



**DELAWARE • KNOX • MARION • MORROW  
SOLID WASTE MANAGEMENT DISTRICT**

**2026 – 2040  
RATIFIED SOLID WASTE MANAGEMENT  
PLAN UPDATE**

**SOLID WASTE  
APPROVED**

OHIO ENVIRONMENTAL PROTECTION AGENCY

December 12, 2025

AS EVIDENCED BY COPY OF  
LETTER OF APPROVAL  
ATTACHED HERETO

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## Solid Waste Management District Information

**Table i-1 District Information**

<b>SWMD Name</b>	Delaware-Knox-Marion-Morrow Joint Solid Waste Management District
Member Counties	Delaware, Knox, Marion, and Morrow
Coordinator's Name (main contact)	Jenna Hicks
Job Title	District Director
Street Address	619 West Marion Road, Suite 107
City, State, Zip Code	Mount Gilead, Ohio 43338
Phone	419-751-2290
Fax	419-750-2291
E-mail address	<a href="mailto:jhicks@dkmm.org">jhicks@dkmm.org</a>
Webpage	<a href="http://www.dkmm.org">www.dkmm.org</a>

**Table i-2 Members of the Policy Committee**

Member Name	Representing
<b>Delaware</b>	
Barb Lewis	County Commissioners
Bill Ferrigno	Municipal Corporations
Ron Bullard	Townships
Dustin Kent	Health District
Tom Price	Generators
Paul Wise	Citizens
Jane Hawes	Public
<b>Knox</b>	
Bill Pursel	County Commissioners
Matthew Starr	Municipal Corporations
Lacie Blankenhorn	Townships
Zach Green	Health District
John Stidham	Generators
VACANT	Citizens
Matt Baugher	Public
<b>Marion</b>	
Mark Davis	County Commissioners
Scott Bishop	Municipal Corporations
Steven Lust	Townships

Van Creasap	Health District
Andy Horne	Generators
Mary Donaldson	Citizens
VACANT	Public
<b>Morrow</b>	
Tim Siegfried	County Commissioners
Derek Allen	Municipal Corporations
Michael Patterson	Townships
Stephanie Zmuda	Health District
Earl Linder	Generators
Brenda Harden	Citizens
Kristin Yoshioka-Ruth	Public
<b>Additional Public Representative</b>	
<b>Name</b>	<b>County</b>
Erik McPeek	Member - at- Large (Delaware County Regional Sewer District)

**Table i-3 Chairperson of the Policy Committee or Board of Trustees**

<b>Name</b>	Paul Wise
<b>Street Address</b>	5111 South Old 3C Highway
<b>City, State, Zip Code</b>	Westerville, Ohio 43082
<b>Phone</b>	614-568-2021
<b>Fax</b>	614-895-1255
<b>E-mail Address</b>	<a href="mailto:pwise@genoatwp.com">pwise@genoatwp.com</a>

**Table i-4 Board of County Commissioners/Board of Directors**

<b>Commissioner Name</b>	<b>County</b>	<b>Chairperson/President</b>
Commissioner Name	County	Chairperson/President
Barb Lewis	Delaware	
Jeff Benton	Delaware	
Gary Merrell	Delaware	
Teresa Bemiller	Knox	Vice-Chairperson
Thom Collier	Knox	
Bill Pursel	Knox	
Andy Appelfeller	Marion	Chairperson
Mark Davis	Marion	
Kerr Murray	Marion	
Jon Mason	Morrow	
Tim Siegfried	Morrow	
Tim Abraham	Morrow	

**Technical Advisory Committee**

The District did not utilize a Technical Advisory Committee for the development of this Plan Update.

**Plan Prepared By**

Jenna Hicks, District Director

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## Executive Summary

### Brief Introduction to Solid Waste Planning in Ohio

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

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.

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.

### State Waste Reduction and Recycling Goals

A SWMD must achieve goals established in the most recent state solid waste management plan which is the 2020 State Solid Waste Management Plan. The State Plan established the following ten goals for SWMD to achieve.

<b>Goal 1</b>	
	The SWMD shall ensure that there is adequate infrastructure to give residents and commercial businesses opportunities to recycle solid waste. The SWMD shall provide access to 80% of its residential population in each county.
<b>Goal 2</b>	
	The SWMD shall reduce and recycle at least 25 percent of the solid waste generated by the residential/commercial sector.
<b>Goal 3</b>	
	The SWMD shall provide the following required programs: a Web site; a comprehensive resource guide; an inventory of available infrastructure; and a speaker or presenter.

<b>Goal 4</b>	
	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.
<b>Goal 5</b>	
	The SWMD shall incorporate a strategic initiative for the industrial sector into its solid waste management plan.
<b>Goal 6</b>	
	The SWMD shall provide strategies for managing scrap tires, yard waste, lead-acid batteries, household hazardous waste and obsolete/end-of-life electronic devices.
<b>Goal 7</b>	
	The SWMD shall explore how to incorporate economic incentives into source reduction and recycling programs.
<b>Goal 8</b>	
	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
<b>Goal 9</b>	
	The SWMD has the option of providing programs to develop markets for recyclable materials and the use of recycled-content materials.
<b>Goal 10</b>	
	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, goals 1 and 2 are the primary goals of the state plan. SWMDs have the option of choosing to meet either Goal 1 or Goal 2 for their solid waste management plans.

**Individual Member County Profiles**

The District is a multi-county district located in north-central Ohio, just north of Columbus. Member counties include Delaware, Knox, Marion and Morrow. Three of the four counties have declining populations but the growth in Delaware County is outpacing the decline in the other counties showing an overall increase in population growth District-wide.

Delaware County spans 442.5 square miles and is considered one of the fastest growing counties in Ohio. Just under 30% of the county's population resides in the south/south-west portion of the county which lies just north of Columbus. Delaware City is home to 12% of the county's population and is the county seat. The north and east portions of the county (44%) are in active crop production. The total Delaware County population in 2021 was 192,168 with an estimated population growth of 19% over the planning period.

Knox County spans 527.2 square miles and is a rural county with 57% land use designated as hay, pasture, and crop production. The county seat is Mount Vernon and is home to 27% of the county's population. The total Knox County population in 2021 was 62,878 with a slight population decline which rebounds in 2026 for the remainder of the planning period.

Marion County spans 403.9 square miles with 55% of the county's population housed in Marion City, the county seat. The main use of land is crop production at 77%. The total Marion County population in 2021 was 65,291 with an estimated population decline of 4% over the planning period.

Morrow County spans 405.5 square miles and is the most rural county in the District. A total of 67% of the land designated as being used in agriculture production. The population is fairly distributed across the county with the county seat, Mount Gilead, only housing 10% of the total population. The total Morrow County population in 2021 was 35,151 with an estimated population decline of 2% over the planning period.

### **Commercial, Institutional and Industrial Profile**

The largest employers in the District are financial services with two companies having regional headquarters in Delaware and health care facilities throughout the District. The District is home to six colleges and universities, two large lake communities, three state parks and the Mid-Ohio Sports Car Course. All of which bring seasonal fluctuations to the amount of waste needing to be managed.

The majority of industries located in the District are small to midsize auto parts suppliers. Whirlpool Corporation has an appliance manufacturing plant in Marion County and is the largest industrial employer in the District. Knox and Marion counties are home to a large number of the industrial sector.

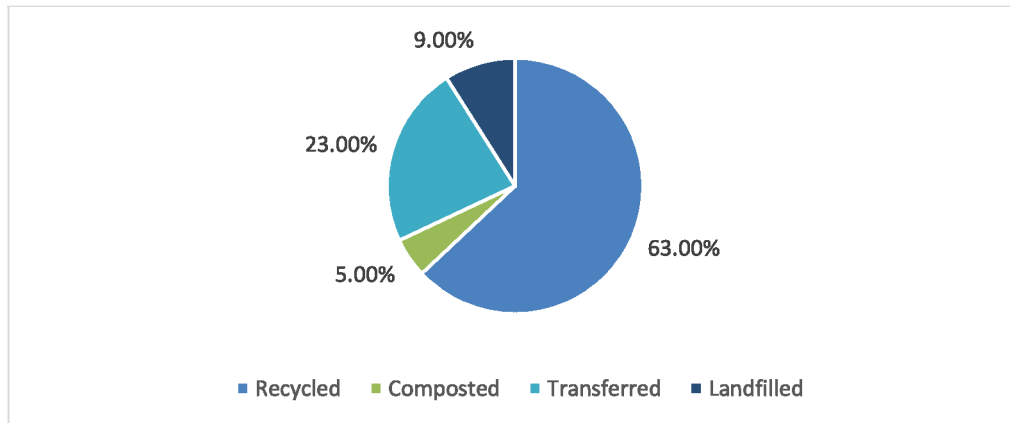
### **Waste Generation and Management**

Waste generation is defined by the tons disposed in landfills plus the tons recycled, composted and otherwise diverted from the landfill. In the reference year, just over 60% of all generated waste originated from the industrial sector and 37% came from the residential and commercial sector.

The residential/commercial generation has not had significant changes over the past five years. On the other hand, industrial generation has drastically fluctuated over the same time. This is due to the number of industries that submit a recycling survey each year. It is not mandatory that industries report recycling data and when one or two don't respond to the survey, it has a large impact on overall waste generation. Industrial disposal was consistent during the five-year time span.

Figure 1 outlines how residential/commercial and industrial waste was handled in 2021. The high recycling percentage is due to the industrial sector's recycling programs.

**Figure 1: How Waste Was Handled in the Reference Year**



**Recycling and Reduction Programs**

The District will continue to offer an extensive recycling drop-off program and encourage municipal contracting for curbside recycling services to ensure Goal 1 of 80% access to recycling is met each year as mandated by the state solid waste management plan. A listing of the larger more prominent programs that will be offered during the planning period can be found in Table 1.

**Table 1: Major Programs to be Implemented During the Planning Period**

Current & Ongoing	New & Upgraded
Drop-off Recycling	Downtown Business Recycling
Residential Yard Waste Composting	Open Dump & Tire Dump Cleanup Funding
Technical Support Businesses and Industries	Waste Audit Implementation Grant
Municipal Tire Grant	Hazardous Waste Collection
Solid Waste Monitoring and Enforcement	Electronics Collection
Robust Education Program	DKMM Recycling Grant
	Residential Food Waste Collection

By implementing the outlined programs, the District will make incremental steps each year toward reaching Goal 2 of 25% residential/commercial waste diversion. It is anticipated the District will reach Goal 2 in the sixth year of plan implementation.

A full list with detailed program descriptions can be found in Appendix I.

**Financial Plan**

The District implements a generation fee to raise the revenue needed to finance implementing the plan. A generation fee is collected on each ton of solid waste that is generated within the District and accepted at transfer facilities or landfills in Ohio. The District has contracts with over 40 facilities which allow the facilities to accept waste from the District and they agree to pay a set fee to the District. Since 2012, the District fee has been \$6.00 per ton.

Through the planning process, it was determined that to continue offering the same level of programming, the District will need to increase the generation fee to \$7.50 per ton. This increase allows the District to continue with its current programs as well as improve and add new programs. Without this increase the District would be limited in what programs it can offer.

The generation fee is the main source of revenue for the District, but the District also collects a small fee from hazardous waste and electronics participants. This fee helps cover a small portion of the cost of holding these expensive collections.

At the end of the planning period, it is estimated that the District will have a balance of \$635,996.

A full explanation of revenue and expenditures can be found in Appendix O.

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## Appendix A Miscellaneous Information

### A. Reference Year

The reference year for this solid waste management plan is 2021

### B. Planning Period

The planning period for this solid waste management plan is: 2026 to 2040

### C. Goal Statement

The District will achieve the following Goal(s): Goal 1

### D. Explanation of Differences Between Data Previously Reported and Data Used in the Solid Waste Management Plan

- Differences in quantities of materials recovered  
It was determined that twelve commercial and industrial survey respondents were misclassified over the past several years. Historical recycling data has been corrected to represent the North American Industrial Classification System (NACIS) designations so data may not match annual district reports (ADR).
- Differences in population data  
Population data reported on past ADRs may not have appropriately accounted for annexed populations in Delaware County, thus inflating the District's population on past ADRs.

### E. Material Change in Circumstances

If the District Board of Directors determines that circumstances have materially changed from those addressed in the approved plan, the plan will be updated. Upon receipt of the Board's request, the Policy Committee will prepare a draft amended plan for the District and shall proceed to adopt and obtain approval of the amended plan in accordance with ORC Section 3734.55 (A) – (C).

The District will use its normal operational procedures to monitor plan implementation and determine if and when a material change in circumstances has occurred which requires a plan amendment. The District's Board of Directors meets at least quarterly, and the Policy Committee meets as needed during the year to receive updates on District implementation activities. As required, the Policy Committee reviews the implementation of the District Plan at least annually.

Miscellaneous Information

The Board of Directors and the Policy Committee meet frequently enough to detect and respond to any changing circumstances needing to be addressed.

## Appendix B Recycling Infrastructure Inventory

This Appendix provides a review of the recycling infrastructure available in the reference year. This includes curbside recycling programs, recycling drop-off sites, collection service providers and compost facilities.

All tonnages reported in this appendix reflect the most accurate information available, which was reported by cities, villages, townships, and haulers.

### A. Curbside Recycling Services, Drop-Off Recycling Locations, Compost Facilities and Materials Recovery Facilities

#### 1. Curbside Recycling Services

Curbside recycling service is a type of recycling opportunity through which source-separated, residential recyclables are collected at the place of residence and can be offered in one of two ways.

1. Non-subscription Curbside Recycling is a service provided to residents automatically within a defined area. Typically, a governmental entity will contract for services for residents living in single- family homes within their jurisdiction. A homeowner receives the service whether they use it or not is up to them.
2. Subscription Curbside Recycling is a service that a homeowner voluntarily signs up for and agrees to pay for.

**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	PAYT (Y/N)	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
NCS1	Ashley Village	Waste Away Systems	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y
NCS2	Berkshire Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	biweekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y
NCS3	Berlin Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	biweekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y
NCS4	Concord Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y
NCS5	Delaware City	City Staff	Delaware	city sanitation department	weekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	2,033	Y
NCS6	Delaware Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	biweekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y
NCS7	Galena Village	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, M&P, SC	single stream, manual	N	unavailable	Y

Recycling Infrastructure Inventory

NCS8	Genoa Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, automated	N	2,254	Y
NCS9	Kingston Township	Local Waste	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
NCS10	Liberty Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, automated	N	1,340	Y
NCS11	Orange Township	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, automated	N	2,058	Y
NCS12	Powell City	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
NCS13	Shawnee Hills Village	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
NCS14	Gambier Village	Village Staff	Knox	village service department	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
NCS15	Mount Vernon City	Multiple Haulers	Knox	city ordinance requires haulers to offer to all customers at no charge	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	310	Y
NCS16	Marion City	City Staff	Marion	city sanitation department	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	351	Y
NCS17	Mount Gilead Village	Village Staff	Morrow	village sanitation department	weekly	AC, OCC, GL, PL, MxP, SC	single stream, automated	N	128	Y
<b>Total</b>									<b>8,474</b>	

**Notes:** <sup>1</sup> Materials Collected: AC = aluminum cans, OCC = cardboard, GL = glass containers, PL = plastic containers, MxP = mixed paper, SC = steel containers

<sup>2</sup> PAYT: Pay-As-You-Throw trash collection.

**Table B-1b Inventory of 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	PAYT (Y/N)	Weight of Materials Collected from SWMD (tons)	Service will Continue Throughout Planning Period (Y/N)
SC1	Ostrander Village	Alpha Waste	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
SC2	Sunbury Village	Rumpke	Delaware	contract between political jurisdiction and private hauler	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	unavailable	Y
SC3	Cardington Village	Mid-Ohio Sanitation & Recycling	Morrow	service provided to those who pay for trash service	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	1	Y
SC4	Edison Village	Mid-Ohio Sanitation & Recycling	Morrow	service provided to those who pay for trash service	weekly	AC, OCC, GL, PL, MxP, SC	single stream, manual	N	13	Y
<b>Total</b>									<b>14</b>	

**Notes:** <sup>1</sup> Materials Collected: AC = aluminum cans, OCC = cardboard, GL = glass containers, PL = plastic containers, MxP = mixed paper, SC = steel containers

<sup>2</sup> PAYT: Pay-As-You-Throw trash collection.

**2. Drop-Off Recycling Locations**

Drop-off recycling refers to a type of recycling opportunity that serves as a collection location for recyclable materials. These locations are typically used by the residential population and small businesses. People who use drop-off locations voluntarily transport recyclables to the host sites.

Drop-off locations are categorized by the number of hours they are open and available for use and by the population of the jurisdiction in which the drop-off is located.

Recycling Infrastructure Inventory

All District drop-off locations are classified as full-time meaning they are available at least 40 hours per week and are either considered urban (residential population of 5,000 or more) or rural (residential population of less than 5,000).

**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	Genoa Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	193	Y
FTU2	Liberty Township- Delaware @ Wyandot Run Elementary	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	213	Y
FTU3	Orange Township @ Olentangy High School	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	85	Y
FTU4	Fredericktown Village	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	206	Y
FTU5	Howard Township @ Apple Valley Lake	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	268	Y
FTU6	Howard Township @ East Knox School	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	14	Y
FTU7	Mount Vernon @Opportunity Knox (added 6-2022)	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	N/A	Y
FTU8	Mount Gilead @ Mid-Ohio Sanitation & Recycling	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	unavailable	Y
FTU9	Mount Vernon @ Memorial Park (removed 4-2022)	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	61	N
FTU10	Mount Vernon @Park & Ride (removed 4-2022)	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	111	N
<b>Total</b>								<b>1,151</b>	

**Notes:** <sup>1</sup> Materials Collected: AC = aluminum cans, OCC = cardboard, GL = glass containers, PL = plastic containers, MxP = mixed paper, SC = steel containers

<sup>2</sup> PAYT: Pay-As-You-Throw trash collection.

