



## **Solid Waste Management District**

# **Solid Waste Management Plan Update 2026-2041**



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## Section i. Solid Waste Management District Information

Table i-1 Solid Waste Management District Information	
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### Members of the Policy Committee/Board of Trustees

Table i-2 Members of the Policy Committee/Board of Trustees				
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### Chairperson of the Policy Committee or Board of Trustees

Table i-3 Chairperson of the Policy Committee	
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<b>Street Address</b>	615 Loop Road, Suite 101 Harbourt Hall
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## Board of County Commissioners/Board of Directors

Table i-4 County Commissioners		
<b>Anthony Badalamenti</b>	Portage	President
<b>Sabrina Christian-Bennett</b>	Portage	Vice President
<b>Mike Tinlin</b>	Portage	Board Member

## Technical Advisory Committee

Not utilized for this Solid Waste Plan Update

## Plan Prepared By

Portage County Solid Waste

# 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 of, 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 These issues combined with Ohio's outdated and incomplete solid waste regulations caused Ohio's General Assembly to pass House Bill (H.B.) 592. H.B. 592 revised Ohio's outdated solid waste regulatory program and established a comprehensive solid waste planning process.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 generate and dispose of, to ensure that Ohio has adequate and 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*

House Bill 592 established that each of the 88 counties in Ohio must be in a solid waste management district (SWMD). The board of county commissioners form a SWMD through a resolution. 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's 88 counties are organized into 52 SWMDs. Of these, 37 are single-county SWMDs and 15 are multi-county.<sup>1</sup>

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.<sup>2</sup>

### 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 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 (state plan) and present a budget for implementing the solid waste management plan.

Ohio Revised Code (ORC) 3734.53 and Ohio Administrative Code (OAC) Rule 3745-27-90 specify the contents of a solid waste management plan. Ohio EPA prescribes a format (The District Solid Waste Management Plan Format) that details the information a plan

must provide, and the way information is presented. This format is very similar in concept to a permit application for a solid waste landfill.

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's comments.

Next, the policy committee ratifies the plan. This gives 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 (about 3 years).

The policy committee submits periodic updates to its solid waste management plan to Ohio EPA. For an approved plan that covers a planning period of between 10 and 14 years, the policy committee must submit a revised plan by the third anniversary Ohio approved the SWMD's current plan. 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 Portage County Solid Waste Management District was first formed in 1989 by passage of Resolution 01-89 by the Portage County Commissioners. The Portage County Solid Waste Management District Plan prepares a plan to reduce the amount of material being sent to our landfills and ensure adequate space. This is the 6<sup>th</sup> solid waste plan that will be written for Portage County. The previous plans were approved on January 11, 1993, May 4, 2000, October 5, 2006, February 20, 2016, and the most recent plan was approved August 16, 2019. This solid waste plan will cover the planning period from 2026-2041.

Over 90% of the population in Portage County has access to recycling in their community. Curbside Recycling is provided through the District as well as the private sector. Drop-off recycling is provided by the District, as well as a CHaRM (Center for Hard to Recycle Material) that opened in 2023. Commercial and industrial recycling is provided through private collection and public drop off sites. Education and community events help to provide and promote waste reduction and education in Portage County.

**Vision:** It is the vision of the Portage County Solid Waste Management District to promote recycling services to ensure that we have a safe and healthy county for current and future generations.

**Stewardship Statement:**

To implement responsible planning and management that assists our communities with diversion from the landfill while preserving the environment.

## **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 *2020 Solid Waste Management Plan* (2020 State Plan). The 2020 State Plan established ten 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.
3. The SWMD shall provide the following required programs: a Website; 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 incorporate a strategic initiative for the industrial sector into its solid waste management plan.
6. The SWMD shall provide strategies for managing scrap tires, yard waste, lead-acid batteries, household hazardous waste and obsolete/end-of-life electronic devices.
7. The SWMD shall explore how to incorporate economic incentives into source reduction and recycling programs.
8. 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.
9. The SWMD has the option of providing programs to develop markets for recyclable materials and the use of recycled-content materials.
10. The SWMD shall report annually to Ohio EPA regarding implementation of the SWMD's solid waste management plan.

All 10 goals are crucial to furthering solid waste reduction and recycling in Ohio. However, the challenges posed by Goals 1 and 2 often mean SWMDs devote more resources to achieving those two goals than to the remaining goals. Thus, Goals 1 and 2 are the primary goals of the state plan.

A SWMD is encouraged to devote resources to achieving both goals but is not required to demonstrate achieving both. Instead, SWMDs can choose either Goal 1 or Goal 2 for their

solid waste management plans. This gives SWMDs two options for achieving Ohio'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 9 (market development) is an optional goal. Goal 10 requires submitting annual reports to Ohio EPA.

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

## 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 these characteristics in mind when developing its overall waste management strategy.

### A. Profile of Political Jurisdictions

#### 1. Counties in the Solid Waste Management District

Portage County Solid Waste Management District is a single-county solid waste management district. An adjustment was made to remove a small population that will be added to Summit County.

#### 2. County Overview

Portage County is comprised of 27 political jurisdictions. The City of Kent is the largest and makes up approximately 17% of the county's population. The townships represent 50% of the population. There are approximately 492 square miles in Portage County.

**Table 2-1 Population of District the District in reference Year**

County		Largest Policial Jurisdiction		
Name	Population	Community Name	Population	Percent of Total County Population
Portage	160,451	City of Kent	27,147	17%

**Table 2-2 Portage County Communities**

Portage County Communities		
Atwater Township	Village of Hiram	City of Ravenna
City of Aurora	Hiram Township	Ravenna Township
Brimfield Township	City of Kent	Rootstown Township
Charlestown Township	Village of Mantua	Shalersville Township
Deerfield Township	Mantua Township	City of Streetsboro
Edinburg Township	Nelson Township	Suffield Township
Franklin Township	Palmyra Township	Village of Sugar Bush Knolls
Freedom Township	Paris Township	Village of Windham
Village of Garrettsville	Randolph Township	Windham Township

**B. Population**

1. Reference Year Population

Portage County’s reference year is 2022 and the population was 160,451 according to the Ohio Development Services Agency, Research Ohio County Profile 2022. In the District population table, the total population does not include the Village of Mogadore or the City of Tallmadge as most of their population is in Summit County.

District Population	
Portage County Population	161,745
<b>Additions</b>	
	0
<b>Subtractions</b>	
Village of Mogadore	1,010
City of Tallmadge	280
<b>After Adjustment</b>	<b>160,451</b>

## 2. *Population Distribution*

**Table 2-3 Population Distribution**

County	Percent of Population in Cities	Percent of Population in Villages	Percent of Population in Unincorporated Township
Portage	46%	4%	50%

The population is almost equally distributed between the cities/villages and the townships as demonstrated in the population distribution table.

Portage County has 27 political jurisdictions including 4 cities, 18 townships, and 5 villages. The largest political jurisdiction in the county is the City of Kent. In 2022, the City of Kent's estimated population was 27,147. Kent is the most densely populated jurisdiction and home to Kent State University, the largest university in Portage County. Other higher education institutions in Portage County are Hiram College and Northeast Ohio Medical University. The largest township was Brimfield Township with a population of 11,352. Table 2-3 shows the percentage of the population living in cities, villages, and townships. Portage County's largest five political jurisdictions account for just over half of the county's population.

## 3. *Population Change*

Portage County's population is projected to decrease by a significant percentage. This percentage is 11.58% over our next planning period according to the Ohio Development Services Agency. However, Portage County's population ratio did not drop as was expected from 2020 to July 2022. The next planning period will adjust for a population decrease but not as extreme as projected.

## 4. *Implications for Solid Waste Management*

Based on the population projections, Portage County does not see any implications for solid waste. Portage County continues to have a strong well-established curbside and drop-off recycling collection program.

Six of our political subdivisions have one franchise for both trash and recycling. There continues to be free enterprise in the remaining political subdivisions for trash. However, curbside recycling is provided to 82% of the residents in Portage County by non-subscription. This curbside recycling is provided by the District and is standardized for all communities that do not have a franchise program. Every resident up to a triplex is provided with a 95-gallon cart which is picked up every other week. This cost is \$5.50 a month. Drop-off recycling is also provided by the District and 40 dumpsters are picked up across Portage County. This accounts for 11% of the access rate. In total, Portage hits an access rate of 93% for recycling.

In addition, the District drop-off center at the Portage County Solid Waste District is open for all businesses to bring all single-stream recycling 24/7.

Private haulers provide options for businesses to recycle without having to drop off the material. Mixed paper and cardboard drop-offs are also available in the locations below provided by Royal Oak. This diverted 57 tons and was not added to the Annual District Report as it was not received in time. These are mixed paper and cardboard only drop off locations.

**C. Profile of Commercial and Institutional Sector**

Manufacturing is strong in Portage County and accounts for over 20% of the employment rate. The employment structure is shown below for Portage County provided by Ohio Development Services Agency, Ohio Business Structure.

- Manufacturing (20.2%)
- Educational services (15.7%)
- Health Care and Social Assistance (11.4%)
- Retail Trade (10.9%)
- Accommodation and Food Services (9.2%).

COMPANY	LOCATION	EMPLOYEES
Kent State University	Kent	3500
UH Portage Medical Ctr	Ravenna	1400
Hattie Larlham	Mantua	501
East Manufacturing Corp	Randolph	500
Step2	Streetsboro	500
Kent State Univ Residence Svc	Kent	460
Anna Maria Of Aurora	Aurora	400
Anna Maria Of Aurora Inc	Aurora	400
Walmart Supercenter	Kent	400

Source: Ohio Department of Development Services Agency, Ohio County Business Structure.

**D. Profile of Industrial Sector**

This sector employs just over 13,000 people in Portage County. There are 268 manufacturing establishments in Portage County, but over 10,000 people are employed in this industry. There are 335 construction establishments which employ just over 2,000 people.

Source: Ohio Department of Development Services Agency, Ohio County Structure.

**E. Other Characteristics**

There is 37.90% land use in Portage for forest, 20.98% pasture, and 10.85 % cultivated crops.

Source: Ohio Department of Development Services Agency, Ohio County Structure.

## CHAPTER 3 WASTE GENERATION

This chapter summarizes 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.

The policy committee calculated how much solid waste was generated for the residential/commercial and industrial sectors. Residential/commercial waste is municipal solid waste 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 policy committee surveys communities, recycling service providers, collection and processing centers, commercial and industrial businesses, owners and operators of composting facilities, and other entities that recycle to obtain data. Responding to a survey is voluntary. 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 and 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

Generated waste encompasses all material from within Portage County that has been landfilled, recycled, or composted from all source types in reference year 2022.

**Table 3-1: Solid Waste Generated in the Reference Year**

Type of Waste	Quantity Generated (tons)
Residential/ Commercial	169,025
Industrial	17,764
Excluded	0
<b>Total</b>	<b>186,788</b>

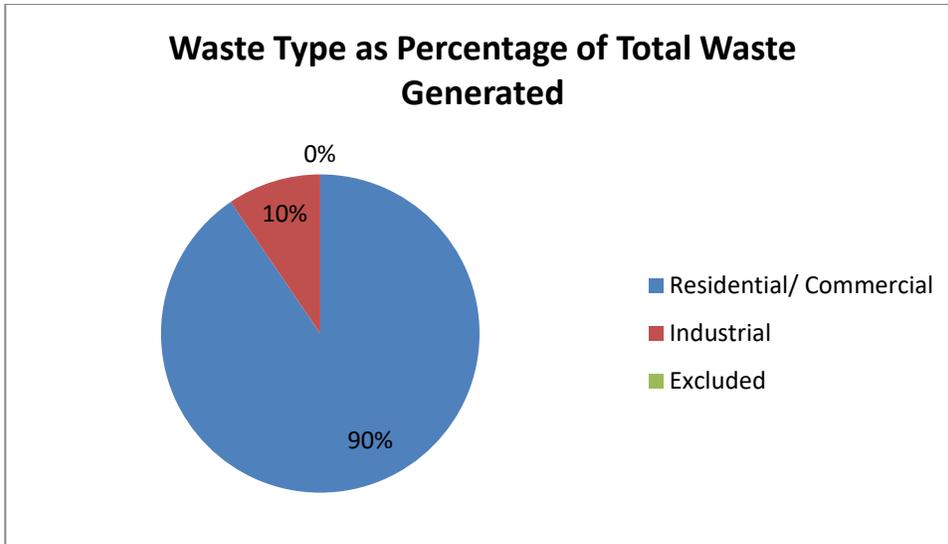
Source of Information: Portage County Solid Waste Management District Annual Report 2022, Ohio EPA Annual Report 2022. Excluded Waste is less than 10% and not included.

### 1. Residential/Commercial Waste Generated in Reference Year

Portage County generated 169,025 tons of Residential/Commercial waste in 2022. Diversion from the landfill is calculated in residential and commercial waste data found in Appendix E. Portage County sent 134,536 tons to the landfill which is further analyzed in Appendix D.

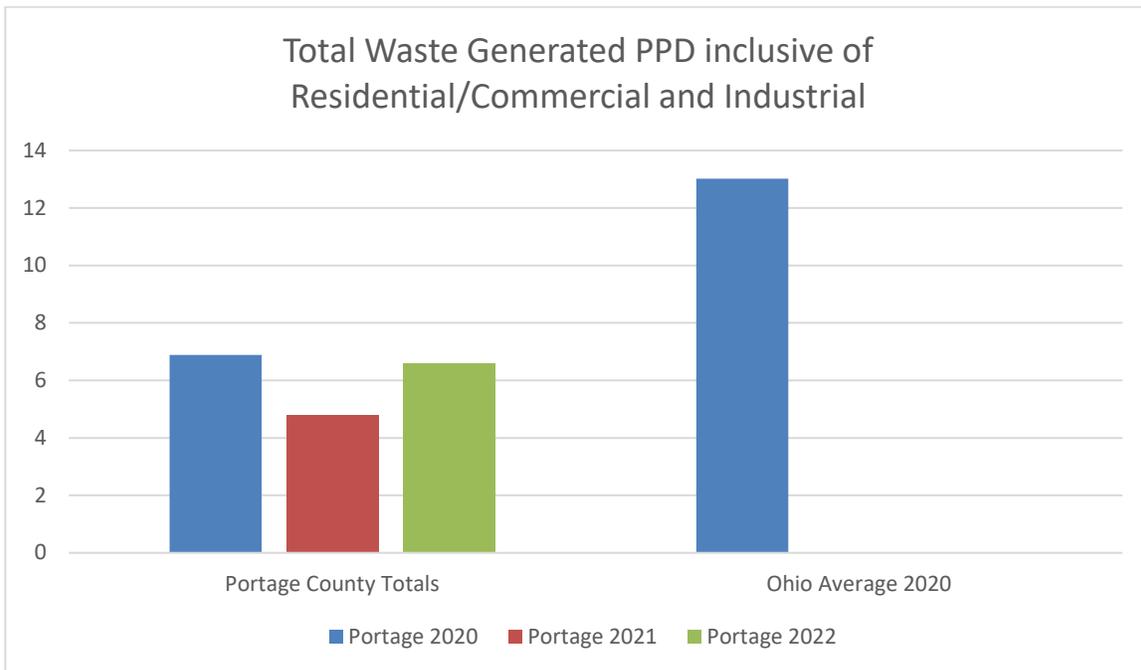
Composting, commercial, residential, and other recycling programs diverted 52,252 tons from the landfill. This was a diversion rate of over 30%.

According to the Ohio Environmental Protection Agency, the average waste generated per person per day (PPD) in the State of Ohio for residential/commercial in 2022 was 7.27. In comparison, Portage County in reference year 2022, had a generation rate of 5.77 PPD.



**2. Industrial Waste Generated in Reference Year**

Industrial Waste generated 17,764 tons for the reference year 2022. The total industrial waste reported in Portage County was landfilled.



**3. Excluded Waste Generated in Reference Year**

Portage does not report excluded waste as this is 2% of the waste. Excluded waste does not need to be reported if it falls below 10%. The previous 4 years are also exempt.

**B. Historical Waste Generated**

*1. Historical Residential/Commercial Waste Generated*

Portage County shows a steady generation rate average between 4.78 and 6.81 (PPD) pounds per day of residential/commercial waste generated. At the height of COVID-19, there was the highest generation and disposal rate. Portage County has remained steady in the diversion rate. Recycling access is readily available. Composting has steadily improved. Drop-offs have improved from being contaminated.

*2. Historical Industrial Waste Generated*

Industrial waste generated in Portage is manufacturing waste. This waste is projected to remain consistent with previous levels during the next planning period.

*3. Historical Excluded Waste Generated*

Portage County has remained below the 10% level needed to report and, therefore is exempt from reporting. However, in 2022, this percentage was 2% of that total generation. An example of this excluded waste is foundry sand.

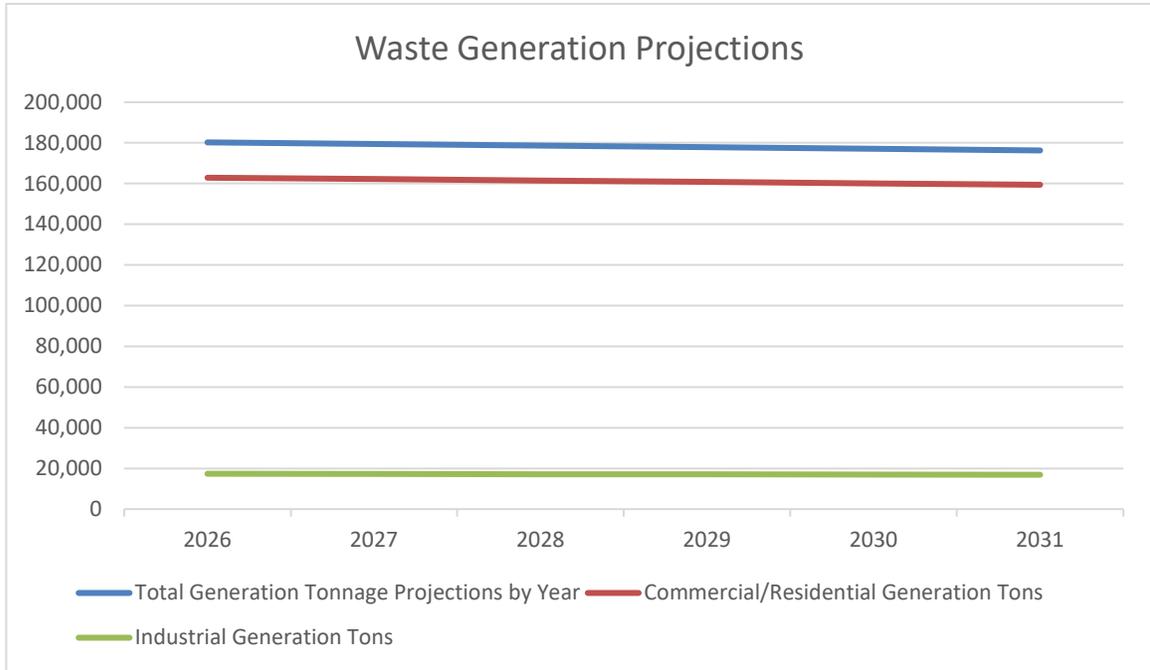
**C. Waste Generation Projections**

Even with the projected population reduction of 11.58% which is based on the Ohio Department of Development, Portage County does not anticipate a drastic change in waste generation. Generated waste is expected to slowly decline with additional diversion programs and population reduction.

**Waste Generation Projections**

**Table 3-2: Waste Generation Projections**

Year	Residential Commercial Waste	Industrial Waste	Excluded Waste	Total
	Waste (tons)	Waste (tons)	Waste (tons)	Waste (tons)
2026	162,874	17,362	0	180,236
2027	162,172	17,263	0	179,435
2028	161,474	17,165	0	178,638
2029	160,779	17,067	0	177,846
2030	160,088	16,970	0	177,058
2031	159,401	16,873	0	176,274



# CHAPTER 4 WASTE MANAGEMENT

## Purpose of Chapter 4

Chapter 4 summarizes the policy committee's strategy for how the SWMD will manage its 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.

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 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 plan needs to show that the SWMD will have access to all types of needed facilities, Ohio law emphasizes access to disposal capacity. The policy committee must demonstrate that the SWMD will have access to enough landfill capacity for all 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.

Finally, the SWMD can 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

Waste Management is handled in Portage County through composting, recycling, transferring, and direct hauling of waste. All these methods are an important part of the waste strategy for Portage County. These methods are anticipated to continue through the next planning period. This table will reflect the total waste decreasing slightly with the same diversion and less landfill. Composting is calculated independently from recycling.

**Table 4-1: Methods for Managing Waste**

Year	Total Waste	Recycle	Compost	Transfer	Landfill
2022	186,766	19,637	32,593	107,316	27,219
2026	180,225	21,434	32,343	100,865	25,583
2027	179,424	21,361	32,281	100,334	25,448
2028	178,628	21,288	32,220	99,805	25,314
2029	177,835	21,216	32,158	99,280	25,181
2030	177,047	21,145	32,098	98,757	25,048
2031	176,263	21,073	32,037	98,236	24,916

**B. Profile of Waste Management Infrastructure**

1. Landfill Facilities

There are no active landfills in Portage County. There were twelve landfills used for Portage County waste in 2022. Portage County did not receive any out-of-state waste. Direct hauling to landfills represents 20% of the waste that was disposed of. Countywide landfill receives 42% of that waste and has 66 years of remaining capacity. American Landfill receives 35% of the direct hauled waste and has 86 years of capacity remaining.

**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			
<b><i>In-District</i></b>					
NA					
<b><i>Out-of-District</i></b>					
Geneva Landfill	Ashtabula	OH	37	0%	<b>33</b>
Athens Hocking Landfill	Athens	OH	86	0%	<b>46</b>
Defiance County Landfill	Defiance	OH	-	0%	<b>41</b>
Lake County Solid Waste Facility	Lake	OH	377	1%	<b>23</b>
Lorain County Landfill	Lorain	OH	647	2%	<b>14</b>
Carbon Limestone Landfill	Mahoning	OH	1,143	4%	<b>37</b>
Mahoning Landfill	Mahoning	OH	2,492	9%	<b>43</b>
Noble Road Landfill	Richland	OH	1,097	4%	<b>13</b>
American Landfill, Inc.	Stark	OH	9,515	35%	<b>86</b>
Countywide RDF	Stark	OH	11,357	42%	<b>66</b>
Kimble Sanitary Landfill	Tuscarawas	OH	300	1%	<b>30</b>
Evergreen Recycling and Disposal	Wood	OH	1	0%	<b>36</b>

Facility Name	Location		Waste Accepted from SWMD (tons)	Percent of all SWMD Waste Disposed	Remaining Capacity (years)
	County	State			
<b>Out-of-State</b>					
Liberty	Minerva	MI	166	1%	NA
<b>Total</b>			27,219	100%	<b>468</b>

Source: Ohio EPA Facility Data Reports 2022, Table 13

## 1. Transfer Facilities

Portage County Solid Waste Management District owns and retains a license for a transfer facility, however, no municipal solid waste from outside the facility is currently transferred. In the reference year, 2022, several landfills were used. Transfer facilities located outside of Portage County receive approximately 80% of the total disposed waste before it is landfilled.

**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			
<b>In-District</b>					
Portage County Transfer Facility	Portage	Ohio	21	0%	Countywide
<b>Out-of-District</b>					
Kimble Transfer & Recycling - Carrollton	Carrollton	Ohio	109	0%	Kimble Sanitary Landfill
Republic Services of Ohio LLC Akron Transfer Facility	Summit	Ohio	26,359	25%	Countywide
Akron Central Transfer Facility	Summit	Ohio	26,973	25%	American Landfill
Cleveland Transfer/Recycling Station	Cuyahoga	Ohio	6,398	6%	American Landfill
Kimble Transfer & Recycling - Canton	Stark	Ohio	6,002	6%	Kimble Sanitary Landfill
Kimble Transfer & Recycling - Twinsburg	Summit	Ohio	22,347	21%	Kimble Sanitary Landfill
Girard Transfer Station	Trumbull	Ohio	427	0%	Seneca Landfill
Rumpke Waste Inc Broadview Heights Transfer Facility	Cuyahoga	Ohio	11,088	10%	Noble Road Landfill

Facility Name	Location		Waste Accepted from District (tons)	Percent of all District Waste Transferred	Landfill Where Waste was Taken to be Disposed
	County	State			
Harvard Road Transfer Station	Lucas	Ohio	140	0%	Noble Road Landfill
Ohio Valley Waste Warren	Trumbull	Ohio	1,476	1%	Carbon Limestone
Browning Ferris Industries of Ohio, Inc- Glenwillow	Cuyahoga	Ohio	5,999	6%	Lorain County Landfill
Medina County Central Processing Facility	Medina	Ohio	0	0%	Noble Road Landfill
<b>Out-of-State</b>					
n/a				0%	
<b>Total</b>			<b>107,337</b>	<b>100%</b>	<b>0</b>

Source: Ohio EPA Facility Data Reports 2022, Table 15

### 3. Compost Facilities

Composting facilities are spread throughout Portage County. Some of these facilities are under the 500 square feet exemption. The City of Kent reported to the District in 2022 as part of the District's data collection for its Annual District Report but did not report to Ohio EPA.

**Table 4-4: Composting Facilities Used by the District in the Reference Year**

Facility Name	Location (County)	Material Composted (tons)	Percent of all Material Composted
<b>In District</b>			
Brimfield Aggregate	Portage	13,842	42%
Kent State	Portage	240	1%
Lake Ave Transfer	Portage	1,748	5%
Kent City	Portage	12,125	38%
Pioneer Trail	Portage	3,416	11%
<b>Out-of-District</b>			
City of Wickliffe	Lake	330	1%
Sagamore Soils	Lorain	39	0%
Smith Bros Inc	Medina	588	2%
<b>Total</b>		<b>32,328</b>	

#### 4. Processing Facilities

All single-stream commingled material from the Portage County Solid Waste District was processed by Waste Management (WM). These recyclables were reported directly to Ohio EPA and was additionally surveyed from the Solid Waste District. To avoid double counting, it is removed from the Portage County Solid Waste District numbers. Waste Management also received broken carts and cardboard from the District to recycle. The District in the table below reported the plastic film. Kimble picks up commercial accounts and non-subscription curbside in multiple communities and processes at the Twinsburg facility. Rumpke picks up non-subscription for the City of Aurora and commercial accounts and transfers the material from Broadview Heights then processes the material in the Columbus Facility. In 2022, Rumpke was processing at the Medina facility. Republic Services in the reference year, 2022, was picking up commercial accounts and processing at WM in Akron. The District collects film for the Trex Nextrex program, oil, electronics, latex paint, tires, metal, paper, and broken recycle carts. These numbers are reported separately.

**Table 4-5: Processing Facilities Used by the District in the Reference Year**

Name of Facility	Location		Facility Type	Recyclables Accepted from District (tons)
	County	State		
<b>In-District</b>				
Portage County Solid Waste Management District	Portage	OH	TF, MRF	39
<b>Out-of-District</b>				
WM	Summit	OH	MRF	5,584
Kimble	Summit	OH	MRF, TF	2,170
Rumpke	Cuyahoga	OH	TF, MRF	1,912
American Paint Recyclers	Van Wert	OH	MRF	3
GreenBoardIT	Trumbull	OH	Electronics	64
Integrity Fiber/ River Valley	Summit	OH	Paper	1,661
Slesnick	Stark	OH	Paper	440
Royal Oak	Cuyahoga	OH	TF, MRF	57
<b>Out-of-State</b>				
<b>Total</b>				<b>11,930</b>

MRF= material recover facility, single stream material  
 TF= transfer facility

#### 5. Other Waste Management Facilities

The District did not identify any other methods used for waste management during the reference year.

### C. Use of Solid Waste Facilities During the Planning Period

The District does not anticipate many changes during the planning period. There are multiple material recovery facilities and there is adequate capacity for the District's landfill needs.

### D. Siting Strategy

#### **Purpose of the Siting Strategy**

If the SWMD will not have access to enough landfills to dispose of all waste the SWMD will need to dispose of. 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 decide 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 this solid waste management plan includes a siting strategy, then that strategy is summarized in this chapter and presented in full in Appendix S.

#### **1. Siting Strategy**

The District's Siting Strategy for Solid Waste Facilities ensures that proposals to construct a new Solid Waste Facility within the District or modify an existing Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste within the District are in compliance with the Plan Update. The Board shall not approve General Plans and Specifications for any proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste or the modification of any existing in-District Solid Waste Facility where the construction and operation of the proposed facility, as determined by the Board, will:

- 1) Have significant adverse impacts upon the Board's ability to finance and implement the Plan Update; or
- 2) Not conform with the design, construction, operating and/or siting requirements of the Ohio EPA solid waste rules in Ohio Administrative Code (OAC) Chapter 3745-27.

Appendix S. Siting Strategy describes this further.

## F Designation

### **Purpose of 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.

The policy committee decides whether the board of directors has the authority to designate facilities. The policy committee does this in the solid waste management plan.

Even if the policy committee gives the board of directors the authority to designate facilities, the board decides whether 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 doesn't act on its authority.

Once the board of directors designates facilities, the SWMD's can go to only designated facilities can take the SWMD's waste. That means, no one can legally take waste from the SWMD to undesignated facilities, and owners/operators of undesignated facilities cannot legally accept waste from the SWMD. The board of directors can grant a waiver to allow an undesignated facility to take the SWMD's waste.

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 current approved Plan Update authorizes the Board of County Commissioners of the Portage County Solid Waste District to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code. Facility designation shall be established and governed by applicable District rules.

The District is not designating any facilities in this Plan Update. The District reserves the right to designate one or more facilities to receive solid waste. As required in Section 3734.53(A)(13)(a) of the Ohio Revised Code, the District is identifying all Ohio licensed and permitted solid waste landfill, transfer and material recovery facilities anticipated to be used by the District.

#### **2. Facilities Currently Designated**

The District does not currently have facility designations.

# CHAPTER 5 WASTE REDUCTION AND RECYCLING

## Purpose of Chapter 5

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 ensures 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 operations. This review consisted of a series of 12 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 waste 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. Solid Waste Management District's Priority Focus Area

CHaRM Diversion & Education	Promote and Expand Hard to Recycle Material
Food Waste	Divert food scraps from the landfill
Signage	Update signage around County
Disaster Debris Management	Participate in developing a plan for Portage County
Education	Focus on education and website

## B. Program Descriptions

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

### Residential Recycling Infrastructure

Residential recycling is spread throughout Portage County. Currently 93% of residents have access to recycling by curbside or drop off. The District will assist with contract negotiations, program implementation and educational material if able.

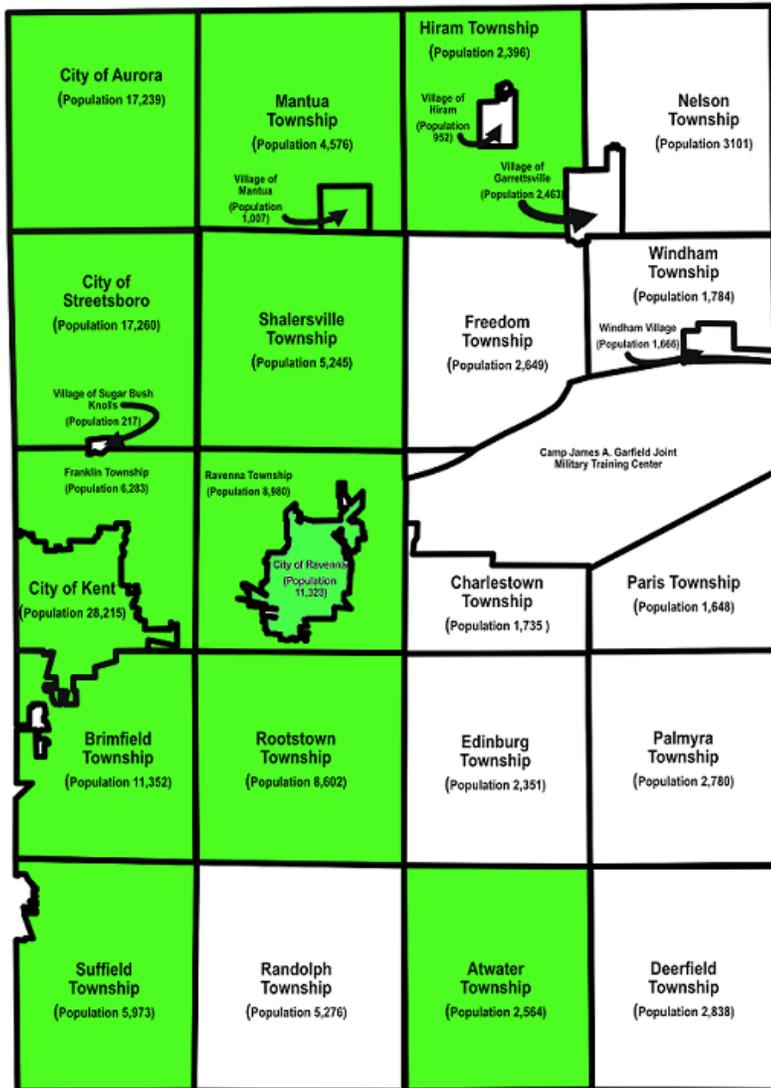
### **Curbside Recycling Services**

82% of Portage County residents have non-subscription curbside recycling services. This service is both by private haulers and the Portage County Solid Waste District. The District will work to ensure this level is maintained and education is provided on what is recyclable.

**Table 5-1 Curbside Recycling Services**

ID#	Name of Curbside Service/Community Served	Service Provider	When Service Was/Will be Available
NSC1	City of Aurora	Rumpke	Ongoing
NSC2	Atwater Township	PCSWMD	Ongoing
NSC3	Brimfield Township	PCSWMD	Ongoing
NSC4	Franklin Township	PCSWMD	Ongoing
NSC5	Hiram Township	Kimble	Ongoing
NSC6	Village of Hiram	Kimble	Ongoing
NSC7	City of Kent	Republic	Ongoing
NSC8	Mantua Township	Kimble	Ongoing
NSC9	Mantua Village	Kimble	Ongoing
NSC10	Ravenna City & Township	PCSWMD	Ongoing
NSC11	Rootstown Township	PCSWMD	Ongoing
NSC12	Shalersville Township	PCSWMD	Ongoing
NSC13	City of Streetsboro	Kimble	Ongoing
NSC14	Suffield Township	PCSWMD	Ongoing

Map of areas serviced by non-subscription curbside recycling.



Areas in green are serviced by curbside recycling collection.

**PORTAGE COUNTY SOLID WASTE  
MANAGEMENT DISTRICT  
CURBSIDE COLLECTION**

**Drop-off Recycling Locations**

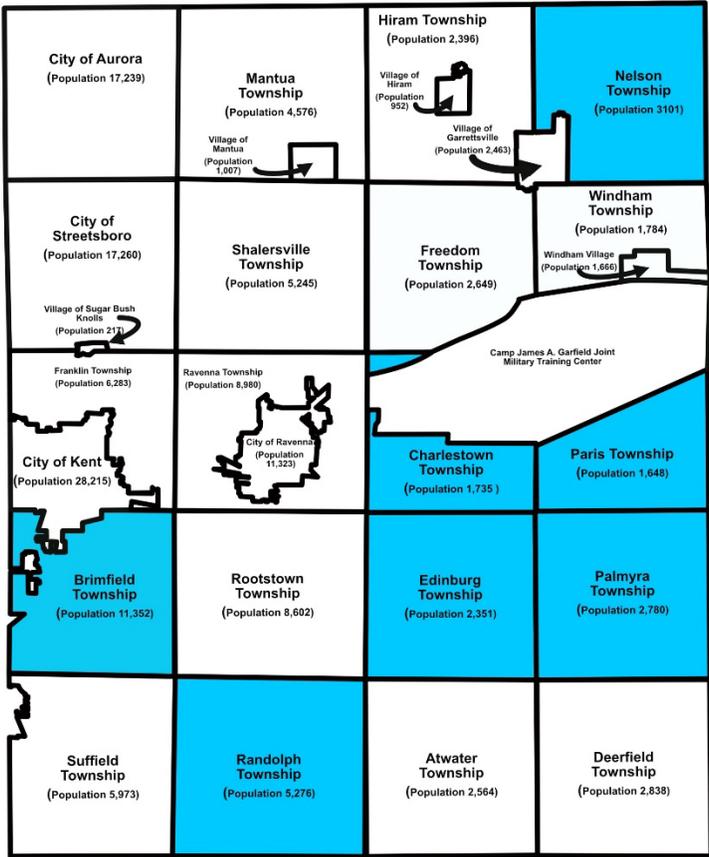
The Solid Waste District collects and hauls to a material processor. The District will continue to prioritize drop off collection programs. This includes updating signage and education.

**TABLE 5-2**

ID#	Name of Drop-off/Community Served	Service Provider	When Service was/will be Available
FTU1	District Drop Off Brimfield	PCSWMD	Ongoing
FTU2	Randolph Township	PCSWMD	Ongoing
FTR1	Charlestown Township	PCSWMD	Ongoing
FTR2	Edinburg Township	PCSWMD	Ongoing
FTR3	Nelson Township	PCSWMD	Ongoing

ID#	Name of Drop-off/Community Served	Service Provider	When Service was/will be Available
FTR4	Palmyra Township	PCSWMD	Ongoing
FTR5	Paris Township	PCSWMD	Ongoing

The blue on the map represents the drop off locations through Portage County.



Areas in blue are served by drop-off sites.

PORTAGE COUNTY SOLID WASTE  
MANAGEMENT DISTRICT  
DROP-OFF COLLECTION

**Multi-Family Unit Recycling**

The District participates in recycling events at Portage Metropolitan Housing Authority annually and currently services participating duplex and triplex housing structures across 10 communities. Any housing structure larger than triplexes have access to drop-off locations but does not have curbside recycling services provided. This program is expected to remain unchanged during this planning period.

**Curbside Recycling Technical Assistance**

The District will continue to provide assistance upon request to municipalities regarding trash and recycling and/or diversion programs. This program is expected to remain unchanged during the next planning period.

## **Commercial/Institutional Sector Reduction and Recycling Programs**

The District promotes private haulers to pick up the commercial sector. Paper and cardboard boxes are also picked up by Royal Oak throughout the county. There is potential for food waste programs. Film collection is popular in many government buildings. This is then reported to Trex and turned in at the Solid Waste District to receive a bench through the NexTrex program. The District will evaluate data and supply education.

