio; and
- I. transfer facilities which accept exclusively yard waste for transfer; and
- J. any other facilities or wastes which the Board may exempt from all or part of the requirements of these rules, as it from time to time may determine to be in the public interest.

IV. Definitions

As used in these rules:

- A. "Airport" means a public use airport open to the public without prior permission and without restrictions within the physical capacity of available facilities.
- B. "Applicant" means any person who has submitted general plans and specifications for the construction, enlargement or modification of any solid waste collection, transfer, disposal, recycling or resource recovery facility to the Board of Directors for its approval pursuant to these rules.
- C. "Aquifer" means a consolidated or unconsolidated geologic formation or series of formations that are hydraulically interconnected and have or has the ability to receive, store or transmit water to wells or springs.

- D. "Board" or "Board of County Commissioners" means the Board of County Commissioners of the Warren County Solid Waste Management District.
- E. "Composting" means the controlled biological decomposition of organic solid wastes under predominantly aerobic conditions which stabilizes the organic fraction of a material. Fermentation and/or putrefaction, the decomposition of wastes under predominantly anaerobic conditions resulting in the production of leachate and/or odor, is not composting. Composting shall be considered a form of solid waste disposal.
- F. "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, emitting or placing any solid waste into or on any land or ground or surface water or into the air.
- G. "District" means the Warren County Solid Waste Management District.
- H. "Endangered Species" means any species designated as such by the United States Secretary of the Interior or the United States Secretary of Commerce, or any other species designated as such by the State of Ohio.
- I. "Enlargement" means, in the case of recycling facilities, resource recovery facilities or transfer facilities, an increase in the capacity of the facility beyond the permit, or other authorization, issued for the facility by the OEPA; and, in the case of all other solid waste disposal facilities, means a horizontal or vertical increase in the size of the facility beyond the limits approved in the permit, or other authorization, issued for the facility by the OEPA.
- J. "Floodway" means the channel of a watercourse and those portions of the adjoining floodplain which are required to convey a regional one-hundred-year flood.
- K. "Ground water" means any water below the surface of the earth in a zone of saturation.
- L. "Hazardous Wastes" means any waste or any combination of wastes in a solid, liquid, semi-solid or contained gaseous form that, in the determination of the Director of Environmental Protection, because of its quantity, concentration or physical or chemical characteristics, may: (1) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health

and safety or to the environment when improperly stored, transported, disposed of or otherwise managed. Hazardous wastes include any substance identified as such under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6921 et seq.), as amended, and do not include any substance that is subject to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), as amended.

- M. "Incineration" means the use of controlled combustion to thermally break down solid waste.
- N. "Incinerator" means any equipment, machine, device, article, contrivance, structure, or part of a structure, used to burn solid waste.
- O. "Landfill" or "Sanitary Landfill" means an engineered facility where the final deposition of solid waste is practiced in accordance with the Administrative Code, including areas of solid waste placement, all ground water monitoring/control system structures, buildings, explosive gas monitoring/control/extraction system structures, surface water run-on and runoff control structures, sedimentation pond(s), liner systems, leachate management system structures, and areas within the three-hundred-foot radius from the limits of solid waste placement.
- P. "Leachate" means liquid that has come into contact with or been released from solid waste.
- Q. "Modification" when used with respect to a solid waste transfer, disposal, recycling, or resource recovery facility, means: (i) any material change in total capacity, finished topography or depth of excavation; or (ii) any substantial change which may endanger human health in the technique of waste receipt, the type of waste received, the type of equipment used, or the process utilized at or in the facility; or (iii) a change in the authorized maximum daily waste receipt established for the facility; or (iv) any other substantial alteration of said facility, unless performed in response to the terms of a permit or order of OEPA; or (v) any change that may result in a significant adverse environmental impact. The installation of an interim composite liner system required by the Administrative Code to be installed in an existing unit or new unit (s) within the limits of waste placement of a sanitary landfill facility as of April 1, 1994, is not a "modification."
- R. "OEPA" means the Ohio Environmental Protection Agency.

- S. "Person" means the State or any political subdivision thereof, any private or public corporation, any individual, any partnership or any other entity.
- T. "Plan" means the Solid Waste Management Plan of the Warren County Solid Waste Management District, adopted October 27, 1993, and approved by the Director of the Ohio Environmental Protection Agency December 27, 1993, and as may be amended from time to time.
- U. "Policy Committee" means the Solid Waste Management Policy Committee of the Warren County Solid Waste Management District.
- V. "Recycling" means the process of collecting, sorting, cleansing, treating and reconstituting solid waste that would otherwise be disposed in a solid waste disposal facility and returning reconstituted materials to commerce as commodities for use or exchange.
- W. "Recycling Facility" or "Legitimate Recycling Facility" means an engineered facility or site where recycling is the primary objective of the facility, and: (1) the facility accepts only source separated materials and/or mixed recyclables which are currently recoverable using existing technology; or (2) the facility accepts mixed solid waste streams, and recovers for beneficial use not less than sixty per cent (60%) of the volume of solid wastes brought to the facility each month (as averaged monthly) for not less than eight months in each calendar year, and disposes of not more than forty per cent (40%) of the total volume of solid wastes brought to facility each month (as averaged monthly) for not less than eight months in each calendar year. A "recycling facility" does not include a solid waste disposal facility, and does not include a waste tire disposal facility.
- X. "Resource Recovery Facility" means a facility that extracts, removes or reclaims valuable materials and/or energy from solid wastes or any combination of structures, machinery or devices utilized to separate, process, modify, convert, treat, or prepare collected solid waste for management other than by disposal so that component materials or substances or recoverable resources may be recovered or used as a new material or energy source.
- Y. "Solid Wastes" or "Solid Waste" means such unwanted residual solid or semi-solid material as results from industrial, commercial, agricultural and community operations, (excluding earth or material from construction, mining or demolition operations or other

waste materials of the type that would normally be included in demolition debris, non-toxic fly ash, spent non-toxic foundry sand, and slag) and other substances that are not harmful or inimical to the public health, and includes but is not limited to, garbage, tires, combustible and non-combustible material, street dirt, and debris. "Solid Waste" does not include any material that is an infectious waste or hazardous waste.

- Z. "Solid Waste Disposal Facility" means any site, location, tract of land, installation or building used for incineration, composting, sanitary landfilling other methods of disposal of solid wastes.
- AA. "Solid Waste Transfer Facility" or "Transfer Facility" means any site, location, tract of land, installation or building that is used for the purpose of transferring solid wastes that are generated off the premises of the facility from vehicles or containers into other vehicles or containers for transportation to another facility. A purported recycling facility which does not fully meet the definition of a recycling facility provided in Section IV(W) of these rules is a transfer facility. The term does not include facilities consisting only of portable containers that have an aggregate volume fifty cubic yards or less and does not include a recycling facility as defined in Section IV(W) of these rules.
- BB. "Source Separation" means the practice of dividing solid waste into some or all of its constituent parts at the point of generation.
- CC. "Surface Water" means any water on the surface of the earth.
- DD. "TAC" or "Technical Advisory Council" means the Technical Advisory Council of the Warren County Solid Waste Management District as it may from time to time be established and appointed by the Policy Committee pursuant to Section 3734.54(F) of the Revised Code.
- EE. "Yard Waste" means solid waste that includes only leaves, grass clippings, brush, garden waste, tree trunks, holiday trees, tree trimmings and/or prunings.

V. Proposed Improvements to Comply with Plan

- A. No person shall construct, enlarge or modify any solid waste transfer, disposal, recycling or resource recovery facility within the District until general plans and

specifications for the proposed improvement have been submitted to and approved by the Board as complying with the Plan, in accordance with these rules. Copies of such general plans and specifications for the proposed improvement, together with the compliance report required pursuant to Section VI(C) of these rules, shall be submitted to and approved by the Board before the establishment, enlargement or modification of the solid waste transfer, disposal, recycling or resource recovery facility is begun.

- B. Each person proposing to construct a new solid waste transfer, disposal, recycling or resource recovery facility, or proposing to enlarge or modify an existing solid waste transfer, disposal, recycling or resource recovery facility, shall submit five (5) copies of general plans and specifications for the proposed improvement, together with copies of the compliance report described in Section VI(C) hereof. Such general plans and specifications shall contain all of the information required in Section VI(C) hereof, so that the Board can determine whether the criteria set forth in Sections VI(A) and VI(B) hereof are satisfied.
- C. Upon receipt of the general plans and specifications and the compliance report required by Section VI(C) of these rules, or a modification thereto as authorized by Section V(F) of these rules, the Board shall promptly:
1. Distribute one copy thereof to the Policy Committee. With the advice and assistance of the TAC, if then established, the Policy Committee shall review the proposed improvement or modified proposed improvement for its compliance with the Plan. The Policy Committee shall render its non-binding recommendation to the Board, and explain the basis for its recommendation, at the public hearing to be convened in accordance with Section V(D) of these rules.
 2. Distribute one copy thereof to, at a minimum, the Warren County Board of County Commissioners.
 3. Prepare and publish a public notice which describes the proposed improvement or modified proposed improvement, specifies the location where the general plans, specifications, and compliance report, or revisions thereto, are available for review, and establishes a period of no less than thirty (30) days for comments

B. The Board shall approve the general plans and specifications as complying with the Plan only if it determines that the proposed improvement does not compete with or inhibit the financing, use or operation of proposed or existing solid waste management programs or facilities developed by or on behalf of the District; that the proposed improvement avoids or mitigates adverse socioeconomic impacts, environmental impacts and/or health effects to the maximum extent practicable; and the proposed improvement is consistent with the District's siting strategy. In determining whether the proposed improvement complies with the Plan, the Board shall give due consideration to the general plans, specifications and compliance report submitted by the applicant, the applicant's presentation at the public hearing, the non-binding recommendation of the Policy Committee, written comments submitted by interested persons pursuant to Section V(C)(3) and, if applicable, Section V(F) of these rules, and comments made at the public hearing convened pursuant to Section V(D) of these rules.

C. Compliance Report. Together with the general plans and specifications, the applicant shall submit to the Board a compliance report containing sufficient information so that the Board can determine whether the standards and criteria set forth in Sections VI(A) and VI(B) hereof are satisfied. The report shall contain, at a minimum, that information described in Sections VI(C)(1), (2), and (3) hereof.