**Table B-2c Inventory of Full-Time, Rural 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)
FTR1	Brown Township - Delaware	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	89	Y
FTR2	Harlem Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	192	Y
FTR3	Kingston Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	45	Y
FTR4	Porter Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	126	Y
FTR5	Rednor Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	82	Y
FTR6	Scioto Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	120	Y
FTR7	Trenton Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	88	Y
FTR8	Troy Township	Rumpke	Delaware	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	68	Y

Recycling Infrastructure Inventory

FTR9	Berlin Township	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	35	Y
FTR10	Brown Township - Knox	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	50	Y
FTR11	Centerburg Village @ Centerburg High School	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	130	Y
FTR12	Clay Township @ Bladensburg Community Center	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	60	Y
FTR13	Darville Village	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	62	Y
FTR14	Gambier Village	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	109	Y
FTR15	Harrison Township	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	49	Y
FTR16	Liberty Township- Knox	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	61	Y
FTR17	Miller Township	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	82	Y
FTR18	Monroe Township	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	97	Y
FTR19	Pike Township	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	17	Y
FTR20	Pleasant Township- Knox	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	45	Y
FTR21	Caledonia Village	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	54	Y
FTR22	Claridon Township @ River Valley School	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	197	Y
FTR23	Grand Prarie Township @ Ridgedale School	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	92	Y
FTR24	Green Camp Village	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	86	Y
FTR25	LaRue Village	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	49	Y
FTR26	New Bloomington Village	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	49	Y
FTR27	Pleasant Township- Marion @ Senior Center	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	185	Y
FTR28	Prospect Village @ Senior Center	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	84	Y
FTR29	Waldo Township	Rumpke	Marion	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	84	Y
FTR30	Bennington Township	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	94	Y
FTR31	Cardington Village	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	47	Y
FTR32	Chester Township @ Chesterville	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	46	Y
FTR33	Congress Township @ Candlewood Lake	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	66	Y
FTR34	Franklin Township	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	42	Y
FTR35	Lincoln Township	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	22	Y
FTR36	North Bloomfield Township @ Northmor School	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	47	Y
FTR37	Perry Township @ Johnsville Fire Department	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	57	Y
FTR38	Peru Township	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	34	Y
FTR39	South Bloomfield Township @ Highland School	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	49	Y
FTR40	Washington Township @ Iberia	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	47	Y
FTR41	Westfield Township	Mid-Ohio Sanitation & Recycling	Morrow	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	27	Y
FTR42	Mount Vernon City @ Opportunity Knox	Rumpke	Knox	Contract between the SWMD and a private hauler	24 hours, 7 days a week	AC, OCC, GL, PL, M&P, SC	Y	Opened in 2022	Y
<b>Total</b>								<b>3,064</b>	

**Notes:** <sup>1</sup> Materials Collected: AC = aluminum cans, OCC = cardboard, GL = glass containers, PL = plastic containers, MxP = mixed paper, SC = steel containers

<sup>2</sup> PAYT: Pay-As-You-Throw trash collection.

## B. Curbside Recycling and Trash Collection Service Providers

This table provides a list of recycling and trash collection service providers that operated during the reference year. Only haulers that provided traditional collection services to residents and businesses were included. Companies that provide roll-off dumpster service or companies that transport their own waste are not included in the table.

**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)	Res	Com	Ind	Resl 2	Com 2	Ind 2
Alpha Waste	Delaware		x			x		
B & C Rubbish	Knox, Morrow		x					
B & V Sanitation	Marion, Morrow		x					
Blevins Garbage Service	Marion		x					
Candlewood Lake Assoc.	Morrow							
Delaware City	Delaware		x	x		x	x	
General Trash and Waste	Delaware		x					
Local Waste	Delaware		x	x		x		
Marion City	Marion		x			x		
Mathoney Hauling and Trash	Knox		x			x		
Mid-Ohio Sanitation & Recycling	Marion, Morrow	Y	x	x	x	x	x	x
Mid-State Waste (closed in 2022)	Knox, Morrow	Y	x	x		x		
Mt. Vernon Waste	Knox		x			x		
Republic Waste Services	All Four Counties		x	x	x	x	x	
Rumpke	All Four Counties		x	x	x	x	x	x
Sam's Sanitation	Marion		x					
Waste Away	Knox		x	x		x		
Waste Management	All Four Counties		x	x	x	x	x	x
Wrights Refuse Removal	Knox, Morrow		x					

**Notes:** <sup>1</sup> Res = Residential, Com = Commercial, Ind = Industrial

## C. Composting Facilities

Composting is the biological decomposition of solid wastes under controlled conditions resulting in compost. There are four types of regulated compost facilities in Ohio. The classification is based on the types of material the facility can accept and range from Class I to Class IV.

- Class IV yard waste and agricultural plant material
- Class III the above plus dead animals and animal waste
- Class II the above plus food scraps
- Class I the above plus mixed solid waste

Some smaller villages collect leaves and land apply them on neighboring fields. These programs are not listed in Table B-5 as they are not permitted facilities.

**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
1st Impressions Landscape & Garden	IV	N	Delaware	0	2,229	2,229
Kenyon College	II	N	Knox	43	875	918
Knox County Farm Property	IV	Y	Knox	0	1,584	1,584
Mount Gilead Yard Waste Facility	IV	Y	Morrow	0	891	891
Ohio Mulch	III	Y	Delaware	0	3,793	3,793
Ohio Mulch Supply	II	Y	Franklin	0	5,166	5,166
Park Enterprise Construction	IV	Y	Marion	0	9,736	9,736
Price Farms Organics	II	Y	Delaware	723	4,757	5,480
United Aggregates	IV	N	Knox	0	779	779
Revolve Organics (opened in 2022)	IV	N	Delaware	0	0	opened in 2022
<b>Total</b>				<b>766</b>	<b>29,810</b>	<b>30,576</b>

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

Other food and yard waste management programs are ones typically offered seasonally by a municipality or by a business or industry composting their food waste. The District encourages backyard composting through its website and educational programming. Data on the amount of backyard composting is not available and is therefore not accounted for in Table B-6.

**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)
Delaware City	Community Curbside Collection	Delaware	0	2,261
Genoa Township	Community Drop-Off Location	Delaware	0	unavailable
Green Machine	Mulching Operation	Knox	0	unavailable
Hauler/ Grocer Food Waste	Statewide Data	All Four Counties	718	0
Marion City	Community Curbside Collection	Marion	0	480
Ohio Wildlife Center (Powell)	Composted On-Site	Delaware	14	0
Superior Outdoor	Mulching Operation	Morrow	0	50
Wyandot Snacks	Industrial Operation	Marion	unavailable	0
<b>Total</b>			<b>732</b>	<b>2,791</b>

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

The information included in the following table was obtained through the annual recycling survey process for the reference year. Rumpke handled 67% of all recycled materials in 2021 at its Columbus recycling facility.

**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)
Friction Metals	Delaware	Ohio	Scrap Yard	12
Innovative Recycling	Crawford	Ohio	Scrap Yard	2
Mid-Ohio Sanitation and Recycling	Morrow	Ohio	MRF	reported under other categories
Milliron	Richland	Ohio	MRF and Scrap Yard	100
Opportunity Knox	Knox	Ohio	Recycling Transfer	4
Republic Waste	Knox	Ohio	Recycling Transfer	682
Ross Brothers	Knox	Ohio	Scrap Yard	5,535
Royal Oak	Cuyahoga	Ohio	Processor	205
Rumpke	Franklin	Ohio	MRF	14,695
Rumpke	Richland	Ohio	MRF	520
Rumpke	Ross	Ohio	MRF	3
Waste Management	Franklin	Ohio	MRF	214
<b>Total</b>				<b>21,972</b>

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## Appendix C Population Data

Ohio law requires the entire population of a municipality or village located in more than one solid waste management district to be added to the solid waste management district containing the largest portion of the municipal population. Delaware County accounted for almost all of the District’s annexed population. In the reference year the District adjusted population was 355,488.

### A. Reference Year Population

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

<b>Delaware</b>	
<b>Before Adjustment</b>	220,740
<b>Additions</b>	
None	0
<b>Subtractions</b>	
Columbus	14,993
Dublin	4,290
Westerville	9,289
<b>After Adjustment</b>	<b>192,168</b>

<b>Knox</b>	
<b>Before Adjustment</b>	62,897
<b>Additions</b>	
None	0
<b>Subtractions</b>	
Utica	19
<b>After Adjustment</b>	<b>62,878</b>

<b>Marion</b>	
<b>Before Adjustment</b>	65,291
<b>Additions</b>	
None	0
<b>Subtractions</b>	
None	0
<b>After Adjustment</b>	<b>65,291</b>

<b>Morrow</b>	
<b>Before Adjustment</b>	35,151
<b>Additions</b>	
None	0
<b>Subtractions</b>	
None	0
<b>After Adjustment</b>	35,151

**Source(s) of Information:** Ohio Development Services Agency 2021 Population Estimates for Cities, Villages, and Townships

The overwhelming majority of the District’s population reside in unincorporated townships except for Marion County where the large majority of the population resides in the City of Marion. Of the total District adjusted population, 28% is concentrated in southern Delaware county.

According to the Ohio Development Services Agency’s (ODSA) county profiles, the average population density for Delaware County is 803 people per square mile, with the population densest in the townships located in the southern portion of the county. Knox County has an average population density of 119 people per square mile with all villages and townships except Howard falling under the 5,000 people rural definition provided by OEPA. Although, over half of the population in Marion County is in the City of Marion, it is the District’s second most densely populated county with an average of 162 people per square mile. The most rural county is Morrow with an average of 87 people per square mile. The county seat, Mount Gilead, is well under the 5,000 OEPA rural definition as well as all other villages and townships.

**Table C-1b Total Reference Year Population**

<b>Unadjusted Population</b>	<b>Adjusted Population</b>
384,079	355,488

## B. Population Projections

Population projections for the District were based on ODSA data. The anticipated population change of the District from the reference year and through the planning period is an overall increase of 8.5%. Delaware County is expected to increase by nearly 19% while Morrow County is expected to see a 2% decrease. Knox County shows a slight decrease and then rebounds with a slight increase beginning in 2026. Marion County declines by 4% and then is projected to rebound slightly in 2036 and continue for the remainder of the planning period.

Projections were given by ODSA every five years. The difference was equally distributed for the years in between. Reference year population data was inserted, and all other years were calculated as outlined. This data accounts for the adjusted population staying the same as listed in the reference year for the entire planning period.

For example, the Delaware County 2020 population estimate is 210,630 and the 2025 estimate is 227,930. This is a difference of 17,300. By dividing 17,300 by the five-year interval, there is an estimated population growth of 3,460 each year (2021 -2025).

Intel is investing in central Ohio and is expected to bring many new jobs to the surrounding area. At the time of writing this plan, regional planners in the District were not sure how Intel would impact population projections, or the timing of when a large increase would occur. Due to this uncertainty, any impacts to the District due to Intel, are not included in these population projections.

**Table C-2 Population Projections**

Year	Delaware	Knox	Marion	Morrow	Total District Population
2021	192,168	62,878	65,291	35,151	355,488
2022	195,628	62,864	65,145	35,115	358,752
2023	199,088	62,850	64,999	35,079	362,016
2024	202,548	62,836	64,853	35,043	365,280
2025	199,358	60,181	63,110	34,690	357,339
2026	202,972	60,271	62,968	34,660	360,871
2027	206,586	60,361	62,826	34,630	364,403
2028	210,200	60,451	62,684	34,600	367,935
2029	213,814	60,541	62,542	34,570	371,467
2030	217,428	60,631	62,400	34,540	374,999
2031	221,048	60,831	62,288	34,516	378,683
2032	224,668	61,031	62,176	34,492	382,367
2033	228,288	61,231	62,064	34,468	386,051
2034	228,288	61,231	62,064	34,468	386,051
2035	228,288	61,231	62,064	34,468	386,051
2036	228,288	61,231	62,064	34,468	386,051
2037	228,288	61,231	62,064	34,468	386,051
2038	228,288	61,231	62,064	34,468	386,051
2039	228,288	61,231	62,064	34,468	386,051
2040	228,288	61,231	62,064	34,468	386,051

**Source(s) of Information:** Ohio Development Services Agency 2021 Population Estimates for Cities, Villages, and Townships

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## Appendix D Disposal Data

### A. Reference Year Waste Disposed

The data included in this appendix reflects quarterly fee reports submitted to OEPA but may not match the facilities report provided by OEPA as there had been discrepancies that have been reported to OEPA.

A total of 30% of all waste was directly hauled to landfills. Crawford County Landfill received 65% of this material, the remainder went to eleven other landfills in the reference year. All the landfills that received waste directly from the District during the reference year are shown in Table D-1a below.

**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)
American Landfill	Warren	OH	0	1	0	1
Cherokee Run Landfill	Logan	OH	654	11,609	58	12,321
Crawford County Landfill	Crawford	OH	50,485	4,804	9,134	64,423
Evergreen Landfill	Wood	OH	1,069	0	15	1,083
Franklin County Landfill	Franklin	OH	174	0	0	174
Hancock County Landfill	Hancock	OH	4	0	16	20
Kimble Landfill	Tuscarawas	OH	20	661	37	718
Noble Road Landfill	Richland	OH	8,638	758	70	9,465
Pike Sanitation Landfill	Pike	OH	14	0	0	14
Pine Grove Landfill	Fairfield	OH	53	551	0	604
Port Clinton Landfill	Ottawa	OH	0	0	3	3
Rumpke Landfill	Hamilton	OH	60	0	0	60
Suburban Landfill	Perry	OH	2	2	78	82
Wyandot Landfill	Wyandot	OH	1,792	6,721	203	8,716
<b>Total</b>			<b>62,964</b>	<b>25,106</b>	<b>9,613</b>	<b>97,683</b>

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

**Source(s) of Information:** District Annual Disposal Report 2021

**Table D-1b Total Waste Disposed in Landfills (Direct Haul)**

Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total
62,964	25,106	9,613	97,683

With 70% of the Districts waste being handled through transfer facilities, the District relies heavily on these facilities. The Delaware, Columbus and Marion transfer stations handled 64% of all transferred material in the reference year. Table D-2 outlines the transfer facilities that handled waste in the reference year.

**Table D-2: Waste Transferred in Reference Year<sup>1</sup>**

Facility Name	Location		Waste Received from the SWMD			
	County	State	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)
Cambridge Transfer	Guernsey	OH	1			1
Circleville Transfer	Pickaway	OH	4,429	0	0	4,429
Columbus Recycling Transfer	Franklin	OH	49,822	0	0	49,822
Delaware County Transfer	Delaware	OH	58,520	0	10,237	68,757
Local Waste Transfer	Franklin	OH	9,193	0	22	9,215
Marion County Transfer	Marion	OH	25,455	0	2,379	27,834
Mid-State Waste Transfer	Richland	OH	11,639	0	6,651	18,290
Montgomery County Transfer	Montgomery	OH	5	0	0	5
Morse Road Transfer	Franklin	OH	295	0	0	295
Mount Vernon Transfer	Knox	OH	17,379	0	1,398	18,777
Reynolds Ave. Transfer	Franklin	OH	9,552	0	207	9,759
Richland County Transfer	Richland	OH	16,161	0	37	16,198
Waste Management- Canal Winchester	Franklin	OH	3,175	0	270	3,445
Waste Management- Lima	Allen	OH	852	0	0	852
<b>Total</b>			<b>206,478</b>	<b>0</b>	<b>21,201</b>	<b>227,679</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:** Quarterly Fee Report 2021

**Table D-3: Total Waste Disposed in Reference Year**

	Residential/ Commercial (tons)	Industrial (tons)	Excluded (tons)	Total (tons)
Direct Hauled	62,964	25,106	0	88,070
Transferred	206,478	0	0	206,478
Incinerated	0	0	0	0
<b>Total</b>	<b>269,442</b>	<b>25,106</b>	<b>0</b>	<b>294,548</b>

**Source(s) of Information:** Quarterly Fee Report 2021

## B. Historical Waste Analysis

The amount of total solid waste disposed from the District has fluctuated over time. Analyzing past data can help make future projections more accurate.

**Table D-5: Historical Disposal Data**

Year	Population	Residential/ Commercial Solid Waste		Industrial Solid Waste	Excluded Waste	Total Waste
		Rate (ppd)	Weight (tons)	Weight (tons) <sup>2</sup>	Weight (tons) <sup>3</sup>	Weight (tons) <sup>4</sup>
2017	331,131	4.59	277,543	20,386	45,281	343,210
2018	334,427	4.15	253,403	24,854	45,717	323,974
2019	337,723	4.18	257,341	40,099	36,434	333,874
2020	341,019	4.22	262,787	30,233	30,815	323,835
2021	355,488	4.15	269,442	25,106	0	294,548
2022	358,752	4.32	282,836	32,892	0	315,728

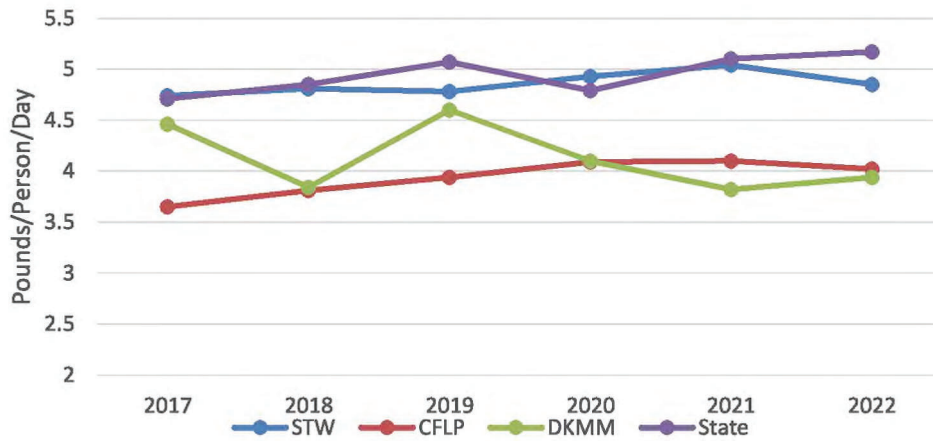
**Source(s) of Information:** Quarterly Fee Reports 2017-2022.

### 1. Residential/Commercial Waste

Residential waste has fluctuated with a high of 277,543 tons in 2017 to a low the very next year of 253,403 tons. These fluctuations do show an increase in tonnage over time as shown in Figure D-2. The population is growing, which is leading to an increased amount of waste. Population growth is outpacing waste production leading to a decrease over time in pounds/person/day (p/p/d). The District’s average of 4.27 p/p/d is below the state average of 4.95 p/p/d.