AURORA HIGH SCHOOL	AURORA
CITY OF STREETSBORO	STREETSBORO
CRADDOCK ELEMENTARY SCHOOL	AURORA
GARDENS OF WESTERN RESERVE - STREETSBORO	STREETSBORO
LEIGHTON ELEMENTARY SCHOOL	AURORA
LONGCOY ELEMENTARY	KENT
NEOMED	ROOTSTOWN
NEW HOPE BAPTIST CHURCH	WINDHAM
PORTAGE SURGICAL ASSOCIATES, INC	RAVENNA
RENAISSANCE FAMILY CENTER	WINDHAM
ROOSEVELT HIGH SCHOOL - KENT	KENT
STANTON MIDDLE SCHOOL	KENT
SWAGELOK	RAVENNA
WINDHAM EX VILLAGE SCHOOLS	WINDHAM

### *Royal Oak*

The District contracts with Royal Oak to collect mixed paper from participating schools and commercial buildings. There were 57 tons diverted in 2022. This program is expected to remain unchanged during the next planning period.

### **Small Business and Government Collection**

There is film collection occurring at local government buildings. The collected plastic film is then brought to the District to be baled. The District also promotes and provides private hauler information for collection. This program is expected to remain unchanged during the next planning period.

### **Large Venue Recycling**

The District participates in large festivals to promote recycling by providing collection containers and then hauling to a material recovery facility.

### **Commercial Technical Assistance and Waste Audit Program**

The District provides assistance with commercial and industrial waste and recycling audits whenever requested. Since the COVID pandemic, there have not been many requests.

### **Industrial Sector Reduction and Recycling Programs**

#### **Industrial Technical Assistance and Waste Audit Program**

The District provides assistance with commercial and industrial waste and recycling audits whenever requested. Since the COVID pandemic, there have not been many requests. The District

will share educational information and provide recycling drop off at the District office for single stream recycling.

### **Contracting Assistance**

Upon Request, the District will share available model contracts for waste, recycling, and composting.

### **Restricted/Difficult to Manage Wastes and Special Needs 6 and 8**

The Solid Waste District opened a CHaRM facility in September of 2023. Education and awareness will remain key in implementing this new program. The District will continue to evaluate and develop the CHaRM and HHW program.

### **Yard Waste Collection**

The District added yard waste collection at the CHaRM Center in March of 2023 after a large storm. This material is sent to be composted. Currently, the District pays \$400 a year to haul the material that is brought to the District. In 2023, the District collected and hauled 60.51 tons of yard waste.

### **CHaRM & HHW Program**

The District established a monthly HHW program at the District CHaRM Center in October of 2023. This occurs on the first Monday of the month. The District updates its website to include an inventory of what is accepted and how to dispose of materials safely.

In the Fall of 2022, a Household Hazardous Waste event was held by the District, collecting 5 tons of HHW. Separate from the HHW collection events, the District also hosts a latex paint collection on Earth Day. It has also been added to the acceptable materials on HCHW days at the facility. Collected paint is sent to American Paint Recyclers to be remade into usable paint. The District collected approximately 3 tons of latex paint in 2022.

In 2023, the District added long-term collection and expanded materials able to be dropped-off by residents. On the first Monday of every month, the District contracts with a third party to provide HHW collection for four hours. Further, the District provides used motor oil and antifreeze collection 24/7 with drop-off boxes located outside of the facility. With the program changes beginning in 2023, the District was able to greatly increase the tonnages collected. A majority of the growth was seen from used motor oil and antifreeze. The District has 6 oil bins and 1 antifreeze bin which are emptied by Akron Canton Waste Oil. These bins were emptied 5 times in 2023.

### **Award/Recognition**

#### **Green Ribbon Awards**

The District received the Community Habitat for Humanity Partner Award in 2022 and participated in the Habitat for Humanity Recycle Extravaganza.

#### **Economic Incentives Goal 5**

The District promotes PAYT, along with scrap tire collection at the District. Appliances are accepted free of charge. The CHaRM Program and HHW program provide cost-effective solutions.

If an additional cart is needed, and the community is picked up by the District recycling program, a second cart is delivered without an additional cost, otherwise the District drop offs are open to all residents and businesses to reduce costs.

### **Grant Assistance**

The District may promote grant assistance through various methods including social media posts and direct engagement and meetings.

### **Yard Waste**

In 2023, The Portage County Solid Waste Management District added yard waste to its drop off collection program. This is now 24/7 to Portage County residents to bring sticks, twigs, branches, and leaves.

### **Lead-Acid Battery**

Collection remains strong in the District. There is a cage open 24/7 and they can be dropped off during CHaRM hours.

### **Household Hazardous Waste**

This program was added October 2023 and occurs the first Monday of the month. Residents can drop off HHW from 2-6 excluding federal holidays.

### **Scrap Tires**

Scrap tires are now accepted during CHaRM hours for \$.50. Farm Collection was added January 2024 during scheduled appointment times.

### **Electronic Equipment**

There have been many electronic events throughout the planning period held by the District. CHaRM now accepts electronics.

### **Appliances**

These are now collected at the CHaRM facility, including appliances with freon.

### **Pharmaceuticals**

Pharmaceuticals are collected in drop off boxes provided by the District and located at local police departments.

### **Plastic Bags**

Plastic bags are now collected as part of the NexTrex program. Additionally, 501C3's can receive benches if they participate in the program.

### **Food Waste**

This is part of the Solid Waste District Drop off and is collected weekly by Rubber City Reuse.

### **Shredding**

Document shredding is available to all residents of Portage County during CHaRM hours.

### **Scrap Metal**

Scrap metal is collected at the District drop off.

### **United States Flags**

United States Retirement flags are collected at the District Drop off.

### **Household batteries**

Batteries can be dropped off in the District lobby during office hours with the ends taped or during CHaRM hours.

### **Latex Paint**

Collection events were held for Latex paint and now this is collected during HHW events. The District is currently looking to expand it to CHaRM hours.

### **Used Motor Oil and Antifreeze**

These items are collected in a cage 24/7 at our District drop off and during our CHaRM and HHW program.

**Glass** is part of our single stream and can be added to our drop off or curbside program.

### **Grant Assistance**

The District may promote grant assistance through various methods including social media posts and direct engagement and meetings.

### **Diversion Analysis Goal 7**

The goals for diversion and access for Portage County were met in the last plan. In reference year 2022, however yard waste and hard to recycle materials were a problem. These programs were implemented at the end of 2023.

### **Financial Analysis Goal 9**

Evaluate the District's budget and maintain or develop new programs based on budget availability.

### **Regional Analysis Goal 10**

The District may evaluate whether to work with surrounding Districts on the CHaRM facility and programs and increase diversion surrounding Portage County.

### **Transfer Facilities**

The Solid Waste District is a transfer facility and maintains this licensure.

### **Recyclable Material Processing Capacity Analysis Goal 11**

There are multiple material recovery facilities that can process the material from Portage County.

### **Data Collection Analysis Goal 12**

Data collection is reported to the District from the haulers and processors and is additionally reported to the Ohio EPA.

### **Outreach, Education, Awareness, and Technical Assistance Goal 13**

### **Web Page**

A more user-friendly website was released at the end of 2023. This website shows a resource guide, what do I do with, along with pick up schedules and CHaRM/HHW days.

**Social media**

This media is used to launch new events and educational tools.

**Events**

Touch-A-Trucks, the County Fair, and Earth Day events are attended throughout the year.

**Cart Hangers**

The Driver hangs a cart hanger on a recycling cart to help educate what is recyclable.

**Cart Stickers**

Oops tags are administered to recycling carts when items are placed in carts that are not recyclable.

**Open Dumping/Litter Enforcement**

The Solid Waste District enforces the prevention of open dumping at drop off sites. The Solid Waste District accepts tires from municipalities and the Portage County Engineers office regarding illegally dumped tires.

**Disaster Debris Assistance**

*The Solid Waste District is currently working with EMA to develop a Disaster Debris Plan for the County.*

**C. Waste Reduction and Recycling Rates****Residential/Commercial Recycling in the District**

Portage County’s reduction rate was greater than the state goal during the last solid waste plan and the District did not need to establish a target rate to be achieved by the third year after this plan was approved. With population declining and diversion increasing, reduction should remain stable. The District is not focusing on industrial diversion in this planning period; as a result the industrial waste reduction and recycling rate is not shown.

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

Year	Projected Quantity Collected (tons)	Residential/Commercial WRR <sup>1</sup> (%)
2026	53,787	33%
2027	53,652	33%
2028	53,519	33%
2029	53,385	33%
2030	53,253	33%
2031	53,121	33%

<sup>1</sup>WRR = Waste Reduction and Recycling Rate

# CHAPTER 6 BUDGET

## **Purpose of Chapter 6**

The 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**

Portage County Solid Waste programs are primarily funded through generation fees and curbside recycling fees. Curbside funding assists in covering the cost of providing service and processing material. Plan implementation and program service expenditures are projected to be covered under this revenue.

## **B. Revenue**

## **Overview of How Solid Waste Management Districts Earn Revenue**

SWMDs have multiple options to raise the revenue to finance their solid waste management plans. A SWMD can use just one or as many of these options as needed. Two of the most used options are disposal fees and generation fees. Before a SWMD can collect a generation or disposal fee it must first obtain approval from local communities through a ratification process.

### 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 originated – from within the SWMD (in-district), from other SWMDs (out-of-district), or from other states.

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

- The in-district fee must be at least \$1.00 and no more than \$2.00;
- The out-of-district fee must be at least \$2.00 and no more than \$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 SWMD and accepted at transfer facilities or landfills in Ohio. There are no 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.

### Contracts (see Ohio Revised Code Sections 343.02 and 343.03)

The board of directors can contract 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

Other sources SWMDs use to earn revenue 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.
- Debt.
- Bonds.

## 1. Disposal Fees

Disposal fees are collected on every ton of solid waste placed in the landfill and have three tiers. The fees correspond to where waste was generated.

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.

Portage County's Disposal Fees:

- In-district fee Portage County is \$2.00;
- The out-of-district fee for Portage County is \$4.00;
- The out-of-state fee is \$2.00.

## 2. Generation Fees

The District collects a fee for every ton of transferred or direct hauled material to the landfill. This tonnage varies every year and is expected to remain at or near reference year values. The generation fee for Portage County is \$9.60.

## 3. Fees Collected via Designation Agreements

The district does not have any Designation Agreements at this time but does allow the District to sign Designation agreements if needed.

## 4. Rates and Charges

The Solid Waste District operates a recyclables collection program and fixes a rate for the service. See Ohio Revised Code 343.08. This rate is \$5.50 per month.

The county or joint district need not fix a rate or charge against property if the district does not operate a collection system.

## 5. Other Funding Mechanisms

### User Fees

The Solid Waste District may charge fees for additional collection services.

### Grants

Grants are not a guaranteed funding source, and therefore not projected into this budget.

**Miscellaneous**

Miscellaneous could be received in the following ways; an auction, borrowed funds from Board of Commissioners, Reimbursement from insurance claims, jury fees, fines, and other items.

**Debt/Loans**

The Solid Waste District has received money from many avenues. During the last plan there was debt through the Board of Commissioners, Ohio Water Development Authority, and Closed Loop Fund. The District does not anticipate loans during this plan.

**Contracts**

The Solid Waste District may enter contracts for services.

**Revenue from Selling Recyclable Materials**

The Solid Waste District may collect from the sale of recyclable material or pay to have it recycled when there is no value.

## Summary of Revenue

Table 6-1 shows the summary of reference year 2022 and the first six years of the planning period. The Board of County Commissioners contributed miscellaneous funds in 2022 to pay off remaining debt to Closed Loop Fund for hybrid trucks. Board of County Commissioners contributed miscellaneous funds with the purchase of two trucks.

**Table 6-1 Summary of Revenue for Reference year 2022 and Planning year 2026**

Year	Disposal Fees	Generation Fees	Designation Fees	Other Revenue					Total Revenue
				Rates & Charges	User Fees	Recycling Revenue	Miscellaneous	Grants	
<b>Reference Year</b>									
2022	\$0	\$1,291,539	\$0	\$579,593	\$1,080,074	\$194,322	\$979,338	\$87,212	\$4,212,078
<b>Planning Period</b>									
2026	\$0	\$1,267,872	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,709,872
2027	\$0	\$1,261,533	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,703,533
2028	\$0	\$1,255,225	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,697,225
2029	\$0	\$1,248,949	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,690,949
2030	\$0	\$1,242,704	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,684,704
2031	\$0	\$1,236,491	\$0	\$1,440,000	\$0	\$2,000	\$0	\$0	\$2,678,491

Source: Portage County Solid Waste quarterly fee report and projected planning found in Appendix O.

## C. Expenses

### **Overview of How Solid Waste Management Districts Spend Money**

SWMDs can spend revenue on 10 purposes named in law. All 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.

Typically, most of a SWMD's budget is used to implement the approved solid waste management plan (allowable use 2). Expenses a SWMD can incur 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 for yard waste and scrap tires).
- providing outreach and education.
- providing services (such as curbside recycling services).
- paying for community clean-up programs.

Expenditures are projected based on current personnel, curbside and drop off collection, program collections, and plan implementation. This will be shown in further detail in Appendix O. The District does not anticipate loans during this plan and plans to establish a capital improvement fund. Recycling/Refuse trucks cost over \$400,000 per truck. The value of recyclable material fluctuates, and depending on the market this could mean a drastic expense or a slight revenue. The cost of a household hazardous waste collection is additionally a variable depending on participation and volume and type of material.

## **Expense categories**

### **Plan Preparation**

This projected cost covers the consultant for the solid waste plan.

### **District Administration**

This includes the District administrative staff with fringe benefits, office overhead, equipment.

### **Facility Operation**

This cost includes equipment, capital improvements, and building repair, CHaRM, Drop-Off, Transfer Operation.

### **Curbside/Drop off Collection**

This is the expense for the salaries and fringe benefits, the cost to collect at the drop off locations, curbside recycling, contracting, processing costs, carts and truck costs.

### **Special Collections-**

This would include expenses for the CHaRM and Household Hazardous Waste, scrap tire, yard waste, and our drop off collection programs.

### **Education/Awareness**

The District attends the County Fair, Touch-a-Truck Events, sends mailers, oops stickers, cart hangers, pick-up calendars, and participates in Earth Day events.

### **Debris Management Plan**

The District is in the beginning stages of a debris management plan.

### **Municipal Assistance**

The District provides access to drop scrap tires found along roads and items the CHaRM facility can accept.

**Table 6-2 Summary of Expenses**

Expense Category	Reference	Planning Period					
	2022	2026	2027	2028	2029	2030	2031
District Administration	\$240,671	\$366,017	\$374,748	\$383,740	\$393,002	\$402,542	\$410,731
Combined Curbside/ Drop off Collection	\$2,152,998	\$1,932,748	\$1,890,731	\$1,847,453	\$1,902,876	\$1,959,963	\$2,008,962
Special Collections	\$0	\$147,613	\$151,591	\$154,050	\$156,582	\$159,190	\$161,429
Yard Waste/Organics	\$0	\$2,652	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732
Debris/Dump Clean up Site	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Loan Payment	\$720,929	\$0	\$0	\$0	\$0	\$0	\$0
Fees	\$750	\$750	\$750	\$750	\$750	\$750	\$750
Other	\$294,375	\$0	\$0	\$0	\$0	\$0	\$0
Facility Operation	\$0	\$10,305	\$10,464	\$10,628	\$10,796	\$10,305	\$10,437
Education/Awareness	\$0	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$24,478
Municipal/Township Assistance	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
<b>Total Expenses</b>	<b>\$3,409,723</b>	<b>\$2,496,303</b>	<b>\$2,467,869</b>	<b>\$2,436,862</b>	<b>\$2,504,924</b>	<b>\$2,574,363</b>	<b>\$2,634,519</b>

Source(s) of Information: Portage County Quarterly Fee Report, Ohio EPA Annual Report.

**D. Budget Summary**

The Solid Waste District Budget will remain focused on diversion and access. The budget for curbside and drop off collection will continue to remain a larger expense.

**Table 6-3 Budget Summary**

Year	Revenue	Expenses	Net Difference	Ending Balance
<b>Reference Year</b>				
2022	\$4,212,078	\$3,409,723	\$802,355	\$2,120,395
<b>Planning Period</b>				
2026	\$2,709,872	\$2,496,303	\$213,569	\$1,805,307
2027	\$2,703,533	\$2,467,869	\$235,663	\$2,040,970
2028	\$2,697,225	\$2,436,862	\$260,363	\$2,301,333
2029	\$2,690,949	\$2,504,924	\$186,025	\$2,487,358
2030	\$2,684,704	\$2,574,363	\$110,342	\$2,597,700
2031	\$2,678,491	\$2,634,519	\$43,972	\$2,641,672

## **E. Major Facility Project**

### **Purpose of a Budget for a Major Facility Project**

SWMDs can own and operate solid waste management facilities. These facilities include landfills, transfer facilities, material recovery facilities, recycling centers, household hazardous waste collection centers, and composting facilities.

Solid waste facilities represent major financial undertakings that can result in substantial capital investments along with ongoing operating costs. Thus, when the policy committee decides that the SWMD will develop a new or make extensive renovations to an existing solid waste management facility, the solid waste management plan provides a specific budget for that facility.

This chapter of the solid waste management plan provides a summary of the SWMD's major facility budget. The full details of the budget are provided in Section D of Appendix O.

The District does not anticipate a major facility project, however, will possibly include a feasibility study of facility operations.

# APPENDIX A MISCELLANEOUS INFORMATION

## Reference Year Planning Period Goal Statement Material Change in Circumstances Explanations of Differences in Data

### A. Reference Year

The reference year for this solid waste management plan is 2022

### B. Planning Period

The planning period for this solid waste management plan is from 2026 to 2041.

### C. Goal Statement

The SWMD will achieve the following Goal 1, with the intent of also achieving Goal 2.

Goal 1: The SWMD shall ensure that there is adequate infrastructure to give residents and commercial businesses opportunities to recycle solid waste.

Goal 2: The SWMD shall reduce and recycle at least 25% of the solid waste generated by the residential/commercial sector.

### D. 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.

**Table A.1 Residential/Commercial Sector Data Differences**

Material	Quantity (tons)	ADR (tons)	Difference	Reason
Appliances/ "White Goods"	0	0	0	
Household Hazardous Waste	0	5	7	
Used Motor Oil	12	12	0	
Electronics	104	104	0	
Scrap Tires	2,102	2,102	0	

Material	Quantity (tons)	ADR (tons)	Difference	Reason
Dry Cell Batteries	0	0	0	
Lead-Acid Batteries	1	1	0	
Food	386	121	265	OEPA compost numbers for food were included in YW
Glass	0	0	0	
Ferrous Metals	21	21	0	
Non-Ferrous Metals	18	18	0	
Corrugated Cardboard	6,097	6,097	0	
All Other Paper	288	288	0	
Plastics	124	75	49	Missed Tonnages during the reporting process, 124 tons is the correct number.
Textiles	42	42	0	
Wood	138	138	0	
Rubber	0	0	0	
Commingled Recyclables (Mixed)	10,181	10,182	-1	
Yard Waste	32,328	56,801	-24,473	OEPA compost numbers for food were included in YW. Conversion factor for YW originally used the ADR Instructions conversion that was switched to the US EPA's conversion.
Other (Aggregated)	387	439	-42	Plastic film and latex paint were double counted in the ADR as "other"
<b>Total</b>	<b>52,230</b>	<b>76,448</b>	<b>-24,218</b>	

During the plan update process, the District calculated a total residential/commercial recovery of 52,230 tons. Two minor errors in the ADR were a result of missed data. There were 265 tons of food waste reported in Ohio EPA's compost report that were originally included in the yard waste line item. This has been moved to correctly be attributed to food waste. The result was a 265 ton decrease for yard waste and a 265 ton increase for food waste, yielding a net difference of 0 tons.

Further, there were 42 tons of "other" from the District's internal numbers that were incorrect. 39 tons of plastic film were double counted in "other" and "plastics" in the ADR. 3 tons of latex paint were double counted in "HHW" and "other" After adjusting the

numbers based on the above descriptions, the net difference was 13 tons more than reported in the ADR for 2022.

The largest difference from this plan update and what was reported in 2022 stemmed from a conversion factor used for yard waste. Originally the District used the conversion factor of three cubic yards equates to one ton as per the ADR Instructions Guide. However, as discussed in Appendix E, this resulted in unusually high numbers. Upon further analysis during this plan update, the District opted to change the conversion factor to follow the U.S. EPA's standard conversion of 250 pounds for every one cubic yard of yard waste. The resulting difference was roughly 24,000 tons.

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

The District's financial data used in the plan update differs from what is reported by Ohio EPA in the Summary and Quarterly Fee Reports (QFR). There are discrepancies between the District's recorded revenues for 2020 and 2021 compared to the reported numbers in the Quarterly Fee Reports. These stem from errors made during previous reporting processes during those years. All financial values for the reference year (2022) are accurate to the Quarterly Fee Reports and District records. Rather than reconcile the historic QFR values, the District omitted the values and verified all 2022 revenues, expenses, beginning balance, and end balances report to ensure accuracy for future reporting.

## **E. Material Change in Circumstances/Contingencies**

As described in ORC 3734.56(D), the Plan must be revised if the Board of County Commissioners determines that circumstances have materially changed from those addressed in the approved initial or amended plan of the district.

The District will monitor the amount of waste generated, changes to capacity of landfills, and closely monitor revenue to ensure that all programs remain operational. The process to determine if a material change in circumstances has occurred is defined below.

### **Waste Generation**

The District will monitor the amount of waste generated within the District. The District will consider an increase or decrease of 25 percent in annual waste generation volume as a cause to evaluate the impact upon the budget for the ability to fund current and future programs.

### **Revenues and Expenditures**

The District will review its operations and plan implementation annually to look for any changes in available revenue that may affect the ability to achieve all proposed objectives. The review process will include tracking revenues versus expenses to maintain District operations and programs. If revenues fall to a level below a two-month working cash balance, the District reserves the right to adjust funds allocated to individual programs without it resulting in a material change in circumstances. The review will include monitoring the

budgetary solvency regarding the financing and operations of the facilities and programs identified in this plan. If it has been determined that after a program reallocation, the District still lacks the proper funding level to operate the facilities and programs identified in this plan. At that time, if the District determines a material change in circumstances has occurred then the appropriate action described above will begin.

The Board of County Commissioners of the Portage County Solid Waste Management District will implement immediate budget cuts if revenues decline to a level that impacts the District's ability to perform the basic recycling services within the County. The District has established a reserve fund to ensure operations continue during time periods when revenue decreases.

### **Capacity Availability**

It is anticipated that several of the area's landfills will have sufficient capacity to accept waste from Portage County in the event of premature closure of another landfill. As the public participates in recycling and more materials can be recycled, the burden on all landfills will decline and thus increase the lifetime of the landfills. The Director and Policy Committee will determine if the closure of an area landfill(s), transfer station(s) or composting facility will have an adverse effect on the District's ability to manage the flow of solid waste. Should the need arise, the District will investigate Designation Agreements with all the regional landfills to direct a portion or all the Municipal Solid Waste to a select few landfills that have sufficient capacity to accept the waste generated in the District.

### **Strategies for Waste Reduction and Recycling**

The District will propose several programs that will reduce the amount of materials currently going to areas landfills while increasing the participation rates for the recycling program. These programs will be a major portion of the District's compliance plan for Access and Participation Standards. The District's Policy Committee will review the plan annually to ensure that the implementation will include an assessment of any changes in these strategies for both waste reduction and increasing recycling rates. If it is determined that the District cannot meet the minimum Access and Participation Standards, a change in action will be initiated to address the issue and begin corrective actions. The expansion of the curbside collection of recyclables, expansion of the commercial and industrial recycling routes, education and awareness will expand the current level of recycling in the District.

### **Timetable for making the determination**

The District's Policy Committee will meet annually by the end of the first quarter to review the implementation of the Plan. If needed, in the form of a letter addressing the review and status of the plan, it shall be sent to the Board of Commissioners of the Portage County Solid Waste Management District within (30) thirty-days after the annual review. The Board of County Commissioners of the Portage County Solid Waste District shall then develop a strategy for a revised plan and respond back to the Policy Committee within (60) sixty-days after notification by the Policy Committee.

**The procedure for notifying the Ohio EPA**

If the Board of County Commissioners of the Portage County Solid Waste District has determined that a material change has occurred, the District acknowledges that the approval of any amendments by the Ohio EPA is required. The Board of County Commissioners of the Portage County Solid Waste District shall notify the Ohio EPA via a certified letter that will address the details of the material change. A meeting between the Board of Commissioners of the Portage County Solid Waste District and the Ohio EPA shall be held to discuss the details of the material change and strategies for addressing the change(s). A timeline will then be established for the draft of the revised plan. Upon acknowledgement from the Ohio EPA-DISWM that a material change in circumstance has indeed occurred, the District will proceed with steps as required to complete a Plan update that addresses the portions of the approved plan that need to be modified.

## APPENDIX B RECYCLING INFRASTRUCTURE INVENTORY

### A. Curbside Recycling Services, Drop-Off Recycling Locations, and Mixed Solid Waste Materials Recovery Facilities

#### 1. Curbside Recycling Services

Curbside Recycling Services in Reference year 2022. The curbside programs are all single-stream recycling. The county was able to divert 7,330 tons from our curbside program in the reference year.

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

ID #	Name of Curbside Service	Service Provider	County	How Service is Provided	Collection Frequency	Materials Collected <sup>(1)</sup>	Type of Collection	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
NSC1	City of Aurora	Rumpke	Portage	Contract b/w Community and Private Hauler	Weekly	Paper/Cardboard, Cartons, Metal Cans, Plastic Bottles and Jugs, Glass Bottles and Jars	Single Stream, Automated	1,624	Y
NSC2	Atwater Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	145	Y
NSC3	Brimfield Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	678	Y

ID #	Name of Curbside Service	Service Provider	County	How Service is Provided	Collection Frequency	Materials Collected <sup>(1)</sup>	Type of Collection	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
NSC4	Franklin Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	388	Y
NSC5	Hiram Township	Kimble	Portage	Contract b/w Community and Private Hauler	Weekly	All Newspaper, Cardboard, Plastic Jugs and Bottles, Glass, Aluminum Cans, BI metal products	Single Stream, Automated	205	Y
NSC6	Village of Hiram	Kimble	Portage	Contract b/w Community and Private Hauler	Weekly	All Newspaper, Cardboard, Plastic Jugs and Bottles, Glass, Aluminum Cans, BI metal products	Single Stream, Automated	90	Y
NSC7	City of Kent	Republic Services	Portage	Contract b/w Community and Private Hauler	Bi-weekly	Paper, Cardboard, Plastic Bottles and Container, Glass Bottles and Jars, Cartons, Aluminum, tin or steel cans, foil, pie tins	Single Stream, Automated	981	Y
NSC8	Mantua Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	350	Y

ID #	Name of Curbside Service	Service Provider	County	How Service is Provided	Collection Frequency	Materials Collected <sup>(1)</sup>	Type of Collection	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
NSC9	Mantua Village	Kimble	Portage	Contract b/w Community and Private Hauler		All Newspaper, Cardboard, Plastic Jugs and Bottles, Glass, Aluminum Cans, BI metal products	Single Stream, Automated	52	Y
NSC10	Ravenna City & Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	1,004	Y
NSC11	Rootstown Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	514	Y
NSC12	Shalersville Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	300	Y
NSC13	City of Streetsboro	Kimble	Portage	Contract b/w Community and Private Hauler	Weekly	All Newspaper, Cardboard, Plastic Jugs and Bottles, Glass, Aluminum Cans, BI metal products	Single Stream, Automated	654	Y
NSC14	Suffield Township	PCSWMD	Portage	PCSWMD	Bi-weekly	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Single Stream, Automated	346	Y

ID #	Name of Curbside Service	Service Provider	County	How Service is Provided	Collection Frequency	Materials Collected <sup>(1)</sup>	Type of Collection	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
Total								7,330	

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

There were no subscription-based recycling services available in the reference year.

2. Drop-Off Recycling Locations

The District does not count the the Brimfield Township drop off towards meeting the Ohio access goal since Brimfield Township residents have curbside recycling. The Drop off is highly active. Recently many services were added to the drop off site. This site now allows for scrap metal, lead-acid batteries, oil, antifreeze, plastic bags, United States Retired Flags, yard waste, and food compost.

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

ID#	Name of Drop-off Site	Service Provider	County	How Service is Provided	Days and Hours Available to the Public	Materials Collected <sup>(1)</sup>	Drop-off Meets All Minimum Standards (Y/N)	Weight of Materials Collected from the SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
FTU1	Brimfield Township	PCSWMD	Portage	8yd Dumpster	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars, Yard Waste, Food Waste, Scrap Metal, Antifreeze, Transmission Fluid, Motor Oil, Car Batteries, Plastic Bags	Y	133	Y
FTU2	Randolph Township	PCSWMD	Portage	8yd Dumpster	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars		179	Y

Total								312 tons	
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**Table B-2b Inventory of Part-Time, Urban Drop-off Sites Available in the Reference Year**

There were no part-time urban drop-off sites available in the Reference Year.

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

<b>ID#</b>	<b>Name of Drop-off Site</b>	<b>Service Provider</b>	<b>County</b>	<b>How Service is Provided</b>	<b>Days and Hours Available to the Public</b>	<b>Materials Collected<sup>(1)</sup></b>	<b>Drop-off Meets All Minimum Standards? (Y/N)</b>	<b>Weight of Materials Collected from the SWMD (tons)</b>	<b>Service will Continue Throughout Planning Period (Y/N)</b>
FTR1	Charlestown Township	PCSWMD	Portage	8yd Dumpster	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Y	80	Y
FTR2	Edinburg	PCSWMD	Portage	8yd Dumpster	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Y	120	Y
FTR3	Nelson Township	PCSWMD	Portage	8yd Dumpsters	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Y	120	Y
FTR4	Palmyra Township	PCSWMD	Portage	8yd Dumpsters	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Y	100	Y
FTR5	Paris Township	PCSWMD	Portage	8yd Dumpsters	24/7	Paper, Cardboard, Plastic Bottles, Jugs and Tubs, Metal Cans, Cartons, Glass Bottles & Jars	Y	80	Y
<b>Total</b>								500 tons	

There are 40 single-stream recycling dumpsters. The Portage County Solid Waste District staff empties them every Monday, Wednesday and Friday using District vehicles. A District CDL driver travels approximately 83 miles to pick up all drop off locations. The contamination rate has dropped from over 21% in 2021, to under 14% in 2022. The District recently painted and relabeled all dumpsters.

There were no part-time rural drop-off sites available in the reference year, thus Table B-2d was omitted.

3. Mixed Solid Waste Material Recovery Facilities

The District does not use a mixed solid waste material recovery facility, thus Table B-3 was omitted.

**B. Curbside Recycling and Trash Collection Service Providers**

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

Name of Provider	Counties Served	Trash Collection Services				Curbside Recycling Services		
		PAYT (Y/N)	Residential	Commercial	Industrial	Residential	Commercial	Industrial
Republic Services	Portage	Y	X	X		X		
Kimble	Portage		X	X		X		
WM	Portage		X	X		X		
Conrads	Portage		X					
Rumpke	Portage		X	X		X		
PCSWMD	Portage					X		

**C. Composting Facilities**

Compost facilities listed in Table B-5 are utilized for Portage County materials.

- The City of Aurora collects brush at the curb once a month for seven months, this begins in April. Leaf collection begins in the fall and goes through winter.
- The City of Streetsboro collects brush in the spring and the fall. Leaves are picked up curbside following the last week in September until Snow starts.
- The City of Ravenna collects yard waste every other week April through October, and leaves in the fall. This material is taken to the Lake Ave transfer Facility.
- Franklin Township collects brush every other month at the curb starting in April and leaves twice in the Fall.

- Kent State University collects and reports its own compost material. Kent State University is a leading large college in food organics waste diversion. In 2024, they received the first-place recognition. Kent State implements reduction strategies, donates edible food, and uses a grind2energy system to create energy and compressed natural gas.

**Table B-5 Inventory of Composting Facilities Used in the Reference Year**

Facility Name	Compost Facility Classification	Publicly Accessible (Y/N)	Location	Food Waste (tons)	Yard Waste (tons)	Total
Pioneer Trail Farm	Class 4	N	852 East Pioneer Trail, Aurora, OH		3,416	<b>3,416</b>
Brimfield Aggregate	Class 4	Y	4200 Sunnybrook Rd, Kent, OH		13,842	<b>13,842</b>
City of Wickliffe Composting Facility	Class 4	N	1290 East 289th St, Wickliffe, OH		330	<b>330</b>
Kent State University	Class 4	N	1781 Summit Street, Kent, OH		240	<b>240</b>
Sagamore Soils Compost	Class 4	Y	2001 Barlow Road, Hudson, OH		39	<b>39</b>
Lake Avenue Transfer Facility	Class 4	N	575 East Lake Street, Ravenna, OH		1,748	<b>1,748</b>
Smith Bros Inc	Class 4	Y	3087 Marks Rd, Medina, OH		588	<b>588</b>
<b>Total</b>				<b>0</b>	<b>20,203</b>	<b>20,203</b>

**D. Other Food Waste and Yard Waste Management Programs**

The City of Kent collects brush and leaves curbside. This material is taken to the City of Kent Yard Waste Transfer Site. This site also is a drop-off site for City of Kent residents throughout the year. Acceptable materials include brush, grass, firewood leaves, and weeds. The City of Kent operates a chipping and grinding site where material is chipped and used in projects. No composting occurs on site. Food waste is sent to the Kent State University anaerobic digester.

The Portage County Solid Waste Management District has a 40-yard dumpster now open (began in 2024) to Portage County residents to bring sticks, twigs, branches, and leaves. This is open 24/7 and the material is taken to Brimfield Aggregate.

**Table B-6 Inventory of Other Food and Yard Waste Management Activities in the Reference Year**

Facility or Activity Name	Activity Type	Location	Food Waste (tons)	Yard Waste (tons)
Kent City	Yard Waste	Plum Creek Park	0	12,125
Kent State	Food	800 E Summit St	121	
<b>Total</b>			<b>121</b>	<b>12,246</b>

**E. Material Handling Facilities Used by the SWMD in the Reference Year**

Portage County Solid Waste Management picks up curbside and drop-off and then direct hauls material to Waste Management in Akron. The current contract with Waste Management for processing of recyclables is set to expire on December 31, 2024. Kimble and Rumpke in the reference year picked up residential curbside recycling and commercial recycling in Portage. Both companies utilize a Material Recovery Facility and Transfer Facility. The other four facilities, shown in Table B-7, reported material recovered by the District.

**Table B-7 Inventory of Material Handling Facilities Used in the Reference Year**

Facility Name	County	State	Type of Facility	Weight of Material Accepted from SWMD (tons)
Waste Management	Summit	OH	MRF	5,584
Kimble	Summit	OH	MRF, TF	2,170
Rumpke	Cuyahoga	OH	TF, MRF	1,912
American Paint Recyclers	Van Wert	OH	MRF	3
Greenboard IT	Trumbull	OH	Electronics	64
Integrity Fiber/ River Valley	Summit	OH	Paper	1,661
Slesnick	Stark	OH	Paper	440

Facility Name	County	State	Type of Facility	Weight of Material Accepted from SWMD (tons)
Portage County Solid Waste Management District	Portage	OH	TF, MRF	39
Royal Oak	Cuyahoga	OH	TF, MRF	57
<b>Total</b>				<b>11,930</b>

## APPENDIX C POPULATION DATA

### A. Reference Year Population

Portage County has a reference year population of 161,745 based on the information provided by “Cities, Villages and Townships by County” produced by Ohio Department of Development.

Unadjusted Population
161,745

**Table C-1 Reference Year Population Adjustments**

Portage	
<b>Before Adjustment</b>	161,745
<b>Additions</b>	
	0
<b>Subtractions</b>	
Village of Mogadore	1,010
City of Tallmadge	284
<b>After Adjustment</b>	<b>160,451</b>

Source(s) of Information: 2022 Cities, Villages and Townships by County from Ohio Department of Development.

There is an adjustment to the population number from the Village of Mogadore and the City of Tallmadge. This will remove 1,294 residents because more than 50% of these residents live in Summit County not Portage.

### B. Population Projections

According to the Ohio Development Services Agency, the population in Portage County is projected to decline by 11.58% over the planning period. The analysis below shows a 0.52% decline per year. Projections flatline after the sixth year of the planning period.

**Table C-2 Population Projections**

Year	Portage Population Projection
2022	160,451
2023	159,617
2024	158,831
2025	158,005
2026	157,183
2027	156,366
2028	155,553
2029	154,744
2030	153,939
2031	153,139
2032	153,139
2033	153,139
2034	153,139
2035	153,139
2036	153,139
2037	153,139
2038	153,139
2039	153,139
2040	153,139
2041	153,139

## APPENDIX D DISPOSAL DATA

### A. Reference Year Waste Disposed

Portage County does not have an active landfill, the majority of waste is transferred first before landfilling. The landfills below received Portage County waste. There are many different landfills used by Portage County, however, the most utilized is in Stark County. In 2022, 134,536 tons of waste were disposed of (includes direct hauled and transferred).

**Table D-1a Waste Disposed in Reference Year – Publicly-Available Landfills (Direct Haul)<sup>1</sup>**

Facility Name	Location		Waste Accepted from the SWMD			
	County	State	Residential Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)
Defiance County Landfill	Defiance	OH			0	0
Countywide RDF	Stark	OH	3,877	7,480	922	11,357
Geneva Landfill	Ashtabula	OH		37		37
Mahoning Landfill	Mahoning	OH	2444	48	17	2,492
American Landfill, Inc.	Stark	OH	2568	6948	679	9,515
Athens Hocking Landfill	Athens	OH		86		86
Noble Road Landfill	Richland	OH	10	1087		1,097
Evergreen Recycling and Disposal	Wood	OH		1		1
Lorain County II Landfill	Lorain	OH	29	618		647
Carbon Limestone Landfill	Mahoning	OH	147	996	1	1,143
Kimble Sanitary Landfill	Tuscarawas	OH	258	43	69	300
Lake County Solid Waste Facility	Lake	OH	377			377
Liberty	Minerva	OH	166			166
<b>Total</b>			<b>9,876</b>	<b>17,343</b>	<b>1,688</b>	<b>27,219</b>

<sup>1</sup> The facilities listed in Reference Table D that identify where waste is accepted 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: Portage County Solid Waste Generation Fee Reports and Ohio EPA 2022 Annual District Reports

**Table D-1b Waste Disposed in Reference Year – Captive Landfills<sup>1</sup>**

There are no Captive landfills in Portage County or any Captive landfills that accept waste from the District. This is a type of landfill that is owned by a manufacturing company.