1. The compliance report shall include an analysis which describes the effects of the proposed improvement on the District's existing solid waste management infrastructure and programs, including, without limitation, the effect of the proposed improvement on the financing, use or operation of existing or proposed facilities developed by or on behalf of the District. In particular, but without limitation, the compliance report shall describe the effects and impacts of the proposed improvement in light of the following:

- a. the technical feasibility and reliability of the proposed improvement;

- b. the relevant costs of the proposed improvement, including fully loaded life cycle costs and the costs of procuring, developing, permitting, operating, closing and monitoring (both pre-closure

and post-closure) the proposed improvement;

c. the costs of inspection, testing or supervision at the proposed improvement by the District and/or the Warren County Combined Health District;

d. the maximum capacity of the proposed improvement, if any;

e. the minimum daily volume of waste which will need to be received at the proposed improvement in order to operate without financial loss;

f. the proposed improvement's relationship to existing or proposed solid waste management programs or facilities that have been or will be developed by or on behalf of the District, and pursuant to which solid waste generated within the District will be managed in accordance with the Plan;

g. the proposed improvement's relationship to existing or proposed source separation and recycling activities within the District; and

h. the proposed improvement's relationship to existing or proposed regional initiatives for the management of solid waste.

2. The compliance report shall also include an analysis describing the impacts and effects of the proposed improvement on the District's environment. In particular, but without limitation, the compliance report shall describe the effects and impacts of the proposed improvement in light of the following:

a. acreage involved in the proposed improvement;

b. soil types at the proposed improvement site, and their current use;

c. proximity of the proposed site to any building, site or district listed on the

State or National Register of Historic Places;

- d. depth to water table at the site;
- e. proximity of the site to any aquifer;
- f. slopes at the site, in terms of percentage of site that is sloped and steepness of the slope;
- g. hunting, trapping or fishing opportunities currently available at the site;
- h. regular utilization of the site by any endangered species for habitat, forage or range;
- i. surface waters on or near the site;
- j. traffic impacts related to the proposed improvement (during and after development);
- k. amounts and types of vegetation to be permanently removed from the site;
- l. odors to be produced by the proposed improvement and impact on the community;
- m. noise to be produced by the proposed improvement and impact on the community;
- n. the proposed improvement's projected consumption of energy or natural resources;
- o. the proposed improvement's projected consumption of the potable water supply in the District;
- p. the proposed improvement's compatibility with land use ordinances, township zoning resolutions, county rural zoning resolutions, and existing land uses at the proposed site and for one-quarter mile in all directions;
- q. demand of the proposed improvement on community-provided services (e.g. fire, police, and emergency services);

- r. the proposed improvement's increased demands on the community's sewer capacity;
- s. impacts on property values in the District;
- t. impacts on job opportunities and tax revenues in the District;
- u. impacts on population distribution and community growth in the District;
- v. impacts on aesthetics;
- w. the measures to be taken by the applicant to ensure worker and community safety; and
- x. socioeconomic impacts.

The analysis of the foregoing contained in the compliance report shall be sufficient to allow the Board to understand the environmental, health and/or socioeconomic impacts or effects of the proposed improvement on the District, in order that the Board may determine whether the proposed improvement complies with the Plan. Nothing in these rules shall be deemed or construed to establish design standards.

3. Siting Analysis. If the proposed improvement involves the construction of a new facility or the enlargement of an existing facility, the compliance report shall include a siting analysis. The siting analysis must describe the process used to select the proposed site, including evaluation criteria, elimination criteria, assumptions made, data sources, numerical ranking systems utilized and all other factors used to make siting decisions. The analysis must demonstrate that the range of alternative sites evaluated was reasonable in light of the objectives and capabilities of the applicant, and that, of the evaluated sites, the selected site is most appropriate. Finally, the analysis must include maps of sites and describe the results of field investigations, the comparative advantages and disadvantages of the highest ranked sites and the basis for selecting the proposed site. The site selection process must be

comprehensive and must identify and evaluate the complete range of alternative sites within the District which are reasonable, given the objectives and capabilities of the applicant. All criteria used to eliminate and evaluate the suitability of potential sites shall be clearly defined and consistently applied. A phased approach shall be used, in which a more detailed evaluation of sites is undertaken as the number of potential is reduced. If the proposed improvement involves the enlargement of an existing facility, including without limitation the lateral expansion of a landfill, the siting analysis may be limited to a demonstration that the applicable prohibited siting criteria described in Section VI(C)(3)(d) of these rules have not been violated.

- a. In the first phase of the siting process, areas where siting is impossible or prohibited should be eliminated. Prohibited siting criteria for specified facilities are listed in Section VI(C)(3)(d) of these rules.
- b. The second phase of the siting process results in the identification of potential sites by application of a two part analysis. In the first part of the second phase, the applicant should identify preferred siting areas through the designation and application of evaluation criteria most pertinent to the siting of the proposed improvement, thereby identifying candidate areas which may contain suitable sites for the proposed improvement. In the second part of the second phase, potentially suitable sites are identified within the preferred siting areas through the application of additional evaluation criteria to all available potential sites within the candidate areas. A list of potentially suitable sites should result at the completion of both parts of the second phase. Evaluation criteria utilized in identifying potential

sites shall include, at a minimum, those provided in Section VI(C)(3)(e) of these rules.

c. In the third phase, a ranking methodology is utilized to select a preferred site. To identify the preferred site, an applicant must compare two or more similar sites that remain in the site selection process after the first two phases, and shall assign numerical values to the qualitative evaluation of the subject sites, rating them numerically for each evaluation criteria. Each evaluation criteria must then be weighed to reflect its relative importance as compared to other evaluation criteria. This rating matrix provides a method by which potential sites can be objectively evaluated and rated in order of suitability, and ensures that the site which demonstrates acceptable risk levels while minimizing environmental consequences will be selected.

d. Prohibited Siting Criteria. The siting analysis required by Section VI(C)(3) hereof shall include the following areas as prohibited sites for the specified solid waste facility types:

i. With respect to sanitary landfills:

aa. any area that would be prohibited as a location for a sanitary landfill site pursuant to the Ohio Administrative Code;

bb. any area located within 5,000 feet of any airport runway used by piston type aircraft, or within 10,000 feet of any runway used by turbojet aircraft; unless the owner or operator of the

sanitary landfill can demonstrate that the sanitary landfill will be so designed and operated that it will not increase likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to the occupants of the aircraft;

cc. any area where environmental monitoring and site remediation cannot be conducted, based upon the ability to characterize ground water and surface water flow and locate upgradient/downgradient directions, ability to place environmental monitoring points which will detect releases from the sanitary landfill, ability to characterize and define a release from the sanitary landfill and determine necessary corrective actions, and ability to successfully implement those corrective actions;

dd. any part of any wetland; and

ee. any area where, despite the applicant's avoidance or mitigation of adverse impacts, the proposed improvement presents an unreasonable or unacceptable hazard to health or the environment.

ii. With respect to recycling facilities and transfer

facilities:

- aa. any area that would be prohibited as a location for a solid waste transfer facility pursuant to the Ohio Administrative Code;
 - bb. any site that will call for placement of waste within fifty (50) feet of the proposed improvement's property line;
 - cc. any part of any wetland; and
 - dd. any area where, despite the applicant's avoidance or mitigation of adverse impacts, the proposed improvement presents an unreasonable or unacceptable hazard to health or the environment.
- iii. With respect to yard waste composting facilities:
- aa. any area that would be prohibited as a location for a yard waste composting facility pursuant to the Ohio Administrative Code; and
 - bb. any area where, despite the applicant's avoidance or mitigation of adverse impacts, the proposed improvement presents an unreasonable or unacceptable hazard to health or the environment.
- iv. With respect to solid waste incinerators, resource recovery facilities or waste tire

storage facilities:

- aa. any area that would be prohibited as the location of a solid waste transfer facility pursuant to the Ohio Administrative Code;
 - bb. any area that would call for the placement of solid waste within fifty (50) feet of the facility's property line;
 - cc. any part of any wetland; and
 - dd. any area where, despite the applicant's avoidance or mitigation of adverse impacts, the proposed improvement presents an unreasonable or unacceptable hazard to health or the environment.
- e. Evaluation Criteria. The siting analysis required by Section VI(C)(3) hereof shall consider the following criteria, at a minimum, as evaluation criteria:
- i. hydrogeologic characteristics of the site, particularly with regard to:
 - aa. the thickness and prevalence of low permeability materials to minimize the migration of contaminants from the facility;
 - bb. depth to bedrock;
 - cc. ground water flow patterns and water quality should be such that contaminant releases would do the least environmental damage and

would be easiest to correct;

- dd. the facility's proximity and relationship to water supply sources;
 - ee. the impacts of the site's natural topography on the facility; and
 - ff. anomalous hydrogeologic features that might alter ground waste flow, such as mines, caves, or other like features;
-
- ii. population density and anticipated growth, both around the site and around major transportation routes to the facility;
 - iii. adequacy of transport routes for additional traffic anticipated to result from the development of the proposed improvement and increased safety hazards incident to the traffic increase;
 - iv. proximity of the site to incompatible structures such as schools, churches, nursing homes, hospitals or commercial centers;
 - v. impacts on the host community, including local land use planning and zoning, and any financial impacts the proposed improvement may have on the community;
 - vi. proximity to and availability of necessary emergency services;
 - vii. proximity of the facility to open spaces or cultural, historical and recreational resources;

viii. impacts on agriculture and agricultural land; and

ix. improvements proposed by or on behalf of the District may be subjected to additional criteria provided in the Plan.

VII. Supervision of Construction, Enlargement or Modification; Costs

- A. The construction, enlargement or modification of any solid waste transfer, disposal, recycling or resource recovery facility shall be done under the supervision of the county sanitary engineer designated by the Board.
- B. Any person constructing, enlarging or modifying any solid waste transfer, disposal, recycling or resource recovery facility under the supervision of the county sanitary engineer designated by the Board, or proposing such improvements, shall pay to the District all expenses incurred by the Board in connection therewith.

VIII. Submission of Permit to Install Application to Board

Any person submitting an application to OEPA for a permit to install to construct, enlarge or modify a solid waste transfer, disposal, recycling or resource recovery facility located in the District shall simultaneously submit a copy of such application to the Board.

IX. Rights of Access for Sanitary Engineer

- A. The county sanitary engineer designated by the Board, or any assistant(s) authorized by the county sanitary engineer, shall have the right to enter upon public or private property for the purpose of making surveys or examinations at solid waste facilities located within the District, or to otherwise supervise their construction, enlargement, modification or operation.
- B. No person shall forbid or interfere with the county sanitary engineer designated by the Board, or any authorized assistant(s), in making surveys or examinations at, or otherwise supervising the construction, enlargement, modification or operation of, solid waste facilities located within the District.
- C. The owner of any property actually damaged by the county

sanitary engineer designated by the Board, or any authorized assistant(s), in the exercise of their rights under this section shall be compensated by the Board in an amount representing the reasonable value of the damage to the property.

X. Daily Logs to Policy Committee

Copies of annual reports summarizing daily logs required to be prepared and maintained by OEPA in accordance with the Ohio Administrative Code shall be provided to the Policy Committee at the same time as their submission to OEPA.

XI. Submission of OEPA Materials to Policy Committee

In addition to the other requirements of these rules, any person who obtains from OEPA a permit to install a solid waste transfer, recycling, or resource recovery facility in the District shall provide to the Policy Committee a copy of all plans, specifications, and other materials submitted to OEPA, whether such materials were submitted as a part of the permit to install application process, or are required to be submitted to OEPA pursuant to the permit to install.