The District’s p/p/d shows significant fluctuations as compared to other solid waste districts in the area as shown in Figure D-1.

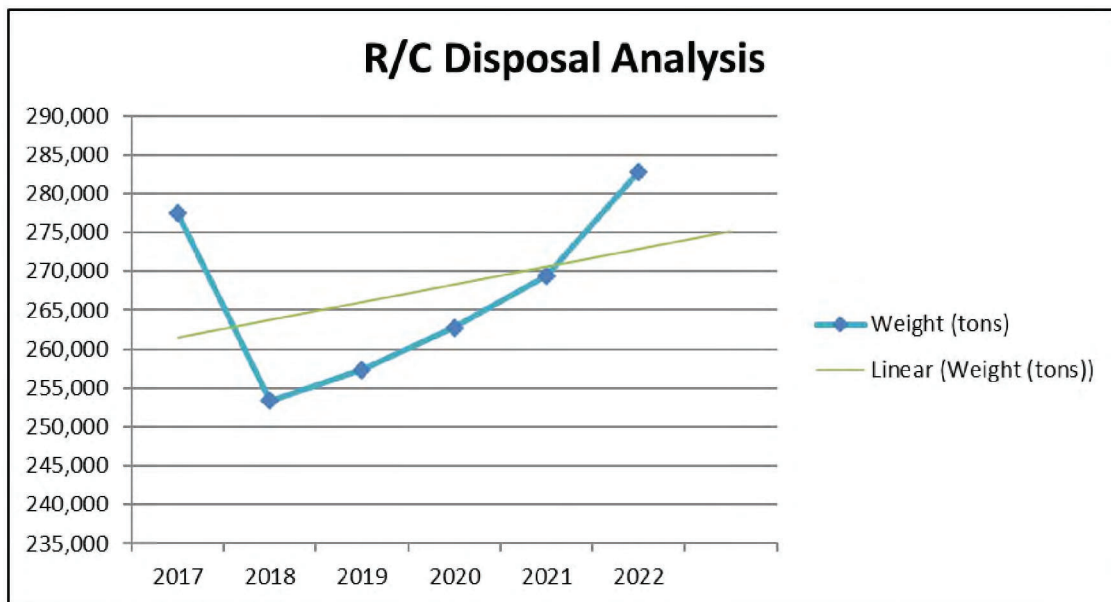
**Figure D-1: Disposal Rate for Selected SWMDs- Residential/Commercial**



**Note:** STW= Stark, Tuscarawas, Wayne, CFLP= Coshocton, Fairfield, Licking, Perry

The residential/commercial tons disposed of for the District is shown in Figure D-2 including a trend line. The trend line suggests a disposal increase will occur over the planning period.

**Figure D-2: The Residential/Commercial Sector Disposal Trends**

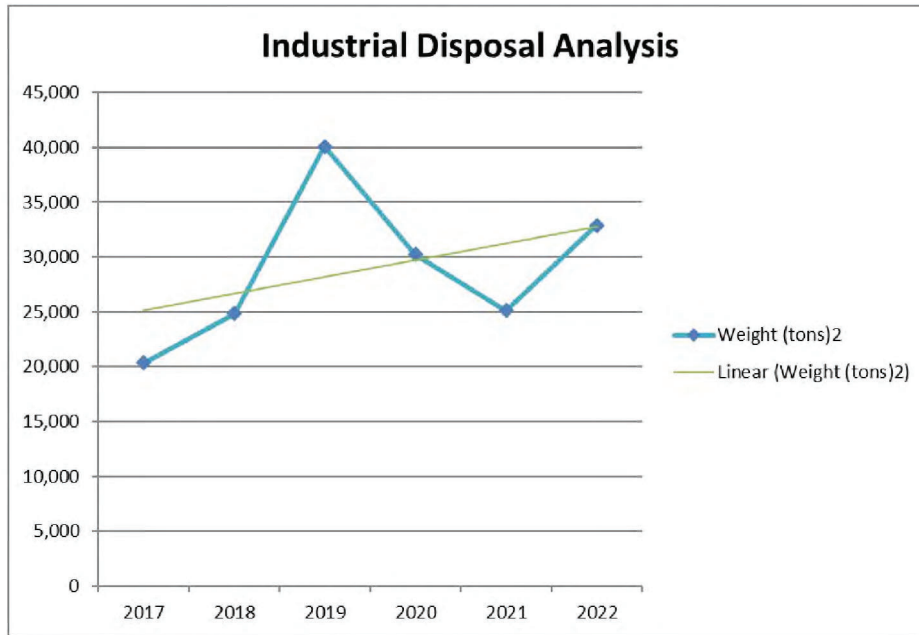


The actual disposal of residential/commercial waste from the District is higher than the amounts projected in the currently approved plan. In 2017, the difference was 15.9% higher than plan projections and gradually falls to 8.9% higher in 2020.

2. Industrial Waste

As shown in the graphic below, there was a significant reduction in industrial waste in 2021 due to the COVID pandemic. It is trending back towards pre-pandemic levels as shown in Figure D-3.

**Figure D-3: Industrial Sector Disposal Trends**



C. Disposal Projections

Based on historic data, the District used the average per capita waste disposed for residential/commercial waste projections. For industrial waste projections, the District used the average percentage change in tons disposed. Excluded waste accounted for less than 10 percent of the total waste produced in the reference year and has not been included in projections.

**Table D-6 Projections for Waste to be Disposed and Transferred**

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 (tons)	Weight (tons)	Weight (tons)	Weight (tons)	Weight (tons)	Percent 70.10%
2021	269,442	25,106	0	294,548	206,478	
2022	282,836	32,892	0	315,727	221,325	
2023	281,071	36,320	0	317,392	222,491	
2024	279,318	40,106	0	319,424	223,916	

2025	277,576	44,287	0	321,862	225,625
2026	275,844	48,903	0	324,747	227,648
2027	274,124	54,000	0	328,124	230,015
2028	272,414	59,629	0	332,043	232,762
2029	270,715	65,844	0	336,559	235,928
2030	269,026	72,708	0	341,734	239,555
2031	267,348	80,286	0	347,634	243,691
2032	265,680	88,655	0	354,335	248,389
2033	264,023	97,896	0	361,919	253,705
2034	264,023	97,896	0	361,919	253,705
2035	264,023	97,896	0	361,919	253,705
2036	264,023	97,896	0	361,919	253,705
2037	264,023	97,896	0	361,919	253,705
2038	264,023	97,896	0	361,919	253,705
2039	264,023	97,896	0	361,919	253,705
2040	264,023	97,896	0	361,919	253,705

## Appendix E Residential/Commercial Reduction and Recycling Data

This Appendix presents the reduction and recycling data for the residential and commercial sectors in the reference year. To avoid double counting tonnage, adjustments were made to tonnage reported by different types of entities. A historic analysis of the recycling data is included in this Appendix. Information in this section as well as information from other sources was used to calculate the recycling projections.

### A. Reference Year Recovery Data

The North American Industry Classification System (NAICS) classifies business establishment for the purpose of collecting, analyzing and publishing statistical data related to the U.S. economy. The NAICS codes define establishments based on the activities in which they are primarily engaged.

Every year the District conducts annual recycling surveys of commercial entities. In 2021 the District had a response rate of 10% which is typical each year. OEPA compiles data from stores that have multiple locations across the state as well as compost facilities and tire recyclers. Approximately half of the collected data comes from OEPA.

Data from a total of 48 commercial businesses and institutions was used to complete Table E-1. A total of 26,565 tons were reported and 2,326 were adjusted to avoid double-counting.

**Table E-1 Commercial Survey Results**

NAICS	APP	ELE	LAB	FO	GL	FE	NFE	OCC	MxP	PL	TEX	WO	RUB	COM	YDW	OIL	TIRE	
42																		
44			14			15	8									7	34	
45		6		1	260	25		239	4	7		30			948			
48						1,961	88											
49																		
51		2																
52																		
53		3																
54		4				1	1											
55																		
56			3			210	19	9	16			3,520		357	17,381	9	40	
61		16			9	16	1	65	73	7				437				
62		1		8	1	5	2	110	93	4				5				
71		4		14	3	23	5	127	3					4			2	
72																		
81		4	16			144	3	3	17	3						30	70	
92						15												
<b>Total</b>	0	40	33	23	273	2,415	127	553	206	21	0	3,550	0	803	18,329	46	146	26,565
<b>Adj</b>					1	267	29	60	46	5	0	30		794	948		146	-2,326
<b>Adj Total</b>	0	40	33	23	272	2,148	98	493	160	16	0	3,520	0	9	17,381	46	0	24,239

**Notes:** APP= appliances, ELE= electronics, LAB= lead-acid batteries, FO= food, GL= glass, FE= ferrous metal, NFE= non-ferrous metal, OCC= cardboard, MxP= mixed paper, PL= plastic, TEX= textiles, WO= wood, RUB= rubber, COM= commingles recyclables, YDW= yard waste

**Source(s) of Information:** Annual District Recycling Survey 2021

Residential/Commercial Recycling Data

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

Program and/or Source of Materials/Data	APP	ELE	LAB	FO	GL	FE	NFE	OCC	MxP	PL	TEX	WO	RUB	COM	YDW	OIL	TIRE	Total
<b>Buybacks</b>																		
None																		0
<b>Scrap Yards</b>																		
SY 1		22	46			5,280	181	6								1		5,536
<b>Brokers</b>																		
None																		0
<b>Processors/MRF's</b>																		
MRF 1		2																2
MRF 2					20	117	4	381	63	13				632		2		1,232
MRF 3									205									205
MRF 4					2,608	292	235	4,000	6,239	1,286				498				15,158
<b>Totals</b>	0	24	46	0	2,628	5,689	420	4,387	6,507	1,299	0	0	0	1,130	0	3	0	22,133
<b>Adj. Totals</b>					2,608	292	235	4,005	6,239	1,286				498				15,163
<b>Adj. Totals</b>	0	24	46	0	20	5,397	185	382	268	13	0	0	0	632	0	3	0	6,970

**Notes:** APP= appliances, ELE= electronics, LAB= lead-acid batteries, FO= food, GL= glass, FE= ferrous metal, NFE= non-ferrous metal, OCC= cardboard, MxP= mixed paper, PL= plastic, TEX= textiles, WO= wood, RUB= rubber, COM= commingles recyclables, YDW= yard waste

**Source(s) of Information:** Annual District Recycling Survey 2021

**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	
Advanced Auto				8			3					196	
CVS				32								9	
Dollar General	1	7		840	3								
Home Depot		1		97				513				25	
Kohls		9		231		4						45	
Kroger		96		3,141								65	
Nation Tire & Battery												19	
Rumpke	2,608	1,286		4,000	6,239	235	292				498		
Target	15			526		10					6		
Walmart		41		1,993	3							150	
<b>Unadjusted Total</b>	<b>2,624</b>	<b>1,440</b>	<b>0</b>	<b>10,868</b>	<b>6,245</b>	<b>249</b>	<b>295</b>	<b>513</b>	<b>0</b>	<b>0</b>	<b>513</b>	<b>500</b>	<b>23,247</b>
<b>Adjustments</b>													<b>0</b>
<b>Adjusted Total</b>	<b>2,624</b>	<b>1,440</b>	<b>0</b>	<b>10,868</b>	<b>6,245</b>	<b>249</b>	<b>295</b>	<b>513</b>	<b>0</b>	<b>0</b>	<b>513</b>	<b>500</b>	<b>23,247</b>

**Source(s) of Information:** Ohio EPA Material Recover Facility and Commercial Recycling Data Report 2021

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

Other Programs or Sources of Data	APP	HHW	OIL	ELE	TIRE	DCB	LAB	FO	GL	FE	NFE	OCC	MxP	PL	TEX	WO	RUB	COM	YDW	Total	Adj.	Adj. Total		
Curbside Recycling Services																			8,488	8,488	8,389	99		
Drop-off Recycling Locations																			4,215	4,215	4,215	0		
Composting Facilities								1,488											29,810	31,298	9,736	21,562		
Other Food and Yard Waste Management Activities																					0	0		
Ohio EPA Scrap Tire Data					3,459																3,459	3,459		
HHW Collection Events		33																			33	33		
Electronic Collection Events					23																23	23		
<b>Total</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>23</b>	<b>3,459</b>	<b>0</b>	<b>0</b>	<b>1,488</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,703</b>	<b>29,810</b>	<b>47,516</b>	<b>22,340</b>	<b>25,176</b>	
<b>Adj.</b>																				<b>12,604</b>	<b>9,736</b>	<b>22,340</b>		
<b>Adj. Total</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>23</b>	<b>3,459</b>	<b>0</b>	<b>0</b>	<b>1,488</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>20,074</b>	<b>25,176</b>			

**Notes:** APP= appliances, HHW household hazardous waste, ELE= electronics, DCB= dry cell batteries LAB= lead-acid batteries, FO= food, GL= glass, FE= ferrous metal, NFE= non-ferrous metal, OCC= cardboard, MxP= mixed paper, PL= plastic, TEX= textiles, WO= wood, RUB= rubber, COM= commingles recyclables, YDW= yard waste

## Residential/Commercial Recycling Data

**Source(s) of Information:** Ohio EPA Compost Report 2021, Ohio EPA Scrap Tire Report 2021, District Data 2021

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

<b>Material</b>	<b>Quantity (tons)</b>
Appliances/ "White Goods"	0
Household Hazardous Waste	33
Used Motor Oil	49
Electronics	87
Scrap Tires	3,459
Dry Cell Batteries	0
Lead-Acid Batteries	79
Food	1,511
Glass	2,916
Ferrous Metals	7,840
Non-Ferrous Metals	532
Corrugated Cardboard	11,743
All Other Paper	6,673
Plastics	1,469
Textiles	0
Wood	4,033
Rubber	0
Commingled Recyclables (Mixed)	1,253
Yard Waste	37,455
Other (Aggregated)	500
<b>Total</b>	<b>79,632</b>

**Source(s) of Information:** Compilation of Tables E-1 to E-4.

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

<b>Program/Source of R/C Recycling Data</b>	<b>Quantities (Tons)</b>
Commercial Survey	24,239
Data from Other Recycling Facilities	6,970
Ohio EPA Commercial Retail Data	23,247
Curbside Recycling Services	99

Residential/Commercial Recycling Data

Drop-off Recycling Locations	0
Composting Facilities	21,562
Other Food and Yard Waste Management Activities	0
Ohio EPA Scrap Tire Data	3,459
HHW Collection Events	33
Electronic Collection Events	23
<b>Total</b>	<b>79,632</b>

**Source(s) of Information:** Compilation of tables E-1 to E-4.

### B. Historical Recovery

Total recovery includes recycling, composting and waste reduction. The District’s historical recovery for the residential/commercial sector over a five-year period is presented in the following table.

**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	Composting Facilities	Other Food and Yard Waste	Ohio EPA Scrap Tire Data	HHW Collection Events	Electronic Collection Events	Totals
2017	11,730	28,960	10,797	1,696	0	24,865	0	2,640	25	15	80,728
2018	19,197	40,176	8,690	1,187	0	27,490	0	2,503	23	12	99,278
2019	16,047	18,958	10,731	2,948	0	28,629	0	4,004	21	22	81,360
2020	10,141	27,872	12,081	1,144	0	26,869	0	2,967	45	0	81,119
<b>2021</b>	<b>24,239</b>	<b>6,970</b>	<b>23,247</b>	<b>99</b>	<b>0</b>	<b>21,562</b>	<b>0</b>	<b>3,459</b>	<b>33</b>	<b>23</b>	<b>79,632</b>

**Source(s) of Information:** Annual District Recycling Survey 2017 - 2021, Ohio EPA Material Recovery Facility and Commercial Recycling Data 2017 - 2021, District Data 2017 - 2021, Ohio EPA Scrap Tire Report 2017 - 2021, Ohio EPA Compost Report 2017 – 2021

An examination of the recovery patterns over the five-year period reveals that a high of 99,278 tons was recovered in 2018 and in 2021 a low of 79,632 tons were recovered. An annual 1% change each year or an average 84,426 tons over the five years was recovered.

### C. Residential/Commercial Recovery Projections

The District considers 2018 an outlier year and removed it from calculations used to project recovery tonnages. While the District feels the data presented in 2018 was accurate, the large increase was due to two land clearing companies reporting for the first time. These companies have not consistently reported since 2018 and have thus skewed the data. Data from 2021 was used along with 2017, 2019 and 2020 to make recovery projections.

Once 2018 data was removed, projections were made using the average per capita recovery rate for each data type as shown in Table E-8.

Residential/Commercial Recycling Data

**Table E-8 Average Per Capita Recovery Rate (pounds/person/day)**

Program/Source of Data	PPD
Commercial Survey	.25
Other Recycling Facilities	.34
Ohio EPA Commercial Data	.23
Curbside Recycling Data	.02
Drop-off Recycling	0
Composting Facilities	.41
Other Food and Yard Waste	0
Ohio EPA Scrap Tire Data	.05
HHW Collection Events	0
Electronics Collection Events	0

**Table: E-9 Residential/Commercial Recovery Projections by Program/Source**

Year	Population	Commercial Survey	Data from Other Recycling Facilities	Ohio EPA Commercial Retail Data	Curbside Recycling Services	Drop-off Recycling Locations	Composting Facilities	Other Food and Yard Waste Management Activities	Ohio EPA Scrap Tire Data	HHW Collection Events	Electronic Collection Events	Totals
2021	355,488	24,239	6,970	23,247	99	0	21,562	0	3,459	33	23	79,632
2022	358,752	16,368	22,261	15,059	1,309	0	26,844	0	3,274	33	23	85,170
2023	362,016	16,517	22,463	15,196	1,321	0	27,088	0	3,303	33	23	85,944
2024	365,280	16,666	22,666	15,333	1,333	0	27,332	0	3,333	33	23	86,719
2025	357,339	16,304	22,173	14,999	1,304	0	26,738	0	3,261	33	23	84,835
2026	360,871	16,465	22,392	15,148	1,317	0	27,002	0	3,293	33	23	85,673
2027	364,403	16,626	22,611	15,296	1,330	0	27,266	0	3,325	33	23	86,511
2028	367,935	16,787	22,830	15,444	1,343	0	27,531	0	3,357	33	23	87,349
2029	371,467	16,948	23,050	15,592	1,356	0	27,795	0	3,390	33	23	88,187
2030	374,999	17,109	23,269	15,741	1,369	0	28,059	0	3,422	33	23	89,025
2031	378,683	17,277	23,497	15,895	1,382	0	28,335	0	3,455	33	23	89,899
2032	382,367	17,445	23,726	16,050	1,396	0	28,611	0	3,489	33	23	90,773
2033	386,051	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,647
2034	389,735	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2035	393,419	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2036	426,005	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2037	430,019	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2038	434,033	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2039	438,047	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646
2040	442,061	17,614	23,954	16,204	1,409	0	28,886	0	3,523	33	23	91,646

**Source(s) of Information:** Projections based on data in Table E-7 and E-8

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## Appendix F Industrial Waste Reduction and Recycling Data

The recycling survey process for commercial and institutional entities is also used to annually survey industries in the District as well. Industries are great recyclers, often reporting large amounts of material being diverted from landfills.