**Table D-1c Total Waste Disposal in Landfills (Direct Haul)**

Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total
9,876	17,343	1,688	27,219

**Waste Transferred in Reference Year<sup>1</sup>**

Transfer facilities are most widely used for the waste being removed from Portage County. After a transfer facility receives material, it is then taken to a disposal site or recovery facility. Three of the transfer facilities reported receiving and transferring an almost equally distributed tonnage of over 20,000 tons. These transfer facilities are Waste Management, Kimble, and Republic. Waste is transferred by many transfer facilities as shown in Table D-2.

**Table D-2 Waste Transferred from Portage County in Reference Year**

Facility Name	Location		Waste Received from the SWMD			
	County	State	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)
Portage County Transfer Facility	Portage	OH		0	0	0
Kimble Transfer & Recycling - Carrollton	Carroll	OH	109		0	109
Republic Services of Ohio LLC Akron Transfer Facility	Summit	OH	26,359		0	26,359
Akron Central Transfer Facility	Summit	OH	26,973		0	26,973
Cleveland Transfer/Recycling Station	Cuyahoga	OH	6,387	10	0	6,398
Kimble Transfer & Recycling - Canton	Stark	OH	6,002	0	68	6,002
Kimble Transfer & Recycling - Twinsburg	Summit	OH	22,339	8	78	22,347
Girard Transfer Station	Trumbull	OH	427	0		427
Rumpke Waste Inc Broadview Heights Transfer Facility	Cuyahoga	OH	10,687	402	204	11,088
Harvard Road Transfer Station	Cuyahoga	OH	140		12	140

Facility Name	Location		Waste Received from the SWMD			
	County	State	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)
Ohio Valley Waste Warren	Trumbull	OH	1,476	0	0	1,476
Browning Ferris Industries of Ohio, Inc- Glenwillow	Cuyahoga	OH	5,999	0	955	5,999
Medina County Central Processing Facility	Medina	OH	0	0	0	0
<b>Total</b>			<b>106,896</b>	<b>420</b>	<b>1,317</b>	<b>107,316</b>

<sup>1</sup> The facilities listed in Table D-2 constitute those identified for purposes of Ohio Revised Code Section 3734.53(13)(a).

Source(s) of Information: Ohio EPA annual reports, Portage County Solid Waste Generation Fee Reports 2022

Assumptions: This tonnage should remain consistent and then slowly decline. Transfer stations should remain highly utilized over the next planning period.

### Table D-3 Waste Incinerated/Burned for Energy Recovery in Reference Year<sup>1</sup>

Portage County did not have any waste incinerated or burned for energy recovery in the reference year.

### Total Waste Disposed in Reference Year

Table D-4 Reference Year Total Waste Disposed

	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)	% of Total Waste Disposed
Direct Hauled	9,876	17,343		27,219	20%
Transferred	106,896	420		107,316	80%
Incinerated					0%
<b>Total</b>	<b>116,772</b>	<b>17,764</b>	<b>0</b>	<b>134,536</b>	<b>100%</b>
<b>Percent of Total</b>	<b>87%</b>	<b>13%</b>	<b>0%</b>	<b>100%</b>	

Source(s) of Information: Ohio EPA annual reports, Portage County Solid Waste Generation Fee Reports 2022

Assumptions: This should remain consistent and slowly decline.

According to Ohio EPA Format 4.1, if excluded waste is 10% or less of total disposal in the reference year, then Districts are not required to account for excluded waste in the solid waste management plan. For the District, excluded waste accounts for less than 10% of the total disposal in 2022 and will not be included in this solid waste management plan.

## B. Historical Waste Analysis

**Table D-5 Historical Disposal Data**

Year	Population	Residential/ Commercial Solid Waste		Industrial Solid Waste	Excluded Waste	Total Waste
		Rate (ppd)	Weight	Weight	Weight	Weight
			(tons)	(tons)	(tons)	(tons)
2018	162,927	3.40	101,087	11,402	0	112,489
2019	162,275	3.43	101,477	13,052	0	114,529
2021	161,791	3.65	107,665	18,722	0	126,387
2022	160,451	3.99	116,772	17,764	0	134,536

Source(s) of Information: Ohio EPA annual reports, Portage County Solid Waste Generation Fee Reports 2022

Sample Calculations: Residential/Commercial + Industrial + excluded = Total Waste

Residential Commercial tons \* 2,000 pounds per ton/ 365 days a year / Population

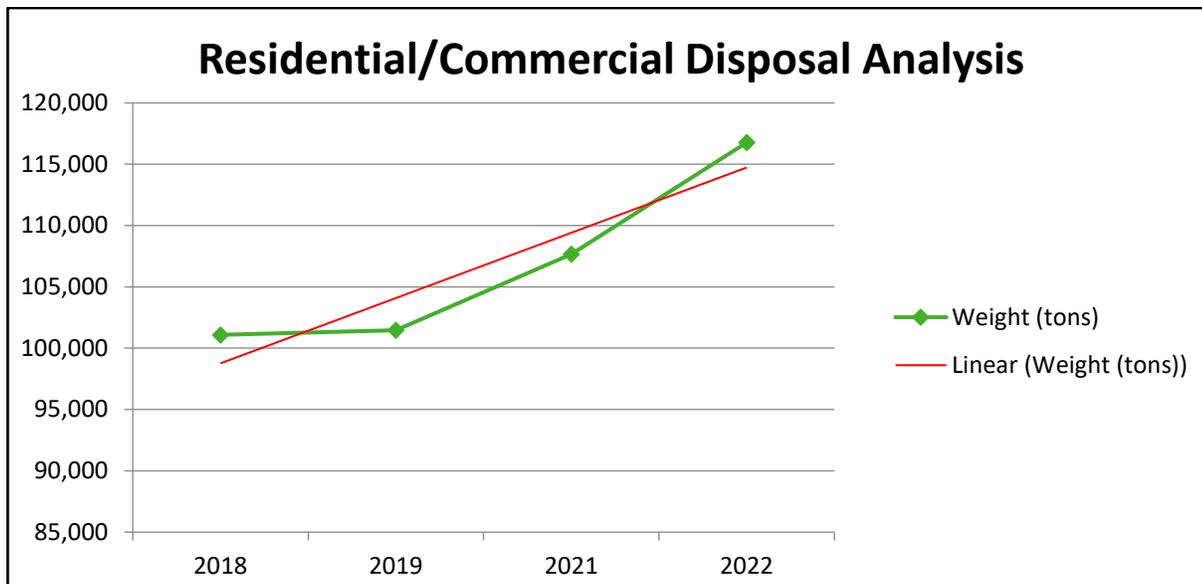
Residential Commercial Disposal Rate

Excluded Waste over the last planning period has remained under 10% and is therefore exempt from being reported.

2020 outlier data was removed as requested by Ohio EPA.

**Table D-5a Annual Percentage Change**

	Residential/Commercial	Industrial	Excluded	Total
2018				
2019	0%	14%	0%	2%
2021	6%	43%	0%	10%
2022	8%	-5%	0%	6%



**Table D-5b Annual Change In Tons**

	Residential/Commercial	Industrial	Excluded	Total
2018				
2019	390	1,650	0	2,040
2021	6188	5670	0	11,858
2021	9107	-958	0	8149

**Table D-5c Average Annual Percent Change**

Average Annual Percentage Change	
Residential/Commercial	4.6%
Industrial	17.45%
Excluded	0.00%

**Table D-5d Average Annual Change in Tons Disposed**

Average Annual Change in Tons Disposed	
Residential/Commercial	3,921
Industrial	1,590
Excluded	0

**Table D-5e Average Per Capita Over Time**

Average Per Capita Over Time (5 years)	
Residential/Commercial	3.62

**Residential/Commercial Waste**

This percentage has consistently varied from year to year. Compared to the projected tonnage in the previous plan update, the tonnage disposed was lower than projected in 2018 and 2019 and higher in the remaining three years. The higher disposal tonnage could be associated with the COVID-19 pandemic.

**Industrial Waste**

Waste in the Industrial sector varied between 11,000 tons and 18,722 tons during the 5-year range from 2018 to 2022.

**Excluded Waste**

Excluded waste is below 10% and therefore exempt from reporting. This will show excluded waste at the baseline at zero.

### C. Disposal Projections

There are several methods that can be used for projecting waste disposal through the planning period, such as historical per capita, historical averages, and historical trends. After conducting the historical analysis and considering factors that could change historical disposal trends, waste disposal for the planning period is projected below. Disposal projections are flatlined in the seventh year of the planning period (2032).

**Table D-6 Waste Disposal Projections**

Year	Residential/ Commercial Solid Waste	Industrial Solid Waste	Excluded Waste	Total Waste	Waste Transferred (as part of Total Disposal)	Waste Transferred (as part of Total Disposal)
	Weight	Weight	Weight	Weight	Weight	Percent
	(tons)	(tons)	(tons)	(tons)	(tons)	80%
2022	<b>116,772</b>	<b>17,764</b>	<b>0</b>	<b>134,536</b>	<b>107,316</b>	
2023	110,775	17,662	0	128,438	102,452	
2024	110,230	17,562	0	127,792	101,937	
2025	109,657	17,462	0	127,119	101,400	
2026	109,087	17,362	0	126,449	100,865	
2027	108,520	17,263	0	125,783	100,334	
2028	107,955	17,165	0	125,120	99,805	
2029	107,394	17,067	0	124,461	99,280	
2030	106,835	16,970	0	123,805	98,757	
2031	106,280	16,873	0	123,153	98,236	
2032	106,280	16,873	0	123,153	98,236	
2033	106,280	16,873	0	123,153	98,236	
2034	106,280	16,873	0	123,153	98,236	
2035	106,280	16,873	0	123,153	98,236	
2036	106,280	16,873	0	123,153	98,236	
2037	106,280	16,873	0	123,153	98,236	
2038	106,280	16,873	0	123,153	98,236	
2039	106,280	16,873	0	123,153	98,236	
2040	106,280	16,873	0	123,153	98,236	
2041	106,280	16,873	0	123,153	98,236	

Sources: 2022 Portage County Solid Waste Reports, 2022 Annual District Reports, and Ohio JFS 2028 Outlook Northeast Ohio Projections

## 1. Residential/Commercial Waste Projections

For the reference year and the four years prior, residential/commercial disposal averaged 112,000 tons per year. The District believes the COVID-19 pandemic was the reason for increased disposal values past 2020. In 2023, there was a train derailment in Portage County that increased tonnage as well. As discussed in Appendix C, the District's population is expected to continue to decline. With a declining population, the District anticipates the disposal tonnages to decrease as well. As such, the District used the five-year average pounds per person per day (PPD) of waste disposal and applied it to the estimated population through the planning period. Projections are flatlined in 2032 and thereafter.

Sample Calculation 2030:

$$\begin{aligned} 2030 \text{ Value} &= ((2030 \text{ Population} * \text{PPD}) / 365) / 2,000 \\ 106,835 &= ((153,939 * 3.80 \text{ PPD}) / 365) / 2,000 \end{aligned}$$

## 2. Industrial Waste Projections

Industrial waste has fluctuated over the last five years. Over this time, on average the District disposed of roughly 14,400 tons per year of industrial waste. The Ohio Department of Jobs and Family Services projected industry decreases of 5.7% in manufacturing employment from 2018 to 2028 in the Northeastern region of Ohio. Annualizing this over ten years calculates to a 0.58% annual decrease. Expecting decreased employment to mirror waste disposal, the District used this annual rate of decline to project the annual tonnage changes for industrial waste disposal in the District. Projections are flatlined in 2032 and thereafter.

Sample Calculation 2030:

$$\begin{aligned} 2030 \text{ Value} &= (2029 \text{ value} * \text{annual growth rate}) + 2029 \text{ value} \\ 16,970 &= (17,067 * -0.57\%) + 17,067 \end{aligned}$$

## 3. Excluded Waste Projections

Per Ohio EPA Format 4.1, excluded waste will not be accounted for going forward in this plan update as it comprises less than 10% of waste disposed.

### D. Waste Import

#### Table D-7 Waste Imports

Portage County does not import waste and thus Table D-7 is not included.

# APPENDIX E RESIDENTIAL/COMMERCIAL REDUCTION AND RECYCLING DATA

For the plan update, the District sent survey requests to haulers, processors, brokers, wholesale traders, and others to request information on recycled and reused items and amounts during the reference year, 2022.

## A. Reference Year Recovery Data

**Table E-1 Commercial Survey Results**

NAICS	Electronics	Lead-Acid Batteries	Food	Ferrous Metals	Corrugated Cardboard	All Other Paper	Plastics	Textiles	Commingled Recyclables (Mixed)	Yard Waste
42					1,828	265				
44	7				571	13	39	38		
45										
48										
49										
51										
52										
53										
54										
55										
56	64	1	121	21		2	5	4	4,628	
61	33									
62										
71										
72										
81										
92										
Other:										
Other:										
Other:										
Other:										
Other:										

<b>Other:</b>										
<b>Unadjusted Total</b>	<b>104</b>	<b>1</b>	<b>121</b>	<b>21</b>	<b>2,399</b>	<b>280</b>	<b>44</b>	<b>42</b>	<b>4,628</b>	<b>0</b>
<b>Adjustments</b>										
<b>Adjusted Total</b>	<b>104</b>	<b>1</b>	<b>121</b>	<b>21</b>	<b>2,399</b>	<b>280</b>	<b>44</b>	<b>42</b>	<b>4,628</b>	<b>0</b>

The NAICS codes are used to represent the type of business.

Source: Ohio Environmental Protection Agency Annual Survey Data, Portage County Solid Waste Annual Survey Data 2022.

Reference codes for NAICS are found at [census.gov/naics](https://www.census.gov/naics).

42 Wholesale Trade

44 Retail Trade

56 Administrative and Support and Waste Management and Remediation Services

61 Educational Services

Portage County Solid Waste Management District has historically focused on and received this type of survey data. Survey information was received from the four NAICS codes identified above. Portage County Solid Waste Management District directly hauls single-stream material that is picked up on routes. As an active hauling Solid Waste District, we also occasionally haul cardboard, plastic, metals and lead-acid batteries, along with yard waste and other materials. The material the District hauls is directly reported to the Ohio EPA by the processor as well, therefore, Portage County adjusts the commercial data results to avoid double counting. No adjustments were made to the commercial data in Table E-1. Glass was not reported separately in any of the survey data. It is collected in single stream in our residential curbside and drop-off programs.

**Table E-2 Data from Other Recycling Facilities**

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	Total
<b>Buybacks</b>																
																0
<b>Scrap Yards</b>																
																0
<b>Brokers</b>																
																0
<b>Processors/MRF's</b>																
Waste Management Cleveland								74								74
Waste Management Akron - Residential														5,504		5,504
Waste Management Akron - Commercial									2	4						6
Totals	0	0	0	0	0	0	0	74	2	4	0	0	0	5,504	0	5,584
Adjustments																
<b>Adjusted Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,504</b>	<b>0</b>	<b>5,584</b>

Source(s) Ohio Environmental Protection Agency Annual Survey Data, Portage County Solid Waste Annual Survey Data 2022

The District collects and hauls its own curbside and drop-off recycling. This commingled stream ultimately ends up being processed at the Waste Management Akron material recovery facility. The District did not make an adjustment in this table to prevent double counting this material stream. Instead, it was adjusted in Table E-4.

Table E-3 provides the data that is reported to the Ohio Environmental Protection Agency. "Other" items of reported data do not list a specific recovery item.

**Table E-3 Data Reported to Ohio EPA by Commercial Businesses**

Ohio EPA Data Source	Glass	Plastic	Newspaper	Cardboard	All Other Paper/Mixed Paper	Nonferrous	Ferrous	Wood	Food: Compost	Food: Other	Commingled Recyclables (Mixed)	Other	
Walmart		52		1,947	4	5						385	
Lowes				6		1						2	
Home Depot		3		75	0	9		138				1	
Target		7		177		3					2		
Dollar General		5		613	2								
Aldi		5		432									
Kohls		4		179									
CVS				14							48		
Family Dollar				180									
<b>Unadjusted Total</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>3,624</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>387</b>	<b>4,300</b>
<b>Adjustments</b>													<b>0</b>
<b>Adjusted Total</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>3,624</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>138</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>387</b>	<b>4,300</b>

Source(s) of Information: Ohio Environmental Protectional Agency Annual Survey Data. Portage County Solid Waste Single Stream curbside and drop off is reported by the hauler to Ohio EPA.

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

Other Programs or Sources of Data	Scrap Tires	Food	Commingled Recyclables (Mixed)	Yard Waste	Unadjusted Total	Adjustments	Adjusted Total
<i>Curbside Recycling Services</i>			4,704		<b>4,704</b>	4704	<b>0</b>
<i>Drop-off Recycling Locations</i>			817		<b>817</b>	817	<b>0</b>
<i>City of Kent</i>				12,125	<b>12,125</b>	0	<b>12,125</b>
<i>Ohio EPA Compost Data</i>		265		20,203	<b>20,468</b>	0	<b>20,468</b>
<i>Ohio EPA Scrap Tire Data</i>	2,102				<b>2,102</b>	0	<b>2,102</b>
<b>Unadjusted Total</b>	<b>2,102</b>	<b>265</b>	<b>5,522</b>	<b>20,203</b>	<b>40,217</b>	<b>5,522</b>	<b>34,695</b>
<b>Adjustments</b>			5,522		5,522		
<b>Adjusted Total</b>	<b>2,102</b>	<b>265</b>	<b>0</b>	<b>20,203</b>	<b>34,695</b>		

Source(s) of Information: Ohio Environmental Protection Agency composting data. Portage County Annual District Report 2022.  
 \*Curbside data was direct reported to Ohio EPA so an adjustment was made in this table.

Adjustments were made to the curbside and drop-off service numbers provided by Portage County Solid Waste by direct hauling recycling. These numbers are reported directly to the Ohio Environmental Agency listed under Table E-3 from a processor. The District was able to receive the cubic yards of yard waste diverted by the City of Kent for 2022. It was reported by the City of Kent that they diverted 97,000 cubic yards of yard waste in 2022. Initially, the District used the conversion listed on the Annual District Report instructions stating that three cubic yards of yard waste equates to one ton. Upon further analysis as part of this plan update, the District opted to use the U.S. EPA’s Conversion Factor<sup>1</sup> for yard waste.

As explained in Appendix A, using the original conversion of one ton for every three cubic yards, the District estimated 36,000 tons of yard waste. The City of Kent has a population of roughly 27,000 as of 2022 meaning each resident would have had to generate 1.33 tons on average in that year. This equates to 7.27 pounds per person per day (PPD). The District feels this is not a reasonable amount to safely assume was diverted. Using the U.S. EPA’s conversion factor of each cubic yard weighing 250 pounds, the District estimates a total diversion of 12,125 tons. This decreases the PPD to 2.45.

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<sup>1</sup> U.S. EPA Conversion Factors [https://www.epa.gov/sites/default/files/2016-04/documents/volume\\_to\\_weight\\_conversion\\_factors\\_memoandum\\_04192016\\_508fnl.pdf](https://www.epa.gov/sites/default/files/2016-04/documents/volume_to_weight_conversion_factors_memoandum_04192016_508fnl.pdf)

**Table E-5 Residential/Commercial Material Recovered in Reference Year**

<b>Material</b>	<b>Quantity (tons)</b>
Appliances/ "White Goods"	0
Household Hazardous Waste	0
Used Motor Oil	12
Electronics	104
Scrap Tires	2,102
Dry Cell Batteries	0
Lead-Acid Batteries	1
Food	386
Glass	0
Ferrous Metals	21
Non-Ferrous Metals	18
Corrugated Cardboard	6,097
All Other Paper	288
Plastics	124
Textiles	42
Wood	138
Rubber	0
Commingled Recyclables (Mixed)	10,181
Yard Waste	32,328
Other (Aggregated)	387
<b>Total</b>	<b>52,230</b>

Source(s) of Information: Ohio Environmental 2022 reports, Portage County Solid Waste District reports 2022.

Table E-5 shows the total amount of material recovered. The appliances/white goods are reported under metals. Program source recovery data is interchangeable in many of these categories. Many of the survey results could fall under any of these categories. For example, a hauler could also be a processor, provide curbside service, and report to Ohio EPA. Diversion is key, and having many recovery sources is essential in Portage County. In order to prevent double counting, curbside and drop-off recycling were adjusted since the values are included in Ohio EPA's MRF Report. During the District's plan update process, data discrepancies were reconciled for the total diversion tonnages. See Appendix A for explanations of any data discrepancies.

**Table E-6 Quantities Recovered by Program/Source**

<b>Program/Source of R/C Recycling Data</b>	<b>Quantities (Tons)</b>
Commercial Survey	7,652
Data from Other Recycling Facilities	5,584
Ohio EPA Commercial Retail Data	4,300
Curbside Recycling Services*	0
Drop-off Recycling Locations*	0
City of Kent	12,125
Ohio EPA Compost Data	20,468
Ohio EPA Scrap Tire Data	2,102
<b>Total</b>	<b>52,230</b>

Source(s) of Information: Ohio Environmental 2022 reports, Portage County Solid Waste District reports 2022.

\* Included in the Data from Other Recycling Facilities

\*Data was reported directly to Ohio EPA, table is adjusted to this data to avoid double counting.

The Yard waste from the City of Kent was adjusted using the US EPA Conversion model.

## **B. Historical Recovery**

Recovery data shows an increase in composting facilities. Numbers can shift from one category to the other depending on the survey respondent. Historically reporting across the programs or sources is inconsistent. Though, overall tonnage has averaged roughly 54,700 tons annually. The reported compost tonnage in 2021 is an outlier when compared to the historical tonnages.

**Table E-7 Historical Residential/Commercial Recovery by Program/Source**

Year	Commercial Survey	Data from Other Recycling Facilities	Ohio EPA Commercial Retail Data	Curbside Recycling Services	Drop-off Recycling Locations	Other Composting Facilities	Ohio EPA Compost Data	Ohio EPA Scrap Tire Data	Totals
2018	21,171	951	5,062	9,204	1,513	429	14,413	1,698	54,439
2019	21,741	942	5,185	8,832	1,435	25,898	94	2,032	66,159
2020	15,791	2,310	6,929	9,125	625	15,230	15,004	1,910	66,925
2021	9,842	1,441	5,957	8,129	878	4,996	376	2,000	33,618
<b>2022</b>	<b>7,652</b>	<b>5,584</b>	<b>4,300</b>	<b>0</b>	<b>0</b>	<b>12,125</b>	<b>20,468</b>	<b>2,102</b>	<b>52,230</b>

**Table E-7a1 Annual Percent Change in Tons Recovered**

2018									
2019	3%	-1%	2%	-4%	-5%	5940%	-99%	20%	22%
2020	-27%	145%	34%	3%	-56%	-41%	15862%	-6%	1%
2021	-38%	-38%	-14%	-11%	41%	-67%	-97%	5%	-50%
<b>2022</b>	<b>-22%</b>	<b>287%</b>	<b>-28%</b>	<b>-100%</b>	<b>-100%</b>	<b>143%</b>	<b>5341%</b>	<b>5%</b>	<b>55%</b>

**Table E-7a2 Average Percentage Change in Tons Recovered**

	-21%	99%	-1%	-28%	-30%	1493%	5252%	6%	7%
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**Table E-7a3 Annual Change in Tons Recovered**

2018									
2019	570	-9	123	-372	-77	25,469	-14,319	335	11,720
2020	-5,950	1,368	1,745	293	-811	-10,668	14,910	-122	765
2021	-5,950	-869	-973	-996	253	-10,234	-14,628	90	-33,306
<b>2022</b>	<b>-2,168</b>	<b>4,143</b>	<b>-1,657</b>	<b>-8,129</b>	<b>-878</b>	<b>7,129</b>	<b>20,092</b>	<b>102</b>	<b>18,634</b>

**Table E-7a4 Annual Per Capita Recovery Rate (pounds/person/day)**

2018	0.71	0.03	0.17	0.31	0.05	0.01	0.48	0.06	1.83
2019	0.73	0.03	0.18	0.30	0.05	0.87	0.00	0.07	2.23
2020	0.53	0.08	0.23	0.31	0.02	0.51	0.51	0.06	2.26
2021	0.33	0.05	0.20	0.28	0.03	0.17	0.01	0.07	1.14
<b>2022</b>	<b>0.26</b>	<b>0.19</b>	<b>0.15</b>	<b>0.00</b>	<b>0.00</b>	<b>0.41</b>	<b>0.70</b>	<b>0.07</b>	<b>1.78</b>

**Table E-7a5 Average Per Capita Recovery Rate**

	0.51	0.08	0.19	0.24	0.03	0.40	0.34	0.07	1.85
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**Table E-7a6 Average Tons of Material Recovered**

	15,244	2,245	5,486	7,058	890	11,736	10,071	1,948	54,679
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Source(s) of Information: Ohio Environmental Protection Agency Report, Portage County Annual District Report

### **C. Residential/Commercial Recovery Projections**

Even though the population in Portage County is projected to decrease by 11.58% over the next planning period, Portage County Solid Waste intends to keep the diversion rate above 25%. The District's strong recycling/diversion programs and opportunities should help to keep the diversion percentage relatively stable, even with a decreasing population.

Table E-8 below projects residential/commercial recovery by source. The District receives reliable data from a multitude of sources. By percentage of the total, in 2022 the District's primary source of data was Ohio EPA's compost report. In 2022, the District received cubic yard volume estimates for the City of Kent's yard waste collection efforts. This tonnage was not reported by Ohio EPA and therefore is creditable.

**Table E-8 Residential/Commercial Recovery Projections by Source**

Year	Commercial Survey	Data from Other Recycling Facilities	Ohio EPA Commercial Retail Data	Curbside Recycling Services	Drop-off Recycling Locations	Composting Facilities	Ohio EPA Compost Data	Ohio EPA Scrap Tire Data	Totals
<b>2022</b>	<b>7,652</b>	<b>5,584</b>	<b>4,300</b>	<i>Included in MRF Data from Ohio EPA</i>	<i>Included in MRF Data from Ohio EPA</i>	<b>12,125</b>	<b>20,468</b>	<b>2,102</b>	<b>52,230</b>
2023	8,663	5,555	5,486			12,062	20,468	1,948	54,183
2024	8,618	5,527	5,486			11,999	20,468	1,948	54,048
2025	8,573	5,499	5,486			11,937	20,468	1,948	53,912
2026	8,529	5,470	5,486			11,875	20,468	1,948	53,776
2027	8,484	5,442	5,486			11,813	20,468	1,948	53,642
2028	8,440	5,413	5,486			11,752	20,468	1,948	53,508
2029	8,396	5,385	5,486			11,690	20,468	1,948	53,375
2030	8,353	5,357	5,486			11,630	20,468	1,948	53,242
2031	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2032	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2033	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2034	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2035	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2036	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2037	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2038	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2039	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2040	8,309	5,329	5,486			11,569	20,468	1,948	53,111
2041	8,309	5,329	5,486			11,569	20,468	1,948	53,111

Source(s) of Information: Ohio Environmental Protection Agency Report, Portage County Annual District Report.  
 Note: Projections flatline after the sixth year of the planning period.

**Commercial Survey Projections:**

Commercial survey tonnages have fluctuated heavily in the past due to different methods of attributing data over the years. However, the last two years have been fairly consistent. As such, the District used the average pounds per person per day (PPD) from 2021 to 2022 and applied it to the decreasing population.

Sample Calculation 2023:  $(0.30 \text{ PPD} * 159,617) * 365 / 2,000 = 8,674$

**Data from Other Recycling Facilities Projections:**

These projections were calculated based on the historical per capita recovery rate. The 2022 per capita recovery rate was 0.19 pounds per person per day. This number was multiplied by the respective year's projected population and converted into tons per year.

Sample Calculation 2023:  $(0.19 \text{ PPD} * 159,617) * 365 / 2,000 = 5,555$

**Ohio EPA Commercial Retail Data Projections:**

These projections were held constant throughout the planning period at the five-year historic average as this data is independently acquired by the Ohio EPA and is out of the District's control.

**Curbside Recycling Projections:**

These totals are collected and hauled by the District. The waste ultimately ends up at the Waste Management Material Recovery Facility in Akron. To prevent double counting, the District used the reported values by Waste Management to Ohio EPA.

**Ohio EPA Drop-Off Projections:**

These totals are collected and hauled by the District. The waste ultimately ends up at the Waste Management Material Recovery Facility in Akron. To prevent double counting, the District used the reported values by Waste Management to Ohio EPA.

**Other Composting Facilities Projections:**

The data represented in this section is from the City of Kent's yard waste collection reported to the District. These projections were calculated based on the historical per capita recovery rate. The 2022 per capita recovery rate was 2.45 pounds per person per day. This number was multiplied by the respective year's projected population for Kent and converted into tons per year.

Sample Calculation 2023:  $(2.45 \text{ PPD} * 27,006) * 365 / 2,000 = 12,062$

**Ohio EPA Scrap Tire Report Projections:**

These projections were held constant throughout the planning period as this data is independently acquired by the Ohio EPA and is out of the District's control. Due to the large fluctuations from year to year, the District held the 2022 value flat throughout the planning period.

**Ohio Compost Facility Report Projections:**

These projections were held constant throughout the planning period at the five year historic average as this data is independently acquired by the Ohio EPA and is out of the District's control.

## **APPENDIX F      INDUSTRIAL WASTE REDUCTION AND RECYCLING DATA**

Appendix F contains an inventory of materials recovered from the industrial sector in the reference year, adjusts quantities for double counting, calculates total adjusted quantities of material recovered, analyzes historical quantities recovered and projects quantities to be recovered.

The Ohio EPA 2020 State Plan no longer requires Solid Waste Management Districts to demonstrate the industrial sector percentage goal of 66% diverted waste. Upon removal of this goal, Districts may choose whether to survey the industrial sector or not. The Portage County Solid Waste Management District chose not to conduct an industrial survey in the reference year. Thus, Appendix F has been omitted from this Plan Update.

# APPENDIX G WASTE GENERATION

## A. Historical Year Waste Generated

### Reference Year and Historical Waste Generated

**Table G-1 Historical and Reference Year Waste Generated**

Year	Population	Residential/ Commercial				Industrial		Total (tons)
		Disposed (tons)	Recycled (tons)	Generated (tons)	Per Capita Generated (ppd)	Disposed (tons)	Generated (tons)	
2018	162,927	101,087	54,439	155,526	5.23	11,402	11,402	166,928
2019	162,275	101,477	66,159	167,636	5.66	13,052	13,052	180,688
2020	162,466	135,014	66,925	201,939	6.81	11,446	11,446	213,385
2021	161,791	107,665	33,618	141,283	4.78	18,722	18,722	160,005
<b>2022</b>	<b>160,451</b>	<b>116,772</b>	<b>52,230</b>	<b>169,025</b>	<b>5.77</b>	<b>17,764</b>	<b>17,764</b>	<b>186,766</b>

Source(s) of Information: Disposal Data from Appendix D, Recycle Data from Appendix E and F, 2018 – 2022 Annual District Reports

#### Sample Calculation:

Waste Generation is calculated by adding the disposed waste and the recycled waste.

Calculation: = Disposed + Recycled = Generated

The Per Capita Generation = (generated \* 2,000) / 365) / population in Portage County.

Total waste generated by the District was calculated by adding the quantities of waste disposed from Appendix D and quantities of recycled materials from Appendix E. Quantities from disposal and recycling in the District from 2018 to 2022 are shown in Table G-1. The District's generation has been volatile over the last five years, experiencing a peak and valley trend of increases followed by decreases. In 2020, the District's disposal tonnages peaked at 135,000, well above the average over this time period. The District believes this is directly related to the COVID-19 pandemic. Recycling programs have remained consistent over this period. However, the tons reported as recycled have fluctuated. The primary reason for this is not believed to be correlated with recycling opportunities but instead from the ability to gather data across the sectors. With no mandatory reporting in place, gathering recycling data can be challenging and inconsistent.

#### Residential/Commercial Waste

The state average residential/commercial waste generated in 2022 was 7.27 PPD. In 2022, Portage County generated 5.77 PPD, well below the state average.

#### Industrial Waste

Per, the Ohio EPA State Plan, if the solid waste district was able to demonstrate a diversion goal, then industrial tracking is not required by survey. The disposal information is reported.

## Excluded Waste

Excluded waste is exempt from reporting, and therefore will show as zero on projections.

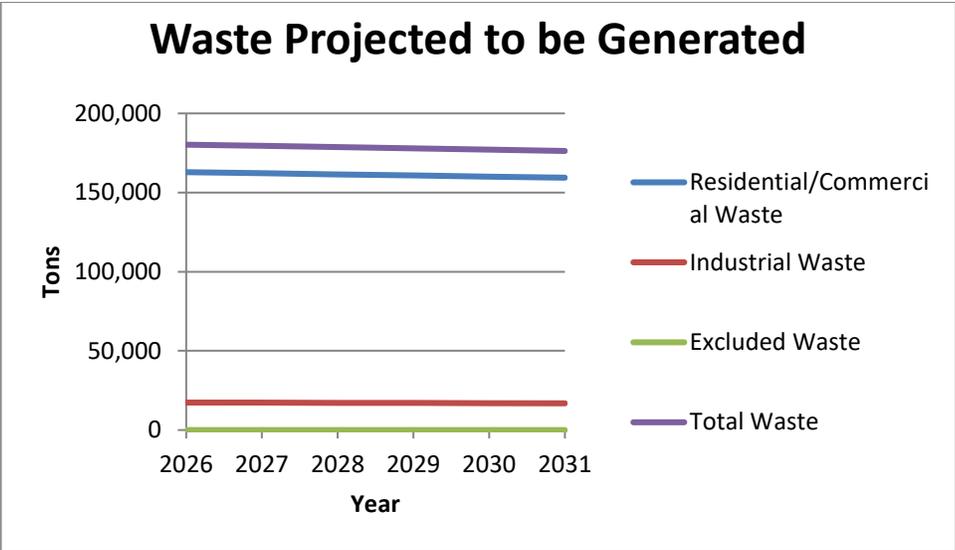
## B. Generation Projections

The table below shows the population of Portage County with the projected decline in population and adjustment for the slight decrease in disposal and maintaining the composting and recycling level.

**Table G-2 Generation Projections**

Year	Population	Residential/ Commercial				Industrial		Excluded Waste (tons)	Total (tons)
		Disposal (tons)	Recycle (tons)	Generation (tons)	Per Capita Generation (PPD)	Disposal (tons)	Generation (tons)		
<b>2022</b>	<b>160,451</b>	<b>116,772</b>	<b>52,230</b>	<b>169,003</b>	<b>5.77</b>	<b>17,764</b>	<b>17,764</b>	<b>0</b>	<b>186,767</b>
2023	159,617	110,775	54,183	164,958	5.66	17,662	17,662	0	182,620
2024	158,831	110,230	54,048	164,278	5.67	17,562	17,562	0	181,840
2025	158,005	109,657	53,912	163,569	5.67	17,462	17,462	0	181,031
2026	157,183	109,087	53,776	162,863	5.68	17,362	17,362	0	180,225
2027	156,366	108,520	53,642	162,161	5.68	17,263	17,263	0	179,424
2028	155,553	107,955	53,508	161,463	5.69	17,165	17,165	0	178,628
2029	154,744	107,394	53,375	160,769	5.69	17,067	17,067	0	177,836
2030	153,939	106,835	53,242	160,078	5.7	16,970	16,970	0	177,048
2031	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2032	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2033	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2034	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2035	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2036	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2037	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2038	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2039	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2040	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263
2041	153,139	106,280	53,111	159,390	5.7	16,873	16,873	0	176,263

Source(s) of Information: Ohio Development Services Agency, Portage County Annual Report, Ohio Environmental Agency Annual Report.



Historically, the District’s residential/commercial generation fluctuated. The District expects that with a decreasing population the waste generation will also decrease minimally. The District provides strong recycling programs with ample opportunities for residents to recycle. This is not expected to change during the planning period. As such, the District believes its diversion tonnages will remain relatively flat throughout the planning period despite the decreasing population. Residential/commercial per capita generation is expected to decrease to 5.70 PPD from the 5.77 PPD reported in 2022. All projections flatline after the sixth year of the planning period.

**C. Waste Composition**

**Composition of Residential/Commercial Waste**

Table G-3 represents an estimate of each material based upon the waste generation.