XII. Notice of Intent to Close Required

No less than one hundred eighty (180) days prior to the anticipated date on which the owner of any solid waste transfer, disposal, recycling or resource recovery facility intends to cease accepting waste at that facility, the facility owner, or an authorized representative, shall provide to the Board, by certified mail, notice of the anticipated date on which the solid waste transfer, disposal, recycling or resource recovery facility will cease accepting solid waste.

XIII. Submission of Inventory Information

Not later than the first day of April of each year, every operator of a solid waste transfer, disposal, recycling, or resource recovery facility located within the District shall submit to the Policy Committee a verified report detailing the amount and types of solid waste disposed of, stored or treated at the facility and, to the extent available, the origins of the waste, in order to allow the District to fulfill its reporting obligations under OAC 3745-29-02(C) and 3745-29-02(C), as they may be from time to time amended.

XIV. Penalties, Prosecution

- A. Whoever violates any provision of these rules shall be fined not more than five thousand dollars (\$5,000) for each offense. Each separate day of each violation is a separate offense.
- B. The Prosecuting Attorney of Warren County is hereby authorized, upon the request of the Board, to prosecute to termination or bring a civil action for appropriate relief against any person that has violated, is violating, or is threatening to violate any of these rules within their respective jurisdictions. The court of common pleas in which the civil action is filed has jurisdiction to and shall grant appropriate relief including a temporary restraining order or a temporary or permanent injunction, upon a showing that the person against whom the action is brought has violated, is violating, or is threatening to violate any of these rules.
- C. All fines imposed under this section shall be deposited in the District's special fund maintained pursuant to Revised Code Section 3734.57(E).

XV. Zoning Override

The owner or operator of any solid waste collection, transfer, disposal, recycling, or resource recovery facility, or any proposed solid waste collection, transfer, disposal, recycling or resource recovery facility, provided for in the Plan is hereby exempted from compliance with any amendment to a township zoning resolution adopted under section 519.12 of the Revised Code or to a county rural zoning resolution adopted under section 303.12 of the Revised Code that rezoned or redistricted the parcel or parcels upon which the solid waste collection, transfer, disposal, recycling, or resource recovery facility is to be constructed or modified and that became effective within two years prior to the filing of an application for a permit to install under division (A)(2)(a) of section 3734.05 of the Revised Code to open a new or modify an existing solid waste collection, transfer, disposal, recycling, or resource recovery facility.

XVI. Storage in Recycling Facilities

- A. All putrescible materials stored at a recycling facility within the District shall be transferred as soon as possible. In any event, all putrescible materials which are not transferred within twelve (12) hours of receipt shall be placed in closed containers, or in totally

enclosed buildings or structures, so that water, birds, insects, rodents, or other vectors are prevented from reaching the materials.

B. Non-putrescible materials may be stored at a recycling facility for up to thirty (30) consecutive calendar days. Non-putrescible materials may be stored for a longer period of time only with the approval of the Board, after a finding by the Board that:

1. there is demonstrable need to do so (such as a bona fide arm's length marketing agreement with terms of receipt based on greater than thirty (30) day intervals or in amounts that require more than thirty (30) days to acquire); and
2. the storage of the materials at the recycling facility for such extended lengths of time will not pose a nuisance or sanitary or environmental problem.

XVII. Succession of Rule Authority

The Warren County Solid Waste Management District's Rules, upon adoption, will supersede the Clinton-Warren Joint Solid Waste Management District's rules.

XVIII. Severability

The provisions of these rules shall be severable, and if any section, clause or portion hereof, or the applicability hereof to any person or circumstance be invalidated, the remainder of these rules shall not be affected.

XIX. Effective Date

These rules shall be effective immediately.

XX. Transition Rules

These rules shall apply to the construction, enlargement or modification of every solid waste collection, transfer, disposal, recycling or resource recovery facility in the District for which a final and binding permit to install or other authorization has not been issued by the Director of the Environmental Protection, or in the case of a composting facility, which facility has not been registered with OEPA prior to the effective date of the rules.

APPENDIX R PERFORMANCE AGREEMENT

This page intentionally left blank

PERFORMANCE OBLIGATION

THIS OBLIGATION, made this _____ day of _____, 20__, with the Warren County Board of County Commissioners on behalf of the Warren County Solid Waste Management District, 406 Justice Drive, Lebanon, Ohio 45036, and Forest Green Waste Service, 10990 State Route 128, Harrison, OH 45030.

WITNESSETH: In accordance with the standards for Solid Waste Management Districts, as promulgated by the Ohio Environmental Protection Agency (hereinafter "OEPA") within Ohio Administrative Code 3745-27-90, pursuant to Ohio Revised Code 3734.50, the Warren County Solid Waste Management Plan, the Warren County Solid Waste Management District (hereinafter "District") has created a Warren County Solid Waste Management Plan, approved by the OEPA, and is soliciting Performance Obligations and Demonstration of Services for residential curbside recycling.

WITNESSETH: The District has implemented a Waste Reduction Strategy as included in the Warren County Solid Waste Management Plan and approved by OEPA. This strategy requires residential solid waste haulers (hereinafter "haulers") operating in the District to include non-subscription curbside recycling services as part of their basic solid waste services to residents in the District. The District will enter into Performance Obligations for Residential Curbside Recycling Services with the haulers. In this Performance Obligation the haulers shall, at a minimum,

1. provide mandatory, non-subscription curbside recycling to all residential units located in the District;
2. obtain and/or maintain the licenses as required by the Warren County Combined Health District;
3. collect and submit the generation fee to the District. Regardless of where the solid waste is disposed, this fee shall apply to all waste generated from within the District;
4. remove solid waste, including the collected recyclables, generated from the residential units on a weekly basis as required by the Warren County Combined Health District;
5. collect and recycle newspapers #1 and #2 plastic bottles, steel containers, and aluminum cans.

WITNESSETH: Annually, the haulers shall provide literature to the residential units that explain curbside recycling. The literature may address solid waste issues but must describe recycling services. A sample of the literature shall be included with the Demonstration of Services.

If the haulers have other educational opportunities available to the residential units then that may also be described. Examples of the literature may include brochures, flyers, stickers, magnets, videos, personally presentations, or lesson plans and any other promotional type items. Samples are welcomed to be included with the Demonstration of Services.

WITNESSETH: The haulers shall submit an annual report to the District. The report is due to the District by March 15th of each year and shall include information from the previous calendar year. If a company has a contract for the collection of solid waste services with any municipality or township located in the District, this information must be listed separately for each. The annual report shall include tons of recyclables collected and processed plus tons of yard waste collected and composted

If any hauler can not provide the annual report by March 15th, that hauler must provide to the District a detailed description, in writing, as to their inability to comply by March 10th.

WITNESSETH: It is the intent of the Warren County Solid Waste Management District to enter into Performance Obligations. Entering into the Performance Obligations will be based upon the Demonstration of Services. Responses to each question listed in the Demonstration of Services shall be complete and accurate. Additionally, the responses shall fully explain operations to implement the curbside recycling.

WITNESSETH: The attached Demonstration of Services and any other supporting materials submitted by the above listed hauler shall be attached and included as part of this Performance Obligation.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this document in two counterparts, each of which shall be deemed an original on the date first above written.

ATTEST:

Warren County
Board of County Commissioners

Name:

(Seal)
ATTEST:

Company Name

Name:

Approved as to Form:

Atty:
Assistant Prosecuting Attorney

Demonstration of Services

For single family units, multi family units without dumpsters, and multi family units with dumpsters describe recycle collection service for the various residential units. Address the following areas of operations including:

1. materials to be collected and recycled,
2. description of vehicle used for collection,
3. description of collection container,
4. replacement policy for containers,
5. location of material recovery facility or recycling facility,
6. contact information for residents,
7. attach a sample of educational and informational literature that will be sent to the residents on an annual basis,
8. plus any other information that will allow review of operations to collect and process curbside recyclables.

APPENDIX S MONITORING FORMS

Warren County Solid Waste Management District

Annual Monitoring Report

1. 90% Access Goal

Waste Hauler	Date Submitted	Number of Customers
Rumpke		
CSI		
WM		
	Total Number of Customers:	

Total number of households in Warren County:

2. Co-mingled Curbside Recycling

Waste Hauler	Tons of Recycling for
Rumpke	
CSI	
WM	
Total:	

3. Results of Phone Call Monitoring

Rumpke -				
Township:	Qtr 1 Date	Recyc. offered?	Qtr 2 Date	Recyc. offered?
All Townships				

Waste Management				
Township:	Qtr 1 Date	Recyc. offered?	Qtr 2 Date	Recyc. offered?
Clearcreek				

CSI				
Township:	Qtr 1 Date	Recyc. offered?	Qtr 2 Date	Recyc. offered?
All Townships				

4. Results of Visual Monitoring

Name of Township Visited: _____ Date: _____

Road surveyed: _____

____ out of ____ houses had recycling containers out.

Names of hauler on containers:

APPENDIX T ADDITIONAL PROVISIONS (NOT SPECIFIED IN FORMAT 4.0 BUT INCLUDED HERE AS A REFERENCE)