### A. Reference Year Recovery

**Table F-1 Industrial Material Recovered in Reference Year**

<b>Material</b>	<b>Quantity (tons)</b>
Food	3,738
Glass	1,900
Ferrous Metals	540,461
Non-Ferrous Metals	2,696
Corrugated Cardboard	4,851
All Other Paper	1,729
Plastics	1,172
Textiles	4
Wood	2,323
Rubber	0
Commingled Recyclables (Mixed)	41
Ash	127
Non-Excluded Foundry Sand	73
Flue Gas Desulfurization	0
Other (Aggregated)	347
<b>Total</b>	<b>559,462</b>

**Source(s) of Information:** Annual District Report 2021

### B. Historical Recovery

Survey efforts in 2017 and 2018 showed significantly less material being diverted than in 2019 - 2021, skewing the data. With the industrial sector being such good recyclers, when one or two industries choose not to report one year, it has a great impact on the data. The District works hard to collect data from the same industries each year but cannot force participation in reporting.

**Table F-2 Historical Industrial Recovery by Program/Source**

Year	Industrial survey	Data from other recycling facilities	Totals
2017	127,938	11,704	139,642
2018	110,470	23,097	133,567
2019	449,308	23,948	473,256
2020	426,411	25,679	452,090
2021	537,126	22,336	559,462
2022	431,828	18,892	450,720

**Source(s) of Information:** Annual District Survey 2017 - 2021, Ohio EPA Material Recover Facility and Commercial Recycling Data 2017 - 2021, District Data 2017 - 2021, OEPA Scrap Tire Report 2017 - 2021, OEPA Compost Report 2017 - 2021

### C. Industrial Recovery Projections

Recovery projections were made using the average annual change in tons reported. Since data in 2017 and 2018 are outliers, they have been removed from calculations used to project recovery. Data from the years 2020-2022 were used instead to make projections.

The average annual change in tons for the industrial survey is -5,827 tons and is -1,685 tons for the other recycling facilities leading to a gradual decline in tons recovered.

**Table: F-3 Industrial Recovery Projections by Program/Source**

Year	Industrial survey	Data from other recycling facilities	Totals
2021	537,126	22,336	559,462
2022	431,828	18,896	450,724
2023	426,001	17,211	443,212
2024	420,174	15,526	435,700
2025	414,347	13,841	428,188
2026	408,520	12,156	420,676
2027	402,693	10,471	413,164
2028	396,866	8,786	405,652
2029	391,039	7,101	398,140
2030	385,212	5,416	390,628

2031	379,385	3,731	383,116
2032	373,558	2,046	375,604
2033	367,731	361	368,092
2034	367,731	361	368,092
2035	367,731	361	368,092
2036	367,731	361	368,092
2037	367,731	361	368,092
2038	367,731	361	368,092
2039	367,731	361	368,092
2040	367,731	361	368,092

**Source(s) of Information:** Projections based on data in Table F-2

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## Appendix G Waste Generation

### A. Historical Waste Generated

Generation is the sum of tons disposed, recycled and composted each year. The historical waste generation for the District for the reference year and the four years prior is shown in Table G-1.

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

Year	Population	Residential/ Commercial				Industrial			Excluded (tons)
		Disposed (tons)	Recycled (tons)	Generated (tons)	Per Capita Generated (ppd)	Disposed (tons)	Recycled (tons)	Generated (tons)	
2017	331,131	277,543	80,728	358,271	5.93	20,386	139,642	160,028	45,281
2018	334,427	253,403	99,278	352,681	5.78	24,854	133,567	158,421	45,717
2019	337,723	257,341	81,360	338,701	5.50	40,099	473,256	513,355	36,434
2020	341,019	262,787	81,119	343,906	5.53	30,233	452,090	482,323	30,815
<b>2021</b>	<b>355,488</b>	<b>269,442</b>	<b>79,632</b>	<b>349,074</b>	<b>5.38</b>	<b>25,106</b>	<b>559,462</b>	<b>584,568</b>	<b>0</b>

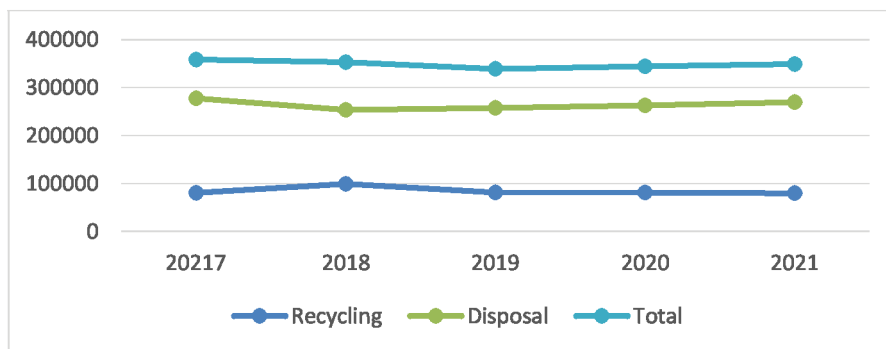
**Source(s) of Information:** District Annual Report 2017-2021, District Annual Disposal Report 2017-2021

**Sample Calculations:** per capita generation rate = ((tons generated x 2000) ÷ 365) ÷ population) and annual percentage change= (new year – old year) ÷ old year) x 100

#### 1. Residential/Commercial Waste

Residential/commercial generation has not significantly changes over the past five years as shown in Figure G-1. This graphic shows that typically as disposal decreases, recycling increases. The highest generation rate per person, pounds per person per day (P/P/D), was in 2017 at 5.93 p/p/d and decreased to 5.38 p/p/d in 2021. This could be due to the fast population growth in Delaware County.

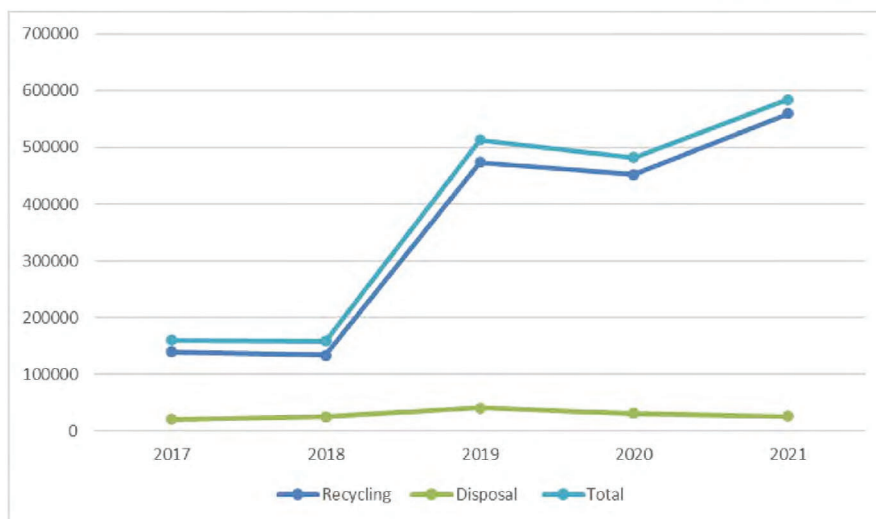
**Figure G-1: District Residential/Commercial Generation 2017 – 2021**



2. Industrial Waste

Since industries divert large amounts of material, changes in one industry can have a large impact on the data. In 2019, NUCOR Steel made changes to their processing and data collection methods causing a spike in recycling weights. Overall, the total disposal has stayed consistent over the five-year analysis period.

**Figure G-2: District Industrial Generation 2017 – 2021**



B. Generation Projections

Generation projections for the District’s disposal and recycling are included in Appendices D, E and F for the residential/commercial and industrial sectors. These projections are summarized below in Table G-2.

As seen in Table G-2, per capita waste generation for the residential/commercial sector is projected to decrease each year. Industry projections are more difficult to make due to such fluctuations in those that respond to the annual recycling survey.

**Table G-2 Generation Projections**

Year	Population	Residential/ Commercial				Industrial			Total (tons)
		Disposal (tons)	Recycle (tons)	Generation (tons)	Per Capita Generation (ppd)	Disposal (tons)	Recycle (tons)	Generation (tons)	
2021	355,488	269,442	79,632	349,074	5.38	25,106	559,462	584,568	933,642
2022	358,752	282,836	85,170	368,005	5.62	32,892	450,724	483,616	851,621
2023	362,016	281,071	85,944	367,016	5.56	36,320	443,212	479,532	846,548
2024	365,280	279,318	86,719	366,037	5.49	40,106	435,700	475,806	841,843
2025	357,339	277,576	84,835	362,410	5.56	44,287	428,188	472,475	834,885

Waste Generation

2026	360,871	275,844	85,673	361,517	5.49	48,903	420,676	469,579	831,096
2027	364,403	274,124	86,511	360,634	5.42	54,000	413,164	467,164	827,799
2028	367,935	272,414	87,349	359,762	5.36	59,629	405,652	465,281	825,043
2029	371,467	270,715	88,187	358,901	5.29	65,844	398,140	463,984	822,885
2030	374,999	269,026	89,025	358,050	5.23	72,708	390,628	463,336	821,386
2031	378,683	267,348	89,899	357,246	5.17	80,286	383,116	463,402	820,649
2032	382,367	265,680	90,773	356,453	5.11	88,655	375,604	464,259	820,712
2033	386,051	264,023	91,647	355,670	5.05	97,896	368,092	465,988	821,657
2034	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2035	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2036	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2037	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2038	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2039	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657
2040	386,051	264,023	91,646	355,669	5.05	97,896	368,092	465,988	821,657

**Source(s) of Information:** District Annual Report 2017-2021, District Annual Disposal Report 2017-2021

**Sample Calculations:** per capita generation rate = ((tons generated x 2000) ÷ 365) ÷ population)

C. Waste Composition

Table G-3 was developed using the generation projections in Table G-2 and the national average breakdown of the total reported generation.

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

	Percent of Total Generation <sup>1</sup>	Year																				
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	
Paper and Paperboard	23.1%	80,636	85,009	84,781	84,554	83,717	11,550	83,307	83,105	82,906	82,710	82,524	82,341	82,160	82,160	82,160	82,160	82,160	82,160	82,160	82,160	82,160
Glass	4.2%	14,661	15,456	15,415	15,374	15,221	2,100	15,147	15,110	15,074	15,038	15,004	14,971	14,938	14,938	14,938	14,938	14,938	14,938	14,938	14,938	14,938
Ferrous	6.6%	23,039	24,288	24,223	24,158	23,919	3,300	23,802	23,744	23,687	23,631	23,578	23,526	23,474	23,474	23,474	23,474	23,474	23,474	23,474	23,474	23,474
Aluminum	1.3%	4,538	4,784	4,771	4,758	4,711	650	4,688	4,677	4,666	4,655	4,644	4,634	4,624	4,624	4,624	4,624	4,624	4,624	4,624	4,624	4,624
Other Nonferrous	0.9%	3,142	3,312	3,303	3,294	3,262	450	3,246	3,238	3,230	3,222	3,215	3,208	3,201	3,201	3,201	3,201	3,201	3,201	3,201	3,201	3,201
Plastics	12.2%	42,587	44,897	44,776	44,656	44,214	6,100	43,997	43,891	43,786	43,682	43,584	43,487	43,392	43,392	43,392	43,392	43,392	43,392	43,392	43,392	43,392
Rubber and Leather	3.1%	10,821	11,408	11,377	11,347	11,235	1,550	11,180	11,153	11,126	11,100	11,075	11,050	11,026	11,026	11,026	11,026	11,026	11,026	11,026	11,026	11,026
Textiles	5.8%	20,246	21,344	21,287	21,230	21,020	2,900	20,917	20,866	20,816	20,767	20,720	20,674	20,629	20,629	20,629	20,629	20,629	20,629	20,629	20,629	20,629
Wood	6.2%	21,643	22,816	22,755	22,694	22,469	3,100	22,359	22,305	22,252	22,199	22,149	22,100	22,052	22,051	22,051	22,051	22,051	22,051	22,051	22,051	22,051
Other	1.5%	5,236	5,520	5,505	5,491	5,436	750	5,410	5,396	5,384	5,371	5,359	5,347	5,335	5,335	5,335	5,335	5,335	5,335	5,335	5,335	5,335
Food	21.6%	75,400	79,489	79,275	79,064	78,281	10,800	77,897	77,709	77,523	77,339	77,165	76,994	76,825	76,825	76,825	76,825	76,825	76,825	76,825	76,825	76,825
Yard Trimmings	12.1%	42,238	44,529	44,409	44,290	43,852	6,050	43,637	43,531	43,427	43,324	43,227	43,131	43,036	43,036	43,036	43,036	43,036	43,036	43,036	43,036	43,036
Misc. Inorganic wastes	1.4%	4,887	5,152	5,138	5,125	5,074	700	5,049	5,037	5,025	5,013	5,001	4,990	4,979	4,979	4,979	4,979	4,979	4,979	4,979	4,979	4,979
<b>R/C waste generated</b>		<b>349,074</b>	<b>368,005</b>	<b>367,016</b>	<b>366,037</b>	<b>362,410</b>	<b>50,000</b>	<b>360,634</b>	<b>359,762</b>	<b>358,901</b>	<b>358,050</b>	<b>357,246</b>	<b>356,453</b>	<b>355,670</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>	<b>355,669</b>

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

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## Appendix H Strategic Evaluation

This Appendix is divided into thirteen separate analyses or sections to address the recommendations and suggestions in Format Version 4.1. Existing programs have been evaluated qualitatively in terms of the suggestions included in Format 4.1 and the identified strengths and weaknesses which are summarized at the end of each program analysis.

### 1. Residential Recycling Infrastructure Analysis

Residential recycling opportunities are offered through an extensive drop-off program, multiple curbside collections, and various material handling facilities. Recycling opportunities are distributed throughout the District with southern Delaware having a higher concentration of opportunities due to having a higher population. Appendix B lists all opportunities that were available in the reference year. To meet Goal 1 of the State Plan, the District must show an access rate of at least 80% for each county.

**Table H-1: Recycling Infrastructure Overview: 2021**

	Access	Curbside Non-Subscription	Curbside Subscription	Drop-Offs	Material Handling Facilities	Composting Facilities
Delaware	97%	13	2	11	1	4
Knox	94%	2	0	17	3	3
Marion	90%	1	0	9	0	1
Morrow	97%	1	2	14	1	1
<b>TOTAL</b>	<b>95%</b>	<b>17</b>	<b>4</b>	<b>51</b>	<b>6</b>	<b>9</b>

Materials accepted in curbside and drop-off recycling programs are the same across all four counties. All programs are collected single stream except at the Morrow County drop-off locations which requires fiber to be separated from containers.

**Table H-2: Materials Accepted in Recycling Programs**

Paper/Fiber	Commingled Cans/Containers
Newspaper	Aluminum Beverage Cans
Mixed Paper	Steel, Tin, Bimetal Cans
Office Paper	Paper Board
Magazines	Glass Bottles and Jars (any color)

Cardboard	Aseptic Containers
	Plastic Bottles, Jugs, Tubs, and cups

*Curbside Recycling Programs*

Curbside recycling programs are available in areas where a municipality has contracted for waste services on behalf of their residents; a city is providing the service itself; or through haulers offering recycling to their customers. District-wide, 66% of residents had access to a curbside recycling program in the reference year. This covers all of the largest population centers within the District and many townships in Delaware County. Residents pay haulers directly for curbside service either through a trash bill or a city utility bill.

The District supports curbside programs by offering financial assistance to communities through a grant program and by providing technical assistance and educational programming on curbside programs.

Genoa, Liberty, and Orange townships in southern Delaware County continue to contract together for services to obtain lower rates. In 2016 Berkshire, Berlin, and Delaware townships (Delaware County) also signed a joint contract for curbside services. Eight other municipal jurisdictions contract individually for curbside services. These contracts obtain more favorable pricing for residents who are billed directly by private haulers.

The cities of Delaware and Marion and the villages of Gambier and Mount Gilead provide curbside services through municipal staff. All four of these programs also include the seasonal collection of yard waste at the curb.

The City of Mount Vernon adopted an ordinance which requires all private haulers operating within the city to be certified. As part of the certification, haulers must agree to provide non-subscription collection of recyclables. The city police department certifies haulers and enforces the ordinance.

Conclusions/ Findings

- Harlem, Fredericktown, Howard/Apple Valley, Marengo, and Candlewood drop-offs are heavily used and are in areas that would benefit from implementing a curbside recycling program.
- The City of Mount Vernon ordinance lacks enforcement of the reporting requirements. Haulers do not offer information on the availability of free curbside recycling so many residents don't know it is available. The Knox County Recycling Educator does an annual mailing with the city utility bill, but the population is always changing so the impact is limited.

- Delaware, Berkshire, and Berlin townships only have every other week recycling and could benefit from weekly service.
- The City of Sunbury and the Village of Ostrander both currently offer subscription service and could benefit from moving to non-subscription service.
- Residents in the villages of Edison, Chesterville, and Cardington only have curbside available if they hire Mid-Ohio Sanitation and Recycling for trash service. These villages could benefit from municipally contracted service for all residents.
- Municipal curbside contracts require reporting recycling tonnages to the municipal authority and the District, but many do not enforce it.
- Not all curbside programs use wheeled tip carts, but all could benefit from them. This would reduce the pressure on drop-offs in southern Delaware which residents use when their curbside bin is full.
- Oxford and Porter Townships only contract for garbage and would benefit from adding recycling.
- Grant funding would help encourage new curbside recycling programs and improvements to established programs.