**Table G-3 Composition of Residential/Commercial Waste**

Material	Percent of Total Generation	2022	2023	2024	2025	2026	2027	2028	2029	2030
Paper and Paperboard	23.10%	39,045	38,115	37,951	37,787	37,624	37,462	37,300	37,140	36,980
Glass	4.20%	7,099	6,930	6,900	6,870	6,841	6,811	6,782	6,753	6,724
Ferrous	6.60%	11,156	10,890	10,843	10,796	10,750	10,703	10,657	10,611	10,566
Aluminum	1.30%	2,197	2,145	2,136	2,127	2,117	2,108	2,099	2,090	2,081
Other Nonferrous	0.90%	1,521	1,485	1,479	1,472	1,466	1,460	1,453	1,447	1,441
Plastics	12.20%	20,621	20,130	20,043	19,957	19,871	19,785	19,700	19,615	19,531
Rubber and Leather	3.10%	5,240	5,115	5,093	5,071	5,049	5,027	5,006	4,984	4,963
Textiles	5.80%	9,803	9,570	9,529	9,488	9,447	9,406	9,365	9,325	9,285
Wood	6.20%	10,480	10,230	10,186	10,142	10,098	10,055	10,011	9,968	9,925
Other	1.50%	2,535	2,475	2,464	2,454	2,443	2,433	2,422	2,412	2,401
Food	21.60%	36,509	35,640	35,486	35,333	35,181	35,029	34,878	34,728	34,579
Yard Trimmings	12.10%	20,452	19,965	19,879	19,793	19,708	19,623	19,538	19,454	19,371
Misc inorganic wastes	1.40%	2,366	2,310	2,300	2,290	2,280	2,270	2,261	2,251	2,241
<b>R/C waste generated</b>		<b>169,003</b>	<b>164,989</b>	<b>164,278</b>	<b>163,569</b>	<b>162,863</b>	<b>162,161</b>	<b>161,463</b>	<b>160,769</b>	<b>160,078</b>

Material	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Paper and Paperboard	36,822	36,822	36,822	36,822	36,822	36,822	36,822	36,822	36,822	36,822	36,822
Glass	6,695	6,695	6,695	6,695	6,695	6,695	6,695	6,695	6,695	6,695	6,695
Ferrous	10,520	10,520	10,520	10,520	10,520	10,520	10,520	10,520	10,520	10,520	10,520
Aluminum	2,072	2,072	2,072	2,072	2,072	2,072	2,072	2,072	2,072	2,072	2,072
Other Nonferrous	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,435
Plastics	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447	19,447

Material	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Rubber and Leather	4,941	4,941	4,941	4,941	4,941	4,941	4,941	4,941	4,941	4,941	4,941
Textiles	9,245	9,245	9,245	9,245	9,245	9,245	9,245	9,245	9,245	9,245	9,245
Wood	9,883	9,883	9,883	9,883	9,883	9,883	9,883	9,883	9,883	9,883	9,883
Other	2,391	2,391	2,391	2,391	2,391	2,391	2,391	2,391	2,391	2,391	2,391
Food	34,431	34,431	34,431	34,431	34,431	34,431	34,431	34,431	34,431	34,431	34,431
Yard Trimmings	19,288	19,288	19,288	19,288	19,288	19,288	19,288	19,288	19,288	19,288	19,288
Misc inorganic wastes	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232
R/C waste generated	159,390	159,390	159,390	159,390	159,390	159,390	159,390	159,390	159,390	159,390	159,390

Source(s) of Information: From Advancing Sustainable Materials Management: 2018 Tables and Figures Assessing Trends in Materials Generation and Management in the United States December 2020

# APPENDIX H STRATEGIC EVALUATION

Thirteen strategic analysis help evaluate the effectiveness of the District's programs. The District set the following priorities:

- Maintain the level of staff and infrastructure,
- Provide education and awareness for available resources,
- Look for new ways to divert waste from landfills, and
- Complete the Debris Management Plan.

## 1. Residential Recycling Infrastructure Analysis

Portage County has a strong residential recycling program. The District and the private sector share curbside single-stream recycling collection. The Portage County Solid Waste District is a rare District that offers this service, though some municipalities use other haulers such as Rumpke or Kimble. In Portage County, this service is typically offered only by private haulers with service contracts for non-subscription trash contracts in those communities. This infrastructure is important to help divert material from the landfill. The Solid Waste District offers drop-off collection, special collections, CHaRM (Center for Hard to Recycle Material) hours, prescription drug take-back collection boxes, and reuse centers.

### Curbside Analysis

Curbside is provided to 82% of Portage County by non-subscription service. This recycling service is provided to all four cities, multiple townships, and two villages. Private haulers are currently providing service to 3 of the 4 cities along with 2 villages and 1 township. The remaining 10 communities are serviced by the District. This service is provided by automated side load trucks. These routes are every other week service and recycling carts are provided. Educational efforts drastically reduced contamination in curbside collection. This contamination level is 9.7%, way lower than the national average. This has been done through cart tags, oops stickers, website and social media, mailers and District staff education events. The new District trucks display what items are recyclable in the cart and match the website and social media pages. Pick up day calendars are available on the District website and are mailed out if requested. Additional carts are available at no additional cost to promote diversion.

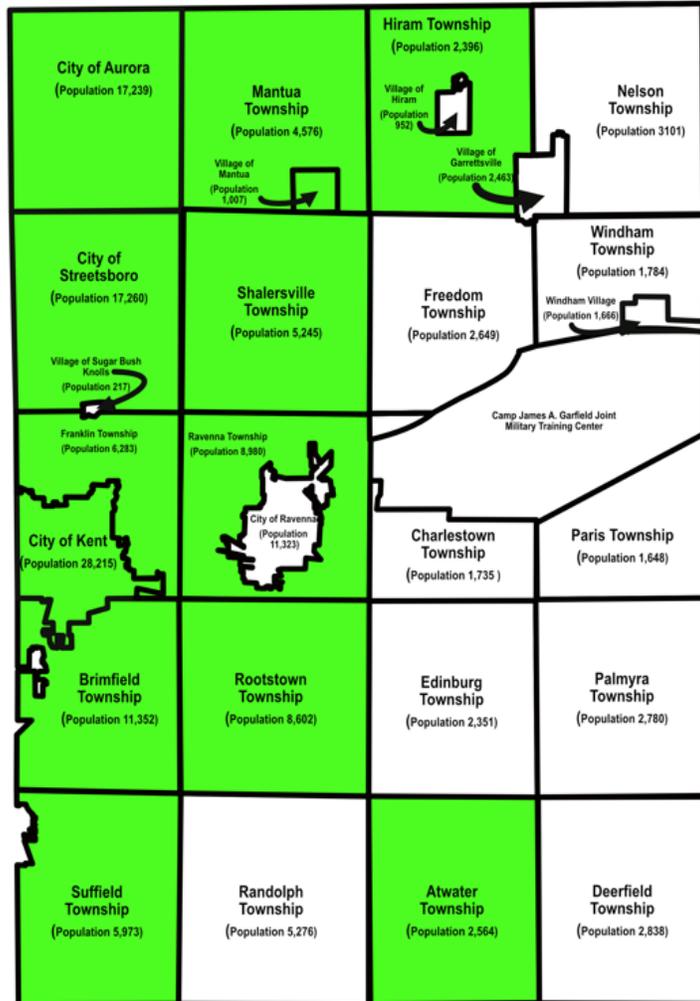


The table below shows the distribution of the curbside services across Portage County and the municipalities that are serviced by the District.

Municipality	2022 population
City of Aurora	17,528
Atwater Township *	2,567
Brimfield Township *	11,388
Franklin Township *	6,306
Hiram Township	2,405
Village of Hiram Township	979
City of Kent	27,147
Mantua Township *	4,591
Mantua Village	1,007
Ravenna City & Township *	20,296
Rootstown Township *	8,638
Shalersville Township *	5,261
City of Streetsboro	17,720
Suffield Township *	5,993
<b>Totals</b>	<b>131,826</b>

- \* Indicates serviced by the District owned trucks.

The map below shows the distribution of curbside recycling collection in Portage County



Areas in green are serviced by curbside recycling collection.

**PORTAGE COUNTY SOLID WASTE  
MANAGEMENT DISTRICT  
CURBSIDE COLLECTION**

- Green indicates curbside collection in Portage County.

If curbside is not utilized, then drop-off is always available to Portage County residents. Private haulers have historically bid on recycling if trash is non-subscription only. The bid determines the size of the container, frequency of collection, and cost. The Portage County Solid Waste management District has standardized collection of recyclables. This standardization includes every other week service at a rate of \$5.50 per month. Residents are delivered a 95-gallon cart and can request an additional one or a smaller one if needed. If there is additional material, cardboard can be broken down next to the cart and then reloaded in the cart and emptied again. Cardboard, newspaper, magazines, plastic bottles, jugs, tubs, glass bottles, glass jars, metal cans, and steel cans are all accepted curbside.



In 2022, the District recycled 7,330 tons of commingled materials from its communities' curbside recycling programs. 14 municipalities had non-subscription curbside recycling programs in the reference year. There were no subscription curbside recycling programs. Recycling collected curbside in the District is a single stream. Multi-family is not clearly defined in Portage, however, if picked up by the District program, Portage County will supply a cart for all residents with three units or less. This includes condo associations and mobile home parks. If no service is provided, then drop-off locations are available.

The District's largest municipality, the City of Kent, does have a curbside recycling program. Historically, this program collects roughly 1,000 tons of recycling annually. Throughout Ohio SWMD's, the largest municipality, often has non-subscription recycling. **Table H-1.1** below benchmarks similar-sized districts and recycling services in the largest municipalities.

**Table H-1.1 Comparison of Similar-Sized District's Largest Municipalities**

District	Largest Populated Municipality	Population	Recycling Tons Collected	Lbs./Person/Day Collected	Type of Curbside	Service Provider
Medina	Brunswick	35,340	2,284	0.35	NSC	Republic
Portage	Kent	27,147	981	0.20	NSC	Portage SWMD
Miami	Troy	26,432	2,064	0.43	NSC	Rumpke

Note: Data used is from the most recent Solid Waste Management Plan Updates

NSC = Non-subscription

SC = Subscription

To best compare the municipalities, the District normalized the tonnages collected by population to get a pounds per person per day (PPD) value. As shown, the PPD of the cities ranges from 0.25 to 0.43. The lowest PPD is Kent with 0.20 PPD collected from its non-subscription curbside service. The highest in the comparison is Troy, with 0.43 PPD collected from its non-subscription curbside service. All three programs are similar in how they are operated with a contracted private service provider servicing the cities. The District focused on contamination in 2021 and 2022 and moved to every other week service. This could be why tonnage is reported lower.

The curbside programs in Portage County generate a sizeable portion of recycling for the District. District educational efforts and in some cases direct management/service year-round help to ensure consistency in materials collected. The curbside collection system is well-established and widely accepted in both rural and urban areas. The cost to provide this service has been rising. In the

reference year, the District spent approximately \$2.1 million on recycling activities. However, this does include the drop-off program as well.

### Drop off Analysis

The default population count is used when evaluating the drop-off site for population access rate. The Ohio Environmental Protection Agency allows 2,500 per rural drop-off and 5,000 per urban drop-off site. This accounts for 10% of the District's residential recycling access. In addition to curbside recycling, the district has seven single-stream drop-off community programs. In 2021, the District had 11 drop-off sites for residential access, however, the value of recyclable material plummeted, and the drop-offs were filled with contamination. Dramatic rate increases were being considered and Freedom, Deerfield, Garrettsville, and Windham Townships had the containers removed. These areas border a community with drop-offs or can use the District recycling center drop-off.

The District uses its own collection truck and picks up from these sites to transport the material to a material recovery center. Cardboard, newspaper, magazines, plastic bottles, jugs, tubs, glass bottles, glass jars, metal cans, and steel cans are all accepted at the drop-off sites. By the end of 2021, the contamination rate dropped from over 20% to under 14%. These containers were repaired, repainted, and relabeled. A total of forty dumpsters are available for single-stream recycling drop-off. The drop-offs are in Charlestown, Edinburg, Nelson, Palmyra, Paris, Randolph, and Brimfield. The seven sites are emptied every Monday, Wednesday, and Friday. These sites pay \$400 a container per year and allow the District to access additional communities that may not have curbside recycling. The District increases pickups during November through January.

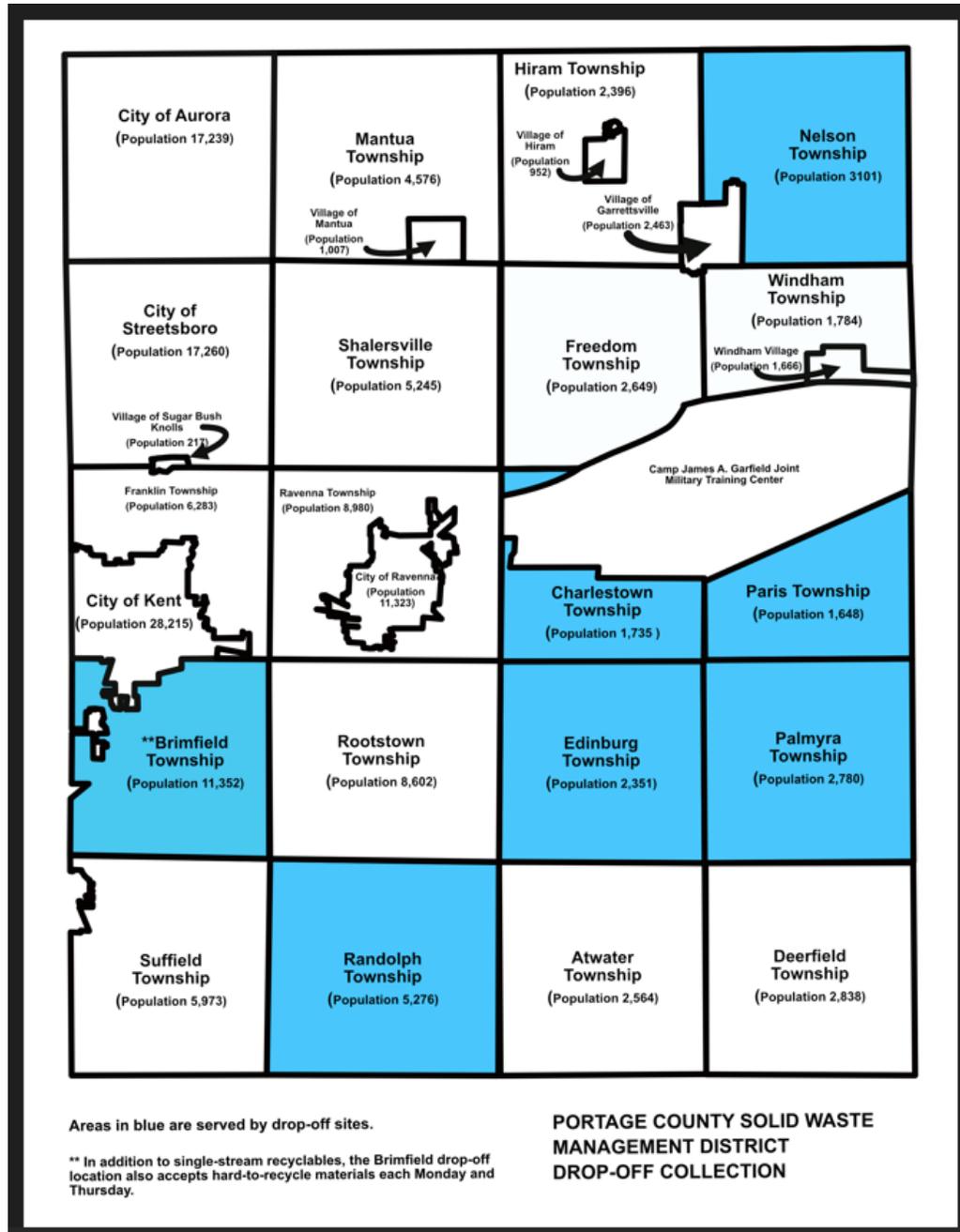
In September of 2023, The Center for Hard to Recycle Material (CHaRM) opened in the District recycling center in Brimfield Township. Residents of Portage County can drop off tires, appliances (including freon), and electronics, and have their documents shredded weekly on Mondays and Thursdays. On top of these services, there are single-stream drop-off containers for residents to use.

#### Drop off Municipality and 2022 Population

Edinburg Township	2,364
Nelson Township	3,110
Palmyra	2,790
Paris Township	1,654
Randolph Township	5,305
*Brimfield Township	11,388
Charlestown Township	1,748

By providing hauling services, the District has better control of drop-off costs. The cost of processing the material varies along with the market value. Illegal dumping does occur, and cameras are helpful. The District and townships work together to combat the problem. The picture below presents the new updated drop-off bins compared to the old drop-off bins.





As can be seen above, the District strategically worked with communities and townships to offer drop-off recycling bins in areas that do not have curbside recycling.

### Conclusion

The District demonstrated a 30% residential/commercial diversion rate in 2022, which exceeds Goal 2's requirement of 25%. Approximately 16% of all residential commercial diversion tonnages stem from either the drop-off or curbside programs throughout the District. To prevent double counting, these tonnages are included in commercial survey data in Appendix E. Contamination remains an issue, especially at drop-off locations. However, the District has seen improvements in the

contamination levels as a result of its education, outreach, and new/updated signage. The District intends to maintain its current level of access throughout the next planning period. As a whole, Portage County has an access rate of 92% for residential recycling.

## 2. Commercial and Institutional Sector Analysis

Businesses in Portage County can set up recycling accounts with private haulers for a fee or can utilize the drop-off recycling sites for no cost. Three large haulers reported significant tonnages for commercial recycling during the reference year. The District has an established relationship with haulers and processors. This helps with data and reporting.

There are three colleges in Portage County. All three programs have recycling programs and support sustainability on campus. Kent State University received an Encouraging Environment Excellence award in 2023. Kent State and Hiram College have composting programs. Kent State University, the largest university in Portage County, bids out trash and recycling together. They also challenge students with a Recyclemania contest annually and host three days of electronics recycling.

501C's are now able to bring plastic film and bags to the Portage County Solid Waste District as the District is a location drop-off for the NexTrex Challenge. This will enable non-profits to receive a plastic composite bench. This diverted 13.11 tons in 2023.

The District participates in events at the local fair. This material is then directly hauled to WM for processing.

Shredding event days are open to all government and non-profits during CHaRM hours.

In 2019, there were multiple mixed paper recycling boxes scattered throughout Portage County. There are fewer now due to a shortage of drivers, the cost of transportation, and containers not being emptied. The cost to provide the service has cost more than the rebate. There has also been a change in ownership in some local paper companies. However, there are still a few throughout Portage County that receive credit for recycling paper. There were 58 tons recycled by these containers in 2022, but they were not reported on the annual district report as it was not received in time.

AURORA HIGH SCHOOL	AURORA
CITY OF STREETSBORO	STREETSBORO
CRADDOCK ELEMENTARY SCHOOL	AURORA
GARDENS OF WESTERN RESERVE - STREETSBORO	STREETSBORO
LEIGHTON ELEMENTARY SCHOOL	AURORA
LONGCOY ELEMENTARY	KENT
NEOMED	ROOTSTOWN
NEW HOPE BAPTIST CHURCH	WINDHAM
PORTAGE SURGICAL ASSOCIATES, INC	RAVENNA
RENAISSANCE FAMILY CENTER	WINDHAM
ROOSEVELT HIGH SCHOOL - KENT	KENT

STANTON MIDDLE SCHOOL	KENT
SWAGELOK	RAVENNA
WINDHAM EX VILLAGE SCHOOLS	WINDHAM

### Conclusion

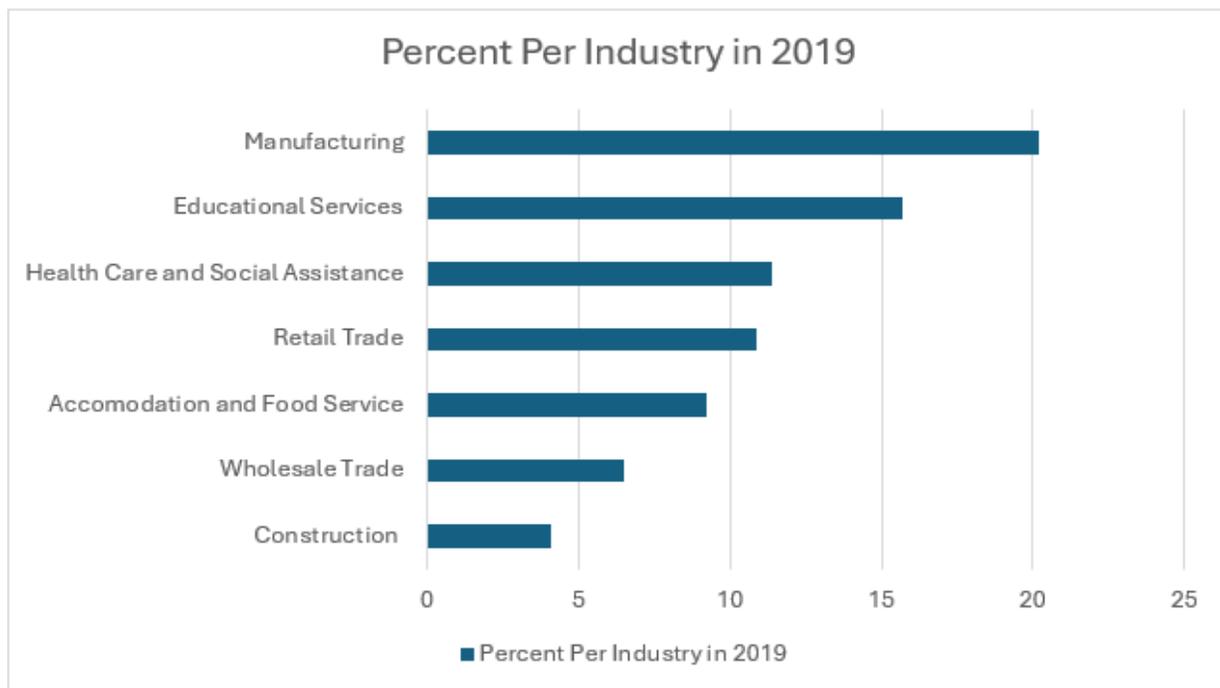
Tonnage reporting has been consistent for commercial recycling. The industrial tonnage will continue to be included in this data. Things to consider improving on.

- 1- Offering educational information to schools.
- 2- Try to survey different types of businesses than previously done.
- 3- Promote food compost to schools and businesses
- 4- The county provides waste analysis and technical assistance when requested.

### 3. Industrial Sector Analysis

This evaluation of the industrial sector determines if there is adequate support for existing programs to serve this sector and to determine if additional programs are needed in Portage County to support industrial manufacturing.

Manufacturing accounts for approximately 20 percent and employs over 13,000 people. There are 268 manufacturing establishments and 335 construction establishments. This contributes 12,000 of the 13,000.



Ohio Department of Job and Family Services Office of Workforce Development. "Ohio Economic Profile Portage County". July 2021. 2021 reports publish 2019 data as the most recently analyzed data.

Industrial companies handle their own generated waste. In the reference year 2022, 17,764 tons were landfilled. Industrial surveys are typically nonresponsive.

**Conclusions**

The District could help with connecting industrial businesses to help determine if there are better opportunities for material management.

**4. Residential/Commercial Waste Composition Analysis**

Yard waste makes up the largest percentage of diverted material. Communities are adding residential pick-up programs and some drop-off locations. Additionally, there is a yard waste program that was established in 2023 at the District for communities that do not have access to one. In the reference year, a larger amount of yard waste was recovered. The largest city in the county, Kent, has a chipping and grinding operation that was not previously reported. Kent State and Hiram Campus have food composting on-site. The District added food composting to the drop-off site and Rubber City Reuse picks this up once a week. This is open to businesses and residents for use.

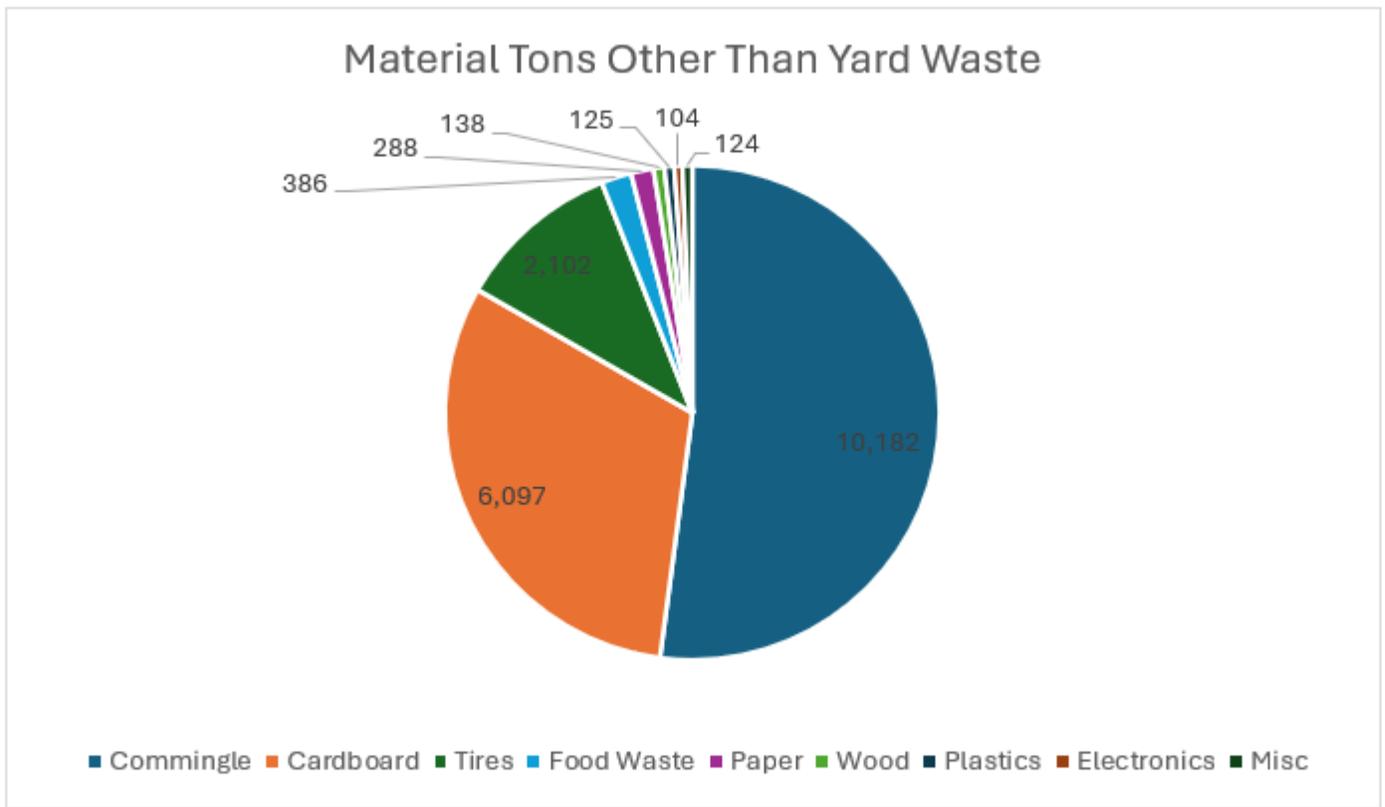
Single-stream recycling is the next largest recovered material. This can be attributed to the 92% access rate for single-stream residential recycling as well as commercial business recycling. The third largest material recovered is cardboard. There is a large difference between material recovered when it is picked up at the curb and when it is dropped off. Below will show a composition analysis of Portage County Material from September 2022 for curbside and drop off, both are picked up by the District.

2022 curbside	
Residential Single Stream	
Materials	Composition %
UBC	3.15%
STEEL CANS	1.55%
#1 PET	6.61%
#2 HDPE Natural	1.70%
#2 HDPE Color	1.20%
#3-7 Plastic	1.52%
Mixed Glass	18.20%
Mixed Paper	41.17%
OCC	15.21%

2022 drop off

Drop Off Single Stream	
Materials	Compositio
UBC	1.38%
STEEL CANS	2.23%
#1 PET	4.29%
#2 HDPE Natural	1.47%
#2 HDPE Color	1.38%
#3-7 Plastic	4.50%
Mixed Glass	8.81%
Mixed Paper	22.68%
OCC	27.76%

Finally, below is a graph of the overall material other than yard waste recovered in Portage County.



**Conclusions**

- 1-The District is considering programs to develop more food composting opportunities.
- 2- Education needs to be distributed regarding landfill usage on food waste.

- 3- Target schools and business cafeterias for food diversion.
- 4- Encourage the use of the District drop off for food waste.

## **5. Economic Incentive Analysis**

There are many communities with Volume-based (PAYT) Pay-As-You-Throw programs. These programs encourage residents to recycle more and throw away less.

The District helps incentivize the PAYT programs by diverting Hard to Recycle Material through the county's new CHaRM program. This program will help divert large items including appliances (including freon), Electronics, tires, scrap metal, and other miscellaneous items that would incur additional charges.

Portage County Solid Waste provides walk-up/carry-up service free of charge with application and documentation from a provider with medical necessity, an additional cart is provided at no additional cost if needed, and extra recycling is picked up and reloaded, and the cart is emptied again.

The District also hosted tire, electronic and latex paint events in multiple communities to reduce costs to residents and municipalities.

## **Conclusions**

The Solid Waste District participates in numerous events throughout the County every year. These events help reduce waste costs. The CHaRM and Household Hazardous Waste will continue to provide additional outlets to encourage waste reduction. The District will continue to look for new ways to help provide education and additional resources for economic incentives.

## **6. Restricted and Difficult to Manage Waste Streams Analysis**

Goal 6 of the 2020 State Plan requires solid waste management districts to provide strategies for managing materials that are difficult to dispose of such as scrap tires, yard waste, lead-acid batteries, household hazardous waste, and obsolete/ end-of-life electronic devices. This analysis evaluates the District's strategies and considers other materials and programs for hard-to-manage waste.

### **A. Evaluation**

Since the last Solid Waste Plan, the solid waste disposal options needed to be made available for hard-to-recycle material. This issue was brought front and center when large storms hit the area and there was no place to take yard waste. Portage County Solid Waste has since focused on providing services for residents to manage their hard-to-manage materials. In 2023, the District launched its new Center for Hard to Recycle Material (CHaRM) at the Recycling Center. One of the service offerings is a drop-off for yard waste collecting branches, twigs, sticks, leaves, etc. Yard waste is collected in a 30-yard dumpster and taken to Brimfield Aggregate.

**CHaRM Hours:**  
**Monday & Thursday 10-2**  
**First Monday of the Month 10-6**  
**(excluding federal holidays)**



Latex paint, cooking oil, electronics, scrap tires, appliances with freon, and paper shredding are accepted at the CHaRM facility which is open on Mondays and Thursdays. Household Hazardous Waste including acids, adhesives, aerosol cans fluorescent lights, fuel, herbicides, pesticides, insecticides, fertilizers, household cleaners, mercury, oil-based paint, motor oil, transmission oil, antifreeze, car batteries, scrap metal, pool chemicals, solvents are also available to be dropped off by residents at the facility. Other new materials encouraged to be dropped off include plastic bags, plastic film, U.S. Flags, and food waste. This is a priority program for the District to continue to provide to its residents through the planning period.

Since the opening of the CHaRM Facility, the District has seen greatly increased volumes and participation from residents. The CHaRM center is open for residents of Portage County only. The District does require a valid ID for all residents using the facility. However, the District believes residents from other neighboring counties are coming to the facility with a Portage County resident, causing increased tonnages and presenting challenges to manage such large quantities and demand. The addition of 24/7 drop-off bins located outside the facility for plastic bags/film, yard waste, U.S. Flags, used motor oil, and lead-acid batteries has been well received by residents. These alleviate some of the demand issues presenting challenges for the District historically.

# CHaRM

## COLLECTION GUIDELINES

- Portage County Residents ONLY
- ID Required
- NO BUSINESSES
- NO SMOKING
- Drive in, follow instructions and **stay in your vehicle.**
- Payments can be made by **cash or check ONLY**
- Electronics (TV's, CRT monitors and printers) make checks to **Greenboard IT**
- Tires make checks to **Portage County Solid Waste Management District**

CHaRM services are guided by state law and this is not a trash service.



All prices & dates hours are subject to change.  
 \*Also available at the drop-off 24/7

## ACCEPTABLE MATERIALS

### APPLIANCES

- PORTABLE/WINDOW AC UNITS
- COOKTOPS
- MICROWAVES
- DISHWASHERS
- RANGES/STOVES
- WASHER/DRYERS
- REFRIGERATORS
- FREEZERS
- WALL OVENS
- ICE MAKERS
- DEHUMIDIFIERS



### ELECTRONICS

- 20" TV'S & CRT Monitors
- \$10 Printers (cash/check Greenboard IT)

NO charge for all other electronics, see list below for acceptable items:

- CELL PHONES
- STEREOS
- VCR/DVD PLAYERS
- ROUTERS
- PC'S
- LAPTOPS
- PHONES
- SCANNERS
- LCD MONITORS
- KEYBOARDS
- PAPER SHREDDERS
- UPS
- HARD DRIVES
- SERVERS
- NETWORKING EQUIPMENT
- MP3 PLAYERS
- CAMERAS
- GAME CONSOLES & ACCESSORIES
- UNUSED PRINTER CARTRIDGES & TONER



### PAPER SHREDDING

Remove all paper clips, binder clips, rubber bands, folders and any kind of binding

## SCRAP TIRES

Passenger tires only - \$0.50 per tire (cash/check)

LIMIT 10 tires per household per year  
 ALL tires MUST be clean, Tires with rims accepted

NOTE: By Ohio law anyone transporting more than 10 tires on one load must possess an Ohio Transporter's license.

Funded partially by Ohio EPA

## AUTOMOTIVE\*

Motor Oil, Antifreeze and Transmission Fluid, MUST be in CLEARLY marked container with lid



## BATTERIES

Lead Acid (car batteries\*) and household batteries (AA, AAA, C, etc) -TAPE ends of batteries



## SCRAP METAL\*

Ferrous and non-ferrous metals including wires, pipes, motors, parts etc.



## COOKING OIL\*

Must be in a CLEARLY marked container with lid



## PLASTIC BAGS\*

Plastic bags, film, ice bags, bubble wrap, etc.



## HOUSEHOLD HAZARDOUS WASTE

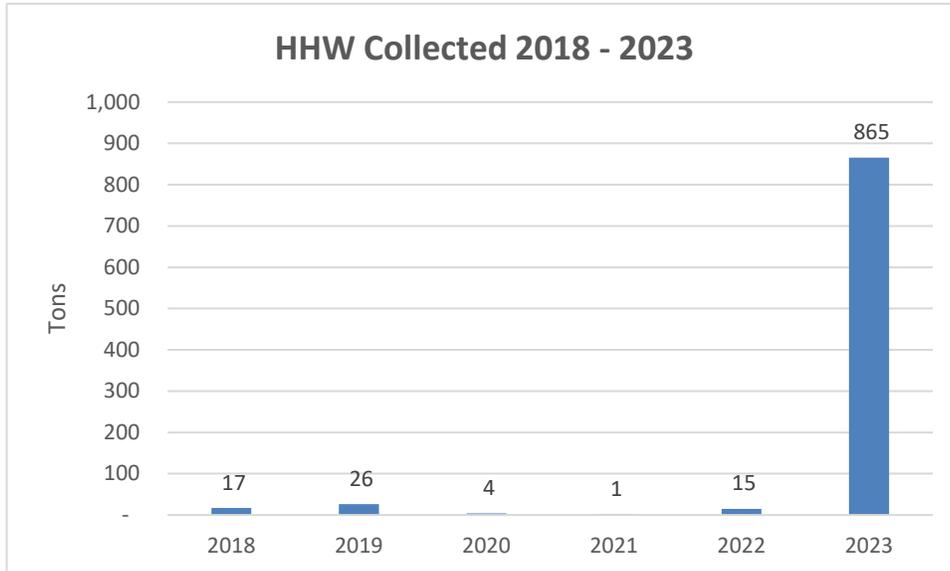
1st Monday of the Month from 2:00 to 6:00, visit portagerecycles.com or call us for details, 330.678.8808



## Household Hazardous Waste:

Household hazardous waste (HHW) are materials that may be generated in the home and if handled improperly may cause pollution and safety risks. HHW includes used oil, gasoline, diesel, heating oil, kerosene, household batteries, lead-acid batteries, pesticides, paint and paint thinners, mercury-containing devices, lights/light bulbs, and electronics.

In the Fall of 2022, a Household Hazardous Waste event was held by the District, collecting 5 tons of HHW. Separate from the HHW collection events, the District also hosts a latex paint collection on Earth Day. It has also been added to the acceptable materials on HCHW days at the facility. Collected paint is sent to American Paint.



Note: Totals include latex paint, used motor oil, and antifreeze which are tracked separately.

The cost per ton for SWMDs varies greatly by district along with the services offered. There are a variety of methods to manage HHW such as single-day events, collection trailers, seasonal collection, and year-round collection at a facility intended to provide such diversion opportunities. One consistency shared among all districts is the cost to manage HHW is almost always higher per ton than other materials. Further, many districts are challenged with offering readily available services to collect HHW. There are a few districts such as Portage, Lorain, Clark, Geauga-Trumbull, and Logan that offer collection at designated facilities. Offering year-round, convenient diversion opportunities for residents. To better understand how the District’s program compares, an analysis and benchmarking were conducted between other districts with permanent collection facilities.

**Table H-6.1 HHW Benchmark Cost and Tons 2022**

District	Service Provided	Total Cost	Population	Cost/Person	Tons	Cost/Ton	Per Pound Fee
Portage	Permanent Collection Center	Data not Available*	160,451	Data not Available	15	Data not Available	None
Clark	Permanent Collection Center	\$20,599	135,633	\$0.15	5.7	\$3,614	\$1
Gauga-Trumbull	Permanent Collection Center	\$75,420	295,550	\$0.26	77.1	\$978	None
Lorain	Permanent Collection Center	\$229,336	322,445	\$0.71	258.34	\$888	None
Logan	Permanent Collection Center	\$31,014	45,361	\$0.68	52.3	\$593	\$0.25

\* The District does not track expenses by individual material category. It is included in the special collections line item and could not be accurately separated

Sources: Annual District Reports 2022, most recent Solid Waste Management Plans, District websites.

All benchmarked districts have permanent collection centers. However, there are differences in things such as acceptable materials, fees, and systems for collection. For example, some facilities charge a per-pound fee to dispose of HHW whereas others do not. Furthermore, some facilities such as one of Geauga-Trumbull's two facilities are only open during certain months or certain days and others may be open year-round. The many differences between the benchmarked districts make comparing the five difficult. To normalize all compared facilities, two factors were calculated, cost per ton and cost per person.

Of the available data, Logan County has the lowest cost per ton to manage HHW at roughly \$593 and Clark County has the highest at over \$3,500. Interestingly, these facilities are the only two facilities that charge a fee for HHW among the benchmarks. Clark County's \$1 per pound HHW fee may be a factor in their relatively lower HHW collection tonnages. Lorain County spent the most on its HHW management in 2022, over double the next highest district. It has collected the most HHW from its residents, with over 250 tons of HHW in 2022.

The two highest collecting Districts for HHW were Lorain and Geauga-Trumbull. Both Districts offer a wide range of acceptable materials for residents to drop off free of charge. Furthermore, both facilities are open year-round and accept HHW at least two days a week. The convenience and availability of both facilities' HHW programs provide residents with plenty of opportunities to dispose of their HHW throughout the year.

In 2023, the District began expanding its HHW program, adding long-term collection of HHW and providing residents with 24/7 drop-off for certain HHW materials like motor oil. On the first Monday of the month, a contracted third party shows up and accepts HHW for 4 hours free of charge. The combination of the drop-offs and expanded HHW acceptance resulted in a large increase in HHW diversion for 2023 to 865 tons. A majority of this comes from used motor oil.