A. Inventory of Existing Facilities

Warren County

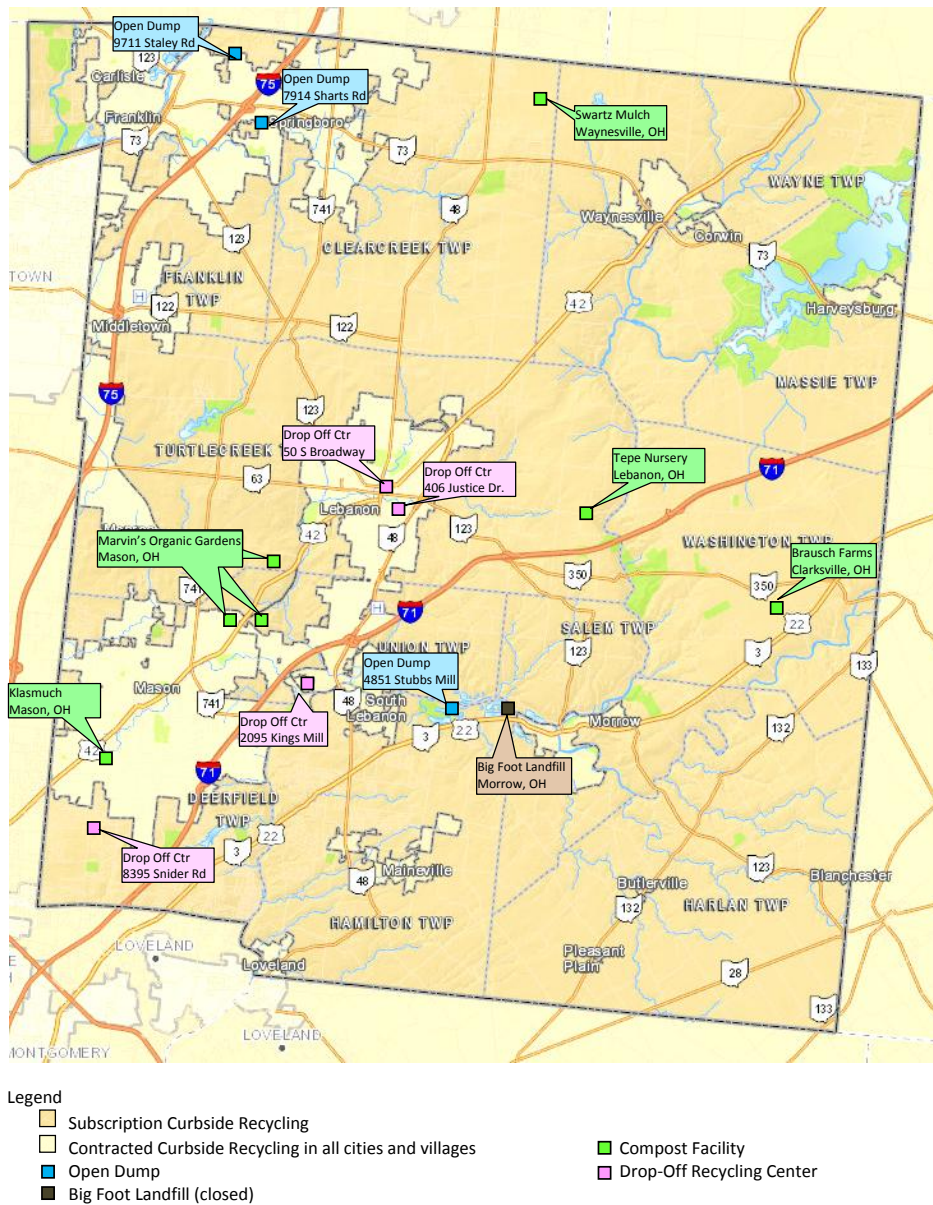


Figure T-1 Map of Facilities and Sites Calendar Year 2014

B. Inventory of Open Dump Sites

Table S-1 Inventory of Open Dump Sites

Site Location (describe briefly)	Latitude (degrees, minutes, seconds)	Longitude (degrees, minutes, seconds)	Landowner Mailing Address	County	Description of Materials Dumped	Approximate Size of Parcel (in acres)	Time Period Site known
none							

C. Amounts of Solid Waste Originating Outside the District

The SWMD does not expect solid waste originating outside of the District to be brought into the SWMD for disposal or resource recovery. The SWMD does not have in-district landfills and the one transfer facility does not take waste from out of district.

APPENDIX U CERTIFICATION STATEMENT

This page intentionally left blank



WARREN COUNTY

SOLID WASTE MANAGEMENT DISTRICT

406 Justice Drive Lebanon, OH 45036 Phone 513-695-1209 Fax 513-695-2980

www.co.warren.oh.us

Commissioners

Tom Grossmann
Pat South
David Young

Policy Committee

Chris Brausch
David Crisenbery
Betty Davis
William Romaine
Duane Stansbury
Jeff Thomas
Tiffany Zindel

Staff

Susanne Mason
Director
Larry Barton
Litter Control
Ron Van Hook
Litter Control
Suzanne Geisler
Education

August 18, 2016

Matthew Hittle
Ohio EPA, Division of Materials and Waste Management
P.O. Box 1049
Columbus, OH 43216-1049

Dear Mr. Hittle,

Enclosed are draft copies of Warren County's Solid Waste Management Plan and a certification statement.

If you have any questions, please feel free to contact me. I look forward to hearing your comments regarding our Plan Update.

Sincerely,

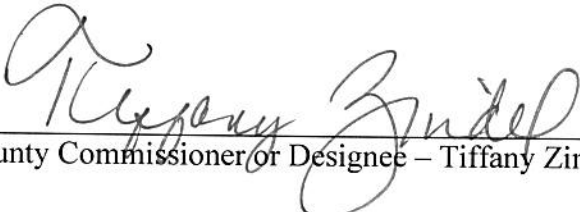
A handwritten signature in cursive script, appearing to read 'Smason'.

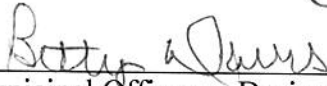
Susanne Mason


Certification Statement for the Draft Plan


For the Warren County Solid Waste Management District,

We as representatives of the Warren 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 4.0.



County Commissioner or Designee – Tiffany Zindel
8-15-16
Date Signed


Municipal Officer or Designee – Betty Davis
8-15-16
Date Signed


Township Representative – David Crisenbery
8-15-16
Date Signed


Health Commissioner or Designee – Duane Stansbury
8-15-16
Date Signed

Generator Representative – William Romaine
Date Signed


Member Representing General Interests of
Citizens – Chris Brausch
8-15-16
Date Signed

Public Citizen Representative – Jeff Thomas
Date Signed

APPENDIX V RATIFICATION RESULTS



managing change
in a resource-constrained world
RECYCLE.COM

WARREN COUNTY, OHIO

2018 SOLID WASTE MANAGEMENT DISTRICT PLAN UPDATE

STRUCTURE

The District is a single county solid waste management District governed by the Board of County Commissioners and the policy committee. Day to day management of the District's integrated waste management system and planning is the responsibility of District staff.

The District is required by Ohio State Law to develop a solid waste management plan demonstrating access to at least 10 years of landfill capacity to manage all District solid wastes that will be disposed. The solid waste management plan must also show how the District will meet the waste reduction and recycling goals established in Ohio's state solid waste management plan and present a budget for implementing the solid waste management plan.

The District's integrated solid waste management system relies heavily on neighboring districts for landfill, transfer facility, and recycling processing infrastructure. The District operates in an open market system, which means customers have a choice of any waste hauler because the system is open to competition. All five of the municipal political jurisdictions procure one contractor, a single source, to provide specified collection services for their single-family residents. The remaining political jurisdictions operate with individual contracts or private subscriptions, a system where residents contract directly with the hauler of their choice.

ANALYSIS

Using 2014 as the baseline reference year, the methods of managing waste and volumes of waste managed were analyzed. Total generated waste for Warren County is 278,151 tons (CY 2014), a per person generation of 6.95 pounds per person per day (population of 219,257). Of this generated approximately 79 percent is generated from the residential/commercial sector and 21 percent from the industrial sector. The District recycled and composted 32 percent and disposed 68 percent of the waste generated.

Recycling activities of commercial and industrial sector businesses were managed by private service providers. Businesses contact available service providers directly for collection and recycling services. Residential recycling activities were also collected and processed by private service providers. The residential recycling infrastructure consisted of non-subscription curbside programs in every political jurisdiction (municipalities, villages and townships) and four drop-off locations throughout the County.

There were six registered Class IV, two Class II, and two Class III compost and yard waste management facilities accepting District materials in 2014 (one facility holds all three classification registrations). Five of those facilities are located in Warren County however the facilities primarily serve private businesses and municipal yard and leaf management purposes, and are not accessible to the general public. Yard waste facilities reported composting 5,771 tons of yard and food waste.

The District does not direct where its wastes are to be taken, waste haulers are able to take the wastes to a licensed sanitary landfill either inside or outside the State of Ohio. Three private waste haulers operated in the district and direct-hauled or transferred waste to six Ohio landfills (all out-of-district) and seven out-of-state landfills. Roughly 11 percent of the District's landfilled waste was first transferred through one of four transfer facilities before being landfilled.

PLANNING

Residential recycling programs provide adequate infrastructure and performance. Maintaining countywide curbside recycling is a high support and priority item for the Policy Committee. The District will continue to support the residential curbside infrastructure with Performance Obligation Agreements and to demonstrate compliance with State Plan Goal #1 Access. Contract assistance will be offered to ensure jurisdiction residents have best services at competitive prices. The District will also explore untapped opportunities such as: participation, incentives, multi-family units, outreach and education, monitoring, and resident perception of costs. The residential/commercial waste reduction rate is projected to hold at 20 percent. Future waste will continue to be managed through methods of recycling, composting and disposal.

REVENUE AND INVESTMENT

The District uses generation fees, local funding from the County Courts, and the District's Reserve Fund for implementation of the Plan. The generation fee is \$0.50 per ton on solid waste generated in Warren County and disposed at transfer facility or landfills located in Ohio. The fee is collected at the first facility that accepts the District's waste. In comparison to regional solid waste management districts, the District has the lowest per capita revenues and expenses. Funding from County Courts reinforces the Litter Collection Program and uses court directed people that are required to perform community service work as part of a judgment (The Courts provide the District with \$30,000 per year for this activity). The District Reserve Fund was generated over time and came from the Tier Fees charged at Bigfoot Run Sanitary Landfill when it was operating.

Plan implementation expenses are projected to average \$220,000 annually over the 15-year planning period, while revenues are projected to average \$130,000 annually. This deficit in spending will continue to draw down the District's Reserve Fund.

2010 PLAN AND 2018 PLAN

	2010 Plan	2018 Plan
Residential/Commercial Recycling Rate	20%	20%
Industrial Recycling Rate	75%	73%
Demonstration of 90% of Population with Access to Recycling	✓	✓
Generation Fee Funding	\$0.50 per ton	\$0.50 per ton
Available Disposal Capacity for Plan Period	Yes	Yes
Designation	Precludes facility designations	Precludes facility designations
Rules	Already established rules governing maintenance, protection, and use of solid waste collection, transfer, disposal, recycling, and resource recovery facilities.	Maintains established rules. No proposed rules.
Programs		
Non-Subscription Curbside	All 24 jurisdictions	All 24 jurisdictions
Drop-off Stations	1 in Deerfield Township 1 in Mason 2 in Lebanon	1 in Deerfield Township 1 in Mason 2 in Lebanon
Private paper collection and drop-offs	✓	✓
Solid Waste and Recycling Assessments	✓	✓
Waste Exchange	✓	✓
Electronics Collection	Annual event	Annual event
HHW Information	✓	✓
HHW Management Strategy	Not in Plan	Ascertain resident and stakeholder engagement and explore outlets for HHW.
Lead-Acid Battery Information	✓	✓
Scrap Tire Disposal Information	✓	✓
Yard Waste Composting Programs	✓	✓
Food Waste Management	Not in Plan	Add information to Website
District Webpage	✓	Add a business content page; Link jurisdiction webpages; develop a common suite of messaging materials
Resource Guide	✓	✓
Education Provider	✓	✓
Outreach and Marketing Plan	Not in Plan	Specific strategies of outreach to residential, commercial, industrial, political leaders, and schools.
Recycling Incentive Mini Grants	Not in Plan	\$250 grant to schools, scouts and non-profits for composting and recycling projects
Commercial and Industrial Surveying	✓	✓
Curbside Recycling Monitoring Plan	✓	✓
Contingency 1 – Drop-off Recycling	Sited and developed plans to establish 10 drop-offs	Flexibility with site locations would need at most 10 sites
Contingency 2 - Franchise Service Areas	✓	✓
Performance Obligation Agreements	✓	✓
Roadside Litter Collection Program	✓	Scheduled to purchase trucks



Village of South Lebanon
99 N. High Street, South Lebanon, Ohio 45065
513-494-2296
fax: 513-494-1656
www.southlebanonohio.org

MEMORANDUM

To: Mayor & Village Council

From: Jerry Haddix, Village Administrator

Date: July 19, 2017

Subject: Pump Station Generator Maintenance Agreement

Attached is the annual service agreement for the generators of the sewer pump stations. It is the same as last year and the price has not increased

Let me know if you have any questions.