### *Drop-Off Programs*

Drop-off programs in Delaware, Knox and Marion counties are serviced by Rumpke Waste and Recycling utilizing contractor owned 8- yard roll-off containers with no separation requirements. Mid-Ohio Sanitation and Recycling services the Morrow County program using District owned 40-yard roll-off containers which require fiber to be separated from containers. The District contracts and pays contractors directly for drop-off services.

A total of fifty-one drop-offs are located in the District, and all are available 24 hours a day, 7 days a week. Eight locations are designated as urban and forty-two are considered rural. Designations are based on the population of the municipality where the drop-off is located. A large majority of drop-offs are located on public property such as township halls, schools, and senior centers. These locations already provide services to residents and see the benefit in partnering to make recycling available to area residents.

Illegal dumping continues to be an issue at a few larger, more heavily used drop-offs. To address these issues, cameras were installed with OEPA, District, and County funding in 2023. Beginning in 2020 a concerted effort was made to increase service levels at drop-off locations to prevent ongoing overflow issues. Adequate service was achieved July 2021 reducing the amount of overflow and illegally dumped items.

The District pays a small stipend to non-profit groups such as 4-H Clubs, Boy Scouts and Girl Scouts to “adopt a bin”. These groups visit their drop-off location once a week and pick up litter and report any service needs.

The District works with site hosts to complete site improvements on an as needed basis. Improvements range from laying stone to installing concrete pads. Improvements also include costs associated with maintaining the District owned 40-yard drop-off containers used in Morrow County.

**Table H-3: Cost and Contamination Rates for Drop-Off Programs**

	Cost Per Pound 2021	Rumpke Visual Contamination 2020 Study
Delaware	\$0.08	1.5%
Knox	\$0.11	4%
Marion	\$0.12	2.5%
Morrow	\$0.15	12.7% (2016 Mid-Ohio Sanitation Audit)

Conclusions/ Findings

- Drop-off locations are finally at an optimal level of service after years of adding bins and days of service. This has prevented unsightly messes and greatly reduced the amount of illegal dumping.
- Contracted service rates continue to increase. Removing locations to save money isn’t feasible without creating a ripple effect causing potential overflow issues at other locations.
- In 2019 Sims Brothers closed their residential recycling drop-offs at their facilities in Delaware and Marion. Residents and small businesses use these locations for larger loads of recycling that don’t easily fit in curbside bins. In 2023 a recycling drop-off was opened at the new Delaware Transfer Station filling the gap in Delaware.
- Illegal dumping continues to be a large issue at River Valley (Marion County).
- A 2020 visual contamination study shows low contamination rate but also showed cardboard boxes are not being flattened prior to being placed in recycling bins.
- With the change in collection containers and service provider in 2019 in Marion County, site locations are now needing substantial site improvements. Heavier trucks are now used to service containers leading to areas needing upgrades such as stone, asphalt, or concrete.

### *Multi-family housing*

Multi-family housing is continually growing in southern Delaware Townships and southern Delaware City. Although the District does not receive access credit for drop-offs located in communities that have non-subscription curbside recycling, three drop-offs are located in southern Delaware to accommodate residents living in multi-family housing units. In the reference year, these three drop-offs collected 37.6 tons costing the District \$91,412.98.

### Conclusions/Findings

- Multi-Family housing units are typically not included in municipal contracts.
- There are drop-offs in areas that have a high prevalence of multi-family housing even when there is curbside available to single-family households.
- The District has not been pro-active in educating developers on the benefits of allotting space for recycling bins.
- Educating residents in multi-family housing about drop-off recycling can be difficult.

### *Other recycling Opportunities*

Other recycling opportunities are available through private entities. There are seven scrap metal recycling locations that operate within the District. All locations are within the largest city of each county and are easily accessed by residents.

Large loads of recyclables from small businesses or excess residential curbside material are accepted at Mid-Ohio Sanitation and Recycling and the new Delaware Transfer Station which opened in 2023. As of 2019, Sims Brothers no longer accepts residential material at their Delaware and Marion locations leaving a gap in Marion. Rumpke closed its small recycling facility in Mount Vernon in 2015 and a large drop-off location was added to the city in 2022 to fill the gap.

In the reference year, Royal Oak operated 67 paper only recycling locations throughout the District. The majority of the locations are within Delaware and Knox counties. This program was previously operated by Abittibi, and since Royal Oak began servicing the containers, there have been overflow issues. Several locations have since requested their bins be removed due to the ensuing mess. The small payments to site hosts that had been made by Abittibi in the past are no longer offered as an incentive by Royal Oak. The District does not oversee this program but several of the bins are co-located with our recycling drop-off sites.

### Conclusions/Findings

- The District has no control over the longevity of service offered by others. For example, the Rumpke Mount Vernon recycling facility closed leaving a large gap in service in Knox County and Sims Brothers removing drop-offs at their Delaware and Marion locations.

- Changes to the services offered may not be readily communicated.
- Lack of adequate service at Royal Oak paper only bins can lead to unsightly containers that the community associates with the District.

## 2. Commercial/Institutional Sector Analysis

### *Commercial*

The District website has a section dedicated to providing information to businesses and industries. District contracted educators are available to perform waste audits and make recommendations to improve waste handling at businesses. Waste audits are conducted as requested but not widely advertised.

Many businesses request information on how to properly dispose of specific items. The District maintains a Business Waste and Recycling Guide on the website which has been invaluable when answering these calls. The Ohio Materials Marketplace is also highlighted on the website and businesses are referred to this resource multiple times a year.

### Conclusions/Findings

- Most businesses don't want to pay for recycling services.
- Businesses located in downtown business districts may not have room for outdoor recycling containers.
- The District is not proactive in reaching out to commercial entities.
- The District does not have good data on the number of businesses that are recycling due to residential and commercial data being reported together.

### *Schools, Universities and Government Offices*

The District is home to seven universities, all of which have worked with the District on implementing and improving their waste reduction offerings and have strong recycling programs in place.

All seventeen school districts in the District have some sort of recycling program in at least one of their school buildings. Eight school districts host District supported residential recycling bins and use them free of charge for their recycling. The other schools' contract with a private hauler or have teacher lead recycling programs which are transported to one of the Districts drop off locations. Free recycling at Morrow County schools is part of the District's contract for residential drop-off services in the county.

County offices throughout the District have recycling programs available for staff as well as building visitors. All the largest cities/village have recycling programs available for staff and building visitors.

#### Conclusions/Findings

- The District has strong relationships with local universities who have long-standing recycling programs.
- Recycling at school may only be available at certain school buildings and not widely available across entire school districts.

#### *Venue Recycling*

Clear Stream recycling containers are available through a “Borrow-A-Bin” program. These containers are regularly used at county fairs as well as smaller community festivals and events.

There are three state parks operating in the District all of which have recycling available. Mid-Ohio Sports Car Course has been approached in the past about recycling and had little interest at the time.

#### Conclusions/Findings

- The Delaware County Fair Board and Fair Manager had staff changes at which time recycling was discontinued. All other fairs have recycling available and is organized by county recycling offices.

#### *Award/Recognition*

The awards program outlined in the previous plan did not take form. When the pandemic hit, business dynamics changed and the District did not want to implement this program when businesses were struggling to stay open. Once the pandemic came to an end, drop-off costs were rising significantly and the funding for this program wasn't available.

#### Conclusions/Findings

- Due to the cost of weekly recycling service, it is hard for businesses to commit to implementing a recycling program.

### 3 Industrial Sector Analysis

In the reference year, a total of 559,462 tons of industrial waste was recycled leading to a 94.87% diversion rate. The programs offered to industries are the same as the commercial listing above.

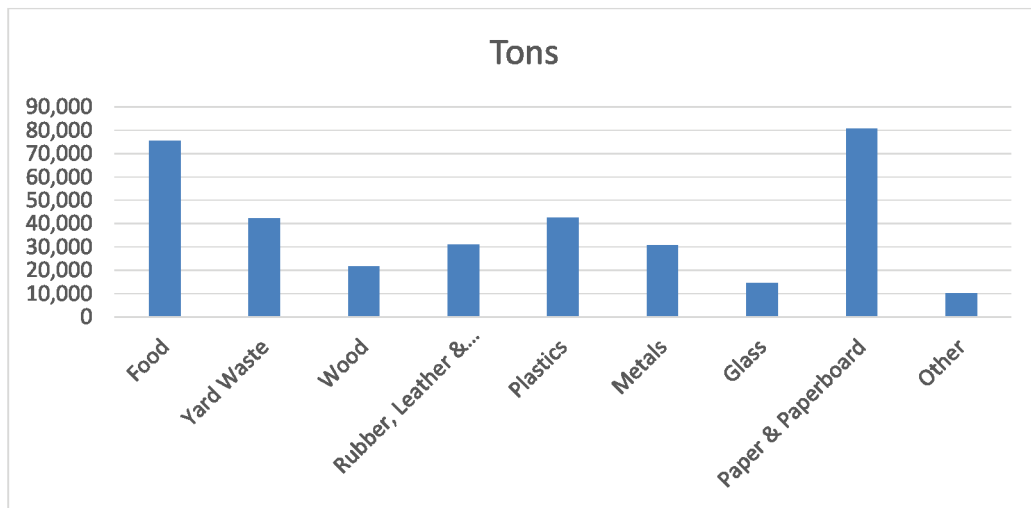
#### Conclusions/Findings

- Industries in the District have a high diversion rate with little District involvement. The District provides technical assistance as requested but is not proactive in reaching this audience. There are currently no challenges with this sector at this time.

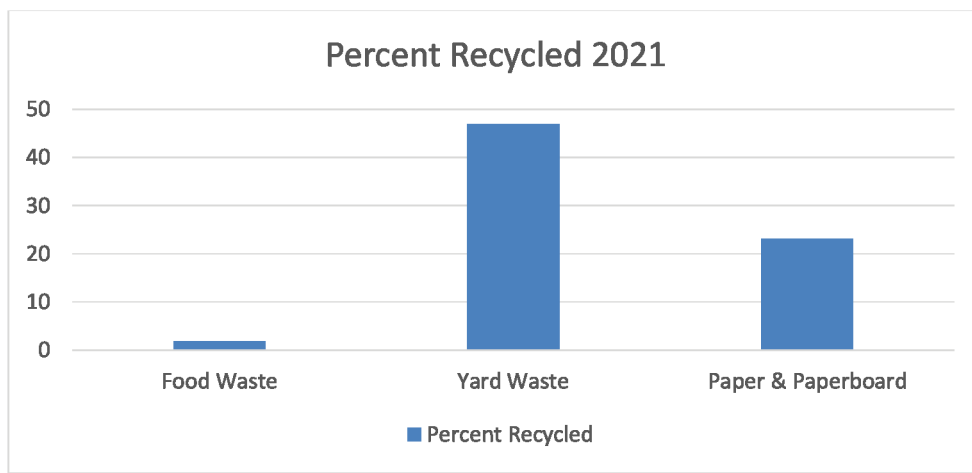
#### 4. Residential/Commercial Waste Composition Analysis

The District did not complete a waste analysis but referenced the US Environmental Protection Agency’s Advancing Sustainable Materials Management: 2018 Fact Sheet to determine the approximate amount of total material that could have been recycled in the reference year.

**Figure H-1 2021 Potential Diversion**



**Figure H-2: 2021 Percent Actually Diverted of Largest Categories**



*Yard Waste*

The District works to ensure there is a yard waste facility available to residents in each county. All four largest cities collect yard waste seasonally from their residents. Several small communities also provide seasonal yard waste collection for residents.

### Conclusions/Findings

- Only four of the communities with curbside recycling collection offer yard waste collection.
- The yard waste drop-off programs the District funds are available for residents but businesses in Knox County (unmanned location) take advantage of the free site leading to higher grinding costs. Morrow County is also an unmanned site, but the Village of Mount Gilead has staff working in the general area who tell businesses they aren't able to use the site which keeps business use to a minimum.

### *Paper & Paperboard*

Paper and paperboard are accepted at all recycling drop off locations as well as through all curbside collection programs. The Morrow County drop off program requires fiber and containers to be separated. This has led to uneven filling of the recycling containers at two of the heavily used sites. These locations now have a cardboard only bin as well as a dual stream bin. This is a more efficient way to service the bins.

### Conclusions/Findings

- Paper and paperboard programs have focused on residential stream. A focus on commercial entities could have a large impact on recycling rates.
- Residents with curbside collection occasionally have more cardboard than will fit in their curbside container and place it in with their trash.
- Often cardboard is not flattened before being placed in the drop-off bins causing overflow issues.

### *Food Waste*

The District is home to two active Class II compost facilities (Price Farm Organic's, Delaware County and Kenyon College, Knox County). The Kenyon College facility is operated and strictly used by the college. Price Farm Organic's accepts a large amount of food waste from industry with the majority of the material coming from the Columbus area.

The District has only recently started promoting residential food waste collection with a small program focusing on the City of Delaware. The District distributes buckets with lids which are labeled for residential food waste collection. Residents empty their bucket at Price Farms Organics free of charge.

## Conclusions/Findings

- Food waste programs have focused on residents. A focus on commercial entities could have a large impact on recycling rates.

## 5. Economic Incentive Analysis

### *Recycling Grant Program*

The District has historically offered grant funding for projects that improved recycling access, encouraged buy recycled and composting operations. A new more focused grant program was rolled out in 2019/2020. The District budgeted \$500,000 to be spent over five years on projects that improved current or incorporated new curbside recycling programs and to fund new or existing material recovery facility improvements.

Over four years, ten grants were awarded to six municipalities with curbside programs and four to recycling transfer facilities. Municipal recycling trucks, wheeled totes, education and recycling facility equipment were purchased through the grant program. A total of \$485,533.94 was expended with the last round of projects funded in 2022.

### Conclusions/Finding

- The grant program was met with great success and had a large impact on curbside recycling programs in the District.
- The ability to continue a grant program would be beneficial to making curbside programs more efficient thus collecting more material over time.

### *Pay-As-You- Throw (Volume-Based-Billing)*

Mid-State Waste and Mid-Ohio Sanitation and Recycling offered volume-based rates in the reference year. Mid-State Waste serviced a large portion of Knox County but unfortunately, they closed February 2022. Mid-Ohio Sanitation and Recycling services all of Morrow County and portions of eastern Marion County. They offer low volume customers the option to purchase specially marked trash bags for \$3.00 each.

### Conclusions/Findings

- Volume-based billing programs are not widely available.
- It is difficult to get haulers to offer volume-based billing.

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

Several materials, while not typically found in solid waste in large quantities, are not desired in a landfill. These materials include food waste, scrap tires, household hazardous wastes, lead-acid batteries, electronics, appliances, and household batteries. The District or local communities have programs designed to address each of these materials.

### *Yard Waste*

The District ensures that at least one yard waste facility is open and accepts yard waste from residents at no charge. The District contracts with Price Farms Organics in Delaware and Outdoor Resources in Marion for these services. In Knox and Morrow counties the yard waste facilities are not staffed. Knox County and Mount Gilead employees regularly push material into consolidated piles. When sites get full, the District is notified and schedules a contractor to grind the yard waste and truck the material off site for further processing and eventual sale.

In 2022 the District signed agreements with Knox County and the Village of Mount Gilead to confirm the continuation of those two locations and outlined expectations of each party.

### Conclusions/Findings

- Businesses continue to use the Knox and Morrow yard waste locations. High usage, mainly in Knox, has increased the grinding costs.

### *Household Hazardous Waste*

Historically the District held one day hazardous waste collection events which rotated throughout the District each year. In the reference year, hazardous waste collection events were held in Knox and Marion counties costing a total of \$39,184 to collect a total of 67,953 pounds of material from 626 residents.

The District opened a semi-permanent hazardous waste collection site in Knox County in the reference year. Participation was by appointment twice a month operating May- September with a charge of \$1 per pound. Marion County hosted a one-day collection event where a \$20 per car fee was collected. Total revenue generated by user fees in 2021 was \$20,090 offsetting a portion of the cost to hold the events.

The District opened a second semi-permanent collection site in Delaware in April 2024 and it operates in similar fashion to the Knox County site.

### Conclusions/Findings

- Many residents are unwilling to pay a small fee to dispose of their hazardous waste.
- Hazardous waste disposal options is one of the most requested services.
- Even though the District is moving towards semi-permanent collections, residents are looking for year-round disposal opportunities.

- Semi-permanent collections are only available weekdays, limiting participation.
- The cost of holding hazardous waste collection events is quite high.

### *Scrap Tires*

In the past the District held one-day collection events which rotated throughout the District each year. The District contracted with Liberty Tire for tire recycling services which included transportation, recycling, and staff to load tires. The cost to hold these collections increased overtime and the fee per tire collected by the District increased accordingly. In 2018, the charge per tire increased to \$4 and participation dropped off. It was then realized that most participants were tire dealers looking for a low-cost way to dispose of tires. This was not the intent of the program, and the last collection event was held in 2019.

An education campaign began informing residents to leave old tires with their tire dealer when purchasing new tires. The campaign also referred to the residential disposal guide, which includes a listing of the businesses that take tires on a regular basis for a fee. Information was also provided to tire dealers on how to appropriately dispose of their tires.

The District started a Municipal Tire Collection Program in 2021 which offered municipalities funding to hold residential tire collections for their residents. The District cost-shares the collection costs with the municipality who use volunteers or staff to hold the event. Over the three years of offering this program, 71.43 tons of tires have been recycled at an average of \$297.61 per ton compared to the one-day collections which averaged \$429.76 per ton.

The District also has 40-yd roll-off containers in each county where municipalities can take tires dumped along roadways and other public areas. As of 2020, this program is run through the Ohio EPA Scrap Tire Counties and Local Government Removal Program. Each bin is emptied approximately four times a year.

### Conclusions/Findings

- The move from one day collections to the municipal collection program has optimized financial resources budgeted for tire collection.
- A few residents have requested agricultural tire collections. There are nearby locations that accept ag tires, but residents want the District to hold events and offer cheaper disposal.
- Tires on private property continue to be an issue.