The CHaRM facility and the HHW program it supports have proven to be an efficient method of managing HHW, offering a readily available, centralized location for residents to utilize. Since the opening of the facility, the District has seen very large increases in HHW diversion primarily from used motor oil. The District anticipates the 2023 levels of diversion will continue through the planning period as the program continues to evolve. Providing residents with services to manage HHW is a top priority for the District moving forward. The District plans to continue to utilize its CHaRM facility and look for ways to improve the existing program.

### Scrap Tires

Ohio EPA estimates more than 12 million scrap tires are generated in Ohio annually. Scrap tires not properly disposed of have the potential to end up in illegal dumps, creating hazards to public health and the environment. To prevent illegal dumping of tires and offer an avenue for residents to properly dispose of used tires, the District hosts scrap tire events when funds permit. In recent years the District has not had the funding to provide scrap tire events. The District also accepts scrap tires from political subdivision's road departments. Beginning in 2023, the District added scrap tires to the acceptable list at its CHaRM Facility. Acceptable tires must be passenger vehicle tires and the maximum per household is 10 per year. The District charges \$.50 per tire.



Diversion numbers have significantly decreased since 2019 due to the lack of collection events. 2020 through 2023 tonnages are only reflective of tires accepted the the CHaRM Facility and from political jurisdictions since no events were held due to a lack of funding.

Managing scrap tires presents districts across Ohio with challenges. Much like HHW, scrap tires are expensive to manage and are plentiful. In many districts, one-day collection events are common but there are other methods of managing scrap tires such as permanent collection facilities, sponsoring community cleanups, and having multiple collection events in a year. For comparison, the District analyzed four other SWMDs to explore other methods of managing scrap tires. Table H-6.2 below compares the Districts.

**Table H-6.2 Scrap Tire Benchmark Cost and Tons 2022**

District	Method of Management	Tons Collected	Cost	Cost per ton
Portage	Collection Event*	20	Data Not Available	Data Not Available
Lorain	Multiple Collection Sites & Amnesty Event	242	\$84,565	\$349
Clark	Year-round collection at Specialty Recycling Center	41	\$6,893	\$168
Montgomery	Multiple events, year-round collection at Transfer Facility	753	\$141,142	\$187
Ashtabula**	Yearly Amnesty Event with grant funds	70	\$15,898	\$228

\* As of 2023, Portage's CHaRM Facility accepts scrap tires.

\*\* No grant funds were obtained in 2022, therefore 2021 numbers were used.

Sources: Annual District Reports 2022, most recent Solid Waste Management Plans, District websites.

Of the compared Districts, Montgomery has the strongest scrap tire collection program. This district holds multiple events each year as well as offers residents year-round access to the transfer facility

which accepts scrap tires. Residents are allowed to bring up to 10 scrap tires to the transfer facility per year at no charge. The district collected 753 tons of scrap tires at a cost of around \$187 per ton. This was also the most expensive program benchmarked, costing almost twice as much in 2022 as the next highest.

Another strong scrap tire program is found in Lorain County. Here, this district has multiple collection points. The largest is the Lorain County Collection Center but in 2022 there were also two other collection sites. Due to the cost of managing scrap tires, this district plans to transfer the smaller collection sites to local businesses and solely manage the collection center site. Lorain also hosts an agricultural tire event where larger tires from farming equipment can be properly disposed of. A total of 242 tons were collected at a cost of \$349 per ton, the highest of the benchmarked programs.

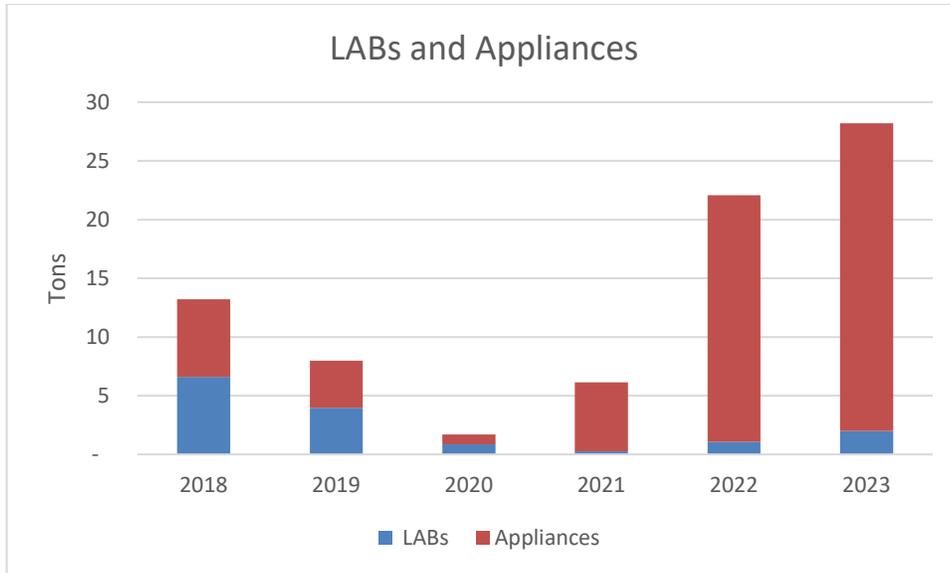
Clark and Ashtabula Counties have the two lowest expenses of the benchmarked programs. Ashtabula offers tire amnesty events when grant funding is available. The first four tires per vehicle are free of charge, any other tires are \$1 per tire up to a maximum of ten tires. Clark County on the other hand offers tire disposal at their Specialty Recycling Center for \$0.10 per pound. Also accepted are scrap tires that are illegally dumped and then collected by political jurisdictions.

### Electronics

Electronics contain hazardous materials that can pose health and environmental risks after disposal. The preferred method of handling is through the donation of working electronics and recycling of nonworking electronics. The District accepts a wide range of electronics at the CHaRM Facilities including TVs, CPUs, keyboards and mice, monitors, printers, scanners, copiers, and most other electronics. TVs and monitors cost \$20 to drop off and printers cost \$10. All other materials are free of charge. In 2022, the District collected 13 tons of electronics. From 2018 to 2023, the District received an average of 19 tons of electronics at the CHaRM Facility.

### Lead-acid batteries (LABs) and Appliances

Historically, the District collected LABs and appliances together until 2022 when separate drop-off boxes were placed outside the CHaRM Facility. The District continues to accept LABs and appliances containing freon. The District has staff certified to remove freon from appliances that are dropped off at the facility. The metal from appliances gets collected as scrap metal and sent to processors for recycling. Residents can utilize the drop-off boxes or bring these materials to the facility during normal CHaRM hours.



Note: 2018 – 2020 tonnages were not tracked separately and are split evenly between the two materials.

With the expanded opportunities to divert appliances beginning in 2022, the District has seen growth in the tonnage of scrap metal derived from appliances. The District also accepts general scrap metal including wires, pipes, motors, and more but is unable to individually track these totals.

### Yard Waste and Organics

As can be seen in Appendix E, yard waste encompasses a sizeable portion of the District's diversion. The District relies on primarily Ohio EPA reports to gather diversion data. However, in 2022 the District was able to gather cubic yards of yard waste, brush, and leaves collected from Kent which provided a boost to this material stream. While many communities or private businesses offer diversion outlets for this material, as of 2022 the District does accept yard waste at the CHaRM Facility in a 30 cubic yard bin. 61 tons of yard waste were collected at this drop-off.

As of 2023, the District added a compost drop-off bin at the CHaRM facility and was able to collect roughly one ton of food waste.

The District also hosts holiday or other special occasion collection events throughout the year. These include Christmas tree recycling and pumpkin recycling.



## Other Materials

Portage County Solid Waste Management District purchased prescription drug boxes to dispose of prescription drugs safely and quickly. This also helps to protect overdose, water supply, and our environment. The disposing of these prescriptions is made available through our law enforcement program. The locations of these boxes are listed below.

Aurora Police Dept 100 S. Aurora Rd.  
Brimfield Police Dept 1287 Tallmadge.  
Hiram Police Dept 11617 Garfield Rd  
Kent City Police 301 S. Depeyster St.  
Kent State Police Dept 530 E Summit St.  
Portage County Sheriff's Office 8240 Infirmary Rd.  
Ravenna Police Dept 220 Park Way.  
Streetsboro Police Dept 2080 St Rt 303.

Another disposal option is available at University Hospitals Portage Medical Center located at 6847 North Chestnut Street, Ravenna, Ohio 44266. Drug Take Back Day is promoted annually.

## **Conclusion**

Providing residents with the opportunity to safely dispose of hard-to-manage materials is a high priority for the District. The District's CHaRM Facility provides a centralized location for Portage County residents to drop off hard-to-manage waste during normal operating hours, at collection events, or the various drop-off bins on site. Due to the abundant opportunities, a majority of the District's hard-to-manage waste streams get collected and managed at the CHaRM Facility with the exception of yard waste. Yard waste is mainly managed decentrally by municipalities or by private businesses.

The District has an extensive list of acceptable materials posted on its website as well as PDF brochures for special events, directions, and pictures. The District has a well-organized system at its facility and can track most individual material tonnages. The District can provide outlets for these materials for free with the exception of TVs, monitors, and scrap tires. These materials have small fees associated with their disposal paid by the resident. The District contracts with a variety of private businesses to collect these materials from the CHaRM Facility. This program has proven to be an effective method for recovering restricted and hard-to-manage materials.

The District will continue to look for additional material to add to the diversion programs for CHaRM and the drop-off. It will be the intent to focus on staffing and ensuring these programs are maintained. The District will also focus on education regarding what is acceptable.

One avenue the District wishes to explore during this planning period is to develop a "re-use" center at the CHaRM Facility. Often, residents drop-off functional appliances, electronics, and even unopened, unexpired hard to recycle materials. The District will explore adding to the drop-off location and making it more of a resource recovery park. Items of interest to explore are as follows:

- Window cleaner

- Car products
- Caulks
- Cleaners
- Fertilizers
- Paints, sealers, stains
- Pesticides
- Appliances, furniture, and electronics

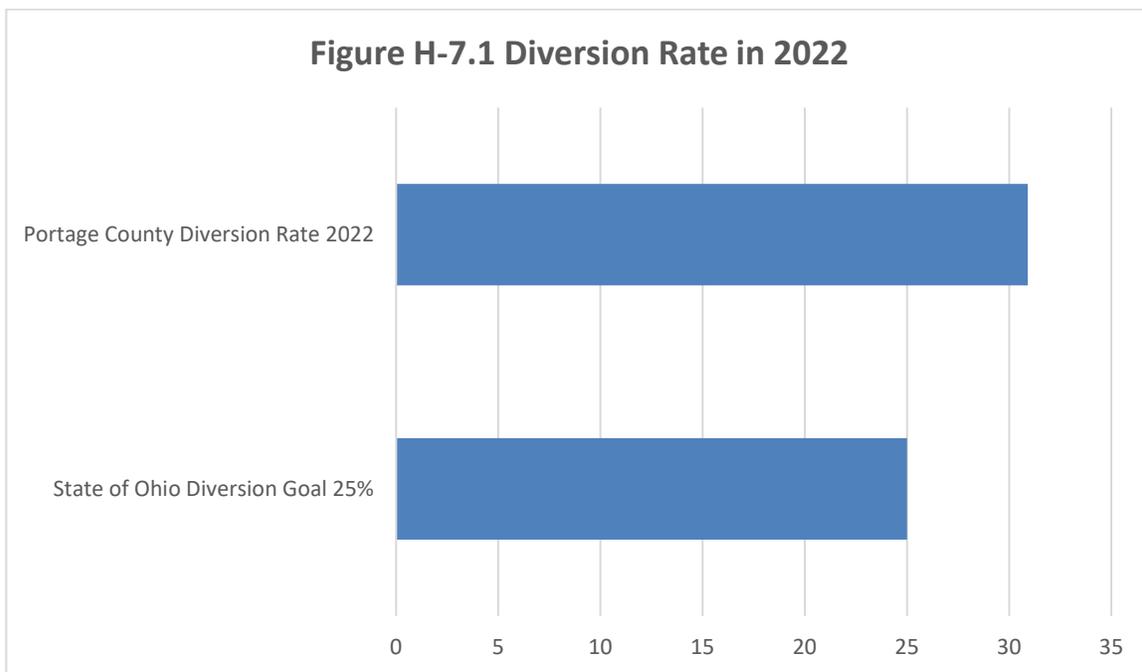
## 7. Diversion Analysis

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 reuse, recycling, and composting. The diversion analysis evaluates the infrastructure, rates, and trends of the programs in Portage County.

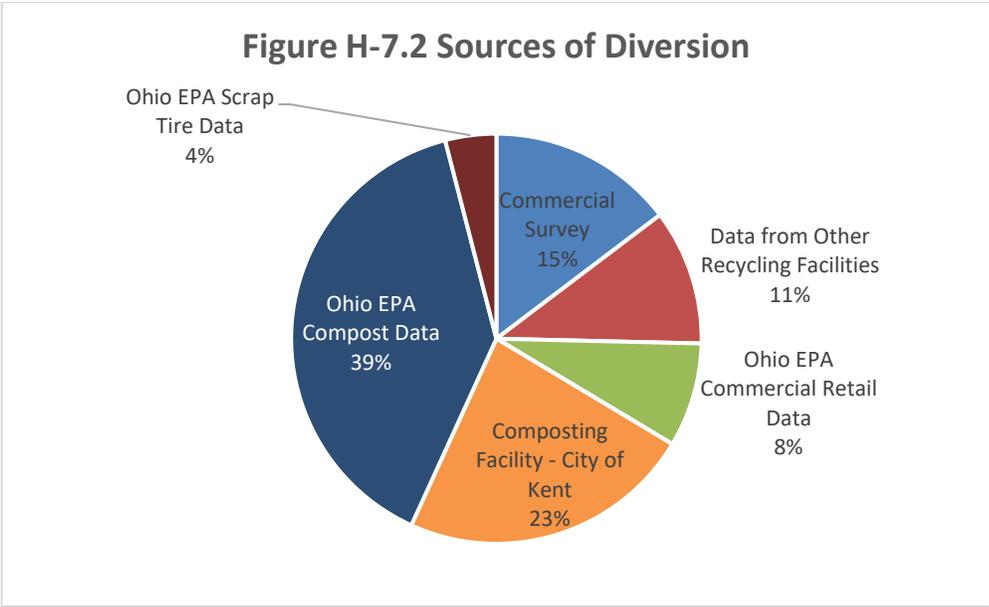
The State Goal in Ohio is 25% diversion. Portage County has been able to exceed this diversion in both the reference year and historically.

### A. Evaluation

Historically, the District has been able to demonstrate at least a 25% diversion rate. Over the last five years, only once did the District not achieve this goal. Figure H-7.1 below presents the reference year diversion rate for the District compared to Ohio EPA's 25% goal rate.



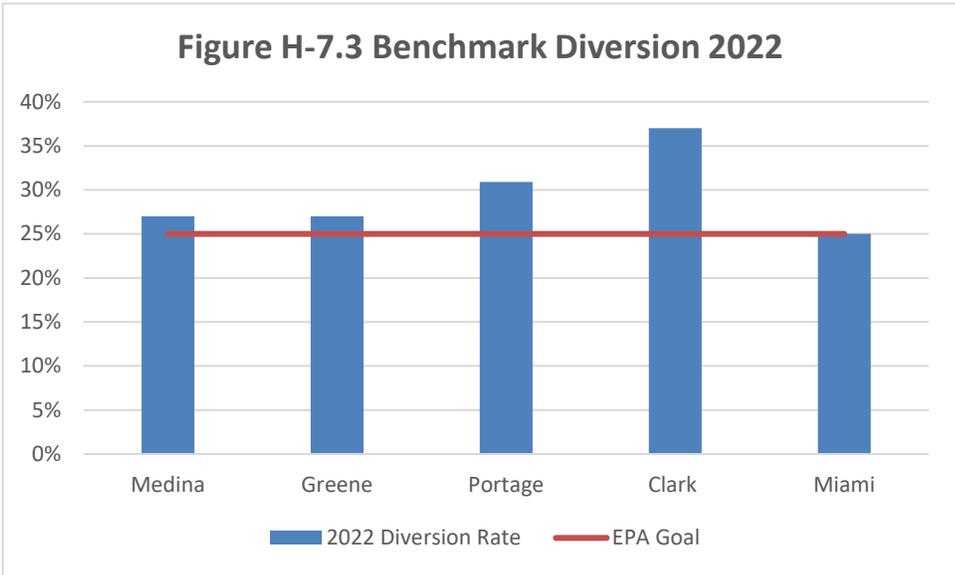
The District collects data from a variety of sources, as shown in Figure H-7.2. The largest material diverted is yard waste.



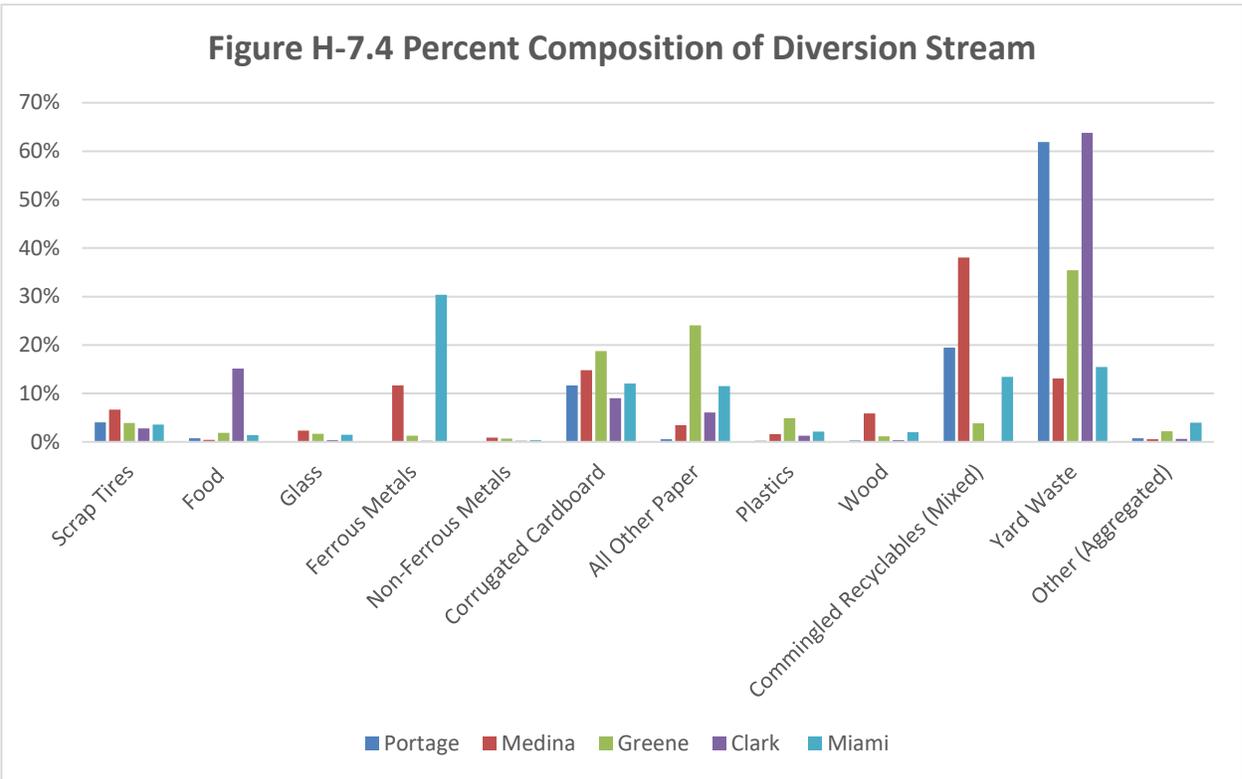
Source: 2022 Annual District Report

Not seen in the figure above are the District’s curbside and drop-off tonnages, which are incorporated in the commercial survey category to avoid double counting.

To better understand the success of the District’s diversion programs effectiveness, four similar sized District’s and their diversion rates were compared. Figure H-7.3 below presents this comparison.



As can be seen, Portage County has the second highest diversion percent of the compared Districts. Only Clark County, with a 36% diversion rate, is higher than the District’s 31%. Using the same similar-sized districts above, the District conducted a more specific analysis to analyze what materials are being diverted from each District and how Portage County compares. Figure H-7.4 and Table H-7.1 below presents this comparison.



In 2022, three of the five districts, including Portage County, reported yard waste as its highest diverted material. Clark County has the highest percent of yard waste comprising its material diversion at 64%, followed by Portage County at 62%. It is not unusual for rural Districts to have a large percentage of their diversion stream be organics. In Districts such as these, there are more challenges to creating recycling programs and infrastructure than there are for larger, more urban Districts. The land use of rural counties being predominantly undeveloped is a key factor in this trend. There are much more farmland and pastures, entities producing organic waste. The rural counties also have fewer densely populated areas and are instead spread thinly over large patches of land, making centralized waste collection challenging.

Portage County compares well to the other districts with its commingled recycling diversion (19%) which is second to Medina County (38%) as well as its corrugated cardboard diversion which falls in line with the average of the five districts. However, the District has the lowest material diversion percent for metals, glass, plastics, and paper. According to the USEPA<sup>1</sup>, the top materials recycled nationally are paper, cardboard, and metals. These materials specifically have high recyclability due to the cost-effectiveness of using recycled materials over producing new ones. Waste is the same as any other commodity, it flows based on economic feasibility. Manufacturers can and will continue to use recycled material whenever possible simply because it is more economically viable to do so.

<sup>1</sup> U.S. EPA National Overview: Facts and Figures on Materials, Wastes, and Recycling. <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

There are markets for these materials, and they will only continue to grow as the national picture shifts toward circularity in the material production system.

Despite what the analysis presents, it is likely the District is diverting sizeable quantities of these materials but they are being included in the commingled stream. The District does not have data available to separate out its commingled stream. The District would likely be at or above the other compared district's levels of diversion for these materials if it was able to separate out its commingled stream into individual material categories.

**Table H-7.1 Benchmark Diversion by Percent of Material Stream**

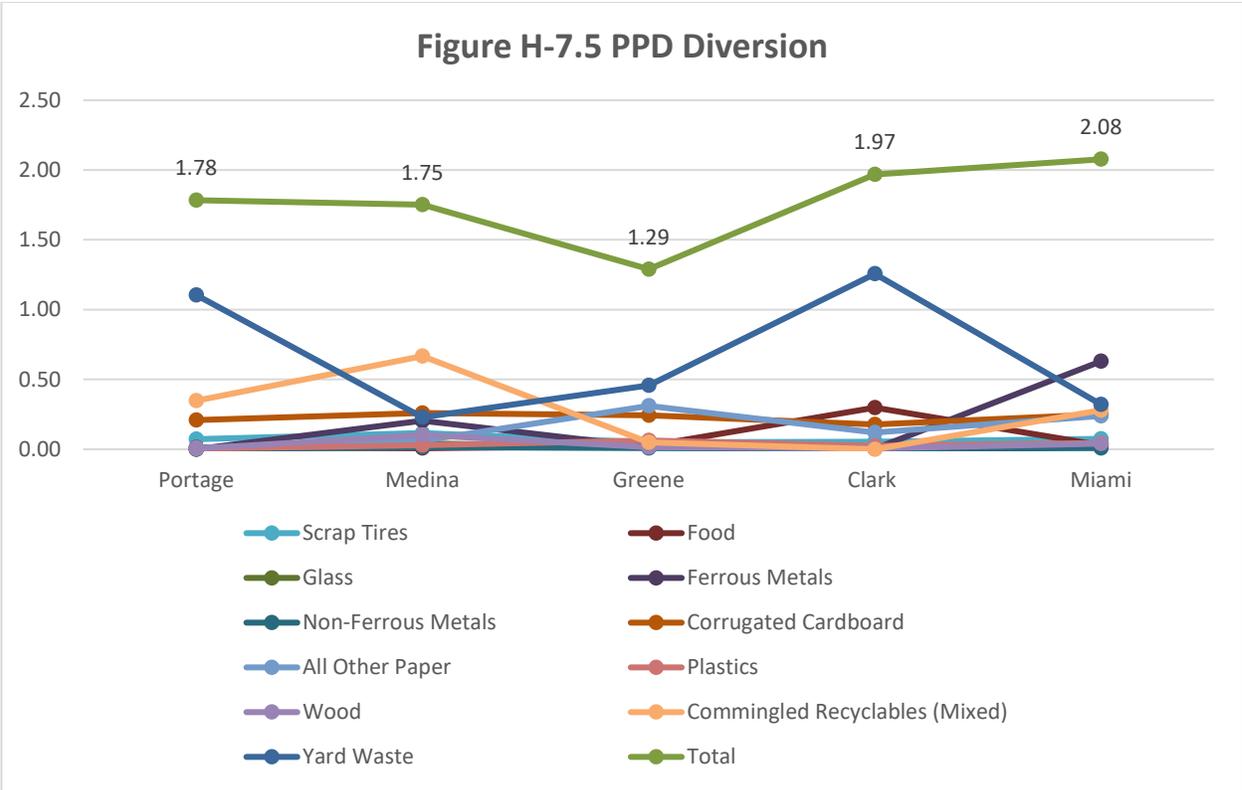
Population		160,451	183,092	164,940	161,791	108,774
District		Portage	Medina	Greene	Clark	Miami
Percent of Diversion Stream	Appliances/ "White Goods"	0%	0%	0%	0%	0%
	Household Hazardous Waste	0%	0%	0%	0%	0%
	Used Motor Oil	0%	0%	0%	0%	1%
	Electronics	0%	0%	0%	0%	0%
	Scrap Tires	4%	7%	4%	3%	4%
	Dry Cell Batteries	0%	0%	0%	0%	0%
	Lead-Acid Batteries	0%	0%	0%	0%	2%
	Food	1%	0%	2%	15%	1%
	Glass	0%	2%	2%	0%	1%
	Ferrous Metals	0%	12%	1%	0%	30%
	Non-Ferrous Metals	0%	1%	1%	0%	0%
	Corrugated Cardboard	12%	15%	19%	9%	12%
	All Other Paper	1%	3%	24%	6%	11%
	Plastics	0%	2%	5%	1%	2%
	Textiles	0%	0%	0%	0%	0%
	Wood	0%	6%	1%	0%	2%
	Rubber	0%	0%	0%	0%	0%
	Commingled Recyclables (Mixed)	19%	38%	4%	0%	13%
Yard Waste	62%	13%	35%	64%	15%	
Other (Aggregated)	1%	1%	2%	1%	4%	
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: 2022 District ADRs

Note: Values indicated with 0% are not always true zero, the actual value is sometimes too small to be represented on a percentage basis.

Table H-7.1 presents the benchmarked districts' complete material diversion stream in 2022. The higher the percentage of the total stream each material comprised, the closer to orange it becomes.

Figure H-7.5 presents some of the most common recyclable materials across the benchmarked districts. The materials are normalized for comparison purposes by calculating the diverted pounds per person per day (PPD) value.



When normalizing the diversion by PPD, the District sits in the middle of the five districts compared in terms of total diversion at 1.78 PPD. Miami County has the highest overall diversion per capita at 2.08 PPD which is primarily driven by their metals, fibrous materials, and yard waste values. Aside from yard waste, the District’s largest material stream diverted per capita is commingled recycling at 0.35 PPD. This is second among the compared districts to Medina County who documented a 0.67 PPD diversion of commingled recycling. Interestingly, Medina County was also able to document the highest cardboard diversion PPD, the second highest ferrous metals diversion PPD, and the third highest plastic diversion PPD. The District ranked last, 2<sup>nd</sup> to last, and last in material diversion PPD for these material categories respectively. This suggests that there is opportunity to divert more of these specific material streams in Portage County. The commercial sector specifically is thought to be where this opportunity lies as the District’s residential sector diversion opportunities are strong.

**B. Conclusion**

Through a combination of challenges faced with collecting data, as well as more thorough data validation efforts in recent years, the District’s diversion rate has declined. However, the District is still well above Ohio EPA’s goal diversion rate of 25%. In 2022, the District documented a 30% residential/commercial diversion rate.

Drop-off and curbside recycling programs being widely available to residents is a strength of the District. This is reflected in the comparatively large commingled recycling values above. Furthermore, the District does have strong reported diversion of yard waste from composters and municipalities. However, there are opportunities to divert more materials from the cardboard, paper,

plastic, and metal streams. The District believes sizeable quantities of these materials are being diverted from its residential sector via drop-off locations and curbside programs. However, these programs are only available to residents, commercial businesses do not have access to these programs. It is likely that many of the commercial businesses in Portage County generate large quantities of these materials and that the data is going uncaptured. Another possibility is that many commercial businesses do not have recycling programs. There is an opportunity for the District to explore providing assistance in developing these programs for the commercial sector throughout this planning period.

## **8. Special Program Needs Analysis**

Ohio Revised Code 3734.57(G) gives districts the authority to fund several activities that are not related to achieving the goals of the state solid waste management plan. In addition, there are other programs that districts fund that are not addressed in either the state plan or law. This analysis evaluates the performance and status of these activities and programs and their value to the District.

### **Disaster Debris Management**

Portage County Emergency Management has started writing a Debris Management Plan. Portage County Solid Waste plans to help develop this plan by providing guidance, coordinating activities, providing funding dependent on District financial needs, and clean-up coordination as needed. The District will rely upon this plan once it is finalized for any emergency or disaster debris management.

### **Keep America Beautiful (KAB)**

At various points in 2023, the Policy Committee discussed becoming a Keep America Beautiful Affiliate. The idea was sent out to individual groups and colleges to solicit responses to work together on future cleanups. The District received very few responses. The Policy Committee agreed to investigate this further after the Solid Waste Plan Update was completed. If it makes sense for the District, this will be pursued during the planning period as will associated grants through Keep America Beautiful.

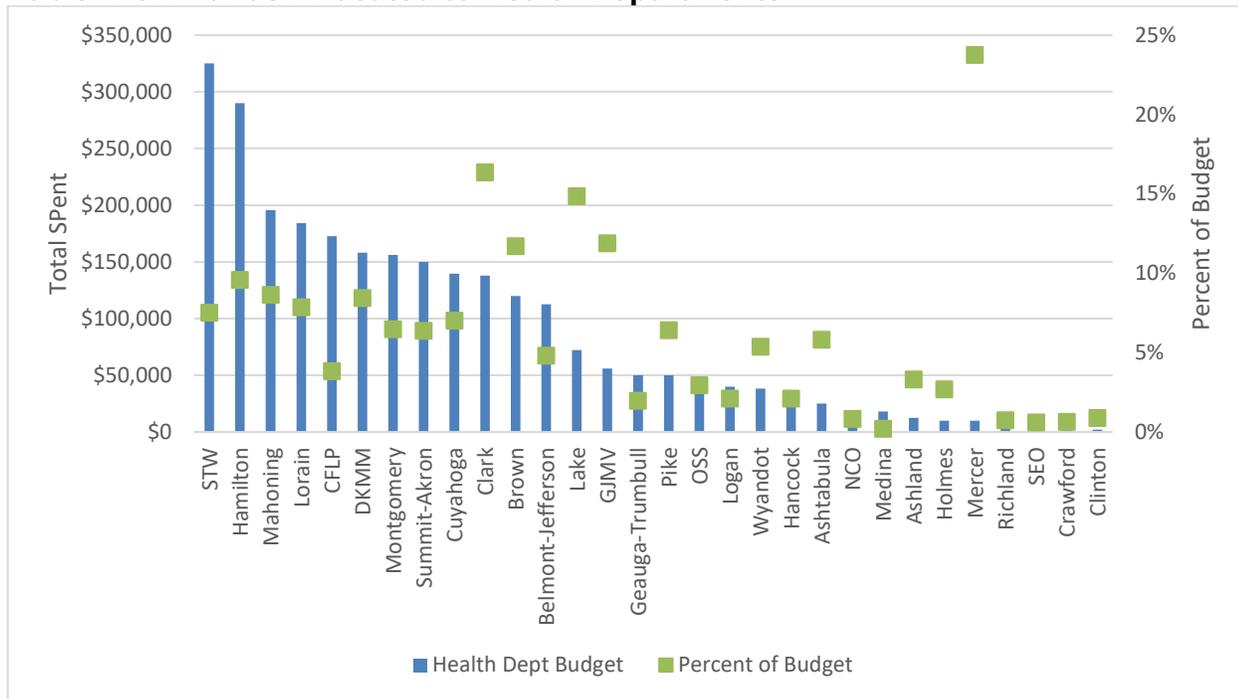
### **Health Department and Environmental Compliance Officer**

The District historically contracted with the Portage County Health Department to provide a variety of solid waste-related services such as locating, inspecting, and reporting illegal dumping as well as investigating nuisance complaints from residents. A detailed report is submitted to the District Director within 10 days of each month's end summarizing the previous monthly activity, including the number and locations of illegal dumping occurrences and remedial action needed or taken.

In conjunction with this program, the District also worked in cooperation with the Portage County Sheriff's Office to enforce sanitary standards and issue orders as needed. The District had an Environmental Compliance Officer who worked with the Health Department on solid waste issues that arose. The officer would handle illegal dumping and nuisance calls. The officer was assigned to the District through a contractual agreement to supplement a salary and vehicle. The vehicle was a direct capital cost of the District however, returned was returned to the Sheriff's department.

The type of service provided depends on the needs of each district as does the cost to provide said services. For example, a district without any closed landfills will not require the health department to monitor any gas release. To better understand what other districts in Ohio provide, the District benchmarked all districts that allocate funds to the health department.

**Table H-8.1 Funds Allocated to Health Departments**



Source: Ohio EPA Summary Fee Reports

Note: This table includes all allowable uses for funding to the health department by SWMDs. These uses are as follows:

- #3 Expenditures providing financial assistance to boards of health within the district if solid waste facilities are located within the district, for enforcement of Sections 3734.01 to 3734.13 of the Ohio Revised Code.
- #5 Expenditures for paying the costs incurred by boards of health within the district for collecting and analyzing samples from public or private water wells on lands adjacent to solid waste facilities contained in the district's approved plan (pursuant to contracts entered into with boards of health).
- #7 Expenditures providing financial assistance to boards of health within the district for enforcement of Section 3734.03 of the Ohio Revised Code (open dumping restrictions) or to local law enforcement agencies having jurisdiction within the district for enforcing anti-littering laws and ordinances
- #8 Expenditures providing financial assistance to boards of health within the district that are on the Ohio EPA approved list to defray the costs for participation of their employees responsible for enforcement of solid waste regulations in Ohio's EPA's training and certification program

Not all districts in Ohio provide funding for their health departments. Roughly half do and half don't. Among those that do fund health departments, Stark-Tuscarawas-Wayne and Hamilton are the two highest by dollar amount. Mercer and Clark spend the most relative to the total budget, with Mercer spending roughly 25% of its budget on health department funding.

Unfortunately, in 2021 the District had to cut this program's funding due to financial struggles the District was faced with. This program has not been operational since. The District does expect this to change through the planning period.

**Conclusion**

Funding for law enforcement, litter collection, and the health department are not directly related to achieving the goals of the state's solid waste management. However, these activities and programs can play a role in the District's management activities. Ohio's SWMDs are split fairly evenly on funding or not funding health departments. It is unique to every district as to the need for health department and law enforcement help. The District does not anticipate funding this program however will explore where program funds could be best utilized during this planning period.

## 9. Financial Analysis

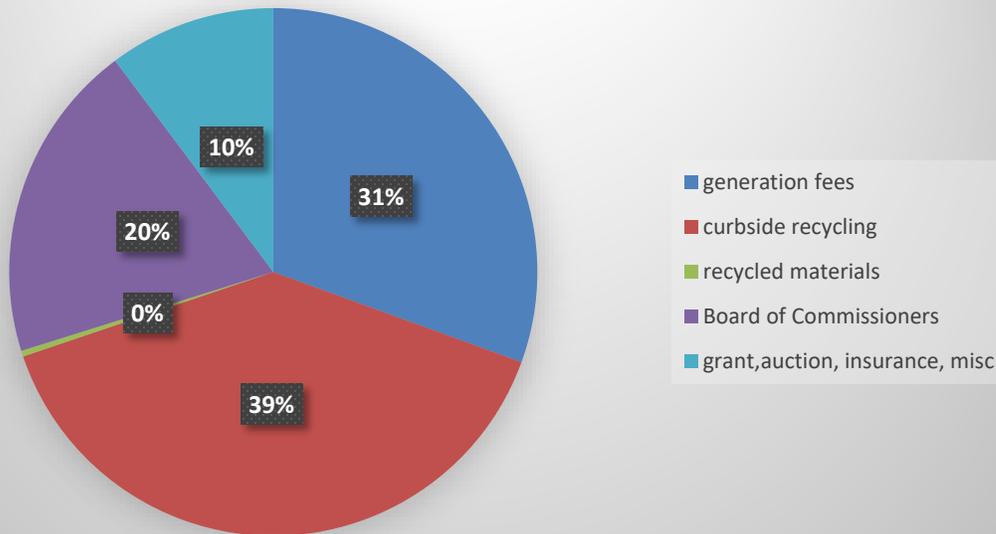
The purpose of this analysis is to examine the District's current financial position and assess the financial requirements and revenue sources throughout the next planning period. The District is primarily funded through generation fees, user fees, rates and charges, and the sale of collected recyclables.

The District borrowed funds through 2020. These funds are shown as revenue. This caused the District to re-evaluate its programming.

Year	Revenue	Expenses	Annual Surplus/Deficit (\$)	Balance (\$)
2018	\$3,046,371	\$3,475,632	-\$429,261	\$249,800
2019	\$2,883,593	\$2,773,296	\$110,297	\$360,097
2020	\$3,636,017	\$2,506,115	\$1,129,902	\$1,489,999
2021	\$3,362,835	\$2,383,269	\$979,566	\$1,318,040
<b>2022</b>	<b>\$4,212,078</b>	<b>\$3,409,723</b>	<b>\$802,355</b>	<b>\$2,120,395</b>

Rates differed for curbside picked up from the District from \$2.21 a month for weekly pick up to \$5.50 a month for every other week pick up. The cost of service was not being covered. All communities are now standardized to every other week pick up at \$5.50 a month. Additionally, processing costs for the material fluctuated and capital improvement projects were not funded.

## Source of Revenue 2022



The Board of Commissioners funded two curbside trucks and paid the remaining balance to Closed Loop. The District was able to pay the remaining debt owed to OWDA and the Board of Commissioners in 2023.

Personnel services is the largest ongoing expense for the District. Maintaining trucks and equipment is key for infrastructure.