Planned Maintenance Agreement Quote

Page 1

Bill-to Customer No. C00405838

Village of South Lebanon

PO Box 40

South Lebanon, OH 45065

USA

Contact Jerry Haddix

Phone No. 513-494-2296

E-Mail jhaddix@southlebanonohio.org

Salesperson Marissa Maloney

Description Planned Maintenance Agreement

Buckeye Power Sales Co., Inc.

4992 Rialto Road

West Chester, OH 45069

USA

Phone No. 513.755.2323

Fax No. 513.755.4515

Quote No. PMA1015139

Accept Before

Renewal Date 08/01/17

Invoice Period Year

Annual Amount 2,155.00

Contract No. PMA0WC3736

Contract Type Contract Renewal

We propose to furnish the materials and labor in accordance with the Buckeye Power Sales Co., Inc. Planned Maintenance Agreement Terms & Conditions

Ship-to Address

Village of South Lebanon Grants Pass L.s.

5095 Zoar Rd.

South Lebanon, OH 45065

EQ0205362	Kohler 50REOZJD	KH50REOZ	3032865	770.00
	MAJOR Major -Fuel Sample			
	MINOR Minor			

Ship-to Address

Village of South Lebanon Mckinley Pump

107 W. Mckinley St.

South Lebanon, OH 45065

EQ1007869	200REZXB, 200 kW, 60 Hz	KH200REZ	SGM322FN2	780.00
	MAJOR Major			
	MINOR Minor			

Ship-to Address

Village of South Lebanon Rivers Crossing

3649 N Lebanon Road

LEBANON, OH 45036

EQ0203516	Kohler 20REOZJB	KH20REOZ	2154362	605.00
	MAJOR Major -Fuel Sample			
	MINOR Minor			



Bill-to Customer No. C00405838
Village of South Lebanon
PO Box 40
South Lebanon, OH 45065
USA

Contact Jerry Haddix
Phone No. 513-494-2296
E-Mail jhaddix@southlebanonohio.org
Salesperson Marissa Maloney
Description Planned Maintenance Agreement

Planned Maintenance Agreement Quote
Page 2

Buckeye Power Sales Co., Inc.
4992 Rialto Road
West Chester, OH 45069
USA
Phone No. 513.755.2323
Fax No. 513.755.4515

Quote No. PMA1015139
Accept Before
Renewal Date 08/01/17
Invoice Period Year
Annual Amount 2,155.00
Contract No. PMA0WC3736
Contract Type Contract Renewal

Addition to Section 3.06 - The venue for any and all claims, disputes, interpretations, and litigation of any kind arising out of this Agreement shall be exclusively in the Warren County, Ohio Court of Common Pleas (unless both parties mutually agree in writing to alternative dispute resolution), and each party hereby waives the right to initiate in or or remove any such matters to any state or Federal court.

Total 2,155.00

Customer Signature Line

Please do not pay the total indicated on this Quotation as it does not include the applicable sales tax. A separate invoice will be sent for payment once the signed agreement has been returned to BPS.

PO # _____
Sign _____
Print James D. Smith, Mayor
Date _____

Approved as to form:

Paul R. Revelson, Village Solicitor

BUCKEYE POWER SALES CO., INC.**PLANNED MAINTENANCE AGREEMENT TERMS & CONDITIONS****ARTICLE ONE: TERM OF CONTRACT**

- 1.01 This Agreement shall commence on the date first written and shall continue for a period of one year (unless otherwise specified).
- 1.02 For services rendered under this proposal, Customer agrees to pay Servicing Agent in advance of performance of services.
- 1.03 Rates for extended years shall be determined at the beginning of each billing cycle.
- 1.04 Replacement parts will be billed at prices prevailing at time of use.
- 1.05 Emergency service between scheduled services and/or load test services will be provided at rates in effect at the time of service for labor, parts and travel.

ARTICLE TWO: REMEDIES FOR BREACH

- 2.01 In the event Servicing Agent and/or its employees/agents negligently fail to perform the Planned Maintenance Services outlined herein, the failure of which directly causes property damage, the sole remedy available to Customer shall be the replacement or repair of property with property of equal quality and value. This applies only to the Generator(s) and/or Automatic Transfer Switch(es).
- 2.02 ~~Servicing Agent is not responsible for any consequential damages, lost profits, or any damages or losses.~~
- 2.03 Servicing Agent shall not be responsible for failure to render the service due to causes beyond its control including labor strikes, labor disputes, acts of God, etc., or consequential damages.

ARTICLE THREE: TERMINATION OF AGREEMENT

- 3.01 Either party may terminate this Agreement by giving sixty (60) days written notice to the other party
- 3.02 This Agreement shall terminate automatically on the occurrence of any of the following events:
- Bankruptcy or insolvency of either party
 - Assignment of this Agreement by either party without consent of the other party
 - Sale of the business of either party
 - Acts of God
 - Death or dissolution of either party
 - Impracticability and/or impossibility of performance
- 3.03 This Agreement supersedes any and all agreements, both oral and written, between the parties with respect to the rendering of services by Servicing Agent for Customer, and contains all of the covenants and agreements between the parties with respect to the rendering of these services in any manner whatsoever. Each party acknowledges that no representations, inducements, promises, or agreements, written or oral, have been made by either party or by anyone acting on behalf of either party, that are not embodied in this Agreement. Any modification of this Agreement will be effective only if it is in writing signed by the Servicing Agent.
- 3.04 ~~Customer agrees to defend, indemnify and hold Servicing Agent, its directors, officers and employees ("Indemnitees") harmless from and against any and all claims, losses, costs, expenses, attorney's fees and liabilities ("Claims") arising out of or related to the goods, however, Customer shall not be required to indemnify to the extent it is relieved through final adjudication of its losses or damages, or to the extent it is liable for such Claims.~~
- 3.05 ~~If any action at law or in equity, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorney's fees in addition to any other relief to which that party may be entitled. The attorney's fees may be set by the court in the same action or in a separate action brought for that purpose.~~
- 3.06 This Agreement will be governed by and construed in accordance with the laws of the State of Ohio.

ARTICLE FOUR: SERVICES TO BE PERFORMED BY SERVICING AGENT

- 4.01 Servicing Agent agrees to provide labor, test equipment and/or replacement parts so as to perform Planned Maintenance, on equipment owned and/or operated by Customer. In performing its Planned Maintenance Program, Servicing Agent shall make scheduled visits consisting of the services outlined in the proposal as defined in this article
- 4.02 **Periodic Service**
- Services provided in each Servicing Agent's maintenance trip will include the following:
 - Inspect air cleaner
 - Check battery electrolyte levels and specific gravity
 - Test antifreeze and adjust
 - Clean battery terminals as necessary
 - Check coolant level
 - Check generator output voltage and adjust as necessary
 - Inspect belts and hoses as required
 - Emergency system operation without load transfer
 - Check engine heater operation
 - Frequency check/governor adjustment, as required
 - Check generator set for fuel, oil, coolant leaks
 - Check transfer switch and accessory operation (subject to owners approval and availability during service visit)
 - Check air intakes and outlets
 - Check engine alternator charge rates
 - Check transfer tank operation
 - Check engine and generator gauge and indicator operation
 - Drain exhaust line
 - Check generator set controller operation including shutdown functions
 - Inspect silencer
 - Perform engine checks per manufacturer's recommendations
 - Check battery charger operation and charge rate

BUCKEYE POWER SALES CO., INC.

PLANNED MAINTENANCE AGREEMENT TERMS & CONDITIONS (continued)

4.03 Annual Maintenance

- Services provided in Servicing Agent's annual maintenance trip will include items listed in Section 4.02 and the following:

- Lube, oil and filter(s) change

- Fuel filter(s) change

- Engine tune-up with parts for gas or gasoline engines (per the manufacturer's service intervals) Additional pricing will apply if performed, by request of customer, outside of the manufacturer's recommended service intervals.

*Air filter and Battery replacement will be quoted at recommended intervals and invoiced at an additional charge. This charge is over and above the price of the Planned Maintenance Agreement unless otherwise specified and/or included in the Planned Maintenance Agreement.

4.04 This Planned Maintenance Agreement is not a guarantee of equipment availability.

4.05 Load Bank Service (only if specified as "Additional Services")

- Customer and Servicing Agent agree that a load bank test service will be provided annually for a period of time as stated in the proposal. Servicing Agent's load bank test will be performed utilizing portable resistive load banks at unity power factor. Test to be performed in accordance with usual and customary practice as defined by applicable code.

4.06 Servicing Agent agrees to perform Planned Maintenance to Customer's equipment in accordance with the Methods and Time Table set forth. No services or materials are under this Agreement unless specifically referred to herein.

4.07 **THIS AGREEMENT DOES NOT RELIEVE THE CUSTOMER OF PERIODICAL CHECKS AND TESTING AS OUTLINED IN THE MANUFACTURER'S SERVICE MANUAL.**



Village of South Lebanon
99 N. High Street, South Lebanon, Ohio 45065
513-494-2296
fax: 513-494-1656
www.southlebanonohio.org

MEMORANDUM

To: Mayor & Village Council
CC: Nicole Armstrong, Fiscal Officer
From: Jerry Haddix, Village Administrator
Date: July 18, 2017
Subject: Janitorial service – UPDATE

I was recently informed by the Jani-King sales person that, as of July 1st, the price for cleaning both buildings would be \$300/month instead of the \$250 originally quoted. This is still a significant savings. In addition, they provide all of the cleaning products & equipment which is an added value.

Let me know if you have any questions or need additional information.