### *Electronic Equipment*

Historically the District held one day e-waste collection events which rotated throughout the District each year. The District contracts with Accurate IT for electronics recycling services. The goal is to ensure there is a regular recycling option available in each county.

In the reference year, the District did not have success in opening or supporting a location that accepts televisions in Delaware County outside of the one-day collections. Ohio-Mulch has three locations in Delaware that accept other electronics which ultimately get delivered and recycled at Ohio Drop-Off.

In 2024, the District opened a semi-permanent electronics collection location in Delaware. This location is open twice a month April – September by appointment. Electronics and televisions are recycled by Accurate IT. A small fee per television and CRT monitor is collected, all other electronics are free. Other organizations (Chamber of Commerce and real estate offices) occasionally hold e-waste recycling events throughout the year which are publicized by the Delaware County Recycling Office.

Kenyon College in conjunction with the Village of Gambier in Knox County offers electronic recycling on the first Saturday of the month as a service to the community. The District offers a small stipend to Kenyon/Village to support this program. Kenyon contracts directly with Accurate IT for recycling and transportation services. The college collects a small fee per television to cover a portion of the recycling fee with the college covering the remainder of the cost. Opportunity Knox also accepts electronics (no televisions) at no charge during regular business hours.

MARCA Industries in Marion County accepts electronics, including televisions, for recycling during normal business hours. Electronics are accepted free of charge except for televisions which are charged by the pound.

The Morrow County Recycling Office began accepting electronics, including televisions, in 2021 by appointment. A small fee per television and CRT monitor is collected and remitted to the District, all other electronics are accepted free of charge. This program is operated under the agreement the District has with Accurate IT and the District pays for the recycling services. The District provides the Morrow Recycling Office a small stipend for operating this program April-September.

### Conclusions/Findings

- The cost to recycle televisions keeps increasing and is currently at \$40 per CRT television. The District covers half of this cost.
- The District relies on other entities to provide electronics recycling in two counties, any of which could close without notice.

### *Lead Acid Batteries*

The District provides information on its website listing businesses that accept lead acid batteries within the four counties. Lead acid batteries are also accepted at any hazardous waste collection the District offers. In 2022, the District collected 1,125 pounds of lead acid batteries at no cost to the District.

### Conclusions/Findings

- The District believes that the recycling opportunities for lead acid batteries are sufficient at this time.

#### *Household and Rechargeable Batteries*

The District provides information on safe and proper battery disposal on their website. Residents are encouraged to take rechargeable tool batteries to box stores that accept them for recycling and to not store them for District collection events.

Although alkaline batteries no longer contain heavy metals, they are accepted and recycled at our hazardous waste events if the terminal ends are taped. The District feels that collecting all batteries encourages the proper disposal of the batteries that do include environmental and fire hazards.

### Conclusions/Findings

- Household alkaline batteries are not considered hazardous and don't need to be disposed of at hazardous waste events. The District provides education on the specifics of battery disposal.

#### *Pharmaceuticals*

The District provides information on locations that provide a 24-hour drop-off container as well as information on the twice annual nationwide collection days offered by the DEA. The District does not oversee any formal collections.

### Conclusions/Findings

- The District believes that the disposal opportunities for pharmaceuticals are sufficient at this time.

## 7. Diversion Analysis

The District is confident that Goal #2 (diversion of 25% residential/commercial waste) is met each year even though the annual surveying of businesses shows the District just shy of 25% diversion for the past several years. Considerable effort is made each year to collect data showing attainment of Goal #2.

The District's diversion rate in reference year was 22.8% and did not meet the goal of 25%. The District believes this is due to low annual survey participation. Although the District spends a significant amount of time on annual data collection, without a requirement from OEPA for businesses to report recycling data, there is not a great deal of confidence in the accuracy of the listed diversion rates.

The previously approved Plan projected 89,837 tons to be diverted in 2021. The collected data only showed 79,632 tons being diverted. Outside of the reporting requirement issue, Sims Brothers, a recycling facility in Marion, hasn't submitted a recycling survey since 2018 at which time they reported 16,179 tons being recycled at their facility. If Sims had reported in 2021, the District would have met or exceeded projections.

The District's diversion rate averaged 24% over the past five years and is calculated to be 26% for 2022.

**Table H-4: District Diversion Rate**

Year	Population	Disposal	Recycled	Total	Per Capita Diversion (ppd)	Diversion Rate
2017	331,131	277,543	80,728	358,271	1.34	22.5%
2018	334,427	253,403	99,278	352,681	1.63	28.1%
2019	337,723	257,341	81,360	338,701	1.32	24.0%
2020	341,019	262,787	81,119	343,906	1.30	23.6%
2021	355,488	269,442	79,632	349,074	1.23	22.8%

Conclusions/Findings

- Although the District has fallen short of meeting the 25% diversion goal over the past five years, if accurate recycling data was available, the District firmly believes it would show the District meeting or exceeding Goal 2.

**8. Special Program Needs Analysis**

The District contracts with all four health departments for solid waste enforcement and monitoring services. All health departments are approved annually by the Ohio EPA and proof of certification is provided to the District. The annual contracts outline the services to be provided as well as reporting requirements. Services include solid waste facility licensing and monitoring, illegal dump inspection and enforcement, open burning enforcement, tire dumpsite inspections and enforcement and public complaint review and abatement.

Counties were given a flat amount of funding based on an old formula that was no longer useful. In 2020, a new funding formula was developed in collaboration with the health departments to fund counties based on the amount of work that was completed and reported on the end of year closeout forms.

Although the District values the work accomplished through these contracts, continued funding of health departments has always been considered to be contingent upon the availability of adequate revenue.

Conclusions/Findings

- The District is aware that the allocations to health departments may not cover 100 percent of the costs for the program, although the new funding formula helps allocate the funds more equitably.

## 9. Financial Analysis

### *Revenue*

On average, 97% of the District's revenue is received through contracts negotiated with 44 solid waste facilities across the State which remit fees to the District in exchange for the right to receive District waste through designation agreements. In the reference year, the contract fee was \$6.00 per ton which has been in place since 2012. Most of the District's waste is disposed of at one of three facilities. Since fees are charged per ton the majority of District fees are collected from Crawford County Landfill (Rumpke), Delaware Transfer Station (Rumpke) and Columbus Transfer Station (Waste Management).

The remaining revenue is received from special collection fees; reimbursements when health department and education contracts are not fully expended; and from municipalities reimbursing the District for the municipal tire collection program. The District only budgets for contract fees, special collection fees and municipal tire reimbursements. The expectation is that health departments and educators will fully expend contracts each year.

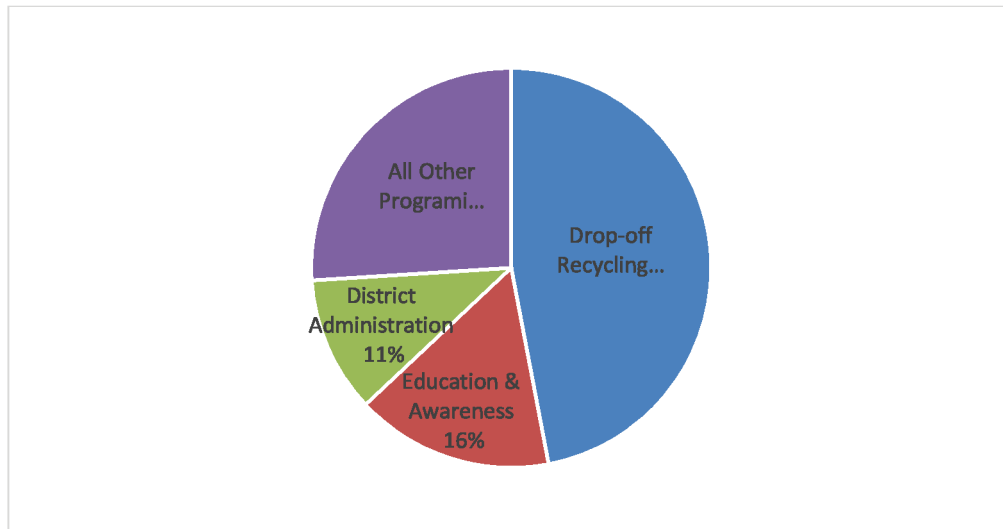
### *Expenditures*

District expenditures can be organized into four categories. The largest categories are drop-off recycling, education and District administration. In the reference year, the District's drop-off program accounted for almost half of the District's expenditures with education and District administration together accounting for just under 30% of the total expenditures.

### *Balance*

The total revenue received in the reference year was 14.5% higher than projected in the previous plan. This is due to the previous plan taking a conservative approach to revenue projections.

Expenditures in the reference year were 8.4% higher than plan projections. This is due to the large increase in drop-off costs. The District fund balance at the end of 2021 was a healthy \$1,975,495.88 with an average for the reference year and the four previous years being \$1,878,918.

**Figure H-2: 2021 Financial Overview**

- The contract fee will need to be increased in order to continue current programming.
- Charging a small fee for special collections helps offset the cost of holding the collections.
- The cost of the drop-off program continues to increase, accounting for a larger and larger percent of the District's budget each year.

## 10. Regional Analysis

The District Does not currently participate in organized regional partnerships or collaborations with other SWMDs or other organizations in Central Ohio. Solid waste, recycling and yard waste are considered regional in the sense that some of this material is processed out of the District or brought into the District from locations within Central Ohio. The District acknowledges the fact that its waste exports and imports generate both opportunities and impacts for other solid waste districts.

### Conclusions/Findings

- At this time, the District does not see any need to make changes regarding regional partnerships.

## 11. Data Collection Analysis

Annually, the District mails a recycling survey to businesses, institutions, industries, and solid waste facilities located within the District to obtain recycling data. The majority of the data comes from Ohio EPA provided Material Recovery Facility and Commercial Recycling Data Report, Compost Facility Report and Scrap Tire Data Report.

In the past, the District has mailed over 1,000 surveys each year with a return rate of 11%. Over the past several years, the District has removed those that have never reported and those that have not reported in four years or more. The recycling educators in each county are regularly asked to review the contact list to add or remove businesses within their jurisdiction.

The District puts multiple hours of time following up with entities in an effort to increase the return rate and with little to no impact. The District believes there is a larger amount of material being recycled than what is captured through the annual survey process.

### Conclusions/Findings

- The District feels there needs to be a state requirement for material recovery facilities to report recycling data for any real reliance on the data collected.

## 12. Education/Outreach Analysis

The District contracts with each county commissioner's office to provide a full-time county staff person to operate a county recycling and litter prevention office. Delaware County sub-contracts this service to the Delaware Health District, all other educators are considered county employees. In 2023, the District limited the amount of contract funding that could be used towards fringe benefits to ensure each county had funds to provide educational programming.

By having a recycling office in each county, more individualized programs are planned. County offices are able to keep up with local needs and develop personal contacts that assist in implementing new programs.

Each educator develops and implements an annual marketing plan that meets the goals of the District's solid waste plan. Reports are submitted twice a year detailing the programming provided. An outline of expenditures is also submitted at the end of each contract year. Contract amounts are determined annually and are based on a District developed funding formula.

The District works to foster a strong collaborative working relationship with each county recycling office and holds quarterly educator meetings to stay abreast on what is happening in each county. Programming and needs vary county by county.

The following outlines typical programming offered by each audience type. A more detailed description of educational programs can be found in appendix L.

### *Residential Audience*

- Website which includes a comprehensive resource guide
- Workshops
- Educational Mailings
- Newsletters

- Educational table at community events
- Radio, print and social media

#### *School/Youth Audience*

- Presentations and hands on activities at schools
- Work with students and staff to implement school recycling programs
- Hands on activities at community events
- Scholarships

#### *Business Audience*

- Website which includes a Business Waste Guide
- Technical Assistance as requested

#### *Community Audience*

- Articles for municipal newsletters
- Recycling at community fairs and festivals
- Attend municipal meetings
- Municipal Tire Collection Program

#### *Industrial Audience*

- Website which includes a Business Waste Guide
- Technical Assistance as requested

#### Conclusions/Findings

- The District goes above and beyond the minimum educational requirements of Goal #4 by funding four full-time educators (one in each county).
- The cost of four full-time recycling educators is very high. The District could meet state obligations with fewer educators.
- The majority of programs are focused on residential audiences.
- It could be beneficial to hire a staff person to work with businesses and industries across the District.
- Individual programs are not evaluated. The only evaluation is the number of participants or amount of recycling collected.

### 13. Processing Capacity Analysis

There are two material recovery facilities located within the District. Mid-Ohio Sanitation and Recycling operates a small hand sorting facility in Mount Gilead. This facility processes the District drop-off material and curbside materials from Mount Gilead, Edison, and Cardington as well as material from many businesses located in Morrow County. Mid-Ohio is sized to process

Morrow County recycling and would need a significant investment to accept material from outside the county.

Sims Brothers Recycling operates a second small sorting facility located in Marion. In 2015, Sims Brothers decided to focus recycling efforts on business and industry as well as scrap metal and closed its residential household recycling drop off in Marion and Delaware counties.

Rumpke Recycling provides the majority of recycling services in the District. In 2024, Rumpke opened a new multi-million-dollar material recovery facility. This facility has an increased processing capacity than the previous facility allowing it to accept a large volume of material.

#### Conclusions/Findings

- The District is not concerned about recycling processing capacity at this time.

## Appendix I Actions, Priorities, and Program Descriptions

Making decisions about the programs the District will offer during the planning period required valuable input and analysis from the director and policy committee members.

### A. Actions and Priorities

#### 1. Actions

Based on the analysis performed in Appendix H, the following list of all possible actions and programs was developed.

Residential Infrastructure	Move curbside programs from totes to wheeled carts
	Upgrade recycling offerings- move subscription service to non-subscription service; bi-weekly curbside service to weekly; heavily used drop-offs to contracted curbside service
	Provide curbside recycling bin contamination checks w/education
	Work with communities to collect curbside data utilizing contract requirement
	Conduct a contamination study every two years (drop-off material)
	Same recycling guidelines in all four counties
	Install remote access cameras at drop-off locations
	Improve signage at drop-off locations
	Proactively implement capital improvements at drop-off locations
Commercial, Institutional, Industrial	Proactive outreach on technical support (waste audits, Material Marketplace)
	Cost share implementation of waste audits
	Implement business awards program
	Coordinate downtown business district recycling
	Work with schools to apply to OEPA grant funding to improve recycling efforts
	Sponsor OEPA Market Development Grants
	Ensure recycling service at new county buildings as counties grow
Restricted/Difficult to Manage Wastes	Reduce cost of yard waste programs
	Encourage curbside yard waste collection when practical
	Increase HHW opportunities
	Cost share private property tire cleanups
	Increase municipal tire collection funding
	Partner with agencies on one day tire collections (SWCD, Health Departments, Farm Bureau, etc.). DKMM will assist but not lead collections.
Other Material Specific Programs- Food Waste	Incorporate food waste collection

Priorities and Program Descriptions

Funding/Grants	Implement every other year grant
	Offer communities money based on diversion or tonnage (curbside communities and drop-off hosts)
Data Collection	Annually update mailing list
	Work with State to require MRF's to report recycling data
Health Department Support	Increase health department funding
Open Dump/Tire Cleanup	Fund open dump/tire cleanups- work through Health Departments

2. *Priorities*

The list of actions and priorities was given to each policy committee member who confidentially prioritized the list. The District consolidated the responses and discussed the results with the policy committee to ensure all were in agreement with the priorities. The policy committee was then broken into small groups. Each group was given two of the priority areas with related historic data and asked to discuss and brainstorm specific programs that could be implemented. These discussions along with District input, helped define the programs listed below.

B. Program Descriptions

This section outlines the programs the District intends to make available to residents, communities, businesses, industries, and institutions during the planning period.

**Residential Recycling Infrastructure**

*Curbside Recycling (non-subscription and subscription)*

Name	Start Date	End Date	Goal
Residential Curbside Program Technical Assistance	ongoing	ongoing	1 and 2

The District expects all subscription and non-subscription curbside programs available in the reference year to continue unchanged unless subscription service is upgraded to non-subscription service. A list of these programs can be found in Appendix B.

The District will continue providing technical assistance to communities to develop bid documents and contracts and continue working to ensure tonnage reporting requirements are included in contracts. The District will continue encouraging communities to enforce reporting requirements to assist in analyzing participation rates and diversion rates by individual programs.

The District does not plan to fund any curbside collection programs but will offer financial assistance to curbside communities through a recycling grant program. This program is discussed in the fundings/grants section of this appendix.

*Drop-off Recycling Locations (rural and urban full-time)*

Name	Start Date	End Date	Goal
Residential Recycling Drop-Off Program	ongoing	ongoing	1, 2

All drop-offs included in Appendix B are anticipated to continue throughout the planning period unless upgraded to curbside service.

In the reference year, the District contracted with two haulers to provide drop-off services. Rumpke Waste and Recycling serviced Delaware, Knox, and Marion counties and Mid-Ohio Sanitation and Recycling serviced Morrow County.

The District will continue contracting and funding drop-off recycling services throughout the planning period. Service providers may change due to bidding practices.

*Other Programs*

Name	Start Date	End Date	Goal
Programs to reduce residential recycling contamination	ongoing	ongoing	1, 2

The District occasionally requests contamination audits of drop-off materials. A hand sort was done in 2017, and visual audits were conducted by Rumpke in 2020. Every two years the District will work with recycling service provider(s) to conduct a contamination audit of drop-off materials.

As funding and staff time allows, the District will conduct curbside recycling bin contamination checks following the Recycling Partnership guidelines.

Name	Start Date	End Date	Goal
Site improvements to maintain drop-off locations	ongoing	ongoing	1, 2

The District allocates funds to conduct site improvements annually. Historically, improvements were completed when requested by site hosts. Beginning in 2026 the District will develop a site improvement plan based on the annual Bin Inventory Reports submitted by county educators. The plan will be implemented proactively and as quickly as funding allows.

Name	Start Date	End Date	Goal
Upgrade recycling offerings	2026	ongoing	1, 2

The District will work with community leaders to upgrade recycling services within their jurisdiction. Townships that host drop-off bins that are heavily used on a consistent basis will be approached about moving to contracted curbside service. When curbside contracts are due to expire, the District will approach communities, as applicable, to gauge their interest in moving from subscription service to non-subscription service; moving from totes to wheeled carts; and moving from bi-weekly curbside service to weekly service.