### Conclusions

The updated standardization for curbside pick up is now providing sufficient revenues to cover the cost of service. The processing of the material is based on market values and fluctuates. The District anticipates capital improvement projects and anticipates a safety measure model from debt accrual. The District does not anticipate loans during this planning period.

## 10. 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.

### A. Waste Impacts

Waste material is not confined to one location or geographic area. Instead, waste can flow along multiple channels or streams based on the most economically beneficial option. Factors such as economic pressures, the presence of facilities, the distance needed to travel, road infrastructure, and contracts between haulers and processors are all drivers of where solid waste flows.

The District does not have a landfill located within its geographical boundaries. The District does have a permitted Transfer Station, however, the District heavily relies on neighboring counties' facilities to handle solid waste. As explored in Appendix D, 80% of the District's landfilled waste first passes through a transfer station. Of this amount, nearly three-quarters of the waste passes through one of three transfer stations in Summit County, directly to the south of Portage County. Together these transfer stations managed approximately 75,000 tons of transferred waste from Portage County.

**Table H-10.1 Most Used Transfer Stations**

Transfer Station	Tons Managed	Distance from District (miles)
Republic Services of Ohio LLC Akron Transfer Facility	26,359	23
Akron Central Transfer Facility	26,973	23
Kimble Transfer & Recycling - Twinsburg	22,347	20

Despite not having a very active transfer station in Portage County, the District does have strong access to multiple waste transfer facilities. The three most used facilities are all under 25 miles from the District.

**B. In-District Transfer Station**

Solid Waste Collection

The District has limited in-district municipal solid waste disposal facilities. Most collected trash as well as recyclables must be taken outside of the District to a recycling facility, transfer station, or landfill.

The District is interested in exploring the operations of the current in-district transfer station. As mentioned, the Portage County Solid Waste District maintains an active permit to operate as a solid waste transfer station from Ohio EPA. The District understands the weight of making the decision and is planning a feasibility study. The feasibility study will assess the impacts and costs (operations and capital).

Impact Considerations

- CHaRM
  - Since opening, CHaRM has been very well-received by residents and is a top priority for the District to continue during this planning period. Currently, CHaRM is set up and operated in the bays of the Portage County Solid Waste Management District Facility. Potential options to explore include re-locating the CHaRM Program or re-configuring the transfer station.
  
- Waste Flow
  - An operating transfer station in Portage County would impact and alter the regional waste flow. Without confirming a baseline tipping fee, and where and how it would be

operated, it is challenging to determine where waste would flow from other regional counties. Economically, it would likely be more feasible for all District waste to be sent to an in-district transfer station before being disposed of at a landfill. Based on historical disposal data, this is roughly 110,000 tons of waste annually from Portage County, assuming all waste is directed here. Waste is an open market commodity and tends to follow the least cost path or to those who hold the market share. More often than not, if a company operating in the area as a hauler owns a disposal facility within a reasonable distance, the waste will flow from the hauler to its own facility. Established tipping fees, transportation distances, and market factors are factors. Thus, Portage County could experience an influx of other counties in the region likely sending waste into the County.

A transfer station could potentially receive materials from many counties in the region such as Mahoning, Trumbull, Stark, and others. A quick assessment of the surrounding counties shows some sort of waste management facility such as a transfer station or landfill in each county. As such, the volume of waste flowing to a potential transfer station in Portage County from outside counties would likely be small. There are ample transfer stations in surrounding counties that currently handle the District's waste.

- Other

- **Flexibility** – The transfer station could provide the District with flexibility in relation to securing the most beneficial disposal options for the District. The transfer station would shorten the distance haulers must travel to drop off waste collected, therefore reducing costs. This opens the door for further improvements to the waste collection system such as the increased feasibility of haulers offering curbside services to residents throughout the District.
- **Open Dumping** – A centralized location for residents would be available to drop off trash and hard-to-manage materials such as bulky items, HHW, electronics, scrap tires, etc. Many of these materials are often illegally dumped, requiring the sheriff's department or health district to clean up the site. Providing another centralized outlet location could indirectly reduce costs associated with clean up and remediation of dumped materials.
- **Level Collection Costs** – In the District, waste flows to any number of facilities. There are a few haulers collecting waste which helps with competitive pricing. Most of the waste gets hauled to Stark County facilities which are roughly 25 miles from the center of Portage County. Meaning, each load of waste taken results in ~50 miles driven on top of the amount driven to collect the waste. If the waste first flowed to the transfer station bid costs could be very competitive.
- **Flow Control** – Flow control could be considered. Many public sector entities have documented where flow control generates revenue that is integral to providing more services to their households and businesses. Medina County is an example of a flow control transfer station model.

- **Structure and Design** – The building and property permitted by Ohio EPA has operated as a transfer station but could require structural as well as design assessments to lay out the best plan.
- **Costs** – The District is certain capital improvements would be needed and a study would be able to provide an estimate. There are various operating models: District owned and operated, District owned and leased, District-owned management, etc. A study would be able to discuss the options to assist in deciding the best operating model.

The District plans to conduct a full analysis of the development of an in-district transfer station through a feasibility study. Any potential feasibility study would explore the following factors and may include more than on the list below:

- Existing conditions of the Portage County Solid Waste Management District Transfer Facility and recommendations
- Updated/retrofit facility feasibility with costs with at least two concepts if needed
- Public-private partnership models for consideration
- Potential financial model including considerations
- Environmental impacts or benefits

### **C. Regional CHaRM Partnership**

As discussed in section H-6, Portage County's CHaRM facility has been very successful since it opened. Many residents regularly use this facility to drop off various hard-to-recycle materials. The District hopes to continue to expand upon the currently accepted materials during this planning period.

The District prioritizes accepting materials at its facility. However, properly disposing of and/or recycling these materials is very expensive. With the increasing usage from residents at this facility, the District's cost to dispose of materials is also increasing.

The District requires an ID to be presented to verify users of the facility are from Portage County. However, it is suspected neighboring county residents are also using the facility by bringing a Portage County resident. This puts further strain on the District both financially and with the facility's capacity. Regionally, the District is one of the only areas offering such services. As such, it has attracted waste from outside Portage County. The District is interested in exploring partnerships with regional counties to encourage diversion through the CHaRM and HHW programs that do not have established programs. Possible partnership ideas to explore include opening up the facility to surrounding counties that would provide the District with funding to do so or working with regional districts to provide assistance with establishing a similar program to Portage County's.

### **Conclusion**

The District is interested in exploring regional opportunities for hard-to-recycle materials. The District suspects it provides services not only to its own residents but also to neighboring counties' residents. This places further financial and capacity strains on the District to manage these

materials. The District would like to pursue opportunities to establish regional partnerships with other solid waste districts to provide such services.

In terms of waste disposal, the District is reliant on regional facilities, mainly in Summit County, to transfer landfill waste. However, the facilities currently being used are within reasonable distance of the District. As of this plan update, the District anticipates a thorough analysis of its own In-District Transfer facility.

## **11. Data Collection Analysis**

This analysis evaluates the District's current data collection efforts and identifies ways to improve its data.

The District has currently established connections with private haulers, and material processors. The Ohio EPA also provides a variety of data. This allows the District to collect a wide range of information from the generators of residential and commercial waste reduction.

### **Conclusion**

The District makes an effort to understand the data collected and build upon that information. The District will continue to build relationships with the private and public sector haulers and processors.

## **12. Education and Outreach Analysis**

This analysis evaluates the District's existing education, outreach, and technical assistance to determine if the District meets the requirements of the 2020 State Plan. This analysis determines if the programs address all five audiences residents, schools, industries, commercial businesses and institutions, communities and elected officials. It also analyzes the effectiveness of the programs and the strategy for incorporating the State Plan Goal 4 into the programs.

### **Web Page and Facebook Page**

The District has an updated user-friendly website, a comprehensive resource guide, a place to search for available infrastructure and what to do with materials. <https://portagerecycles.com>. The District also has an Instagram and uses a url code for convenience.

A view of our web page is below.



330-678-8808

[HOME](#) [ABOUT](#) [RECYCLING](#) [CHARM FACILITY](#) [WHAT DO I DO WITH?](#) [UPCOMING EVENTS](#)



WELCOME  
**WELCOME TO  
PORTAGE  
COUNTY  
RECYCLING**



330-678-8808

[HOME](#) [ABOUT](#) [RECYCLING](#) [CHARM FACILITY](#) [WHAT DO I DO WITH?](#) [UPCOMING EVENTS](#)

## CURBSIDE RECYCLING

### AREAS WE SERVE

We provide curbside recycling to Atwater Township, Brady Lake, Brimfield Township, Franklin Township, Mantua Township, the City of Ravenna, Ravenna Township, Rootstown Township, Shalersville Township, Suffield Township and Twin Lakes. Call us at 330-678-8808 with questions.

[CALL US TO SET UP SERVICE](#)

### PICK-UP SCHEDULES

Find your pick-up schedule for curbside service.

[SCHEDULES](#)





**2024 ROOTSTOWN TWP A WEEK-FRIDAY  
RECYCLING PICK UP SCHEDULE**

PICK-UP DAY  
 HOLIDAY

JANUARY 2024						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
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28	29	30	31			

FEBRUARY 2024						
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MARCH 2024						
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31						

APRIL 2024						
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28	29	30				

MAY 2024						
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JUNE 2024						
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JULY 2024						
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AUGUST 2024						
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SEPTEMBER 2024						
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29	30					

OCTOBER 2024						
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27	28	29	30	31		

NOVEMBER 2024						
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DECEMBER 2024						
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

# Portage County Curbside Recycling Guidelines

## CART PLACEMENT



## RECYCLABLE MATERIALS GUIDE

**PAPER & CARDBOARD**  
Clean & dry newspaper, magazines, unwanted mail, broken down boxes (small enough to fit in cart with lid closed)

**METAL**  
Aluminum and steel containers (e.g. canned goods & pop cans)

**PLASTIC**  
Beverage containers, bottles, jugs and tubs, no loose caps

**GLASS**  
Bottles and Jars

**CARTONS**  
Milk, juice and soup cartons

**yes**

**NO BAGGED RECYCLEABLES**  
Don't bag recyclables. They must be placed loosely in the bin.

**NO PLASTIC BAGS OR FILM**  
No plastic bags, film or bubble wrap accepted curbside. Plastic bags are accepted at many retailers or the drop off at 3588 Mogadore Rd. Kent, OH 44240

**NO STYROFOAM**  
Including all foam packaging

**oops...**



**PLEASE CALL US  
AT 330-678-8808  
WITH RECYCLING  
QUESTIONS**

## PORTAGE COUNTY RECYCLING

3588 MOGADORE ROAD,  
KENT, OHIO 44240

PORTAGERECYCLES.COM  
@PORTAGERECYCLES



## VISIT OUR C-H-A-R-M FACILITY



### CHaRM - Center for Hard to Recycle Materials

Our CHaRM facility provides disposal options for materials that are not accepted through curbside trash and recycling programs. Some of the items accepted include appliances, tires, household hazardous waste (during certain hours) etc. [Click here](#) for prices and full list of acceptable items

LEARN MORE

## FIND ADDITIONAL DISPOSAL OPTIONS

### FIND ADDITIONAL DISPOSAL OPTIONS



#### HOUSEHOLD ITEMS

Furniture, clothing, tableware, etc.



#### AUTOMOTIVE

Car batteries, motor oil, tires, antifreeze, fuel, etc.



#### CONSTRUCTION

Drywall, brick, block, concrete, asphalt, roofing materials, etc.



#### ELECTRONICS

Stereos, computers, cell phones, tablets, etc.



#### HAZARDOUS

Herbicides, solvents, batteries, pool chemicals, household cleaners, etc.



#### PLASTIC BAGS

Air pillows, case overwrap, bags



#### ORGANICS

Branches, leaves, logs, food waste, etc.

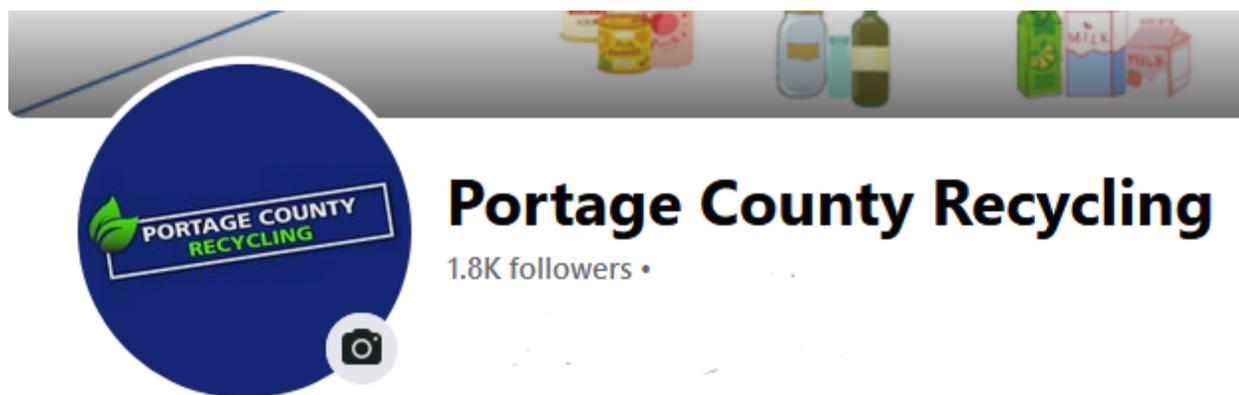


#### APPLIANCES

Refrigerators, freezers, washer, dryer, etc

Outreach is provided through our Touch-A-Truck Events, Earth Day, participation in the week long Portage County Fair, and Community Clean up events. Oops stickers and postcards have provided educational opportunities. The District staff as a whole contributes to community events and education however, an additional part time employee could be added to educational programs if funding allows. Coordinating events such as Kent State University's Earthfest and participating in community events like Habitat for Humanity Recycleextravanga.

Facebook has been key to creating events and providing notice to residents of new programs. Earth Day daily posts were also created.



Plastic bag recycling has been implemented in the County administration building. 501C3's and schools are participating in the Nextrex bench program. Businesses are also encouraged to use the county drop off.

#### Events

A link to the events is on our website and social media accounts.

Waste Audits and Assessments are provided when requested to help assist in diversion.

#### Conclusion

The District will look at providing a link to Ohio Materials Marketplace. The District could potentially add an additional educational employee if funding is available. In addition, the District could consider adding classroom lessons, workplace recycling guide, waste-free classroom and education about backyard composting.

### 13. Processing Capacity Analysis

This Analysis is to evaluate the capacity for processing recovered materials from Portage County. A Material Recovery Facility (MRF) is a facility that handles the recovered material.

Portage County utilizes many recovery facilities. The closest largest recovery facilities to the District are WM and Kimble. These two MRF's receive the majority of Portage County material.

WM	Summit
Kimble	Summit
Rumpke	Cuyahoga
American Paint Recyclers	Van Wert
GreenBoardIT	Trumbull
Integrity Fiber/ River Valley	Summit
Slesnick	Stark
Portage County Solid Waste Management District	Portage
Royal Oak	Cuyahoga

The District will continue to analyze processing capabilities and create diversion for material.

**Conclusions**

The District will continue to analyze processing capabilities and create diversion for material. The District could explore operations and maintenance for transferring from the District.

# APPENDIX I ACTIONS, PRIORITIES, AND PROGRAM DESCRIPTIONS

To fulfill the directives in Ohio Revised Code Section 3734.50, the District's Solid Waste Management Plan must demonstrate strategies and programs to address the 10 required goals of the 2020 State Solid Waste Management Plan. This 2026 Plan Update is prepared to comply with the State of Ohio 2020 State Plan and ensures the District makes progress toward achieving the goals.

This Appendix contains two sections that describe the process the District conducted to identify the programs that will be implemented in this Plan Update. Section A includes the process used to determine possible action items. Section B of this Appendix summarizes the implementation schedule and program descriptions for this Plan Update for the period 2026 – 2041.

## A. Process for Possible Action Implementation

The strategic analysis and evaluation of programs and services enabled the District to determine what areas the District will focus on for this Plan Update.

The priorities of the plan are listed below in bullet points that are identified as priority action items or opportunities for the 2026 Plan.

- **Focus on education and awareness of available resources**  
Assist Portage County residents and businesses to understand the available opportunities within our county by using outreach techniques.
- **Investigate new ways to divert waste from landfills**  
The District will research and continually look for new ideas for waste reduction.
- **Complete the Debris Management Plan**  
This is important to ensure that waste and debris are managed efficiently.
- **Maintain the level of staff and infrastructure**
- **Renovate the District Drop-Off to include a Resource Recovery Park**
- **Evaluate the creation and promotion of a reuse network**
- **Diversion to reduce landfilled waste**
- **Regional discussion with other SWMD with similar programs**
- **Create an educational video on the District Recycling Resources**
- **Share the education video with communities and schools**
- **Update signage on curbside carts**

## B. Programs

This section summarizes the implementation schedule and programs for the planning period. The implementation schedule also includes the start and end date and the State Plan goals the program

achieves. This Plan Update includes programs and/or initiatives that meet, exceed, or are working to achieve all State Plan goals.

The implementation schedule was developed based on the process described in Section A of this appendix as well as the strategic analysis conducted in Appendix H.

## **Residential Recycling Infrastructure**

### **Non-Subscription Curbside Recycling**

Curbside Services are all single stream automated and are paid for by improved parcel assessment or billed by the City in each community. Paper, cardboard, plastic bottles, jugs and tubs, metal cans, cartons, glass bottles & jars are accepted. A total of 82% of residents in Portage County have curbside service. This service was provided by the private sector and the District. This helped the District to achieve both Goal 1 and Goal 2 in the previous planning period. The District promotes recyclable material in all of Portage County. This is targeted via community events, website, social media, and mailers. Single-Stream curbside recycling collected 7,330 tons in 2022.

The District uses its own collection truck and picks up from households and transports the material to a material recovery center. Portage County Solid Waste collects every other week. Residents use a 95-gallon cart and can request an additional one or a smaller one if needed. If there is additional material, cardboard can be broken down next to the cart and then reloaded in the cart and emptied again.

This program will be continued and is expected to remain unchanged during the planning period.

<b>ID#</b>	<b>Name of Curbside Service/Community Served</b>	<b>Start Date</b>	<b>End Date</b>	<b>Serviced By</b>	<b>Goals</b>
NSC1	CITY OF AURORA	EXISTING	ONGOING	RUMPKE	1&2
NSC2	ATWATER TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC3	BRIMFIELD TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC4	FRANKLIN TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC5	HIRAM TOWNSHIP	EXISTING	ONGOING	KIMBLE	1&2
NSC6	VILLAGE OF HIRAM	EXISTING	ONGOING	KIMBLE	1&2
NSC7	CITY OF KENT	EXISTING	ONGOING	REPUBLIC	1&2
NSC8	MANTUA TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC9	MANTUA VILLAGE	EXISTING	ONGOING	KIMBLE	1&2
NSC10	RAVENNA CITY & TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC11	ROOTSTOWN TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC12	SHALERSVILLE TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
NSC13	CITY OF STREETSBORO	EXISTING	ONGOING	KIMBLE	1&2
NSC14	SUFFIELD TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2

### **Subscription Curbside Service**

There is no Subscription Curbside Service

### ***Drop-off Recycling Locations***

Drop off containers are all provided and serviced by the Portage County Solid Waste . All containers cost \$400 each per year, except Brimfield Township (located at the District) which has existing curbside service, therefore does not pay a fee. Acceptable materials are paper, cardboard, plastic bottles, jugs and tubs, metal cans, cartons, glass bottles & jars. The Brimfield drop off located at the District office accepts retired United States Flags, food & yard waste compost, plastic film, cooking and motor oil, antifreeze, transmission fluid, scrap metals, lead acid batteries, and single stream recycling. There are a total of 40 drop-off containers that are open 24/7 that add an additional 13 percent to residential access. In 2022, 817 tons of single stream recycling was picked up. The District promotes residential recycling for all of Portage County. This is targeted through community events, website, social media, and mailers.

In 2021, the District had 11 drop-off sites for residential access, however, the value of recyclable material plummeted, and the drop-offs were filled with contamination. Dramatic rate increases were being considered for the drop-offs. The communities of Freedom, Deerfield, Garrettsville, and Windham had the containers removed. Townships had the containers removed. These areas border a community with drop-offs or can use the District recycling center drop-off. The remaining seven sites are emptied every Monday, Wednesday, and Friday. The District increases pickups during November through January.

The District uses its own collection truck and picks up from these sites to transport the material to a material recovery center.

Illegal dumping does occur, and cameras are helpful. The District and townships work together to combat the problem. The picture below presents the old drop-off bins compared to the newly updated drop-off bins.



By the end of 2021, the contamination rate dropped from over 20% to under 14% with the repaired, repainted, and relabeled containers.

This program is expected to remain unchanged during the next planning period for access.

Full-Time, Urban Drop-offs

ID#	Name of Drop-off/ Community Served	Start Date	End Date	Serviced By	Goals
FTU1	DISTRICT DROP OFF BRIMFIELD	EXISTING	ONGOING	PCSWMD	1&2
FTU2	CHARLESTOWN TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
FTU3	RANDOLPH TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2

Full- Time, Rural Drop-Offs

See above description.

ID#	Name of Drop-off/ Community Served	Start Date	End Date	Serviced By	Goals
FTR1	EDINBURG TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
FTR2	NELSON TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
FTR3	PALMYRA TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2

FTR4	PARIS TOWNSHIP	EXISTING	ONGOING	PCSWMD	1&2
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### Part-Time, Rural Drop-Offs

There are no part time Rural Drop-Offs in Portage County.

### Mixed solid waste materials recovery facility

There are no mixed solid waste materials recovery facility in Portage County.

### Multi-Family Unit Recycling

Name	Start Date	End Date	Goal
Multi-Family Program	2022	Ongoing	1&2

The District participates in recycling events at Portage Metropolitan Housing Authority annually and currently services participating duplex and triplex housing structures across 10 communities. Any housing structure larger than triplexes have access to drop-off locations but does not have curbside recycling services provided.

This program is expected to remain unchanged during this planning period.

### Other Residential Recycling Programs (listed individually below)

Name	Start Date	End Date	Goal
Curbside Recycling Technical Assistance	2012	Ongoing	1&2

The District will continue to provide assistance to municipalities in trash and recycling questions, or diversion programs upon request. This program is expected to remain unchanged during the next planning period.

### Commercial/Institutional Sector Reduction and Recycling Programs

#### School Recycling

Name	Start Date	End Date	Goal
Royal Oak	2022	Ongoing	2

The District contracts with Royal Oak to collect mixed paper from participating schools and commercial buildings. In 2019, there were multiple mixed paper recycling boxes scattered throughout Portage County. There are fewer now due to a shortage of drivers, containers not being emptied often, a change of ownership, and lack of rebate being offered. However, there are still a few throughout Portage County that receive credit for recycling paper. There were 58 tons diverted in 2022.

This program is expected to remain unchanged during the next planning period.

**Collection Services** (small businesses, government offices, etc)

Name	Start Date	End Date	Goal
Small Business, government	Varies	Ongoing	2

Businesses in Portage County can set up recycling accounts with private haulers for a fee or can utilize the drop-off recycling sites for no cost.

501C’s are now able to bring plastic film and bags to the Portage County Solid Waste District as the District is a location drop-off for the NexTrex Challenge. This will enable non-profits to receive a plastic composite bench. This diverted 13.11 tons in 2023. Film collection occurring at local government buildings is brought to the District to be baled. The District also promotes and provides private hauler information for collection.

There are three colleges in Portage County. All three programs have recycling programs and support sustainability on campus. Kent State University received an Encouraging Environment Excellence award in 2023. Kent State and Hiram College have composting programs. Kent State University, the largest university in Portage County, bids out trash and recycling together. They also challenge students with a Recyclemania contest annually and host three days of electronics recycling.

This program is expected to remain unchanged during the next planning period.

**Large Venue Recycling**

The District participates in large festivals to promote recycling and hauls the material to a recovery facility.

Name	Start Date	End Date	Goal
Portage County Randolph Fair	2019	Ongoing	2, 3, 4

The District participates in large festivals to promote recycling and hauls the material to a recovery facility.

**Waste Assessments/Waste Audits**

Name	Start Date	End Date	Goal
Commercial Technical Assistance and Waste Audit Program	Existing	Ongoing	4

The District provides assistance with commercial and industrial waste and recycling audits whenever requested. Since the COVID pandemic, there have not been many requests.

**Workgroup/Roundtable**

Name	Start Date	End Date	Goal
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Not utilized for 2022			
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This was not utilized and is not anticipated for the next plan.

### Award/Recognition

Name	Start Date	End Date	Goal
Green Ribbon Awards	2022	2022	2,3,4,

The District received the Community Habitat for Humanity Partner Award in 2022 and participated in the Habitat for Humanity Recycle Extravaganza.

### Industrial Sector Reduction and Recycling Programs

#### Waste Assessments/Waste Audits

Name	Start Date	End Date	Goal
Industrial Technical Assistance and Waste Audit Program	Existing	Ongoing	3, 4 & 5

The District provides assistance with commercial and industrial waste and recycling audits whenever requested. Since the COVID pandemic, there have not been many requests.

### Restricted/Difficult to Manage Wastes

#### Yard Waste

Name	Start Date	End Date	Goal
District Yard Waste Collection	March 2023	Ongoing	6

The District added yard waste collection at the CHaRM Center in March of 2023 after a large storm. This material is sent to be composted. Currently, the District pays \$400 a year to haul the material that is brought to the District. In 2023, the District collected and hauled 60.51 tons of yard waste.

### Household Hazardous Waste

Name	Start Date	End Date	Goal
CHaRM & HHW program at District	October 23	Ongoing	6

In the Fall of 2022, a Household Hazardous Waste event was held by the District, collecting 5 tons of HHW. Separate from the HHW collection events, the District also hosts a latex paint collection on Earth Day. It has also been added to the acceptable materials on HCHW days at the facility. Collected paint is sent to American Paint Recyclers to be remade into usable paint. The District collected approximately 3 tons of latex paint in 2022.

In October 2023, the District added long-term collection and expanded materials able to be dropped-off by residents. On the first Monday of every month, the District contracts with a third party to

provide HHW collection for four hours. Further, the District provides used motor oil and antifreeze collection 24/7 with drop-off boxes located outside of the facility. With the program changes beginning in 2023, the District was able to greatly increase the tonnages collected. A majority of the growth was seen from used motor oil and antifreeze. The District has 6 oil bins and 1 antifreeze bin which are emptied by Akron Canton Waste Oil. These bins were emptied 5 times in 2023.

The District updates its website to include an inventory of what is accepted and how to dispose of materials safely.

### Scrap Tires

Name	Start Date	End Date	Goal
Scrap Tire Collection	July 2023	Ongoing	1&6

The District collects scrap tires at the CHaRM Facility. Tires are accepted for a fee of \$0.50 per tire. The District limits 10 scrap tires per household for a calendar year. The District received a Recycle Ohio grant for tires which will allow the District to host collection events in multiple different communities along with an agricultural tire event in 2024.

In 2018 and 2019, the District was able to host multiple scrap tire collection events throughout the year. These events saw strong participation and resulted in 255 tons and 186 tons collected respectively. Funding restrictions and the COVID-19 pandemic prevented these events from being held after 2019. The District may plan to apply for grant funds to begin hosting these events again during the planning period.

**PORTAGE COUNTY RECYCLING**  
**Farm Tire Collection**  
 Where: CHaRM FACILITY - PORTAGE COUNTY RECYCLING  
 3588 MOGADORE RD. KENT OHIO 44240  
 WHEN: JANUARY 8TH, 2024 THRU JANUARY 12TH, 2024;  
 WILL SELECT 30 MIN TIMESLOT WHEN REGISTERING  
**PRE REGISTRATION REQUIRED**  
 PORTAGE COUNTY RESIDENTS ONLY, WILL CHECK ID AND REGISTRATION  
 REGISTRATION: TO REGISTER CALL 330.679.8888 REGISTRATION OPEN

### Electronic Equipment

Name	Start Date	End Date	Goal
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Electronic Collection Program	September 2023	Ongoing	1 & 6
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Electronic equipment is collected during CHaRM hours. Televisions are currently \$20 and printers are \$10. This is collected by GreenBoard IT.

### Lead-Acid Batteries

Name	Start Date	End Date	Goal
Lead-Acid Battery Collection Program	Existing	Ongoing	1&6

Lead-acid batteries (LABs) are collected in a cage open 24/7 or can be dropped off during CHaRM hours free of charge for residents. In 2022, the District collected 1.07 tons of LABs.

### Appliances

Name	Start Date	End Date	Goal
Appliance Drop off program	September 2023	Ongoing	1&6

Appliances are collected at the CHaRM facility, including items with freon. There is no cost associated with this.

### Pharmaceuticals

Name	Start Date	End Date	Goal
Pharmaceutical drop boxes	Existing	Ongoing	1&6

Pharmaceuticals are collected at the drop-off boxes located at local police departments across the county. There is not a cost associated with this.

### Plastic Bag/Film

Name	Start Date	End Date	Goal
Plastic Bag/Film	2023	Ongoing	1& 2

The District participates in the Nextrex collection program. All plastic film that is acceptable may be dropped at the District Drop-Off (in Brimfield Township) and 501C3 businesses can receive a composite bench made from the recycled plastic bags and film.

### Food Waste

Name	Start Date	End Date	Goal
Food Scrap Drop-Off	2023	Ongoing	2 & 6

The District added a food waste drop-off in 2023 at the District Drop off (in Brimfield Township). This has two 95-gallon totes that are exchanged weekly by Rubber City Reuse. The District hopes to explore the potential to expand this program to commercial accounts during this planning period.

Name	Start Date	End Date	Goal
Shredding	2023	Ongoing	1 & 2

Residents are able to bring and watch documents be shredded during CHaRM hours. There is no fee associated with this.

### Scrap Metal

Name	Start Date	End Date	Goal
Scrap Metal Drop Off	September 2023	Ongoing	1,2,& 6

Scrap metal can be dropped off at the District drop-off or during CHaRM hours. The District collected 26.20 tons of scrap metal in 2023. There is no fee associated with this.

### United States Flags

Name	Start Date	End Date	Goal
United States Retirement Flags Drop off	2023	Ongoing	None

The District flag drop-off is available 24/7 at the District CHaRM Center.

### Latex Paint

Name	Start Date	End Date	Goal
Latex Paint collection	2023	Ongoing	2

Latex Paint can be dropped off during CHaRM hours. This is then picked up by American Paint Recyclers. The District collects 10 gaylords at a time. There is no cost for this service to residents.

### Used Motor Oil and Antifreeze

Name	Start Date	End Date	Goal
Motor Oil, Antifreeze, Transmission fluid drop off	Existing	Ongoing	2 & 6

The District drop-off is open 24/7 at the CHaRM Facility. Over 800 tons were collected in 2023. This is then picked up by Akron Canton Waste Oil.

## Funding/Grants

### Incentive Based Grants

Name	Start Date	End Date	Goal
Incentive Based Grants	Existing	Ongoing	None

The District may promote grant assistance through various methods including direct engagement, meetings, or media posts.

## Economic Incentives

### Volume-Based Billing/Pay-As-You-Throw Trash Collection Services

Name	Start Date	End Date	Goal
Promotion of PAYT	Existing	Ongoing	7

The District promotes PAYT to increase recycling diversion and lower landfill tonnages. The CHaRM Facility helps reduce residential costs. Extra recycling carts are available if needed for communities serviced by the District. The drop-off also provides additional diversion resources.

### Market Development Programs

Name	Start Date	End Date	Goal
Assist Development Programs	Existing	Ongoing	7 & 9

The District is looking for new market development programs, however, no budget is planned for this program. Any funds disbursed will be unused funds after regular budget items are disbursed.

### Feasibility Studies

Name	Start Date	End Date	Goal
Transfer study	2025	Ongoing	None

The District currently is a licensed transfer station. To become more cost-effective, the District may pursue a feasibility study to better understand operation choices. The District has not yet determined who will conduct the study, most likely an independent contractor. The funding budget line will be funded by the professional and technical services budget line. Once the study has been completed, the results will be reviewed by the Policy Committee. The Policy Committee will then make a recommendation to the Board of Commissioners. If a change in operations is recommended by the Policy Committee, the requirements for any budget update and the process for adopting and implementing the recommended strategies will be followed.

## **Facilities**

### Materials Recovery Facilities/Recycling Centers

Name	Start Date	End Date	Goal
Material Processing Center	Existing	Ongoing	none

The District facility currently hosts two vertical balers, a loader, and a forklift. These are used for miscellaneous materials like shredded office paper, plastic film/bags, and cardboard. The facility currently operates two days a week during CHaRM hours.

### Composting Facilities

Name	Start Date	End Date	Goal
Composting Facilities	Existing	Ongoing	1, 4

The District works with area composting facilities to divert food and yard waste from the landfill. Food and yard waste are collected at the District drop off (in Brimfield Township).

#### Data Collection

Name	Start Date	End Date	Goal
Data Collection	Existing	Ongoing	10

The District collects data from haulers, processors, and the County itself. An annual report is submitted to Ohio EPA and the County.

#### Health Department Support

Name	Start Date	End Date	Goal
Health District	Existing	2020	None

The District partnered with the Health Department and a Sheriff's Deputy. The contract ended and was unable to resign due to funding issues. This program is no longer operating and the District does not expect to reestablish it during this planning period.

#### County Assistance

Name	Start Date	End Date	Goal
County Assistance	2023	Ongoing	6

The District provides municipal assistance in allowing all illegally dumped tires to be brought to the District.

Name	Start Date	End Date	Goal
Litter Enforcement	2015	2020	None

This was ended in 2020 after the annual contract due to funding. The District enforces action against illegal dumping at the District Drop-offs.

#### Municipal Corporation/Township Assistance

Name	Start Date	End Date	Goal
Municipal Assistance	2023	Ongoing	None

The District provides access to drop scrap tires found along roads and items the CHaRM facility can accept.

#### Disaster Debris/Disaster Assistance

Name	Start Date	End Date	Goal
Debris Management Plan	2024	Ongoing	None

The District is in the beginning stages of a debris management plan. The District is collaborating with Portage County Emergency Management to establish a plan in Portage County. The District will help coordinate diversion efforts and will utilize this plan going forward upon its completion.

Closed Facility Maintenance/Post-Closure Care

Name	Start Date	End Date	Goal
District facility Maintenance-Post Closure Care budget	Existing	Ongoing	None

The annual inflation increased by 7% in 2023. This is an annual increase and is required. The current balance is \$66,635.45 and is used for financial insurance if the District transfer station needs to close.

Waste-To-Energy Projects

Name	Start Date	End Date	Goal
Waste to Energy projects	2026	Ongoing	9

The District will begin to research solid waste as a fuel to produce energy, heat, or steam. Results will be used to determine the future direction.

Keep America Beautiful Affiliate

Name	Start Date	End Date	Goal
Keep America Beautiful	2026	NA	9

The District is interested in exploring becoming a Keep America Beautiful Affiliate. There was a discussion among the Policy Committee and the idea of partnerships with communities and local businesses was inquired about with minimal interest. The District will investigate this further after the Solid Waste Plan Update is complete and apply for the grant if it makes sense.

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

Portage County will demonstrate achieving Goal 1 through adequate infrastructure. This includes collecting at least 5 materials from a specified list in the Ohio EPA Format 4.1 and providing access to at least 80% of the residential population. Additionally, infrastructure for commercial and institutional must be shown.

## A. Residential Sector Opportunity to Recycle

Table J-1 Demonstration of Residential Opportunity to Recycle

ID #	Portage	2022		2041	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
<i>Non-subscription curbside</i>					
NCS1	City of Aurora	17,528	17,528	15,752	15,752
NCS2	Atwater Township	2,567	2,567	2,307	2,307
NCS3	Brimfield Township	11,388	11,388	10,234	10,234
NCS4	Franklin Township	6,306	6,306	5,667	5,667
NCS5	Hiram Township	2,405	2,405	2,161	2,161
NCS6	Village of Hiram Township	979	979	880	880
NCS7	City of Kent	27,147	27,147	24,397	24,397
NCS8	Mantua Township	4,591	4,591	4,126	4,126
NCS9	Mantua Village	1,007	1,007	1,000	1,000
NCS10	Ravenna City & Township	20,296	20,296	18,240	18,240
NCS11	Rootstown Township	8,638	8,638	7,762	7,762
NCS12	Shalersville Township	5,261	5,261	4,728	4,728
NCS13	City of Streetsboro	17,720	17,720	15,925	15,925
NCS14	Suffield Township	5,993	5,993	5,386	5,386
<i>Subscription curbside</i>					
n/a					
<i>Full-time, urban drop-off</i>					
FTU1	Brimfield Township	11388	0	10234	0
FTU2	Randolph Township	5,305	5,000	4,768	5,000

ID #	Portage	2022		2041	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
	<b>Part-time, urban drop-off</b>				
n/a					
	<b>Full-time, rural drop-off</b>				
FTR1	Charlestown Township	1748	2,500	1571	2,500
FTR2	Edinburg Township	2854	2500	2125	2,500
FTR3	Nelson Township	3110	2,500	2795	2,500
FTR4	Palmyra Township	2790	2,500	2507	2,500
FTR5	Paris Township	1654	2,500	1486	2,500
	<b>Total County Population</b>	<b>160,451</b>		<b>145,360</b>	
	<b>Total Population Credit</b>	<b>148,982</b>		<b>133,515</b>	
	<b>Percent of Population</b>	<b>93%</b>		<b>92%</b>	

The Ohio EPA's new 4.1 Format dictates drop-off population credit. A full-time Urban drop off receives a population credit of 5,000. A full-time Rural drop off receives a population credit of 2,500. This formula will adjust by 1% reduction in population percentage. The curbside and drop off locations accept cardboard, newspaper, magazines, plastic bottles and jars, steel and metal cans, glass bottles and jars. Brimfield Township drop off receives a 0% population access credit for drop-off because the credit is attributed to curbside.

**B. Commercial Sector Opportunity to Recycle**

**Table J-2 Demonstration of Commercial Opportunity to Recycle**

Service Provider	Type of Recycling Service Provided	Cardboard	Plastic Bottles, Jugs & Tubs	Steel/ Aluminum Cans	Glass bottles	Newspaper/ Mixed Paper
Portage						
Kimble	Hauler	x	x	x	x	x
Republic	Hauler	x	x	x	x	x
Rumpke	Hauler	x	x	x	x	x

In reference year 2022, Haulers reported commercial recycling tonnages. In 2023, Waste Management added commercial tonnage.