B&B Franchising LLC
D/b/a Jani-King of Cincinnati
3800 Red Bank Rd.
Cincinnati, OH 45227
Phone: (513) 771-8006
Fax: (513) 771-8335



United States

Albuquerque
Atlanta • Austin
Baltimore
Baton Rouge
Birmingham • Boston
Buffalo • Charleston
Charlotte • Chicago
Cincinnati • Cleveland
Colton • Columbia
Columbus • Dallas
Dayton • Denver
Detroit • Fort Worth
Greensboro
Greenville/Spartanburg
Hampton Roads
Hartford • Hawaii
Houston • Indianapolis
Jackson • Jacksonville
Kansas City
Knoxville • Las Vegas
Los Angeles • Louisville
Memphis • Miami
Milwaukee
Minneapolis
New Mexico
New Jersey • Nashville
New Orleans
New York • Oakland
Oklahoma City
Orlando
Philadelphia
Phoenix • Pittsburgh
Portland
Raleigh/Durham
Rhode Island
Richmond
Sacramento
Salt Lake City
San Antonio • San Diego
San Francisco
Seattle
St. Louis • Tampa Bay
Tucson • Tulsa
Washington, D.C.

Argentina

Australia

Perth
Sydney

Brazil

Sao Paulo

Canada

Nova Scotia
Ontario • Toronto
Windsor

Great Britain

Birmingham
London

France

Korea

Mexico

Monterrey

New Zealand

Singapore

Spain

Turkey

Istanbul

Taiwan

July 18, 2017

Village of South Lebanon

Jerry Haddix

99 High Street

103 W. Forrest Avenue

South Lebanon, OH 45065

Dear Jerry Haddix:

Thank you for taking the time to meet with me and discuss your facilities unique commercial cleaning needs. It is with great pleasure that Jani-King of Cincinnati provides you with the following customized cleaning proposal that we guarantee will meet and exceed your needs.

After thorough analysis of your facility, and backed by over 40 years of successful commercial cleaning experience, Jani-King of Cincinnati appreciates the opportunity to show the difference a truly professional cleaning company can have on your facility.

Your customized cleaning proposal is inclusive of all labor, supervision, cleaning equipment and supplies and contains the following:

- ☐ Company Profile
- ☐ Quality Control
- ☐ Customized Cleaning Schedule
- ☐ Pricing Schedule
- ☐ Maintenance Agreement
- ☐ Certificate of Liability Insurance
- ☐ Workers Compensation Insurance

Jani-King of Cincinnati understands that a successful relationship is built on communication and trust. We take our commitment to you very seriously because we know our future success depends on your continued satisfaction. **At Jani-King, we believe the customer is King!** That is why our dedicated operations team is available 24 hours a day, 7 days a week, to respond to our client's needs, and immediately deliver **RESULTS!**

In the event that you have questions or would like additional information please do not hesitate to contact me at (513) 771-8006 or by email at, PJhofferberth@janikingin.com.

Best Regards,

PJ Hofferberth

Business Development Advisor

Jani-King of Cincinnati

Cleaning Schedule

Location(s) Where Services Will Be Performed:

Village of South Lebanon
99 High Street and 103 W. Forrest Avenue
South Lebanon
Ohio
Jerry Haddix

Named Areas:

A.	Offices/Conference Room
B.	Restrooms
C.	Break Room

I. EACH CLEANING

A. OFFICES/CONFERENCE ROOM

1. Empty all trash receptacles, replace liners, as needed, and remove trash to a collection point.
(Client provides trash receptacle liners)
2. Vacuum carpeting. Jani-King will not be responsible for removal of staples from carpets.
3. Clean and polish drinking fountains and water coolers.
4. Thoroughly dust the open areas of all horizontal surfaces, including desktops, files, window ledges, chairs, tables, and all manner of furnishings using a **Micro-fiber cloth**.
5. Damp wipe all horizontal surfaces to remove coffee rings and spillage as needed.
6. Dust mop hard surface floors using a **Micro Fiber Flat Mop System**.
7. Damp mop hard surface floors, taking care to get into corners, along edges, and beneath furniture.
8. Damp wipe entrance metal and fingerprints on entrance glass.
9. Spot clean front glass door.
10. Use an industry standard disinfectant for proper sanitation.

Client Initials_____

B. RESTROOMS

1. Stock towels, tissue and soap. (To be furnished by Client.)
2. Empty sanitary receptacles and wipe with a disinfectant.
3. Empty trash receptacles and disinfect.
4. Clean mirrors.
5. Wipe towel dispenser covers.
6. Clean and disinfect, inside and outside, all surfaces of toilets and urinals.
7. Scour and disinfect all basins. Polish bright work.
8. Remove splash marks from walls around basins, toilets, urinals and partitions.
9. Sweep/vacuum, wet mop and rinse restroom floors with a neutral sanitizer.

C. BREAK ROOM

1. All trash receptacles are to be emptied and trash removed to collection point.
(Liners will be furnished by Client.)
2. Clean and polish drinking fountain.
3. Damp wipe all tables, chairs, counters, and trash receptacles.
4. Clean and polish all sinks.
5. Damp wipe exterior of all microwaves and refrigerators.
6. Dust mop hard surface floors using a **Micro Fiber Flat Mop System**.
7. Damp mop hard surface floor, taking care to get into corners, along edges, and beneath furniture.
8. Use an industry standard disinfectant for proper sanitation.

Client Initials_____

II. WEEKLY CLEANING

A. ALL NAMED AREAS

1. Dust all vertical surfaces of window sills, desk, file cabinets, chairs, tables, and other furniture.
2. Thoroughly vacuum all carpeting, taking care to get into corners, along edges and beneath furniture.

III. MONTHLY CLEANING

A. ALL NAMED AREAS

1. Accomplished all high dusting to a maximum of twelve feet, including picture frames, blinds, door frames, ceiling vents, and cobweb areas.
2. Remove fingerprints and marks from around light switches and door frames.

Client Initials_____



PRICING SCHEDULE

FOR

Village of South Lebanon

99 High Street and 103 W. Forrest Avenue

South Lebanon, OH 45065

The Premises will be serviced 1 times per week
for a charge of:

THREE HUNDRED DOLLARS
(\$300.00)

Tax Not Included
PER MONTH

Client Signature

Jani-King Signature

Print Name/Title

PJ Hofferberth/Business Development Advisor
Print Name/Title



Additional Services Offered By Jani-King

HIGH SPEED BURNISHING:

The process includes following wet mopping procedures to apply a layer of restorer onto the floor surface, then burnishing the floor. Burnishing will remove soil, heel, and scuff marks in the top layers of floor finish, as well as to produce a brilliant shine.

TOP SCRUB AND RECOAT:

This process will remove a portion of the top layers of floor finish, which contains the majority of the soil, dirt deposits, or other water soluble substances. Scrubbing is necessary when wet mopping and burnishing fail to remove soil and scratches from the hard surface floor; and prior to reapplying floor finish.

STRIPPING AND RECOATING:

Stripping is to remove all traces of the old finish in preparation for applying new coats of floor finish. Four to five coats of new floor finish will be applied. This will provide the floor with a protective coating and to fill pores and inconsistencies on the floor surface as well as provides skid resistance.

CARPET EXTRACTION:

Carpet Extraction is a deep cleaning corrective procedure. In extraction, pressure jets spray a cleaning chemical/hot water solution into the carpet. The Extractor immediately vacuums up the soiled cleaning solution into a recovery tank. The purpose of extraction is to deep clean the carpet to bring back an acceptable level of appearance.

Care will be exercised so that baseboards, walls and furniture will not be splashed, marred, disfigured or damaged during these operations.

***** Please ask your sales professional today for a quote*****



JANI-KING OF CINCINNATI MAINTENANCE AGREEMENT



This Maintenance Agreement ("Agreement") is made as of the Effective Date outlined in Section 1.1, by and between, B&B FRANCHISING, LLC d/b/a JANI-KING OF CINCINNATI ("Jani-King"), and Village of South Lebanon. ("Client")

Facility Location:

Village of South Lebanon
99 High Street
South Lebanon, OH 45065

1. PERFORMANCE OF SERVICES

- 1.1. Performance of the services scheduled shall begin the _____ day of _____, _____.
- 1.2. The term of this Agreement shall be for **TWELVE (12)** months from the date services are scheduled to begin.
- 1.3. Jani-King will provide the services described in the Cleaning Schedule, as attached hereto and made a part of this Maintenance Agreement.
- 1.4. The Services shall be performed at the location(s) listed under "Facility Location" of this Maintenance Agreement.
- 1.5. Jani-King agrees to provide the Service to the Named Areas (1) times per week on the days circled: TIME ____pm to ____am

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
--------	---------	-----------	----------	--------	----------	--------

- 1.6. Jani-King agrees to furnish all equipment and tools necessary to provide the Services and maintain the named areas in a neat, clean, and orderly condition as outlined in the Cleaning Schedule.
- 1.7. Client warrants that the Named Areas are free of asbestos and other hazardous materials. Client hereby agrees to hold Jani-King and its authorized franchise owners harmless from any liability resulting from any Jani-King personnel's exposure to hazardous or harmful materials located in Named Areas.
- 1.8. Jani-King agrees to carry at least \$5,000,000 in general liability insurance coverage as well as Workers Compensation coverage as prescribed by law.

2. PAYMENT OF SERVICES

- 2.1. Client agrees to pay to Jani-King each month the total minimum sum of **\$300.00** also stated in the Pricing Schedule, attached hereto, on or before the last day of each month that Services are rendered. If applicable, Client agrees to pay for any charges relating to an Initial Clean and/or any future authorized additional cleaning Client may request. Client agrees to pay all sales or use tax levied by a taxing authority on the value of the Services rendered or supplies purchased. Client agrees that all payments made to Jani-King shall only be considered paid and properly credited when delivered to the address listed on the invoice. Jani-King agrees to provide Client an invoice a minimum of 30 days prior to its due date.
- 2.2. Credits for holidays were pre-determined and given as part of the monthly charge herein, and no other adjustments will be made for holidays.
- 2.3. From time to time, as the parties may agree, the monthly charge to be paid by Client may be increased or decreased to reflect an increase or decrease in the area(s) of space serviced and the kind, amount, or frequency of the Service. Any modifications will only be binding if in writing and signed by both parties. In the event mutual agreement relating to frequency of service, type of service, space serviced, or amount to be paid cannot be reached, the frequency of service, type of service, space serviced or amount to be paid shall remain unchanged.
- 2.4. It is expressly agreed that the total minimum sum stated in Section 2.1. may be increased (i) annually by Jani-King by a percentage amount not to exceed the annual increase of the Consumer Price Index as most recently published in the Wall Street Journal, or (ii) by Jani-King at any time in the event of an increase in any applicable federal, state, or local minimum wage, living wage, or other wage required by law, in an amount necessary to comply with such an increase.
- 2.5. In the event payment for Services is not received within thirty (30) days from the date such payment is due, Jani-King may suspend Services to Client until such time Client has paid for all services rendered to date. Suspension of services by Jani-King under this Section shall not deprive Jani-King of any of its remedies or actions against Client for past or future payments due under this Agreement, nor shall the bringing of any action for payment of services or other rights contained herein be construed as a waiver of any Jani-King rights.