Name	Start Date	End Date	Goal
Adopting Groups	ongoing	ongoing	1, 2

The District pays non-profit groups such as scouts and 4-H groups to visit heavily used recycling locations once a week and pick up litter. These groups also report any site issues or illegally dumped items. The District will continue this program through the planning period.

**Commercial, Institutional, and Industrial Sector Reduction and Recycling Programs**

*School Recycling*

Name	Start Date	End Date	Goal
School & University Recycling	2026	ongoing	3, 4

The District will provide funds to assist in the implementation of waste audit recommendations to schools and universities that conduct a waste audit with the District. Funds can be used for containers and education. The District will also work with schools and universities to apply to the OEPA school grant program to implement new or improve current waste reduction programs.

The District does not plan to provide or pay for collection services at schools or universities.

*Waste Assessments/Waste Audits*

Name	Start Date	End Date	Goal
Technical support	2026	ongoing	3, 4

The District provides education and guidelines and methodology for performing waste audits as requested. Beginning in 2026, the District will provide funds to assist in the implementation of waste audit recommendations to commercial entities that conduct a waste audit with county educators. Funds can be used for containers and education.

The District will also recommend use of the Materials Marketplace as applicable.

*Other Programs*

Name	Start Date	End Date	Goal
Business Waste and Recycling Guide	ongoing	ongoing	3, 4

The District will regularly update the Business Waste and Recycling Guide and will use it while providing technical support. The guide will be available on the District website and can be easily printed if needed.

Priorities and Program Descriptions

Name	Start Date	End Date	Goal
Borrow- A- Bin	ongoing	ongoing	2, 4

The District purchased clear stream recycling collection bins for each county recycling office. These bins are used at community festivals, events and county fairs. Community members can borrow bins for smaller local events as well. This program is well received and will continue. More recycling bins may be purchased as the need and budget allows.

Name	Start Date	End Date	Goal
Recycling During County Fair Week	ongoing	ongoing	2

The District will continue to work with county fair boards to incorporate recycling collection during fair week.

The District does not plan to provide or pay for collection services at county fairs.

Name	Start Date	End Date	Goal
Downtown Business District Recycling	2026	ongoing	1, 2, 4

The District will work with businesses located in close proximity to one another, typically in downtown areas, to gauge the feasibility of setting up a centralized recycling program that can be used by several local businesses. Businesses that participate in waste audits with the county educators can then apply for funding to implement suggestions outlined in the audit document.

The District does not plan to provide or pay for collection services for businesses.

Name	Start Date	End Date	Goal
Promote OEPA Market Development Grant Program	ongoing	ongoing	6

The District will continue sponsoring business applications to the OEPA Market Development Grant Program as requested and when projects meet OEPA and District objectives.

Name	Start Date	End Date	Goal
Recycling at government buildings (county, city, village, township)	ongoing	ongoing	2, 3, 4

The District will work with government entities to conduct waste audits and set up basic recycling programs within government buildings.

**Restricted/Difficult to Manage Wastes**

*Yard Waste*

Name	Start Date	End Date	Goal
Residential Yard Waste Collection	ongoing	ongoing	2, 5

The District will continue working with municipalities and private businesses to ensure a yard waste location is available to residents in each county.

*Household Hazardous Waste and Lead-Acid-Batteries*

Name	Start Date	End Date	Goal
Residential Hazardous Waste Collection	ongoing	ongoing	2, 5

The District will continue to hold two semi-permanent locations in Delaware and Knox counties. A one-day collection alternating between counties will be added as needed beginning in 2026. Fees may be collected to help offset the cost of holding the collections.

*Scrap Tires*

Name	Start Date	End Date	Goal
Municipal Tire Collection Program	ongoing	ongoing	2, 5

The District will continue offering the municipal tire collection grant to municipalities that apply and meet funding criteria.

Name	Start Date	End Date	Goal
Public Area Tire Collection	ongoing	ongoing	2, 5

The District will continue working with the OEPA scrap tire division to participate in the Scrap Tire Removal and Cleanup for Counties and Local Governments Program. The District has one bin that holds approximately 200 tires in each county. When the bin is full, the site host contacts the District, and the District makes a service request to OEPA. The District must re-enroll in the program every two years and will continue to do so through the planning period.

*Electronic Equipment*

Name	Start Date	End Date	Goal
Residential Electronic Collection Programs	ongoing	ongoing	2, 5

The District will continue to staff semi-permanent locations in Delaware and Morrow counties and in 2026 will add a one-day collection alternating between counties as needed. Fees may be collected to help offset the cost of holding the collections.

Priorities and Program Descriptions

The District will continue working with Gambier/Kenyon College and MARCA to ensure an electronics collection location is available to residents in Knox and Marion counties.

*Appliances*

The District does not offer a formal program for appliances but does refer residents to area scrap yards and outlines the process for properly recycling freon containing items.

*Pharmaceuticals*

The District does not offer a formal program for pharmaceuticals but does refer residents to local 24-7 drop-off locations that are operated by law enforcement agencies and will promote the Drug Enforcement Agency collections.

*Other Programs*

Name	Start Date	End Date	Goal
Residential Food Waste Collection	2026	ongoing	2, 5

The District will develop and implement a pilot program for residential food waste collection stations as locations are identified throughout the District. The residential compost bucket program in the City of Delaware will continue.

**Funding/Grants**

Name	Start Date	End Date	Goal
DKMM Curbside and MRF Grant	2027	ongoing	2, 6

Beginning in 2027, the District will budget funds for a recycling grant program every other year throughout the planning period.

**Economic Incentives**

The District considers its grant program to be an economic incentives program as it encourages communities to implement new or improve current curbside programs. See the above listing for further details.

**Data Collection**

Name	Start Date	End Date	Goal
Annual Recycling Survey	ongoing	ongoing	2, 4

The District will continue sending annual recycling surveys to commercial, institutional, and industrial entities at the beginning of each year.

**Health Department Support (Allowable Use 3)**

Name	Start Date	End Date	Goal
Solid Waste Monitoring and Enforcement- Health Dept. Support	ongoing	ongoing	4

The District contracts with the four local OEPA approved health departments to provide solid waste monitoring and enforcement services. The District will continue with this program throughout the planning period as funding allows.

**Open Dump/Tire Dump Cleanup**

Name	Start Date	End Date	Goal
Fund Cleanups	2026	Ongoing	4

In 2026, the District will fund open dumping and tire dump cleanup work as identified by Health Department partners. Outside sources of funding will be sought to offset cleanup costs as applicable.

**Disaster Debris/Disaster Assistance**

Name	Start Date	End Date	Goal
Disaster Debris Assistance	ongoing	ongoing	2, 3, 4

As storm events occur and as funding allows, the District will allocate funding to assist with tree removal and grinding and other yard waste composting activities. The District will apply for FEMA funding as allowable by state and federal governments to offset a portion of costs associated with qualifying storm events.

## Appendix J Opportunity to Recycle and Demonstration of Achieving Goal 1

The District is committed to achieving Goal 1 of the 2020 State Plan by demonstrating residents of each county have a minimum of 80% access to recycling, as calculated using OEPA formulas.

### A. Residential Sector Opportunity to Recycle

The following tables present the recycling curbside and drop-off locations in the reference year as well as the last year of the planning period. Some locations show a population credit of zero because the community where the drop-off is located has curbside recycling. The drop-offs provide valuable access to multifamily housing units that are unable to participate in curbside programs. Municipalities are not permitted to have population credits exceeding 100% so these drop-off locations do not count toward access.

**Figure J-1 OEPA Population Credits**

Type of Program	Population Credit Per Location or Program
Full-Time Urban Drop-Off	5,000 per drop-off location
Full-Time Rural Drop-Off	2,500 per drop-off location
Subscription Curbside	25% of the population served by the program
Non-Subscription Curbside	100% of the population served by the program

All counties demonstrate meeting the 80% access goal throughout the planning period. All curbside and drop-off locations listed in the following tables are expected to continue throughout the planning period.

**Table J-1 Demonstration of Residential Opportunity to Recycle**

ID #	Delaware	2021		2040	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
<b>Non-subscription curbside</b>					
NCS1	Ashley Village	1,239	1,239	1,722	1,399
NCS2	Berkshire Township	4,593	4,593	6,453	12,030
NCS3	Berlin Township	8,037	8,037	11,292	17,751
NCS4	Concord Township	11,311	11,311	15,892	16,901

Opportunity to Recycle and Goal 1

NCS5	Delaware City	42,814	42,814	62,080	55,162
NCS6	Delaware Township	2,207	2,207	3,101	2,627
NCS7	Galena Village	958	958	1,317	2,255
NCS8	Genoa Township	25,684	25,684	36,450	28,454
NCS9	Kingston Township	2,495	2,495	3,505	3,558
NCS10	Liberty Township	18,436	18,436	20,095	27,307
NCS11	Orange Township	31,518	31,518	44,283	40,110
NCS12	Powell City	14,286	14,286	15,572	15,605
NCS13	Shawnee Hills Village	865	865	1215	959
<b>Subscription curbside</b>					
SC1	Ostrander Village	1,130	283	1,571	393
SC2	Sunbury Village	7,344	1,836	16,928	4,232
<b>Full-time, urban drop-off</b>					
FTU1	Genoa Township	0	0	0	0
FTU2	Liberty Township- Delaware @ Wyandot Run Elementary	0	0	0	0
FTU3	Orange Township @ Olentangy High School	0	0	0	0
<b>Full-time, rural drop-off</b>					
FTR1	Brown Township- Delaware	1,456	2,500	2,024	2,500
FTR2	Harlem Township	4,713	2,500	6,622	2,500
FTR3	Kingston Township	2,495	2,500	3,505	2,500
FTR4	Porter Township	2,206	2,500	3,066	2,500
FTR5	Radnor Township	1,625	2,500	2,259	2,500
FTR6	Scioto Township	2,727	2,500	3,791	2,500
FTR7	Trenton Township	2,372	2,500	3,262	2,500
FTR8	Troy Township	2,174	2,500	3,087	2,500
<b>Total County Population</b>			192,168	282,160	
<b>Total Population Credit</b>			186,562	248,743	
<b>Percent of Population</b>			97%	88%	

Opportunity to Recycle and Goal 1

ID #	Knox	2021		2040	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
<b>Non-subscription curbside</b>					
NCS14	Gambier Village	2,193	2,193	2160	2193
NCS15	Mount Vernon City	16,894	16,894	16387	16894
<b>Subscription curbside</b>					
	None				
<b>Full-time, urban drop-off</b>					
FTU4	Fredericktown Village	2,645	5,000	2605	5000
FTU5	Howard Township @ Apple Valley Lake	5,946	5,000	6838	5000
FTU6	Howard Township @ East Knox School	0	0	0	0
FTU7	Mount Vernon @ Opportunity Knox (added6-2022)	0	0	0	0
<b>Full-time, rural drop-off</b>					
FTR9	Berlin Township	1,789	2,500	1843	2500
FTR10	Brown Township- Knox	2,066	2,500	2,221	2,500
FTR11	Centerburg Village	1,689	2,500	1740	2500
FTR12	Clay Township @ Bladensburg	1,545	2,500	1,843	2,500
FTR13	Danville Village	1,015	2,500	954	2500
FTR14	Gambier Village	0	0		0
FTR15	Harrison Township	871	2,500	962	2500
FTR16	Liberty Township- Knox	1,946	2,500	2180	2500
FTR17	Miller Township	1,060	2,500	1124	2500
FTR18	Monroe Township	2,332	2,500	2402	2500
FTR19	Pike Township	1,698	2,500	2080	2500
FTR20	Pleasant Township- Knox	1,672	2,500	1722	2500
<b>Total County Population</b>		62,878		63,731	
<b>Total Population Credit</b>		56,587		56,587	
<b>Percent of Population</b>		90%		89%	

Opportunity to Recycle and Goal 1

ID #	Marion	2021		2040	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
<b>Non-subscription curbside</b>					
NCS16	Marion City	35,868	35,868	34792	35868
<b>Subscription curbside</b>					
	None				
<b>Full-time, urban drop-off</b>					
	None				
<b>Full-time, rural drop-off</b>					
FTR23	Caledonia Village	563	2,500	571	2500
FTR24	Claridon Township @ River Valley School	2,266	2,500	2232	2500
FTR25	Grand Prairie Township @ Ridgedale School	1,558	2,500	1558	2500
FTR26	Green Camp Township	1100	2,500	1051	2500
FTR27	LaRue Village	679	2,500	628	2500
FTR28	New Bloomington Village	413	2,500	401	2500
FTR29	Pleasant Township- Marion @ Senior Center	4,939	2,500	5309	5000
FTR30	Prospect Township @ Village Senior Center	2,018	2,500	1009	2500
FTR31	Waldo Township	1,123	2,500	791	2500
<b>Total County Population</b>			65,291	61,910	
<b>Total Population Credit</b>			58,368	60,868	
<b>Percent of Population</b>			89%	98%	

ID #	Morrow	2021		2040	
	Name of Community (City, Village, Township)	Community Population	Population Credit	Community Population	Population Credit
<b>Non-subscription curbside</b>					
NCS17	Mount Gilead Village	3,504	3,504	3662	3504
<b>Subscription curbside</b>					
SC3	Cardington Village	2,082	521	3123	521
SC4	Edison Village	420	105	433	105
<b>Full-time, urban drop-off</b>					
	None				

Opportunity to Recycle and Goal 1

<b>Full-time, rural drop-off</b>					
FTR32	Bennington Township	3,281	2,500	3330	2500
FTR33	Cardington Township	1,005	2,500	1126	2500
FTR34	Chester Township @ Chesterville	1,926	2,500	2706	2500
FTR35	Congress Township @ Candlewood Lake	2,941	2,500	2985	2500
FTR36	Franklin Township	1,621	2,500	1645	2500
FTR37	Lincoln Township	2040	2,500	2438	2500
FTR38	Mount Gilead Village @ Mid- Ohio Sanitation & Recycling	0	0	0	0
FTR39	North Bloomfield Township @ Northmor School	1,841	2,500	1841	2500
FTR40	Perry Township @ Johnsville Fire Department	1,967	2,500	1937	2500
FTR41	Peru Township	1,506	2,500	1529	2500
FTR42	South Bloomfield Township @ Highland School	1,797	2,500	2067	2500
FTR43	Washington Township @ Iberia	1,241	2,500	1241	2500
FTR44	Westfield Township	1,274	2,500	1771	2500
<b>Total County Population</b>		35,151		34,260	
<b>Total Population Credit</b>		34,130		34,130	
<b>Percent of Population</b>		97%		100%	

**B. Commercial Sector Opportunity to Recycle**

The total number of recycling opportunities in the District for five materials designated for the commercial sector to demonstrate compliance with Goal 1 are as follows:

- Aluminum Cans      16 opportunities
- Cardboard            17 opportunities
- Glass Containers    14 opportunities
- Mixed Paper         14 opportunities
- Plastic Containers   14 opportunities

Small businesses are able to utilize the District drop-off locations. This is verified every year as several small businesses report on the annual recycling survey that they utilize this service.

**Table J-4 Demonstration of Commercial Opportunity to Recycle**

Service Provider	Type of Recycling Service Provided	Aluminum Cans	Cardboard	Glass Containers	Mixed Paper	Plastic Containers
<b>Delaware</b>						
Delaware City	Hauler Collection	x	x	x	x	x
Local Waste Services	Hauler Collection	x	x	x	x	x
Republic Services	Hauler Collection	x	x	x	x	x
Rumpke Consolidated Co. Inc.	Hauler Collection	x	x	x	x	x
Sims Brothers, Inc.	Buy Back, Scrap Yard, Hauler Collection	x	x			
Waste Management	Hauler Collection	x	x	x	x	x
<b>Knox</b>						
Republic Services	Hauler Collection	x	x	x	x	x
Ross Brothers Salvage	Buy Back, Scrap Yard	x	x	x	x	x
Rumpke Consolidated Co. Inc.	Hauler Collection	x	x	x	x	x
Waste Management	Hauler Collection	x	x	x	x	x
<b>Marion</b>						
Rumpke Consolidated Co. Inc.	Hauler Collection	x	x	x	x	x
Republic Services	Hauler Collection	x	x	x	x	x
Sims Brothers, Inc.	Buy Back, Scrap Yard, Hauler Collection	x	x			
<b>Morrow</b>						
Mid-Ohio Sanitation & Recycling	Drop-Off, Hauler Collection	x	x	x	x	x
Mt. Gilead Village	Hauler Collection	x	x	x	x	x
Republic Services	Hauler Collection	x	x	x	x	x
Rumpke Consolidated Co. Inc.	Hauler Collection		x			
<b>TOTAL Opportunities</b>		<b>16</b>	<b>17</b>	<b>14</b>	<b>14</b>	<b>14</b>

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

*1. Residential/Commercial Waste Reduction and Recycling Rate*

In the reference year, the District diversion rate was 22.81%, falling shy of the 25% goal. The District believes more recycling is occurring than is being reported. Without a reporting requirement, it is unknown how much material is actually being diverted.

Appendix K. shows how the planned programs are expected to make incremental increases to the District’s diversion rate each year.

*2. Encouraging Participation*

The District contracts for education services in each county. These educators develop annual marketing plans that outline the outreach efforts for the coming year. County and District websites and newsletters promote participation in District funded opportunities as well as social media and paid newspaper advertising.

More detailed information can be found in Appendices I and L.

## Appendix K Waste Reduction And Recycling Rates And Demonstration Of Achieving Goal 2

Even though the District has chosen to demonstrate compliance with Goal 1 of the State Plan, the District is working towards meeting Goal 2 which states a district will recycle or reduce at least 25% of the solid waste generated by the residential/commercial sector.

In the reference year the District was able to show a 22.81% diversion rate. The District believes that it is reaching 25% diversion but due to the current lack of reporting requirements for recycled material, it is unable to substantiate this claim. Table K-1 shows the District making incremental gains each year and achieving Goal 2 in 2031.