The District encourages participation in residential and commercial recycling through education, mailers, and events.

**C. Demonstration of Meeting Other Requirements for Achieving Goal 1**

1. Residential/Commercial Waste Reduction and Recycling Rate

The Ohio State Plan requires a 25% waste reduction and recycling rate. In reference year 2022, Portage County achieved a 30.91% waste reduction and recycling rate. This number is projected to slightly increase over the next planning period.

2. Encouraging Participation

The District encourages participation in residential and commercial recycling through education, mailers, and events.

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

The Ohio EPA 2020 State Goal 2 requires 25% of solid waste generated by the SWMD shall be reduced and recycled.

**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)
<b>2022</b>	<b>160,451</b>	<b>52,230</b>	<b>116,772</b>	<b>169,003</b>	<b>30.90%</b>	<b>1.78</b>
2023	159,617	54,183	110,806	164,989	32.84%	1.86
2024	158,831	54,048	110,230	164,278	32.90%	1.86
2025	158,005	53,912	109,657	163,569	32.96%	1.87
2026	157,183	53,776	109,087	162,863	33.02%	1.87
2027	156,366	53,642	108,520	162,161	33.08%	1.88
2028	155,553	53,508	107,955	161,463	33.14%	1.88
2029	154,744	53,375	107,394	160,769	33.20%	1.89
2030	153,939	53,242	106,835	160,078	33.26%	1.90
2031	153,139	53,111	106,280	159,390	33.32%	1.90
2032	153,139	53,111	106,280	159,390	33.32%	1.90
2033	153,139	53,111	106,280	159,390	33.32%	1.90
2034	153,139	53,111	106,280	159,390	33.32%	1.90
2035	153,139	53,111	106,280	159,390	33.32%	1.90
2036	153,139	53,111	106,280	159,390	33.32%	1.90
2037	153,139	53,111	106,280	159,390	33.32%	1.90
2038	153,139	53,111	106,280	159,390	33.32%	1.90
2039	153,139	53,111	106,280	159,390	33.32%	1.90
2040	153,139	53,111	106,280	159,390	33.32%	1.90
2041	153,139	53,111	106,280	159,390	33.32%	1.90

Portage County population is reported in Appendix C

Portage County Recycled and Disposed is reported in Appendix E and D.

Total Generated= Total Recycled and Total Disposed

Waste Reduction and Recycling Rate = Recycled/Total Generated

Per Capita Waste Reduction and Recycled Rate = (Recycled x 2000 /ton)/  
(Population x 365 days)

Portage County achieved a 30.9% residential/commercial waste reduction rate goal in the reference year 2022. While the District stated it will meet Goal 1 during this planning period, the District anticipates achieving the diversion rate goal as well. The 2020 State Plan removed the need for a SWMD to show industrial diversion.

**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)
<b>2022</b>	<b>52,230</b>	<b>134,536</b>	<b>186,766</b>	<b>27.97%</b>
2023	54,183	128,469	182,651	29.66%
2024	54,048	127,792	181,839	29.72%
2025	53,912	127,119	181,030	29.78%
2026	53,776	126,449	180,225	29.84%
2027	53,642	125,783	179,424	29.90%
2028	53,508	125,120	178,628	29.95%
2029	53,375	124,461	177,835	30.01%
2030	53,242	123,805	177,047	30.07%
2031	53,111	123,153	176,263	30.13%
2032	53,111	123,153	176,263	30.13%
2033	53,111	123,153	176,263	30.13%
2034	53,111	123,153	176,263	30.13%
2035	53,111	123,153	176,263	30.13%
2036	53,111	123,153	176,263	30.13%
2037	53,111	123,153	176,263	30.13%
2038	53,111	123,153	176,263	30.13%
2039	53,111	123,153	176,263	30.13%
2040	76,609	118,645	195,254	39.24%
2041	53,111	123,153	176,263	30.13%

Portage County Recycled and Disposed information can be found in Appendix E and F

Total Generated= Total Recycled and Total Disposed

Waste Reduction and Recycling Rate = Recycled/Total Generated

Per Capita Waste Reduction and Recycled Rate = (Recycled x 2000 /ton)/  
(Population x 365 days)

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

Goal 3: Minimum requirements

Solid Waste Management Districts shall provide the following programs:

- A website
- A comprehensive resource guide
- An inventory of available infrastructure; and
- A speaker or presenter

## A. Minimum Required Education Programs

Web Page

Name	Start Date	End Date	Goal
District Website	Existing	Ongoing	3

An older website was available in 2022 that offered a “What Do I Do With” resource guide. A more user-friendly website was released at the end of 2023. This website was created and updated monthly by the District staff. This website is located at <https://portagerecycles.com>.

With the update, the website shows a static resource guide on “What Do I Do With” items. In addition, pick up schedules along with CHaRM and Household Hazardous Waste collection information is available. The website also shows how items are recycled at our CHaRM facility. Items that are available for drop off are included. The District uses the website to provide a schedule of operating hours, delays in routes, and promotes education. The Website provides an event list by date for the CHaRM facility and Household Hazardous Waste dates.

If items are not accepted at the District, the website shows an updated guide for the material.

## Comprehensive Resource Guide

The “What Do I Do With” resource provides information on the District’s CHaRM facility and household hazardous waste facility. There is a list of pictures that an individual can click on and options on what to do with that item appears. The District attempts to list all items including items the District does not accept. Businesses are provided with information on how to dispose of Hard to Recycle items as well. The website includes available drop off locations in Portage County and the items that are available to recycle.

Resource Guide

Name	Start Date	End Date	Goal
Resource Guide	Existing	Ongoing	3

The website and promotional flyers have recently been updated to reflect a resource guide on material.



330-678-8808

[HOME](#)   [ABOUT](#)   [RECYCLING ▾](#)   [CHARM FACILITY](#)   [WHAT DO I DO WITH?](#)   [UPCOMING EVENTS](#)



### Inventory

All infrastructure inventory of available programs can be found in the Solid Waste Plan. This includes the District curbside programs, drop-off locations, and CHaRM facility. This is updated every five years with the Solid Waste Plan. If changes occur sooner they are updated on the District website.

#### Infrastructure Inventory

Name	Start Date	End Date	Goal
Infrastructure Inventory	Existing	Ongoing	3

The website is an inventory of outlets and services. The focus is staying up to date with how to handle different types of materials. The website will be updated as information is changed.

### Speaker/Presenter

Education is part of the administrative assistant’s position at the District. Upon request and staff availability, the administrative assistant attends events to serve as a speaker for various programs. The staff at Portage County also participates in small tours at the District.

Name	Start Date	End Date	Goal
Educational Outreach	Existing	Ongoing	3

The District did not have one specific person dedicated to education in reference year 2022. This was due to limited staffing, funding and COVID-19 restrictions. The District communicated via social media and one on one conversations. In 2024, an administrative staff member was hired that will participate in events when available. The District currently participates in Touch-a-Truck venues, Habitat for Humanity events, the Portage County Randolph Fair, Earth Day events, and tours that are given at the District home base facility. Waste reduction tips and guides are shared on social media along with events. Potentially, an additional part-time outreach coordinator could be hired in the future if funding is available.

## B. Outreach and Marketing Plan

The 2020 State Plan states each Solid Waste District will provide education, outreach, marketing, and technical. This includes the following:

- Address five target audiences
- Follow best practices when developing and selecting priority outreach programs
- Select an outreach priority and provide education and outreach

The Outreach and Marketing Plan needs to demonstrate these best practices:

- Demonstrate how the District will address the five target audiences
- Explain how the District will follow best practices when developing and selecting outreach programs
- The District will select an outreach priority and provide education and outreach programs to all appropriate audiences in the context of using social marketing principles and tools as the priority

The District as shown above and below uses a variety of different tools to promote change and education. Mailers, website, oops stickers, promotional items, and cart hangers are all part of the outreach that Portage Solid Waste disseminates to throughout the county. The District has used QR codes in the past year for information and events.

In addition to maintaining these educational offerings, the District will develop an educational video on District Recycling Resources. The District will also update signage on curbside carts for additional educational information.

All five audiences which include residents, schools, industries, institutions and commercial businesses, and communities and elected officials are able to use the website, social media and “What Do I Do With” section as an online resource.

### 1) Residential Sector Audience

Name	Start Date	End Date	Goal
Mailers, website, oops stickers, promotional items, events	Existing	Ongoing	3

### Social media

This media is used to launch new events and educational tools.

<https://www.facebook.com/PortageCountyRecycling/> has 1.9k followers that are able to stay up to date on events and resources. Instagram @Portagerecycles is also used to promote events. Our Google business page helps to instruct with recyclable items and locations for recycling.

### Events

The staff at the District participates in Touch-A-Trucks, the County Fair, Habitat for Humanity, and Earth Day events throughout the year. Residents, businesses and students are encouraged to learn about recycling during these events. The District uses all staff to answer questions and talk about education.

### Cart Hangers

Cart hangers are used by the Portage County Solid Waste collection route drivers. While on route, the driver is able to hang a cart hanger on a recycling cart to help educate what is recyclable or not. This helps with contamination.

### Cart Stickers

Portage County Solid Waste collection route drivers also use Oops tags. Oops tags are administered to recycling carts when items are placed in carts that are not recyclable. There are 5 different Oops stickers the District uses.

Target next five years: create an educational video on acceptable material in recycling cart and update signs on curbside carts.

## 2) Schools

Name	Start Date	End Date	Goal
School Outreach	Existing	Ongoing	4

In addition to the website and social media resource, schools have been contacted to share how to recycle items like electronics. Collection events have been held at some area schools that wanted the collection event. The District anticipates sharing food composting opportunities as they become available. There is also a film plastic challenge that is encouraged at schools. This is key for the District to focus on and to provide outlets for different types of material. Electronic recycling will be tracked by tonnages provided by the collector to show data results.

Target for next five years: Send email annually to each school district in Portage County to encourage recycling and show available diversion programs.

### 3) Industries

Name	Start Date	End Date	Goal
Industrial Business engagement	Existing	Ongoing	5

The District promotes the website, social media, and “What Do I Do With” page. Additionally, waste audits are available upon request.

Target for next five years: send mailers or emails to 5 industrial businesses annually to educate on diversion options.

### 4) Institutions and Commercial Businesses

Name	Start Date	End Date	Goal
Commercial/ Industrial Outreach	Existing	Ongoing	3

The website and social media help to reach the commercial sector. The District participates in events held at commercial businesses. Information will be provided for the commercial sector on various recycling options for materials. The data collected on the ADR and by surveying will provide data analysis. Waste audits are available by the District upon request. The District did not have any waste audit requests during the reference year.

The District provides curbside service to many multi-family housing units if the District services that municipality.

Target for next five years: Promote the District Drop off for recyclables. This could be done through mailings or social media.

### 5) Communities and Elected Officials

Name	Start Date	End Date	Goal
Political Outreach (name change from Community Outreach)	Existing	Ongoing	4

Outreach is provided by emails to each community council or township on an annual basis. This includes sharing social media posts and upcoming events. The District will prioritize touch-a truck events to support educational information. These events allow for the education of recyclable materials into the recycling cart along with what it’s like to be a driver. Staff communicates with individuals and provides promotional items.

Target for next five years: Email annually each community with updated CHaRM, and drop off information.

### C. Outreach Priority

Name	Start Date	End Date	Goal
Food composting and electronic recycling opportunities	2026	Ongoing	3,4,& 6

Goal/Purpose: The Portage County Solid Waste District will focus on reducing the amount of food waste and electronics sent to landfills. Food waste comprises a large percentage of landfilled material. Electronics are frequently discarded.

The target audience includes all five target audiences and include residents, schools, industries, institutions and commercial businesses, and communities and elected officials.

The District will focus on education and hosting opportunities for events as the strategy. The education will be focused on changing unwanted behaviors and providing diversion options. Events will be held continuously at the District and periodically throughout the county.

The District will contact schools and businesses by email, social media, and/or mailers that promote the education of these programs. This information will also be shared at speaker events that the District attends.

The drop off/ CHaRM facility at the District accepts food waste and electronic recycling. By sending drop off flyers and promoting the CHaRM facility, a better awareness of available diversion options will be made known. The District will also share the website of Ohio EPA that focuses on environmental educational materials. Electronics based information regarding batteries specifically, could potentially help prevent truck and material recovery facility fires while diverting material from the landfill.

In Conclusion, the District hopes to accomplish higher diversion rates regarding food and electronic waste. Results will be tracked through our annual district report and tonnage reported in each section.

# APPENDIX M WASTE MANAGEMENT CAPACITY ANALYSIS

## A. Access to Publicly Available Landfill Facilities

Appendix M ensures adequate capacity for solid waste management. Ohio EPA completed the remaining capacity years in Table M-1.

### M-1: Remaining Operating Life of Publicly-Available Landfills

Facility	Location	Years of Remaining Capacity	Status (enter no change, planned expansion, pending expansion, or closing)	Applicable Dates
American Landfill, Inc.	Stark County	86		12/31/2022
Countywide RDF	Stark County	60		12/31/2022
Carbon Limestone	Mahoning County	37		12/31/2022
Kimble Sanitary Landfill	Tuscarawas County	30		12/31/2022
Geneva Landfill	Ashtabula County	33		12/31/2022
Mahoning Landfill	Mahoning County	43		12/31/2022
Athens Hocking Landfill	Athens County	46		12/31/2022
Noble Road Landfill	Richland County	13		12/31/2022
Evergreen Recycling and Disposal	Wood County	36		12/31/2022
Lorain County II Landfill	Lorain County	14		12/31/2022
Defiance County Landfill	Defiance County	41		12/31/2022

It is anticipated there is adequate remaining landfill space remaining in the landfills Portage County currently utilizes. Portage County will likely continue to utilize transfer facilities.

## B. Access to Captive Landfill Facilities

None

## C. Incinerators and Energy Recovery Facilities

None

# APPENDIX N      EVALUATING GREENHOUSE GAS EMISSIONS

## The Waste Reduction Model (WARM)

WARM is a tool that US EPA developed to quantify the effects of waste management decisions on greenhouse gas emissions. The model demonstrates the benefits of alternative management technologies over traditional management methods. The WARM model is updated regularly. A SWMD can use a different but comparable modeling program to calculate greenhouse gas emission reductions provided the model accounts for waste management and recycling activities. WARM is intended to compare municipal solid waste management scenarios. Therefore, data is used for only the Residential/commercial sector.

Each SWMD will run WARM twice and include the results in the solid waste management plan:

- For the first run, enter all quantities recycled in the reference year in the landfill column (for the baseline year) and for the alternative scenario, enter the quantities recycled in the tons recycled column.
- For the second run, enter the quantities of residential/commercial material recycled in the reference year in the tons recycled column (for the baseline scenario), and then enter the quantities projected to be recycled in the sixth year of the planning period in the alternative scenario column.

Include printouts of the results for both runs in the solid waste management plan.

## GHG Measurement

Gases that trap heat in the atmosphere are called greenhouse gases. The main greenhouse gases are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. Each gas's effect on the climate depends on how much is in the atmosphere, how long they stay in the atmosphere, and how strongly they impact the atmosphere. Disposal and treatment of materials results in greenhouse gas emissions from collection, transport, landfill disposal, manufacturing, etc.

The most common way to measure climate impact of waste management is to state the impact in carbon equivalents. Since waste reduction results in the reduction of several types of greenhouse gases, the conversion to a standard carbon equivalent (CO<sub>2</sub>E) measurement allows for a total quantification of the impact. It also provides standard language to compare these actions to others such as transportation and energy conservation efforts. A carbon equivalent, CO<sub>2</sub>E, is simply the amount of CO<sub>2</sub> that would have the same global warming potential as the waste reduction impacts, when measured over a specified timescale. The international reporting standard for CO<sub>2</sub> emissions are metric tons, so carbon dioxide amounts may be reported as MTCO<sub>2</sub>E, metric tons of carbon equivalent.

Produced by US EPA, the Waste Reduction Model (WARM) was designed to help solid waste planners, municipal leaders, and other stakeholder organizations track and report greenhouse gas emissions reductions. It is a database tool that helps decision makers predict the strategies that most reduce GHG emissions. The WARM model calculates GHG emission across six waste management modalities (source reduction, recycling, composting, anaerobic digestion,

combustion, and landfilling). Modeling different combinations of waste management practices allows decision makers to see which approach leads to the least GHG entering the atmosphere.

WARM is a standard tool used for waste management GHG impacts, however the model does have limitations. For example, the WARM GHG-related impacts of composting organics were developed within the framework of the larger WARM development effort and the presentation of results, estimation of emissions and sinks, and description of ancillary benefits are not comprehensive. Also, the material categories within the model are not exhaustive therefore, materials like household hazardous wastes (HHW) and used motor oil were excluded from the modeling because they have no related WARM proxy.

This report shows the metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E), which describes the global-warming potential of all common greenhouse gases as an equivalent of carbon dioxide. Negative values indicate GHG savings and positive values indicate increasing emissions. Portage County generated 186,788 tons in reference year 2022. Composting and recycling diverted 52,252 tons of the generated amount.

**Table N-1 Reference Year Diversion WARM**

<b>Total GHG Emissions From Baseline- 2022</b>	<b>(48,292.83) MTCO<sub>2</sub>e</b>
<b>Total GHG Emission Projected - 2031</b>	<b>(49,110.09) MTCO<sub>2</sub>e</b>
<b>GMS Emission Savings</b>	<b>(817.26) MTCO<sub>2</sub>e</b>

<b>This is equivalent to...</b>		
Removing annual emissions from	<b>10,253</b>	Passenger Vehicles
Conserving	<b>5,434,098</b>	Gallons of Gasoline
Conserving	<b>2,012,201</b>	Cylinders of Propane Used for Home Barbeques
	<b>0.00271%</b>	Annual CO <sub>2</sub> emissions from the U.S. transportation sector
	<b>0.00267%</b>	Annual CO <sub>2</sub> emissions from the U.S. electricity sector

The District has recently created new diversion programs for food, yard waste, and electronics. These materials create greenhouse gas emissions.

# APPENDIX O FINANCIAL PLAN

Ohio Revised Code Section 3734.53(B) requires a solid waste management plan to present a budget. This budget accounts for how the District will obtain money to pay for operating the District and how the District will spend that money. For revenue, the solid waste management plan identifies the sources of funding the District will use to implement its approved solid waste management plan. The plan also provides estimates of how much revenue the District 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 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 for a period of 15 years, from 2026 to 2041.

## A. Funding Mechanisms and Revenue Generated

This section examines the funding mechanisms expected to be used by the District. In addition, anticipated revenues from each source listed below are projected for each year of the planning period.

### 1. Disposal Fee

**Table O-1 Disposal Fee Schedule and Revenue (in accordance with ORC Section 3734.57(B))**

Years 2018- 2022	Disposal Fee Schedule (\$/ton)			Revenue (\$)			Total Disposal Fee Revenue (\$)
	In- District	Out-of- District	Out-of- State	In-District	Out-of- District	Out-of- State	
	\$2	\$4	\$2	0%	0%	0%	0%

The District does not currently receive any revenue 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 \$2.00 collected on each ton of solid waste that is generated within the District and disposed at a solid waste landfill located within the District, \$4.00 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 \$2.00 collected on each ton of solid waste generated outside of Ohio and disposed at a solid waste landfill located within the District.

## 2. Generation Fee

**Table O-2 Generation Fee Schedule and Revenue**

Year	Generation Fee Schedule (\$ per ton)	Total Revenue from Generation Fee (\$)
2018	\$9.60	\$1,097,861
2019	\$9.60	\$1,081,535
2020	\$9.60	\$1,117,083
2021	\$9.60	\$1,103,238
<b>2022</b>	<b>\$9.60</b>	<b>\$1,291,539</b>
2023	\$9.60	\$1,287,082
Projected		
2024	\$9.60	\$1,280,647
2025	\$9.60	\$1,274,243
2026	\$9.60	\$1,267,872
2027	\$9.60	\$1,261,533
2028	\$9.60	\$1,255,225
2029	\$9.60	\$1,248,949
2030	\$9.60	\$1,242,704
2031	\$9.60	\$1,236,491
2032	\$9.60	\$1,236,491
2033	\$9.60	\$1,236,491
2034	\$9.60	\$1,236,491
2035	\$9.60	\$1,236,491
2036	\$9.60	\$1,236,491
2037	\$9.60	\$1,236,491
2038	\$9.60	\$1,236,491
2039	\$9.60	\$1,236,491
2040	\$9.60	\$1,236,491
2041	\$9.60	\$1,236,491

Source(s) of Information: Portage County SWMD Quarterly Fee Reports.

Note: Projections flatline after the sixth year of the planning period.

In accordance with ORC 3734.573, a solid waste management district may levy fees on the generation of solid waste within the District. Generation fees are collected on each ton of waste that passes through the transfer stations or ends up at landfills.

The District's generation fee has remained unchanged since 1994 when the \$9.60 per ton fee was adopted and implemented. The District has historically relied upon and will continue to rely upon this generation fee to support its programs and infrastructure. Over the last five years, the District's generation fee revenue has accounted for 34% of total revenue received on average.

The District averaged \$1.1 million in revenue from the generation fee historically but has seen the annual total rise to nearly \$1.3 million in 2022 and 2023. In 2022 this rise was primarily from sludge waste and in 2023 there was a train derailment that elevated the tonnages. Following a projected decline in population and more diversion efforts throughout the County, this number is expected to decline as shown above. The revenue from the District's generation fee is projected to decline by 0.5% each year. Projections flatline after the sixth year of the planning period.

3. Designation Fees

**Table O-3 Designation Fee Schedule and Revenue**

Year	Designation Fee Schedule (\$ per ton)	Total Designation Fee Revenue (\$)
Not Applicable		

In accordance with Ohio Revised Code 343.014, a solid waste management district may adopt designation fees to ensure adequate financing to implement the approved solid waste plan. Designation fees can be levied on any solid waste landfill that is designated by the District to receive District-generated waste. The District does not receive revenues from designation fees.

4. Debt/Loans

**Table O-4 - Loans**

Year Debt Was/Will be Obtained	Outstanding Balance	Lending Institution	Repayment Term (years)	Annual Debt Service (\$)
Not Applicable				

The District does not have any outstanding debt due to existing loans and does not anticipate securing loans during this planning period.

5. Other Sources of District Revenue

**Table O-5 Other Sources of Revenue**

Year	Rates & Charges	User Fees	Recycling Revenue	Miscellaneous	Grants	Total Other Revenue
2018	\$0	\$1,213,562	\$34,900	\$700,047	\$0	\$1,948,509
2019	\$782,686	\$998,454	\$7,664	\$13,255	\$0	\$1,802,058
2020	\$1,048,024	\$716,773	\$3,371	\$742,766	\$8,000	\$2,518,934
2021	\$874,048	\$1,104,002	\$156,764	\$113,548	\$11,235	\$2,259,598
2022	\$579,593	\$1,080,074	\$194,322	\$979,338	\$87,212	\$2,920,539
2023	\$1,894,723	\$0	\$8,874	\$141,255	\$87,212	\$2,132,064

Projected						
2024	\$1,440,000	\$0	\$22,000	\$0	\$0	\$1,462,000
2025	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2026	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2027	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2028	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2029	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2030	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2031	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2032	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2033	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2034	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2035	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2036	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2037	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2038	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2039	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2040	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000
2041	\$1,440,000	\$0	\$2,000	\$0	\$0	\$1,442,000

Source(s) of Information: Portage County SWMD Quarterly Fee Reports.

Note: Projections flatline after the sixth year of the planning period.

Note: 2024 Recycling Revenue of \$22,000 is the actual total as of July 2024.

The District receives approximately 66% of its revenue on average from sources other than its generation fee. From 2018 to 2022, the District received “other revenue” mainly from rates and charges and user fees, with smaller amounts received from grants, sale of recyclables, and miscellaneous.

**Rates and Charges:** The District receives \$5.50 per household for its rates and charges. To remain conservative, the District held the estimated 2024 housing number constant throughout the planning period which equates to \$1.4 million annually.

**User Fees:** User Fees were collected for parcels that received curbside recycling services. In 2022, this was standardized and moved to rates and charges. The District does not anticipate user fees in this planning period for the collection of additional materials but will evaluate if the budget needs arise.

**Recycling Revenue:** The District receives some money on the sale of collected recyclables. However, markets are constantly changing and this source of revenue is not guaranteed to follow historic trends. As such, the District projected only \$2,000 annually from this source.

**Miscellaneous:** Any funds received by the District that do not fall into available categories are defined as miscellaneous. The District has received funds from this source every year from 2018 to 2022. This revenue source has not been projected in the planning period.

- In 2018, others include insurance settlement, fines and fees, contract services, and curbside services were included.
- In 2019, reimbursement of fees, insurance settlement, and fines were included.

- In 2020, the District borrowed \$700,000 from the Board of Commissioners, held a public auction, received an insurance settlement, and received fines.
- In 2021, the sale of fixed assets, refunds, insurance settlement, and fines were included.
- In 2022, the Board of Commissioners completed the payoff for the Closed Loop fund of \$428,839.84 for the non-running Parker Runwise Trucks, sale of fixed assets, and reimbursements.

Grants: The District has applied for various Recycle Ohio and Ohio Environmental Protection Agency grants. These include tire, truck, and community and litter prevention. Grants are not in the projected budget as there is no guarantee of funding.

## 6. Summary of District Revenues

**Table O-6 Total Revenue**

Year	Disposal Fees	Generation Fees	Designation Fees	Other Revenue	Total Revenue
2018	\$0	\$1,097,861	\$0	\$1,948,509	\$3,046,370
2019	\$0	\$1,081,535	\$0	\$1,802,058	\$2,883,593
2020	\$0	\$1,117,083	\$0	\$2,518,934	\$3,636,017
2021	\$0	\$1,103,238	\$0	\$2,259,598	\$3,362,835
2022	\$0	\$1,291,539	\$0	\$2,920,539	\$4,212,078
2023	\$0	\$1,287,082	\$0	\$2,132,064	\$3,419,146
Projected					
2024	\$0	\$1,280,647	\$0	\$1,462,000	\$2,742,647
2025	\$0	\$1,274,243	\$0	\$1,442,000	\$2,716,243
2026	\$0	\$1,267,872	\$0	\$1,442,000	\$2,709,872
2027	\$0	\$1,261,533	\$0	\$1,442,000	\$2,703,533
2028	\$0	\$1,255,225	\$0	\$1,442,000	\$2,697,225
2029	\$0	\$1,248,949	\$0	\$1,442,000	\$2,690,949
2030	\$0	\$1,242,704	\$0	\$1,442,000	\$2,684,704
2031	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2032	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2033	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2034	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2035	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2036	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2037	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2038	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2039	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2040	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491
2041	\$0	\$1,236,491	\$0	\$1,442,000	\$2,678,491

Source(s) of Information: Portage County SWMD Quarterly Fee Reports.

Note: Projections flatline after the sixth year of the planning period.

Table O-6 shows the total amount of revenue generated by each method for each year of the planning period. The District's primary funding mechanism is the generation fee and rates & charges. The District receives revenue from a variety of other sources such as the sale of recycling, donations, interest, and other miscellaneous streams. Together, these "other" sources of revenue make up approximately 66% of the District's income. The District flatlined the projected revenues after the sixth year of the planning period.

**B. Cost of Implementing Plan**

**Table O-7 Expenses**

Line #	Category/Program	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1	<b>1. Plan Monitoring/Prep.</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$14,685	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$0	\$0	\$0	\$0	\$14,685	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	<b>2. Plan Implementation</b>	\$3,349,419	\$2,623,788	\$2,449,981	\$2,383,269	\$3,409,723	\$3,646,958	\$3,134,056	\$2,610,995	\$2,491,303	\$2,462,869	\$2,431,862	\$2,499,924	\$2,569,363	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519	\$2,629,519
2.a	<b>a. District Administration</b>	\$358,728	\$71,113	\$257,590	\$274,473	\$240,671	\$266,322	\$759,312	\$357,541	\$366,017	\$374,748	\$383,740	\$393,002	\$402,542	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731	\$410,731
2.a.1	Personnel	\$242,607	\$66,918	\$257,590	\$203,051	\$240,671	\$266,322	\$274,312	\$282,541	\$291,017	\$299,748	\$308,740	\$318,002	\$327,542	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731	\$335,731
2.a.2	Office Overhead	\$116,121	\$4,195	\$0	\$71,422	\$0	\$0	\$485,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
2.a.3	Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b	<b>b. Facility Operation</b>	\$0	\$0	\$0	\$0	\$0	\$4,359	\$10,000	\$10,150	\$10,305	\$10,464	\$10,628	\$10,796	\$10,305	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437	\$10,437
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.c	<b>c. Landfill Closure/Post-Closure</b>	\$0	\$0	\$0	\$0	\$0	\$4,359	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796	\$5,305	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437	\$5,437
2.d	<b>d. Recycling Collection</b>	\$2,369,012	\$1,927,996	\$1,570,712	\$1,387,117	\$2,447,373	\$2,441,790	\$2,204,495	\$2,070,629	\$1,932,748	\$1,890,731	\$1,847,453	\$1,902,876	\$1,959,963	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.3	Combined Curbside/Drop-off	\$1,729,970	\$1,927,996	\$1,570,712	\$1,387,117	\$2,152,998	\$2,140,286	\$2,204,495	\$2,070,629	\$1,932,748	\$1,890,731	\$1,847,453	\$1,902,876	\$1,959,963	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962	\$2,008,962
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other	\$639,042	\$0	\$0	\$0	\$294,375	\$301,504	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.e	<b>e. Special Collections</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$132,000	\$143,750	\$147,613	\$151,591	\$154,050	\$156,582	\$159,190	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429	\$161,429
2.e.1	Tire Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
2.e.2	HHW Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$77,250	\$79,568	\$81,955	\$84,413	\$86,946	\$89,554	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793	\$91,793
2.e.3	Electronics Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$50,000	\$51,500	\$53,045	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636	\$54,636
2.f	<b>f. Yard Waste/Other Organics</b>	\$0	\$0	\$0	\$0	\$0	\$835	\$2,500	\$2,575	\$2,652	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732	\$2,732
2.g	<b>g. Education/Awareness</b>	\$0	\$3,000	\$0	\$0	\$0	\$0	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478
2.g.1	Education Staff	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.g.2	Advertisement/Promotion	\$0	\$3,000	\$0	\$0	\$0	\$0	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478	\$24,478
2.g.3	Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.h	<b>h. Recycling Market Development</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.h.1	General Market Development Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.i	<b>i. Service Contracts</b>	\$0	\$0	\$0	\$0	\$0	\$105,072	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.j	<b>j. Feasibility Studies</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.l	l. Dump Cleanup	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
2.m	m. Litter Collection/Education	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
2.o	o. Loan Payment	\$620,929	\$620,929	\$620,929	\$720,929	\$720,929	\$827,829	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.p	p. Other	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750
3	<b>3. Health Dept. Enforcement</b>	\$65,125	\$64,945	\$16,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Portage County Health Department</i>	\$65,125	\$64,945	\$16,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department Name:</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department Name:</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department Name:</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	<b>4. County Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4.d	d. Providing Other Public Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	<b>5. Well Testing</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	<b>6. Out-of-State Waste Inspection</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	<b>7. Open Dump, Litter Law Enforcement</b>	\$61,088	\$84,564	\$39,898	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Health Departments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7.b	b. Local Law Enforcement	\$61,088	\$84,564	\$39,898	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	<b>8. Health Department Training</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	<b>9. Municipal/Township Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
9.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.d	d. Providing other Public Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
10	<b>10. Compensation to Affected Community (ORC Section 3734.35)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>***Total Expenses***</b>	<b>3,475,632</b>	<b>2,773,296</b>	<b>2,506,115</b>	<b>2,383,269</b>	<b>3,409,723</b>	<b>3,646,958</b>	<b>3,148,741</b>	<b>2,610,995</b>	<b>2,496,303</b>	<b>2,467,869</b>	<b>2,436,862</b>	<b>2,504,924</b>	<b>2,574,363</b>	<b>2,634,519</b>										

## **Explanation of Expenses**

All costs from 2018 – 2023 are actual costs incurred by the District historically. Costs through the planning period are projected costs based on the District’s analysis of its finances and the planned programming described in this plan. Unless otherwise specified below, the District used an annual inflation factor of 3% for the first five years of the planning period and 2.5% for all years after. The District flatlined all expense projections after the sixth year of the planning period.

### **1 *Plan Monitoring/Prep***

#### **1.a Plan Preparation**

The District hired outside consultants to help prepare the District’s Solid Waste Management Plan in 2024. The District did not budget for assistance on future plan updates.

#### **1.b Plan Monitoring**

No planned direct cost.

#### **1.c Other**

### **2 *Plan Implementation***

#### **2.a District Administration**

##### **2.a.1 Personnel**

The cost to support the District’s administrative staff with salary, fringe benefit, workers compensation, health insurance, PERs, and Medicare. The District expects to maintain personnel structure through the planning period and may add an additional part time employee.

##### **2.a.2 Office Overhead**

Capital improvement projects including updating roofs in 2024 and building projects. Utilities, postage, computers, supplies, state audits, training material and maintenance. The District budgeted \$75,000 annually for this line item through the planning period. In 2024, the District expects to purchase a new roof on its CHaRM Center which was estimated to cost \$410,000.

##### **2.a.3 Other**

#### **2.b Facility Operation**

These expenses are included in combined curbside and drop-off collection.

2.b.1 MRF/Recycling Center

These expenses are included in combined curbside and drop-off collection.

2.b.2 Compost

These are expenses that contribute to expenses are included in combined curbside and drop-off collection.

2.b.3 Transfer

The District budgeted \$5,000 annually to maintain all requirements for a licensed transfer facility. This amount could potentially change based upon the analysis results and the District may re-allocate funds. If needed, the District will ratify an amended budget.

2.b.4 Special Waste

These expenses are included in 2e in special collections.

2.c Landfill Closure/Post-Closure

The cost required by the State to be put into a general fund for post-closure waste facility care. The District budgeted \$5,000 beginning in 2024 and applied the inflationary factors described above.

2.d Recycling Collection

2.d.1 Curbside

Curbside is combined with the Combined Curbside/Drop-off budget. The District runs 8 Townships and 1 city single-stream curbside collection program. This is collected in District trucks. A Fee is paid to process the material. This fee is currently \$88.46 per ton.

The District has seen elevated costs for this program from 2022 to 2024. This is in part due to the purchasing requirements of this program such as new collection trucks in 2023 and 2024. The District will purchase trucks as needed. This program accounted for 63% of the District's expenses in the reference year whereas historically it has accounted for roughly 50%. The District has decided to steadily decrease the budgeted funds for this program to return the expenses to historic levels. In 2025 and 2026 the District decreased the budgeted amount by \$200,000 each year and in 2027 and 2028 decreased it by another \$100,000 each year. This District applied the inflationary factors described above to this program.

#### 2.d.2 Drop-off

Drop-off is combined with the combined Curbside/Drop-Off budget. The District services 7 drop-off sites. This District incurs the cost of this collected in a District truck. Across the 7 locations are a total of 41 dumpsters that get pulled three days a week and are single-stream. A fee is paid to process the material. Other incurred costs include the driver, fuel, truck, maintenance, dumpsters, and fringe benefits. This also includes maintaining or purchasing dumpsters.

#### 2.d.3 Combined Curbside/Drop-off

The District has seen elevated costs for this program from 2022 to 2024. This is in part due to the purchasing requirements of this program such as new collection trucks in 2023 and 2024. The District expects to replace trucks as needed. This program accounted for 63% of the District's expenses in the reference year whereas historically it has accounted for roughly 50%. The District has decided to steadily decrease the budgeted funds for this program to return the expenses to historic levels. In 2025 and 2026 the District decreased the budgeted amount by \$200,000 each year and in 2027 and 2028 decreased it by another \$100,000 each year. This District applied the inflationary factors described above to this program.

It cost the District \$89,729.71 from November 2022 to November 2023 to process the collected material. This does not include transportation, drivers, fuel, fringe benefits, trucks, or carts.

#### 2.d.4 Multi-family

No planned direct cost.

#### 2.d.5 Business/Institutional

No planned direct cost.

#### 2.d.6 Other

#### 2.e Special Collections

CHaRM- The Portage County Center for Hard to Recycle Materials is projected to spend \$147,500 in the first year of the planning period, increasing with inflation. This includes the collections below.

##### 2.e.1 Tire Collection

Tire collection expenses are budgeted for \$15,000 annually. This includes direct hauling to a tire processor. When possible, the District will apply for grants to help offset the cost of collecting used tires.

### 2.e.2 HHW Collection

Cost to collect HHW from residents and contract with businesses who properly dispose or recycle the material. The District projected \$75,000 for this program in 2024, increasing with inflation annually.

### 2.e.3 Electronics Collection

This District incurs the cost of this collection at the facility with staff. A third party collects a fee to process some material. This cost is included in other line items.

### 2.e.4 Appliance Collection

This District incurs the cost of this collected by District staff. Other incurred costs include the driver, fuel, truck, maintenance, and fringe benefits. This also includes maintaining EPA 608 certification for freon. This cost is included in other line items.

### 2.e.5 Other Collection Drives

Collection of plastic bags, oil, antifreeze, and latex paint. Also includes costs for shredding paper. The District budgeted \$50,000 for this program in 2024 and this will increase to a maximum of \$55,000 annually.

### 2.f Yard Waste/Other Organics

Yard waste includes transportation costs. Food Compost includes pick-up costs. This includes a slight increase to grow the program.

### 2.g Education/Awareness

The District has budgeted \$20,000. This includes promotional items for events. Mailers that are sent with schedules and acceptable items. There is also the potential for electronic communications. This cost increases annually for inflation.

#### 2.g.1 Education Staff

This expense may show under District administration and personnel. If funding is available the District may hire a part-time educator if funding permits. This position would encourage recycling education and promote relationships with stakeholders.

#### 2.g.2 Advertisement/Promotion

This expense covers the cost of flyers and brochures. This could include relabeling of carts.

#### 2.g.3 Other

No planned direct expenses.

2.h Recycling Market Development

2.h.1 General Market Development Activities

No planned direct expenses.

2.h.2 Ohio EPA pass-through grant

No planned direct expenses.

2.i Service Contracts

No planned direct expenses.