3. INDEPENDENT BUSINESS RELATIONSHIP

- 3.1. It is expressly agreed that the Services will be provided by an authorized Jani-King franchise owner and employees of the franchise owner.
- 3.2. Jani-King and all authorized representatives are not employees of Client but are independent contractors. All Jani-King authorized franchise owners and the employees of the franchise owners will not be within the protection or coverage of Client's Workers Compensation Insurance and no withholding of Social Security, Federal or State Income Tax or other deductions shall be made from the sums agreed to be paid to Jani-King herein, the same being contract payments and not wages.
- 3.3. Client agrees that during the term of this Agreement, and within one hundred and eighty (180) days after termination, that Client will not employ or engage as a contractor, any employees, agents, representatives or franchisees of Jani-King without the express written consent of Jani-King. Jani-King agrees that during the term of this Agreement and within one hundred and eighty (180) days after termination, it will not employ or engage as a contractor, any employees, agents or representatives of Client without the express written consent of Client.

4. RENEWAL AND TERMINATION

- 4.1. This Agreement shall be automatically extended and renewed for additional one (1) year terms on the same terms and conditions, unless either party shall give written notice, as described herein, of termination at least thirty (30) days prior to the scheduled expiration date. Otherwise, this Agreement may only be terminated for non-performance as set out below.

4.2. Non-performance is defined as the failure to perform any act stipulated under this Agreement. Before any termination for non-performance is effective, the terminating party must give the other party written notice, as described herein, specifying in detail the nature of any defect or failure in performance. Upon the effective date of the receipt of notice of non-performance, the non-terminating party shall have thirty (30) days in which to cure the defect in performance (the "Cure Period") to the reasonable satisfaction of the terminating party.

In the event the defect is not satisfactorily cured within the Cure Period, the terminating party shall provide written notification of the failure to satisfactorily cure the defect. In the event the second notice is not received within five (5) days from the end of the Cure Period, all deficiencies will be deemed cured. In the event the second notice is received within the required time period, this Agreement shall then terminate thirty (30) days from the date of the second written notice.

4.3. All notices between Client and Jani-King shall be in writing. Any notice shall be deemed duly served if such notice is deposited, postpaid and certified, with the United States Postal Service, or a recognized common parcel courier providing express, receipt delivery to the address stated on the signature page of this Agreement for Jani-King or Client. All other notices, including notices personally delivered to individuals performing services under this Agreement, shall be ineffective. Either party may change the address of notice by providing the other party written notice of such change. Time is of the essence for all notices required under the terms of this Agreement.

5. GENERAL PROVISIONS

5.1. Client agrees to provide Jani-King, its designated Quality Control employees, and franchise owner reasonable access to all areas in which cleaning is being contractually performed during regular business hours to perform routine quality control checks and inspections.

5.2. In the event it becomes necessary for either party to institute suit against the other to secure or protect its rights under this Agreement, the prevailing party shall be entitled to all associated costs of the suit, including reasonable attorney's fees, administrative fees, court costs and damages as part of any judgment entered in its favor.

5.3. The terms of this Agreement shall be binding upon and inure to the benefit of Jani-King and Client and their respective heirs, representatives, successors and assigns, except as otherwise herein provided. This Agreement shall be binding on Jani-King at the time of execution by an authorized Jani-King agent.

5.4. Any waiver by either party to this Agreement of a breach of any term or condition of this Agreement shall not constitute a waiver of any subsequent breach of the same or any other term or condition of this Agreement.

5.5. Jurisdiction and venue for any suit brought on this Agreement shall be in the governmental division of Hamilton County, Ohio.

5.6. The parties acknowledge that this Agreement and the exhibits supersede all prior agreements, representations, and understandings of the parties. No changes to this Agreement will be effective unless signed by both parties and attached hereto.

5.7. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of this Agreement; and, the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by such illegal, invalid, or unenforceable provision or by its severance from this Agreement.

IN WITNESS WHEREOF, the Parties hereto have set their hands this _____ day of _____, _____.

<p>Jani-King of Cincinnati</p> <p>_____</p> <p>Signature of Jani-King Authorized Agent</p> <p><u>PJ Hofferberth/Business Development Advisor</u></p> <p>Print Name/Title</p>	<p>_____</p> <p>Client Name</p> <p>_____</p> <p>Signature of Client's Authorized Agent</p> <p>_____</p> <p>Print Name/Title</p> <p>_____</p> <p>Client Contacts E-mail Address</p>
<p>Notice Address for Jani-King of Cincinnati: Attn: Operations Department 3800 Red Bank Rd. Cincinnati, OH 45227</p>	<p>Billing and Notice Address of Client:</p> <p>A/P Name: _____</p> <p>_____</p> <p>Address</p> <p>_____</p> <p>City, State, Zip Code</p> <p>_____</p> <p>Phone Number _____ E-Mail Address _____</p>



Warren County Sheriff's Office - Enforcement Division

Activity Report for SOUTH LEBANON for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
SPECIAL DETAIL AVAIL	0	1	0	0	0	1	0	0	0	0	0	0	2
SPECIAL DETAIL UNAVA	0	1	0	0	0	0	0	0	0	0	0	0	1
VACATION HOUSE CHECK	70	66	41	27	30	41	0	0	0	0	0	0	275
PUBLIC SERVICE	47	69	74	48	42	44	0	0	0	0	0	0	324
EMERGENCY BUTTON ACT	0	0	1	0	0	0	0	0	0	0	0	0	1
911 HANGUP	15	13	23	52	18	19	0	0	0	0	0	0	140
911 SILENT	5	4	11	16	9	5	0	0	0	0	0	0	50
ACCIDENT-INJURY	3	1	1	4	2	2	0	0	0	0	0	0	13
BURGLAR/INTRUSION AL	7	6	16	18	17	21	0	0	0	0	0	0	85
FIRE/MEDICAL ALARM	2	3	2	6	6	5	0	0	0	0	0	0	24
HOLDUP ALARM	0	1	0	0	0	0	0	0	0	0	0	0	1
PANIC/DURESS ALARM	0	0	2	1	0	0	0	0	0	0	0	0	3
ANIMAL COMPLAINT	6	1	4	8	5	6	0	0	0	0	0	0	30
ACCIDENT-PROPERTY	12	9	11	9	17	8	0	0	0	0	0	0	66
ASSAULT	1	1	0	0	1	1	0	0	0	0	0	0	4
ATTEMPT TO LOCATE	6	6	2	7	6	4	0	0	0	0	0	0	31
ABANDONED VEHICLE	0	0	1	0	1	2	0	0	0	0	0	0	4
BUSINESS CHECK	1	0	0	0	0	0	0	0	0	0	0	0	1
BOMB THREAT	0	1	0	0	0	0	0	0	0	0	0	0	1
BURGLARY	0	2	1	0	0	0	0	0	0	0	0	0	3
BURGLARY IN PROGRESS	0	0	0	3	2	4	0	0	0	0	0	0	9
CITIZEN ASSIST	5	4	10	6	4	11	0	0	0	0	0	0	40
CRIMINAL DAMAGING	2	2	0	2	1	3	0	0	0	0	0	0	10



Warren County Sheriff's Office - Enforcement Division

Activity Report for SOUTH LEBANON for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
CRIMINAL DAMAGING IN	1	1	0	1	1	0	0	0	0	0	0	0	4
CIVIL SERVICE	57	33	20	35	22	38	0	0	0	0	0	0	205
CRIMINAL WARRANT SER	6	6	4	5	5	14	0	0	0	0	0	0	40
DEAD BODY	1	0	0	0	0	0	0	0	0	0	0	0	1
DISORDERLY CONDUCT	1	0	1	1	0	2	0	0	0	0	0	0	5
DOMESTIC COMPLAINT	7	2	3	2	6	4	0	0	0	0	0	0	24
DOMESTIC IN PROGRESS	5	7	2	5	9	3	0	0	0	0	0	0	31
DISABLED VEHICLE	8	6	6	7	10	1	0	0	0	0	0	0	38
EXTRA PATROL	2	0	4	1	3	3	0	0	0	0	0	0	13
ESCORT	6	11	14	7	2	14	0	0	0	0	0	0	54
FRAUD	1	6	1	2	5	2	0	0	0	0	0	0	17
FIGHT	1	0	1	2	1	0	0	0	0	0	0	0	5
FIRE TRAFFIC	5	2	5	5	5	4	0	0	0	0	0	0	26
FIREWORKS COMPLAINT	0	0	0	0	0	1	0	0	0	0	0	0	1
FOLLOWUP INVESTIGATI	29	16	22	26	28	9	0	0	0	0	0	0	130
HARASSMENT-PHONE	1	2	1	2	2	2	0	0	0	0	0	0	10
HARASSMENT-VERBAL	1	0	0	0	1	1	0	0	0	0	0	0	3
HIGH WATER	0	0	1	0	0	0	0	0	0	0	0	0	1
INTOXICATED DRIVER	2	3	2	1	4	3	0	0	0	0	0	0	15
INTOXICATED SUBJECT	2	0	1	3	1	5	0	0	0	0	0	0	12
JUVENILE COMPLAINT	0	3	1	3	5	4	0	0	0	0	0	0	16
JUVENILE RUNAWAY	0	0	0	3	2	1	0	0	0	0	0	0	6
JUVENILE UNRULY	1	1	1	2	4	3	0	0	0	0	0	0	12



Warren County Sheriff's Office - Enforcement Division

Activity Report for SOUTH LEBANON for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
THEFT	16	11	10	3	4	8	0	0	0	0	0	0	52
THEFT ACTIVE	3	1	1	0	0	2	0	0	0	0	0	0	7
LOCKOUT RESIDENTIAL/	9	11	15	12	8	13	0	0	0	0	0	0	68
LOST PROPERTY	0	0	0	0	1	0	0	0	0	0	0	0	1
LANDLORD/TENANT DISP	0	0	0	0	2	0	0	0	0	0	0	0	2
MUTUAL AID	1	3	3	2	3	3	0	0	0	0	0	0	15
MOTORCYCLE/ATV COMPL	1	0	1	2	0	1	0	0	0	0	0	0	5
EDP	2	2	3	1	0	3	0	0	0	0	0	0	11
EMS ASSIST	49	36	35	40	42	30	0	0	0	0	0	0	232
MISSING PERSON	0	1	1	0	1	0	0	0	0	0	0	0	3
NARCOTICS COMPLAINT	6	5	3	2	8	6	0	0	0	0	0	0	30
NOISE DISTURBANCE	3	5	3	4	4	1	0	0	0	0	0	0	20
NOTIFICATION	5	1	3	5	8	6	0	0	0	0	0	0	28
NEIGHBOR TROUBLE	2	0	1	1	1	3	0	0	0	0	0	0	8
NEIGHBOR TROUBLE IN	1	2	1	0	0	0	0	0	0	0	0	0	4
NATURE UNKNOWN	1	1	1	0	1	0	0	0	0	0	0	0	4
ROAD CLOSING INFORMA	0	0	3	0	0	0	0	0	0	0	0	0	3
CONTROLLED BURN INFO	0	0	0	0	1	0	0	0	0	0	0	0	1
OVERDOSE	4	2	3	2	1	1	0	0	0	0	0	0	13
OPEN DOOR/WINDOW	2	1	1	0	0	0	0	0	0	0	0	0	4
PARKING COMPLAINT	2	0	2	1	2	4	0	0	0	0	0	0	11
PROWLER	0	1	0	1	1	0	0	0	0	0	0	0	3
PRISONER TRANSPORT	0	1	0	0	0	0	0	0	0	0	0	0	1