2.j Feasibility Studies

A feasibility study would be a one time fee. This funding will be shown in 2j and be funded by plan implementation. A time line has not been established.

2.k Waste Assessments/Audits

No planned direct expenses.

2.l Dump Cleanup

The District budgeted \$5,000 annually for dump cleanups throughout Portage County.

2.m Litter Collection/Education

No planned direct expenses.

2.n Emergency Debris Management

Portage County is working to help create an emergency debris management plan. This plan is in progress as was not completed at the time of this Plan Update. It is unknown what will be needed for this program financially at this time. However, the District budgeted \$5,000 annually for emergency debris management.

2.o Loan Payment

No direct expenses are planned.

2.p Other

Miscellaneous other expenses related to plan implementation. The District budgeted \$750 annually.

**3 Health Dept. Enforcement**

No planned direct expenditures.

**4 County Assistance**

4.a Maintaining Roads

No planned direct expenditures.

4.b Maintaining Public Facilities

No planned direct expenditures.

4.c Providing Emergency Services

No planned direct expenditures.

4.d Providing Other Public Services

This expenditure from year 2026 through the planning period includes \$5,000.

**5 Well Testing**

No planned direct expenditures.

**6 Out-of-State Waste Inspection**

No planned direct expenditures.

**7 Open Dump, Litter Law Enforcement**

No planned direct expenditures.

**8 Heath Department Training**

No planned direct expeditions.

**9 Municipal/Township Assistance**

9.a Maintaining Roads

No direct expenses planned.

9.b Maintaining Public Facilities

No direct expenses planned.

9.c Providing Emergency Services

No direct expenses planned.

9.d Providing other Public Services

The District allows all illegally dumped tires to be brought to the District by municipalities. The District budgeted \$5,000 for properly managing the dumped tires. Revenues and expenses may change from projections anticipated in this Plan Update. Additional revenues are not expected; however, revenues could increase or decrease from what is projected. In the event additional revenues are received, and projected expenses remain within budgeted allowances, additional revenues may be added to the carryover balance.

Nothing contained in these budget projections should be construed as a binding commitment by the District to expend a specific amount of money on a particular strategy, facility, program, and/or activity. The Board of Commissioners, with the advice and assistance of District staff, will review and revise the budget as needed to implement planned strategies, facilities, programs, and/or activities as effectively as possible with funds available. The District reserves the right to revise the budget and reallocate funds as programs change or as otherwise determined to be in the best interest of the District.

**Table O-8 Budget Summary**

Year	Revenue	Expenses	Annual Surplus/Deficit (\$)	Balance (\$)
2017				\$679,061
2018	\$3,046,370	\$3,475,632	-\$429,262	\$249,799
2019	\$2,883,593	\$2,773,296	\$110,297	\$360,096
2020	\$3,636,017	\$2,506,115	\$1,129,902	\$1,489,998
2021	\$3,362,835	\$2,383,269	\$979,566	\$1,318,040
<b>2022</b>	<b>\$4,212,078</b>	<b>\$3,409,723</b>	<b>\$802,355</b>	<b>\$2,120,395</b>
2023	\$3,419,146	\$3,646,958	-\$227,811	\$1,892,584

2024	\$2,742,647	\$3,148,741	-\$406,095	\$1,486,490
2025	\$2,716,243	\$2,610,995	\$105,248	\$1,591,737
2026	\$2,709,872	\$2,496,303	\$213,569	\$1,805,307
2027	\$2,703,533	\$2,467,869	\$235,663	\$2,040,970
2028	\$2,697,225	\$2,436,862	\$260,363	\$2,301,333
2029	\$2,690,949	\$2,504,924	\$186,025	\$2,487,358
2030	\$2,684,704	\$2,574,363	\$110,342	\$2,597,700
2031	\$2,678,491	\$2,634,519	\$43,972	\$2,641,672
2032	\$2,678,491	\$2,634,519	\$43,972	\$2,685,644
2033	\$2,678,491	\$2,634,519	\$43,972	\$2,729,616
2034	\$2,678,491	\$2,634,519	\$43,972	\$2,773,588
2035	\$2,678,491	\$2,634,519	\$43,972	\$2,817,560
2036	\$2,678,491	\$2,634,519	\$43,972	\$2,861,532
2037	\$2,678,491	\$2,634,519	\$43,972	\$2,905,504
2038	\$2,678,491	\$2,634,519	\$43,972	\$2,949,476
2039	\$2,678,491	\$2,634,519	\$43,972	\$2,993,448
2040	\$2,678,491	\$2,634,519	\$43,972	\$3,037,419
2041	\$2,678,491	\$2,634,519	\$43,972	\$3,081,391

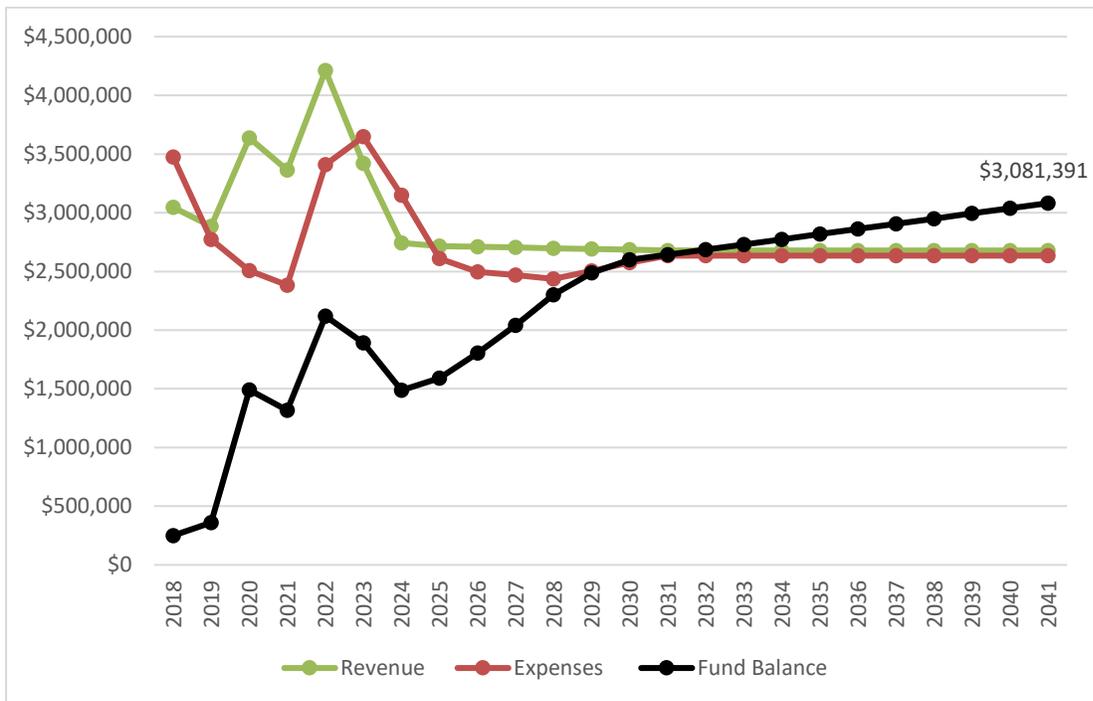
Note: Projections flatline after the sixth year of the planning period.

Source(s) of Information: CY 2017-2023 revenues sourced from Portage County SWMD Quarterly Fee Reports. All other amounts are projections.

The District’s fund balance was almost depleted in 2018. With careful management of resources, the District has been able to bring its balance back to safe operating levels. The District planned for its expenses to increase as inflation and the cost of goods/services rose. After analysis, the District concluded that its current expense levels are unsustainable long term. Rather than raise its generation fee to increase revenue, the District plans to reduce its spending steadily over the first five years of the planning period. No programmatic changes are expected as a result of this.

Figure O-1 below presents the District’s projected expenses, revenues, and fund balance through the planning period.

**Figure O-1 District Budget Through Planning Period**



**C. Alternative Budget**

The District 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.

**D. Major Facility Project**

The District does not anticipate any major facility projects during this planning period. In the event the District determines that the access to, and the costs for disposal become an economic burden for residents and businesses, the District reserves the right to explore the development of a major facility for waste generated in Portage County.

# **APPENDIX P      DESIGNATION**

## **A.      Statement Authorizing/Precluding Designation**

The Board of County Commissioners is authorized to establish facility designations in accordance with Sections 343.013, 343.014, and 343.015 of the Ohio Revised Code.

## **B.      Designated Facilities**

No facilities are being designated in this Plan Update, however, the District reserves the right to designate facilities if necessary.

# **APPENDIX Q      DISTRICT RULES**

## **A.      Existing Rules**

### Definitions

#### *Definitions:*

"County" means Portage County, Ohio.

"District" means the Portage County Solid Waste Management District, which is a separate political subdivision.

"Board of County Commissioners of the Portage County Solid Waste District" means the Board of County Commissioners of the Portage County Solid Waste Management District. Previously indicated as District Commissioners.

"District Plan" means the solid waste management plan adopted by the Portage County Solid Waste Management District pursuant to section 3734.55 of the Revised Code, and any amendment thereto.

"District Policy Committee" means the Portage County Solid Waste Management District Policy Committee established pursuant to section 3734.54 of the Revised Code.

"Health District" means the Portage County Combined General Health District and/or any designated certified Board of Health within the District.

"Local political subdivision" means any political subdivision wholly located within the District, including Portage County, and any political subdivision a portion of which is found within Portage County and participating in the District.

"Ohio EPA" means the Ohio Environmental Protection Agency.

"Political subdivision" means any county, Municipal Corporation, township, county or joint solid waste management district or other political subdivision.

"Solid waste facility" means any solid waste storage, collection, transfer, disposal, composting, tire disposal, recycling or resource recovery facility.

"Solid waste hauler" means any person or political subdivision, other than an individual collecting and hauling his own personal family-related solid waste, who hauls or otherwise transports solid waste.

"Commercial solid waste hauler" means any person who hauls or otherwise transports solid waste for a fee.

## **GENERAL ADMINISTRATIVE REGULATIONS**

The Board of County Commissioners of the Portage County Solid Waste Management District shall be the governing body of the District and shall perform all duties imposed upon it by the Revised Code, any rule or regulation of the Ohio EPA and the District Plan.

All actions of the Board of County Commissioners of the Portage County Solid Waste Management District shall be by resolution and reflected in the minutes contained in a journal of the District Board of Commissioners established and kept for that purpose. No action of the Board of County Commissioners of the Portage County Solid Waste Management District shall be taken except in accordance with those sections of the Revised Code requiring open meetings of public bodies.

For the purpose of meeting the requirements imposed upon solid waste management policy committees by the Revised Code and in order to allow the annual review of the District Plan, the Board of County Commissioners of the Portage County Solid Waste Management District shall make sufficient appropriations of funds and provisions of staff and facilities as required by resolution.

For the purpose of defraying the cost to the County, Health District or other appropriate public entity or political subdivision for its activities in implementation of the District Plan or activities required by section 3734.57(E) of the Revised Code, the Board of County Commissioners of the Portage County Solid Waste Management District shall adopt rules for the appropriation and payment of funds of the District necessary to defray costs of services performed under the District Plan and to provide the financial assistance required for that purpose. The Board of County Commissioners of the Portage County Solid Waste Management District shall be permitted to expend District funds, including, without limitation, funds obtained from fees established pursuant to section 3734.57(B) of the Revised Code and any other funds acquired by the District (excepting those funds limited to the payment and retirement of notes and bonds issued by the District) for such purposes as they deem reasonable and necessary to fulfill the requirements of any section of the Revised Code, the District Plan, rules and regulations issued under the District Plan and any lawful order of the Ohio EPA, including, without limitation, the acquisition, construction, modification and equipping of solid waste facilities owned by the District; participation in legal action to enforce its rules and regulations, the rules and regulations of the Ohio EPA and Health District and other applicable state and federal laws related to the safe and sanitary disposal of solid wastes, and for the maintenance, protection and use of solid waste facilities and other places of disposal of solid wastes in an environmentally sound manner; and providing financial assistance in the form of loans or grants to local political subdivisions, businesses and organizations. All financial obligations and liabilities incurred by the District and the Board of County Commissioners of the Portage County Solid Waste Management District and their employees, agents and contractors, shall be solely those of the District and not that of any other political subdivision or entity, unless such political subdivision or entity including, without limitation, the County and its Board of Commissioners assumes such obligation by resolution or ordinance. Health District. The Portage County Combined General Health District may, at the discretion of the Board of County Commissioners of the Portage County Solid Waste Management District, provide those services to the District as required or allowed by statute and the District Plan, including, without limitation, the following:

- (1) Surveying and approving any site where a solid waste facility is to be located, maintained, used or operated;
- (2) Inspecting, licensing and enforcing sanitary standards at all solid waste facilities;
- (3) Receiving and reviewing written reports of explosive gas monitoring submitted pursuant to statute;
- (4) Collecting and analyzing samples of well water from lands located adjacent to any solid waste facility;
- (5) Inspecting solid wastes generated outside the boundaries of the State and held, found or disposed of at a solid waste facility located within the District;
- (6) Inspecting solid wastes generated inside the boundaries of the State and held, found or disposed of at a solid waste facility located within the District.

The Board of County Commissioners of the Portage County Solid Waste Management District reserves the right to provide for services through its own employees or by contract. The District shall reimburse the Health District for any services performed for the benefit of the District.

Prosecuting Attorney. The Portage County Prosecuting Attorney shall be the legal counsel for the District. If the Prosecuting Attorney at any time is unable to perform a legal service, then upon the agreement of the Prosecuting Attorney and the Board of County Commissioners of the Portage County Solid Waste Management District, such services may be provided by contract.

The District shall reimburse the County for any services performed by the Prosecuting Attorney for the benefit of the District.

County Auditor and County Treasurer. The Portage County Auditor shall be the fiscal officer of the District and the Portage County Treasurer shall be the treasurer of the District, and each official shall perform all the duties required by statute of county auditors and county treasurers, respectively. The District shall reimburse the County for the services performed by the Auditor and the Treasurer for the benefit of the District.

## **OPERATIONAL RULES**

The Board of County Commissioners of the Portage County Solid Waste Management District shall adopt, publish and enforce rules and regulations permitted by section 343.01(F) of the Revised Code, including, but not limited to, the following:

### **SECTION IV.1 - PROHIBIT OR LIMIT THE RECEIPT OF WASTE**

- (1) Prohibiting or limiting receipt by a solid waste facility located within the District of solid wastes generated outside the District or outside a service area prescribed in the District Plan or by rule;

### **SECTION IV.1 MAINTENANCE, PROTECTION AND USE**

- (2) Governing the maintenance, protection and use of solid waste facilities within the District, including prohibitions upon any person or political subdivision from constructing, enlarging or modifying any solid waste facility prior to the submission of plans and specifications the construction, enlargement or modification of any solid waste facility to the

Board of County Commissioners of the Portage County Solid Waste Management District for their review and approval as complying with the District Plan;

(3) Governing development and implementation of a program for the inspection of solid wastes generated outside the boundaries of this State that are disposed of, found or maintained at a solid waste facility located within the District.

The Board of County Commissioners of the Portage County Solid Waste Management District may adopt, publish and enforce any other rules and regulations upon such matters allowable by law.

### **SPECIFIC ADMINISTRATIVE REGULATIONS**

The Board of County Commissioners of the Portage County Solid Waste Management District may adopt, publish and enforce rules and regulations upon at least the following:

(1) Establishing a system of reporting solid waste disposal fees levied by commercial solid waste haulers and solid waste facilities, and requiring submission to the Board of County Commissioners of the Portage County Solid Waste Management District prior to any change in pricing, any discounts and pricing structure for recyclable-free solid waste and volume billing of all waste accounts;

(2) Requiring commercial solid waste haulers and solid waste facilities to enforce waste bans established by the District, submission of records to encourage volume billing and achievement of reduction goals by area, and establishing maximum daily waste limits for solid waste facilities;

(3) Requiring reporting from in-District solid waste haulers and operators as a condition of receiving a Portage County Solid Waste Management District hauler or facility operator license to include:

1. Mandatory volume billing pricing and changes in volume.
2. Waste volumes and destinations.
3. Recycling volumes and destinations.
4. Number and types of accounts.
5. Number and types of trucks.

(4) Establishing programs to allow residents, local political subdivisions, institutions and businesses to participate in recycling programs and comply with waste bans, and establishing programs to allow disbursement of District funds to assist residents, local political subdivisions, institutions and businesses to establish local recycling and waste reduction activities;

(5) Imposing and enforcing bans and restrictions on certain solid wastes and other wastes generated within and disposed of within the District, including, without limitation, Source separated yard wastes, whole and shredded waste tires, lead acid batteries, waste oil, household hazardous wastes and source separated recyclables including, glass, plastics, newspaper, cardboard, office paper, ferrous and non-ferrous metals and other recyclables

determined by the Board of County Commissioners of the Portage County Solid Waste Management District as being marketable;

(6) Establishing a system of rules providing for flow control of all solid waste when necessary to retire existing debt on in-District publicly owned solid waste facilities, collection zones and routes, franchising of commercial solid waste haulers, collection rules and source separation, allowing the District to select open bidding contract collection areas that assure minimum long term costs and promote a long term competitive bidding environment including, without limitation, all collection of recyclables, compostables and all solid waste collected or disposed of within the District;

(7) Requiring all commercial solid waste haulers and solid waste facilities to be registered with the Portage County Solid Waste Management District, including commercial haulers engaged in the collection of commercial and industrial solid waste, and receive an annual operating license from the District;

(8) Establishing performance criteria and reporting requirements for all solid waste facilities, including, without limitation, recycling facilities, requiring all recycling facilities to establish that a certain percentage, being not less than sixty percent (60%), of solid waste received is actually recycled and not incinerated, proof of marketing and recycling of reclaimed materials, use of the term "Recycle" or any of its derivatives in its name and requiring receipt and processing of all recyclable materials including, without limitation, newspaper, waste oil, acid batteries, plastics, glass, appliances and ferrous and non-ferrous metals. Recovery of less than sixty percent (60%) will be defined for purposes of this District as a "Transfer Facility";

(9) Establishing relevant additional solid waste facility maintenance protection and use standards to be imposed and enforced on any existing, new or modified solid waste facility, recycling facility, disposal facility and compost program, and health and safety requirements for tire disposal sites, including, without limitation, fire roads, mosquito control and fencing;

(10) Requiring all solid waste facilities to receive approval by the District before beginning construction or modification to any solid waste facility, and requiring payment of the actual cost of the permit review process, which review shall contain at least whether the planned facility is consistent with and in compliance with the District Plan maintenance protection and use standards and subject to the appeal process as outlined in paragraph fourteen (14) of this section;

(11) Establishing annual waste reduction guidelines for local political subdivisions and solid waste haulers;

(12) Establishing a revolving loan fund for organizations and businesses located within the District for developing solid waste reduction or recycling activities purchasing equipment and machinery for use in developing local markets for recyclable materials for use as raw materials, remanufacturing processes or other uses. (The District Board of Commissioners

shall establish application and selection criteria for such loans, and the amount and interest rate of such loans, in accordance with their rule making authority);

(13) Establishing a grant fund for the benefit of political subdivisions with or without other organizations and businesses located within the District for implementing and developing additional solid waste reduction activities which may be included within the District Plan. (The District Board of Commissioners shall establish application and selection criteria for such grants, and the amounts of such grants, in accordance with their rule making authority);

(14) Adopting and implementing a process incorporating the seven member District Policy Committee by which variances from its rules and regulations may be allowed, issued, modified, revoked or suspended, but only in conformity with the District Plan and the rules and regulations of the Ohio EPA, and further only if the need for such variance is established by the applicant as causing extreme hardship not created or caused by the applicant or any current or previous owner or operator, and such variance will not reduce protection of the environment;

(14) Adopting a process by which permits and licenses may be revoked, suspended or re-issued, but only in conformity with the District Plan, statute and the rules and regulations of the Ohio EPA;

(15) Establishing a method of inspection and enforcement of its rules and regulations.

## **PROCEDURE FOR ADOPTION OF RULES AND REGULATIONS**

The Board of Commissioners of the Portage County Solid Waste Management District shall be empowered to adopt, amend or rescind rules and regulations as provided by the District Plan or by any section of the Revised Code and in accordance with this Plan.

All rules and regulations shall be adopted at a regular or special meeting of the District Board of Commissioners and only after public hearing, which shall be held at a convenient place within the County.

The public hearing shall be open to the public and reasonable public notice shall be given in a newspaper of general circulation within the County at least five (5) days prior to the date set for hearing, which notice shall at least include:

- (1) the purpose for which the hearing is to be held;
- (2) a synopsis of the rules or regulations which will be considered and any amendments proposed thereto;
- (3) the date, time and place of the hearing.

Additional notices may be given at the discretion of the Board of County Commissioners of the Portage County Solid Waste Management District.

Copies of the full text of the rule or regulation shall be made available to the public at the time of the notice of hearing and at the hearing.

The Board of County Commissioners of the Portage County Solid Waste Management District shall allow a public comment period of at least five (5) days after the close of the public hearing in order to receive written comments on the proposed rules and regulations.

After the close of the public hearing and public comment period, the Board of County Commissioners of the Portage County Solid Waste Management District shall make their determination regarding the adoption, amendment or rescission of the rules and regulations then under consideration as soon as practicable, and its determination shall be final. Unless otherwise specified, all actions on such rules and regulations shall be effective immediately upon adoption.

If by unanimous vote of the Board of County Commissioners of the Portage County Solid Waste Management District it is determined that there exists an imminent peril or threat to human health and safety or the environment, the Board of County Commissioners of the Portage County Solid Waste Management District may adopt and promulgate rules and regulations without hearing, but such rules and regulations must be validated by a public hearing within sixty (60) days of their adoption or such rules and regulations shall expire.

The Board of County Commissioners of the Portage County Solid Waste Management District may adopt rules of order that they deem appropriate to conduct such public hearings.

## **ACTIONS REQUIRING PUBLIC HEARINGS AND COMMENT**

Contracts or actions requiring public notice, hearing and opportunity for public comment prior to adoption or approval shall include, without limitation, the following:

- (1) Any contract with another solid waste management district, made pursuant to Section 343.02 of the Revised Code, whereby the Board of County Commissioners of the Portage County Solid Waste Management District allow joint use of solid waste facilities within any solid waste district;
- (2) Preparation and approval of the general facilities plan adopted pursuant to Section 343.04 of the Revised Code;
- (3) Fixing rates or charges made pursuant to Section 343.08(A) to be paid by every person and political subdivision which receives solid waste service;
- (4) Leasing of any District-owned solid waste facility to any other person or political subdivision;
- (5) Approval of any general plans and specifications submitted to the Board of County Commissioners of the Portage County Solid Waste Management District in accordance with Section 343.01(F)(2) of the Revised Code for any proposed improvement or closure of a solid waste facility;
- (6) Granting of any variance from the rules and regulations adopted pursuant to the District Plan and re-issuing any license or permit previously suspended or revoked;

(7) Allowing persons and political subdivisions to deliver solid wastes to a transfer, disposal, recycling or resource recovery facility other than in the facility designated in the District Plan in accordance with Section 343.01(H)(2) of the Revised Code.

## **CONFLICT WITH OHIO EPA**

Rules and regulations adopted by the Board of County Commissioners of the Portage County Solid Waste Management District shall not conflict with any rule or regulation of the Director of the Ohio EPA, unless specific statutory authority is provided therefore. In no case, shall the rules and regulations adopted by the Board of County Commissioners of the Portage County Solid Waste Management District governing the operation, maintenance, protection or use of a solid waste facility or the environmental criteria for protection of the environment, air quality and ground water be less stringent than those rules and regulations adopted by the Director of the Ohio EPA.

## **REDUCTION GOALS AND CONTROLS**

Using current solid waste generation estimates as a benchmark, the District Board of Commissioners shall impose and enforce by rule annual reduction goals on local political subdivisions to achieve a mandate *as outlined in Part VII Measure of Progress towards Waste Reduction Goals*.

In cooperation with the District, and in order to achieve the solid waste reduction goals contained herein, the local political subdivisions shall be responsible to conduct local programs to encourage the reduction, reuse and recycling of solid wastes. In order to monitor the reduction goals, the Board of County Commissioners of the Portage County Solid Waste Management District and the local political subdivisions shall maintain records adequate to show such reduction.

In order to achieve the annual reduction goals, every local political subdivision shall establish a recycling program within their respective jurisdictions and assist the Board of County Commissioners of the Portage County Solid Waste Management District to communicate the process of banned waste and recycle programs to the public. The District may disburse District funds to local political subdivisions to assist in the financing of local recycling and waste reduction activities.

All independent solid waste recycling or composting programs shall meet performance standard and submit records to the Board of County Commissioners of the Portage County Solid Waste Management District in the manner determined by rule.

Any person or local political subdivision which does not comply with any requirement of this District Plan or any rule or regulation issued by the Board of County Commissioners of the Portage County Solid Waste Management District shall be excluded from participation in any grant or loan offered by the District and shall have revoked any operating license or permit issued by or through the District.

To encourage participation in recycling programs, the District shall encourage by all means available all haulers of solid waste doing business within the District to bill all trash collection accounts by volume. When appropriate, local political subdivisions shall adopt legislation imposing a method of volume billing for all haulers of solid waste doing business within their

respective jurisdictions. Solid waste facilities and commercial solid waste haulers shall submit regular residential route pricing updates to the District in order to assess compliance with volume billing requirements.

For the purpose of insuring compliance with rules and regulations regarding banned wastes, the Board of County Commissioners of the Portage County Solid Waste Management District may provide for the inspection of all waste received for disposal within the District and at curbside for disposal within or outside the District.

## **HOST COMMUNITY PROGRAMS**

The District may offer a mutually equitable tipping fee surcharge, in addition to the 25-cent per ton allowed in the existing law, to any Host Community payable throughout the life of the facility. The use of the surcharge by the Host Community shall not be limited by the District. Other incentives may include, without limitation, the following:

- (1) Discounting special disposal services to the Host Community;
- (2) Constructing or funding the construction of infrastructure improvements, community facilities, recreational facilities, emergency management facilities and supplying equipment;
- (3) Including the Host Community in any closure planning process of such solid waste facility and allowing the Host Community to approve the final closure plans prior to the facility being built;
- (4) Requiring any closure plan to include feasible land uses, including, without limitation, nature preserves, community park, recreational areas or campgrounds;
- (5) Any other incentive mutually agreed upon by the District and the Host Community.

## **GENERAL PROVISIONS**

The District is not proposing any new rules under this solid waste management plan update. The 2019 Plan Update included proposed rules that were never passed, therefore removed. In the event that a new rule is proposed and accepted, the rule shall be adopted and enforced by the Board of County Commissioners as provided in Section 343.01(G)

# **APPENDIX R      BLANK SURVEY FORMS AND RELATED INFORMATION**

None

## **APPENDIX S SITING STRATEGY**

The District's Siting Strategy for Solid Waste Facilities ensures that proposals to construct a new Solid Waste Facility within the District or modify an existing Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste within the District are in compliance with the Plan Update. The Board shall not approve General Plans and Specifications for any proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste or the modification of any existing in-District Solid Waste Facility where the construction and operation of the proposed facility, as determined by the Board, will:

- 1) Have significant adverse impacts upon the Board's ability to finance and implement the Plan Update; or
- 2) Not conform with the design, construction, operating and/or siting requirements of the Ohio EPA solid waste rules in Ohio Administrative Code (OAC) Chapter 3745-27.

Except as otherwise provided herein, all Solid Waste and Recycling Facilities, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste, proposed by or on behalf of any person, municipal corporation, township, or other political subdivision, except for Solid Waste and Recycling Facilities proposed by the District, shall be subject to this Siting Strategy and shall comply with the requirement to submit General Plans and Specifications to the District.

Existing in-District Solid Waste Facilities specifically identified in this Siting Strategy are not subject to this Siting Strategy unless the owner or operator of any such in-District Solid Waste Facility, resource recovery facilities, waste-to-energy facilities, resource recovery facilities or other facilities that manage solid waste proposes a modification to the operation of the in-District Solid Waste Facility:

- 1) that requires the approval of the Director of the Ohio Environmental Protection Agency; or
- 2) that involves a change in the type of material, manner of operation or activities conducted at the facility (i.e., a conversion of a legitimate recycling facility to a transfer station).

### **Requirements**

The District requires that General Plans and Specifications for all proposals to construct any new Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste within the District or modify any existing in-District Solid Waste Facility be submitted for a determination by the Board of whether such General Plans and Specifications and the proposals comply with the Plan Update.

### **Procedure –**

Unless otherwise provided herein, or an exemption or waiver from this requirement has been granted by the Board, the following procedure and process shall be followed in the event the construction of a new Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste or the modification of an existing in-District Solid Waste

Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste is proposed within the District:

Any person, municipal corporation, township, or other political subdivision proposing to construct a new Solid Waste Facility or modify an existing in-District Solid Waste Facility, resource recovery facilities, waste-to energy facilities or other facilities that manage solid waste shall:

- 1) Provide General Plans and Specifications of the proposed facility to the Board. Such General Plans and Specifications shall include, but may not be limited to, the following documents and information:
  - a) A site plan for the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste.
  - b) Architectural drawings or artists renderings of the proposed Solid Waste Facility, resource recovery facilities, waste-to energy facilities or other facilities that manage solid waste.
  - c) Availability of necessary utilities.
  - d) Projected size and capacity of the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste.
  - e) Hours of operation
  - f) anticipated source of solid waste or recyclable materials to be received at the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste. If recycling activities will be conducted at the proposed facility, a detailed description of the recycling activity including materials to be recycled, technology to be utilized to accomplish the separation and processing of the recyclable materials, the anticipated percentage of waste reduction anticipated from the operation of the facility and the identification of the market for the sale of the recyclable materials recovered at the facility must be submitted.
  - g) Types and anticipated number of vehicles utilizing the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste on an hourly and daily basis.
  - h) Routes to be used by vehicles utilizing the facility and methods of ingress and egress to the facility.
  - i) Any other information necessary for the Board to evaluate whether the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste complies with each of the criteria listed below.
- 2) Adequately demonstrate to the Board that the construction or modification and subsequent operation of the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste will:
  - a) Be consistent with the goals, objectives, projections, and strategies contained in the Plan Update.
  - b) Not adversely affect financing for the implementation of the Plan Update.
  - c) Be installed, operated, and maintained to be harmonious and appropriate in appearance and use with the existing or intended character of the area.
  - d) Be adequately served by essential public facilities and services.
  - e) Not create excessive additional requirements at public cost for public facilities or services.

- f) Not be detrimental to the economic welfare of the community.
  - g) Not involve the excessive production of traffic, noise, smoke, fumes, or odors; have vehicular approaches to the property that are designed not to create an interference with traffic.
  - h) Not result in the destruction, loss, or damage of a natural, scenic, or historic feature of major importance.
  - i) Not adversely affect property values within the surrounding community.
- 3) The applicant shall submit any additional information as the Board requests to establish, to the reasonable satisfaction of the Board, that the construction or modification and subsequent operation of the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste or proposed modification of an existing in District Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste will comply with the Plan Update.

**Board Review –**

The Board shall conduct a review of the information submitted for the proposed Solid Waste Facility to determine whether the Applicant has adequately demonstrated that the proposed Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste will be constructed or modified and subsequently operated in compliance with the Plan Update and demonstrated that the impacts listed above do not adversely affect the District, its residents and businesses.

Within sixty days of receiving the General Plans and Specifications from an applicant, the Board shall decide as to whether the General Plans and Specifications submitted by the applicant contain sufficient information for the Board to complete its review of the proposal. In the event the Board determines that more information is necessary to complete its review of the proposal, the Board shall notify the Applicant of such a request in writing within ten days. Within ninety days of determining that the Applicant has submitted a complete set of General Plans and Specifications, the Board shall determine whether the proposal complies with the Plan Update and the criteria identified in above. The Board shall notify the Applicant of its decision in writing. While the Board has broad discretion regarding the approval of General Plans and Specifications for a proposed Solid Waste Facility or modification of an existing in-District Solid Waste Facility, it is the intent of this Siting Strategy that the Board shall not approve General Plans and Specifications for a proposed Solid Waste Facility unless the Board determines that the proposed Solid Waste Facility or modification of an existing in-District Solid Waste Facility complies with the Plan Update and the criteria identified above.

**Development Agreement -**

In the event the Board determines that the proposed construction or modification and subsequent operation of a Solid Waste Facility complies with the Plan Update, the person, municipal corporation, township or other political subdivision proposing to construct or modify the Solid Waste Facility, resource recovery facilities, waste-to-energy facilities or other facilities that manage solid waste shall enter into a development agreement with the District which memorializes the obligations that are the basis of the Board's conclusion that the General Plans and Specifications demonstrate that the proposed facility or its modification complies with the Plan Update. The party proposing to construct a Solid Waste Facility, resource recovery facilities,

waste-to-energy facilities or other facilities that manage solid waste shall have an ongoing obligation to comply with the Plan Update and the development agreement.

**Waiver -**

The Board reserves the right to waive application of the requirement for the submission and Board approval of General Plans and Specifications, and any portion or all of the Siting Strategy or otherwise grant exceptions to the rules of the District, or unilaterally modify or amend the Siting Strategy if the Board concludes such waiver, modification or amendment is in the best interest of the District, its residents and businesses and will assist the Board in the successful implementation of the Plan Update and further District goals with respect to solid waste and waste reduction activities. A decision by the Board to construct or modify any District owned Solid Waste Facility shall be deemed to follow the Plan Update and the other requirements of these rules without additional review.

# **DRAFT APPENDIX T MISCELLANEOUS PLAN DOCUMENTS**

District resolutions, certification statements, public notices, other notices (e.g., the notice sent to the 50 largest generators)

# **APPENDIX U      RATIFICATION RESULTS**

**Table U-1    Ratification Summary**

[Insert Table U-1]

# Appendix V Inventory of Open Dumps and Other Disposal Facilities

## A. Existing Open Dumps and Waste Tire Dumps

**Table V-1 Existing Solid Waste Open Dumps**

Site Location (either address or description of site location)	Materials at Site (solid waste and/or scrap tires)
None	

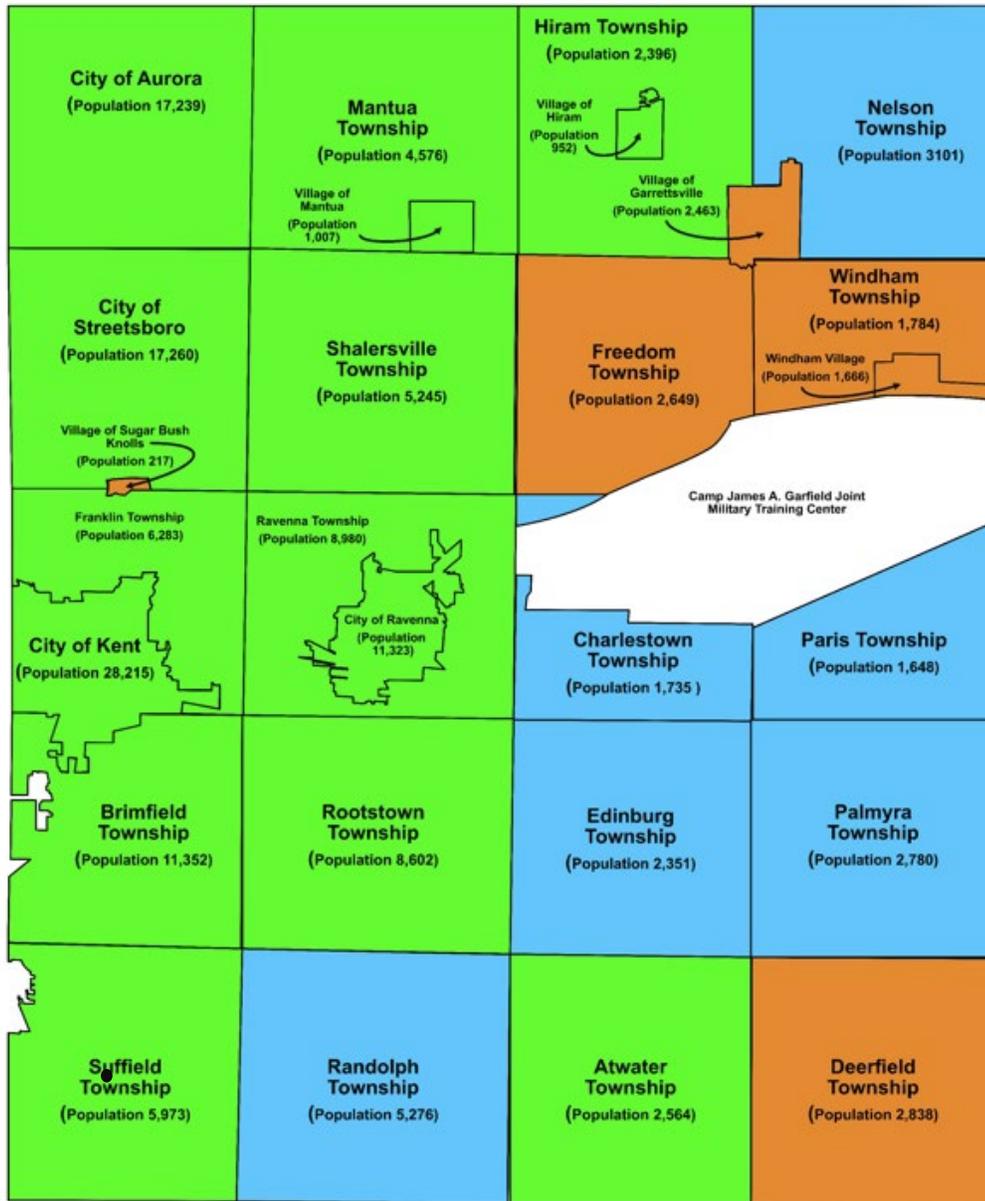
## B. Ash, Foundry Sand, and Slag Disposal Sites

**Table V-2 Existing Ash, Foundry Sand, and Slag Disposal Sites**

Site Location (Address, description of site location)	Materials at Site (fly ash, bottom ash, foundry sand, and/or slag)
None	

# Appendix W District Map

Recycling Curbside and Drop-Off Locations.



Key:

- Curbside recycling collection
- Drop-off recycling collection
- Not currently served

**PORTAGE COUNTY SOLID WASTE  
MANAGEMENT DISTRICT  
SERVICE OVERVIEW**