Warren County Sheriff's Office - Enforcement Division

Activity Report for SOUTH LEBANON for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
REPO	2	3	2	4	2	5	0	0	0	0	0	0	18
ROAD HAZARD	1	1	2	1	2	2	0	0	0	0	0	0	9
ROBBERY IN PROGRESS	0	2	0	0	0	0	0	0	0	0	0	0	2
RECOVERED PROPERTY	1	1	4	0	0	0	0	0	0	0	0	0	6
ROAD RAGE	0	0	0	1	0	1	0	0	0	0	0	0	2
SOLICITOR COMPLAINT	1	1	0	0	1	0	0	0	0	0	0	0	3
SHOTS FIRED IN AREA	0	1	0	2	0	1	0	0	0	0	0	0	4
SEXUAL OFFENSE	0	1	2	0	0	0	0	0	0	0	0	0	3
SEXUAL OFFENSE IN PR	0	0	0	0	0	1	0	0	0	0	0	0	1
SUSPICIOUS PERSON	7	10	8	14	21	15	0	0	0	0	0	0	75
SCHOOL RESOURCE OFFI	0	0	0	0	1	0	0	0	0	0	0	0	1
SUICIDE/ATT SUICIDE	0	0	1	3	0	0	0	0	0	0	0	0	4
SUSPICIOUS VEHICLE	10	9	5	8	10	5	0	0	0	0	0	0	47
SUBJECT WITH A WEAPO	0	0	0	0	0	1	0	0	0	0	0	0	1
THREATS	1	1	3	1	2	1	0	0	0	0	0	0	9
TRAFFIC OFFENSE	5	1	8	2	7	4	0	0	0	0	0	0	27
TRAFFIC PROBLEM	1	0	1	2	1	0	0	0	0	0	0	0	5
TRESPASSERS	1	5	4	2	5	2	0	0	0	0	0	0	19
TRAFFIC STOP	53	60	66	71	83	92	0	0	0	0	0	0	425
UNKNOWN INVESTIGATIO	2	2	4	5	2	1	0	0	0	0	0	0	16
UTILITY PROBLEM	0	0	0	2	1	0	0	0	0	0	0	0	3
THEFT VEHICLE	0	0	0	1	0	1	0	0	0	0	0	0	2
WELL BEING CHECK	7	4	3	7	10	14	0	0	0	0	0	0	45



SHERIFF LARRY L. SIMS



Warren County Sheriff's Office - Enforcement Division

Activity Report for SOUTH LEBANON for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
Totals:	518	476	493	522	513	518	0	0	0	0	0	0	3,040



Warren County Sheriff's Office - Enforcement Division

Activity Report for UNION TWP for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
VACATION HOUSE CHECK	7	4	5	9	41	43	0	0	0	0	0	0	109
PUBLIC SERVICE	20	5	10	22	14	5	0	0	0	0	0	0	76
911 HANGUP	4	3	10	11	12	12	0	0	0	0	0	0	52
911 SILENT	2	3	2	2	4	6	0	0	0	0	0	0	19
ABDUCTION	0	0	0	1	0	0	0	0	0	0	0	0	1
ACCIDENT-INJURY	3	0	3	2	2	0	0	0	0	0	0	0	10
BURGLAR/INTRUSION AL	3	2	3	6	0	6	0	0	0	0	0	0	20
FIRE/MEDICAL ALARM	1	1	0	3	1	1	0	0	0	0	0	0	7
HOLDUP ALARM	0	0	0	0	1	0	0	0	0	0	0	0	1
PANIC/DURESS ALARM	0	0	0	1	0	0	0	0	0	0	0	0	1
ANIMAL COMPLAINT	1	4	3	1	0	1	0	0	0	0	0	0	10
ACCIDENT-PROPERTY	5	4	2	5	6	5	0	0	0	0	0	0	27
ASSAULT	0	0	0	2	0	0	0	0	0	0	0	0	2
ATTEMPT TO LOCATE	1	1	0	1	1	0	0	0	0	0	0	0	4
ABANDONED VEHICLE	0	0	0	1	0	0	0	0	0	0	0	0	1
BURGLARY	1	1	0	0	0	0	0	0	0	0	0	0	2
BURGLARY IN PROGRESS	0	0	0	1	1	1	0	0	0	0	0	0	3
CITIZEN ASSIST	3	0	0	2	1	1	0	0	0	0	0	0	7
CRIMINAL DAMAGING	1	0	1	0	3	1	0	0	0	0	0	0	6
CRIMINAL DAMAGING IN	0	0	0	1	0	0	0	0	0	0	0	0	1
CIVIL SERVICE	5	15	5	7	4	10	0	0	0	0	0	0	46
CRIMINAL WARRANT SER	2	0	1	1	0	1	0	0	0	0	0	0	5
DEAD BODY	0	0	0	0	0	1	0	0	0	0	0	0	1



Warren County Sheriff's Office - Enforcement Division

Activity Report for UNION TWP for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
DOMESTIC COMPLAINT	2	0	1	0	1	2	0	0	0	0	0	0	6
DOMESTIC IN PROGRESS	0	2	0	2	0	1	0	0	0	0	0	0	5
DUMPING	0	0	0	1	1	0	0	0	0	0	0	0	2
DISABLED VEHICLE	3	1	6	9	5	4	0	0	0	0	0	0	28
EXTRA PATROL	0	1	1	1	0	0	0	0	0	0	0	0	3
ESCORT	0	0	2	4	0	1	0	0	0	0	0	0	7
FRAUD	0	1	0	0	3	0	0	0	0	0	0	0	4
FIGHT	0	0	0	0	1	0	0	0	0	0	0	0	1
FIRE TRAFFIC	0	6	4	4	3	0	0	0	0	0	0	0	17
FIREWORKS COMPLAINT	0	0	0	0	1	0	0	0	0	0	0	0	1
FOLLOWUP INVESTIGATI	0	3	0	3	1	0	0	0	0	0	0	0	7
HITCHHIKER COMPLAINT	0	0	0	1	0	0	0	0	0	0	0	0	1
HARASSMENT-PHONE	0	1	0	0	0	0	0	0	0	0	0	0	1
HIGH WATER	0	0	2	2	0	0	0	0	0	0	0	0	4
INTOXICATED DRIVER	1	0	1	0	0	0	0	0	0	0	0	0	2
INTOXICATED SUBJECT	0	0	0	1	1	1	0	0	0	0	0	0	3
JUVENILE COMPLAINT	0	0	0	0	1	1	0	0	0	0	0	0	2
JUVENILE UNRULY	0	1	0	0	0	0	0	0	0	0	0	0	1
THEFT	1	1	0	5	2	1	0	0	0	0	0	0	10
LIVESTOCK ON ROAD	1	1	0	1	1	2	0	0	0	0	0	0	6
LOCKOUT RESIDENTIAL/	2	6	2	0	6	3	0	0	0	0	0	0	19
LOST PROPERTY	0	1	0	0	0	0	0	0	0	0	0	0	1
LANDLORD/TENANT DISP	1	1	0	1	0	1	0	0	0	0	0	0	4



Warren County Sheriff's Office - Enforcement Division

Activity Report for UNION TWP for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
MUTUAL AID	1	2	2	1	3	0	0	0	0	0	0	0	9
MOTORCYCLE/ATV COMPL	0	0	0	0	0	1	0	0	0	0	0	0	1
EMS ASSIST	21	7	10	7	13	10	0	0	0	0	0	0	68
MISSING PERSON	0	0	0	0	0	1	0	0	0	0	0	0	1
NARCOTICS COMPLAINT	1	0	1	0	1	1	0	0	0	0	0	0	4
NOISE DISTURBANCE	0	0	0	1	1	0	0	0	0	0	0	0	2
NOTIFICATION	1	1	3	0	0	1	0	0	0	0	0	0	6
NEIGHBOR TROUBLE	0	1	0	0	0	0	0	0	0	0	0	0	1
NATURE UNKNOWN	0	0	0	0	1	1	0	0	0	0	0	0	2
ROAD CLOSING INFORMA	0	2	1	2	0	3	0	0	0	0	0	0	8
CONTROLLED BURN INFO	0	1	0	2	1	0	0	0	0	0	0	0	4
OVERDOSE	0	1	0	1	0	1	0	0	0	0	0	0	3
OPEN DOOR/WINDOW	0	0	0	1	0	0	0	0	0	0	0	0	1
REPO	1	1	1	1	0	0	0	0	0	0	0	0	4
ROAD HAZARD	1	2	4	3	1	4	0	0	0	0	0	0	15
ROAD RAGE	0	0	1	0	0	0	0	0	0	0	0	0	1
SHOTS FIRED IN AREA	0	2	1	0	0	1	0	0	0	0	0	0	4
SEXUAL OFFENSE	0	0	0	1	0	0	0	0	0	0	0	0	1
SUSPICIOUS PERSON	0	3	4	0	4	0	0	0	0	0	0	0	11
SUICIDE/ATT SUICIDE	0	0	0	1	0	0	0	0	0	0	0	0	1
SUSPICIOUS VEHICLE	3	1	2	2	0	0	0	0	0	0	0	0	8
SUBJECT WITH A WEAPO	0	0	0	0	1	0	0	0	0	0	0	0	1
THREATS	0	1	0	0	0	0	0	0	0	0	0	0	1



Warren County Sheriff's Office - Enforcement Division

Activity Report for UNION TWP for the Period 1/1/2017 12:00:00 AM to 7/1/2017 12:00:00 AM

Incident Type Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
TRAFFIC OFFENSE	1	2	3	0	3	2	0	0	0	0	0	0	11
TRAFFIC PROBLEM	0	0	1	0	1	1	0	0	0	0	0	0	3
TRESPASSERS	0	0	1	0	1	1	0	0	0	0	0	0	3
TRAFFIC STOP	27	32	36	22	35	37	0	0	0	0	0	0	189
UNKNOWN INVESTIGATIO	2	0	0	2	1	0	0	0	0	0	0	0	5
WELL BEING CHECK	0	4	3	1	4	3	0	0	0	0	0	0	15
Totals:	129	132	138	162	189	179	0	0	0	0	0	0	929

South Lebanon Monthly Totals 2017