**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>2021</b>	<b>355,488</b>	<b>79,632</b>	<b>269,442</b>	<b>349,074</b>	<b>22.81%</b>	<b>1.23</b>
2022	358,752	85,170	282,836	368,005	23.14%	1.30
2023	362,016	85,944	281,071	367,016	23.42%	1.30
2024	365,280	86,719	279,318	366,037	23.69%	1.30
2025	357,339	84,835	277,576	362,410	23.41%	1.30
2026	360,871	85,673	275,844	361,517	23.70%	1.30
2027	364,403	86,511	274,124	360,634	23.99%	1.30
2028	367,935	87,349	272,414	359,762	24.28%	1.30
2029	371,467	88,187	270,715	358,901	24.57%	1.30
2030	374,999	89,025	269,026	358,050	24.86%	1.30
2031	378,683	89,899	267,348	357,246	25.16%	1.30
2032	382,367	90,773	265,680	356,453	25.47%	1.30
2033	386,051	91,647	264,023	355,670	25.77%	1.30
2034	386,051	91,646	264,023	355,669	25.77%	1.30
2035	386,051	91,646	264,023	355,669	25.77%	1.30
2036	386,051	91,646	264,023	355,669	25.77%	1.30
2037	386,051	91,646	264,023	355,669	25.77%	1.30
2038	386,051	91,646	264,023	355,669	25.77%	1.30
2039	386,051	91,646	264,023	355,669	25.77%	1.30
2040	386,051	91,646	264,023	355,669	25.77%	1.30

**Sources of Information:** Annual District Report 2021, District Annual Disposal Report 2021

**Sample Calculations:**

Reduction/Recycling and Goal 2

Waste Reduction and Recycling Rate = (waste reduced and recycled ÷ waste generated) x 100

Per Capita Waste Reduction and Recycling Rate = ((tons recycled x 2000) ÷ 365) ÷ population)

Table K-2 shows the District exceeds the requirements of Goal 2 to divert at least 66% of the solid waste generated by the industrial sector in the reference year.

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

Year	Waste Reduced and Recycled (tons)	Waste Disposed (tons)	Non-Recyclable Waste	Waste Generated (tons)	Waste Reduction and Recycling Rate (percent)
<b>2021</b>	<b>559,462</b>	<b>25,106</b>		<b>584,568</b>	<b>95.71%</b>
2022	450,724	32,892		483,616	93.20%
2023	443,212	36,320		479,532	92.43%
2024	435,700	40,106		475,806	91.57%
2025	428,188	44,287		472,475	90.63%
2026	420,676	48,903		469,579	89.59%
2027	413,164	54,000		467,164	88.44%
2028	405,652	59,629		465,281	87.18%
2029	398,140	65,844		463,984	85.81%
2030	390,628	72,708		463,336	84.31%
2031	383,116	80,286		463,402	82.67%
2032	375,604	88,655		464,259	80.90%
2033	368,092	97,896		465,988	78.99%
2034	368,092	97,896		465,988	78.99%
2035	368,092	97,896		465,988	78.99%
2036	368,092	97,896		465,988	78.99%
2037	368,092	97,896		465,988	78.99%
2038	368,092	97,896		465,988	78.99%
2039	368,092	97,896		465,988	78.99%
2040	368,092	97,896		465,988	78.99%

**Sources of Information:** Annual District Report 2021, District Annual Disposal Report 2021

**Sample Calculations:** Waste Reduction and Recycling Rate = (tons recycled ÷ tons of total waste) x 100

Table K-3 shows the combined diversion rate for the residential/commercial and industrial sectors.

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

<b>Year</b>	<b>Waste Reduced and Recycled (tons)</b>	<b>Waste Disposed (tons)</b>	<b>Waste Generated (tons)</b>	<b>Waste Reduction and Recycling Rate (percent)</b>
<b>2021</b>	<b>639,094</b>	<b>294,548</b>	<b>933,642</b>	<b>68.45%</b>
2022	535,894	315,727	851,621	62.93%
2023	529,156	317,392	846,548	62.51%
2024	522,419	319,424	841,843	62.06%
2025	513,023	321,862	834,885	61.45%
2026	506,349	324,747	831,096	60.93%
2027	499,675	328,124	827,799	60.36%
2028	493,001	332,043	825,043	59.75%
2029	486,327	336,559	822,885	59.10%
2030	479,653	341,734	821,386	58.40%
2031	473,015	347,634	820,649	57.64%
2032	466,377	354,335	820,712	56.83%
2033	459,739	361,919	821,657	55.95%
2034	459,738	361,919	821,657	55.95%
2035	459,738	361,919	821,657	55.95%
2036	459,738	361,919	821,657	55.95%
2037	459,738	361,919	821,657	55.95%
2038	459,738	361,919	821,657	55.95%
2039	459,738	361,919	821,657	55.95%
2040	459,738	361,919	821,657	55.95%

**Sample Calculations:** Waste Reduction and Recycling Rate = (tons recycled ÷ tons of total waste) x 100

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## Appendix L Minimum Required Education Programs: Outreach and Marketing Plan and General Education Requirements

### A. Minimum Required Education Programs

Goal 3 of the State Solid Waste Plan requires the District to provide four minimum education requirements.

#### *Web Page*

The District website ([www.dkmm.org](http://www.dkmm.org)) was revamped with a fresh look in 2019 and includes information for all four counties. Items are grouped by audience (residential or business/industry) as well as grouped by material (electronics, hazardous waste, yard waste and waste items). There is a third option, a “what do I do with my...” searchable database. A “news and events” section is available and allows for the posting of timely topics and events. The District updates the website regularly as needed.

All four county websites have a dedicated recycling page with county specific information. County webpages are updated by recycling educators or county IT staff and are linked to the District website and vice-versa.

#### *Infrastructure Inventory*

The District includes all the infrastructure locations on its website. The information is posted by five different categories (household recycling, electronics & TV’s, hazardous waste, waste items, and yard waste) and not just one stand-alone list.

#### *Resource Guide*

In 2019, the District moved away from “Residential Recycling Guides” that were printed in bulk each year to an electronic database that is easily updated and posted on the District website. The District maintains the database, which is organized by material. The database is reviewed annually and is updated throughout the year as needed. The information is also linked alphabetically on the website and can be printed as needed. Each recycling educator develops and maintains handouts outlining county specific resources.

The District also maintains a “Business Waste and Recycling Guide” which is also available on the District website. This document includes a list of locations that will accept larger quantities of materials that are typical for businesses and industries. The guide is also available to download and print.

*Speaker/Presenter*

The District supports an extensive education program through contracts with each county commissioner’s office. These four full-time staff act as the local experts on waste and recycling and proactively seek outreach opportunities and field numerous calls a week.

**Table L-1: Education Programs Offered In 2021**

	Presentations	People Reached
Adult Presentations	48	2,251
Youth Presentations	42	2,661
Information Table	Multiple	Unknown
Radio, Social Media, Newsletters	Multiple	212,476

**B. Outreach and Marketing Plan**

Goal 4 of the State Solid Waste Plan states that the District must outline how education, outreach, and technical assistance will be provided to each of the five targeted audiences.

*Residential Sector*

Name	Start Date	End Date	Goal
Targeted Communities Outreach	Ongoing	Ongoing	4
Presentations & Information Booths	Ongoing	Ongoing	3, 4
Electronic Newsletter	2018	Ongoing	4
General Advertising Campaigns	Ongoing	Ongoing	4
Website	Ongoing	Ongoing	3, 4,
Disposal Calls	Ongoing	Ongoing	4

- **Target Communities:** Education directed at a specified area (curbside community, drop-off area, etc.). Education can be in the form of direct mailers, utility bill inserts, library programs, etc.
- **Presentations & Information Booths:** In person presentations, classroom style or hands-on demonstrations. Information booths at community events (fairs, festivals, farmers markets, etc.) with one-on-one conversations and handouts on local disposal options.
- **Electronic Newsletter:** The District publishes an electronic newsletter several times throughout the year. These newsletters are also cataloged on the District website which also contains a link for anyone to easily sign up to receive the newsletter.
- **General Advertising Campaigns:** Campaigns may vary by county. Topics may include contamination, breaking down cardboard or a specific program such as residential food waste in Delaware.

Minimum Education

- Website: The District updates its website as needed. Each county recycling office maintains a county specific website as well.
- Disposal Calls: The District and each county recycling office is available to answer disposal calls throughout the year.

*Commercial/Institutional Sector*

Name	Start Date	End Date	Goal
Technical Assistance	Ongoing	Ongoing	4
Encourage & Sponsor OEPA Grant Applications	Ongoing	Ongoing	4
Downtown Business Recycling Consortium	2026	Ongoing	4
Website	Ongoing	Ongoing	3, 4
Business Waste and Recycling Guide	Ongoing	Ongoing	3, 4

- Technical Assistance: Assistance in planning and implementing waste reduction practices.
- Encourage & Sponsor OEPA Grant Applications: Provide information on OEPA grant programs and sponsor market development applications.
- Downtown Business Consortiums: Educate downtown business owners on the benefit of participating and provide technical assistance for implementation.
- Website: See “Residential” listing above.
- Business Waste and Recycling Guide: Updated every other year. Great reference document when providing technical assistance.

*Industrial Sector*

Name	Start Date	End Date	Goal
Technical Assistance	Ongoing	Ongoing	4
Encourage & Sponsor OEPA Grant Applications	Ongoing	Ongoing	4
Website	Ongoing	Ongoing	3, 4
Business Waste and Recycling Guide	Ongoing	Ongoing	3, 4

- Technical Assistance: See “Commercial” listing above.
- Encourage & Sponsor OEPA Grant Applications: See “Commercial” listing above.
- Website: See “Residential” listing above.
- Business Waste and Recycling Guide: See “Commercial” listing above.

*Communities and Elected Officials*

Name	Start Date	End Date	Goal
Borrow A Bin	Ongoing	Ongoing	4
Targeted Community Outreach	Ongoing	Ongoing	4

Minimum Education

Municipal Newsletter Articles	Ongoing	Ongoing	4
Attend Township Association Meetings	Ongoing	Ongoing	4

- Borrow A Bin: Maintain and make available portable recycling containers for community events.
- Targeted Community Outreach: See “Residential” listing above.
- Municipal Newsletter Articles: Provide articles and advertisements to municipalities for inclusion in their newsletters.
- Attend Township Association Meetings: Give programmatic updates as needed.

*Schools and Youth Audiences*

Name	Start Date	End Date	Goal
Presentations	Ongoing	Ongoing	3, 4
Technical Assistance	Ongoing	Ongoing	4
Encourage OEPA Grant Applications	Ongoing	Ongoing	4
Fair and Festival Hands-On Activities	Ongoing	Ongoing	3, 4

- Presentations: classroom style and interactive hands-on activities for classrooms and youth groups.
- Technical Assistance: Work with school leaders and maintenance staff, to plan and implement waste reduction practices.
- Encourage OEPA Grant Applications: Provide information on OEPA grant programs to assist with implementation costs.
- Fair and Festival Hands-On Activities: Host educational booths at fairs, festivals, and community events that include hands-on activities to engage young audiences.

**C. Outreach Priority: Contamination**

The District will be continuing to place a focus on contamination reduction and illegal dumping at the drop-off locations. The results of a contamination audit completed by Rumpke in 2020 of our drop-off material showed a low contamination rate due to the priority the District has placed on reducing contamination.

Hefty and Rumpke are marketing a new orange bag “ReNew” Program which could have a large impact on contamination at the drop-off bins which is one reason the District plans to stay focused on contamination.

Education will be a large part of this outreach priority along with purchasing security cameras. Outreach efforts will focus on the most contaminated locations and will then flow into all areas of the District. Direct mailers and utility bill inserts will be developed and distributed as part of this priority. The District will work with Rumpke to perform visual

Minimum Education

audits several times throughout the planning period to gauge progress. The continuation of a low contamination rate or a reduction in the rate will be seen as a success.

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## Appendix M Waste Management Capacity Analysis

### A. Access to Publicly Available Landfill Facilities

The District does not have in-district landfills and relies solely on out-of-district facilities for all the solid waste disposal capacity needed each year. In the reference year, 40% of District waste went to the Crawford County Landfill. The Wyandot County Landfill was the second most utilized landfill accepting 12% of District Waste. Pine Grove and Nobel Road landfills received just under 10% each of the District waste in the reference year.

The above four landfills accepted 72% of all the District waste either directly or indirectly from transfer stations. The District is confident there is enough landfill capacity to meet its needs for the entire planning period.

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

Facility	Location	Years of Remaining Capacity
Crawford County Landfill	Crawford	23
SWACO Franklin County Sanitary Landfill	Franklin	46
Pine Grove Regional Facility	Fairfield	88
County Environmental of Wyandot	Wyandot	105
Beech Hollow Landfill	Jackson	76
Rumpke of Northern Ohio Noble Road	Richland	16
Suburban Landfill	Perry	77
Cherokee Run Landfill	Logan	28
Rumpke Sanitary Landfill	Hamilton	37
Hancock County Landfill	Hancock	24
Pike County Sanitary Landfill	Pike	36
Kimble Sanitary Landfill	Tuscarawas	20
Wood County Landfill	Wood	5

**Source(s) of Information:** Ohio EPA, Division of Materials and Waste Management

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## Appendix N Evaluating Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions associated with solid waste management activities were estimated for the District using U.S. Environmental Protection Agency’s Waste Reduction Model (WARM). WARM was applied to reference year data and data projected for the sixth year of the planning period (2031).

Table N-1 shows that 635,569 BTUs of energy savings in the reference year if material was recycled compared to landfilled.

**Table N-1 Greenhouse Gas Emissions Summary Report- Reference Year**

Material	Baseline Scenario						Alternative Scenario						Change (Alt-Base) million BTU	
	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Anaerobically Digested	Total million BTU	Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Anaerobically Digested		Total million BTU
Corrugated Containers	0.00	11743.00	0.00	N/A	N/A	-2449.60	0.00	11743.00	0.00	0.00	N/A	N/A	-17297.42	-17297.83
Mixed Paper (general)	0.00	6673.00	0.00	N/A	N/A	-1193.44	0.00	6673.00	0.00	0.00	N/A	N/A	-137224.39	-136770.94
Food Waste	N/A	1511.00	0.00	0.00	0.00	-3.83	0.00	N/A	0.00	0.00	1511.00	0.00	1105.27	1110.10
Yard Trimmings	N/A	37456.00	0.00	0.00	0.00	6479.32	N/A	N/A	0.00	0.00	37456.00	0.00	9775.76	4296.43
Branches	N/A	4933.00	0.00	0.00	0.00	59.36	N/A	N/A	0.00	4033.00	0.00	0.00	1692.61	993.23
Mixed Plastics	0.00	11694.00	0.00	N/A	N/A	391.09	0.00	11694.00	0.00	0.00	N/A	N/A	-51445.26	-51542.37
Mixed Electronics	0.00	87.00	0.00	N/A	N/A	23.34	N/A	87.00	0.00	0.00	N/A	N/A	-1018.10	-1041.44
Aluminum Cans	0.00	592.00	0.00	N/A	N/A	142.72	0.00	592.00	0.00	0.00	N/A	N/A	-51270.66	-51413.46
Steel Cans	0.00	7840.00	0.00	N/A	N/A	2193.26	0.00	7840.00	0.00	0.00	N/A	N/A	-156635.02	-158618.26
Mixed Metals	0.00	79.00	0.00	N/A	N/A	21.16	0.00	79.00	0.00	0.00	N/A	N/A	-5267.44	-5275.63
Glass	0.00	2916.00	0.00	N/A	N/A	752.28	0.00	2916.00	0.00	0.00	N/A	N/A	-6197.70	-6279.98
Tires	0.00	3456.00	0.00	N/A	N/A	627.56	0.00	3456.00	0.00	0.00	N/A	N/A	-12481.26	-13389.24
Mixed Recyclables	0.00	1253.00	0.00	N/A	N/A	-47.21	N/A	1253.00	0.00	0.00	N/A	N/A	-18733.28	-18966.07
						6259.40							-555556.94	

**Total Change in Energy Use (million BTU): -441928.42**

This is equivalent to:  
 Conserving 7058 households' Annual Energy  
 Conserving 110469 Barrels of Oil  
 Conserving 5321462 Gallons of Gasoline

Table N-2 shows the same calculations for the projections for the sixth year of the planning period which shows an energy savings of 1,344,057 BTUs.

**Table N-2 Greenhouse Gas Emissions- Sixth Year**

Waste Reduction Model (WARM) Summary Report (Energy)														
Energy Analysis - Summary Report														
GHG Emissions Waste Management Analysis for DKMM Solid Waste District Prepared by: Project Period for this Analysis: 1-1-2031 to 12-31-2031														
Material	Baseline Scenario					Total million BTU	Alternative Scenario					Change (Alt-Base) million BTU		
	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Tons Anaerobically Digested		Tons Source Reduced	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted		Tons Anaerobically Digested	
Mixed Recyclables	0.00	79050.00	0.00	N/A	N/A	-4240.41	N/A	89899.00	0.00	0.00	N/A	N/A	-1344056.85	-1339816.44
						-4240.41							-1344056.85	

a) For explanation of methodology, see the [EPA GHG \(WARM\) Documentation](#).

b) Emissions estimates provided by this model are intended to support voluntary GHG measurement and reporting initiatives.

**Total Change in Energy Use (million BTU): -1339816.44**

This is equivalent to...

- Conserving 14624 Households' Annual Energy
- Conserving 230805 Barrels of Oil
- Conserving 1112304 Gallons of Gasoline

## Appendix O Financial Plan

This Appendix summarizes the District's funding mechanisms, projected revenues, and expenses for the planning period.

The budget tables prepared demonstrate the District has the financial funding throughout the planning period to implement the planned programs and initiatives. Nothing contained in these budget projections should be construed as a binding commitment by the District to spend a specific amount of money on a particular strategy, facility, program and/or activity. The board of Directors, with the advice and assistance of the Director, will review and revise the budget as needed to implement the planned strategies as effectively as possible with the funds available. Revenues, not otherwise committed to an existing strategy may be used to increase funding to improve the effectiveness of an existing strategy, and to provide funding for a new program the Board concludes is justified based on the Director's recommendations and the content of this plan.

The District reserves the right to revise the budget and reallocate funds as programs change or when otherwise determined to be in the best interest of the District. If the budget in this Plan is affected to the point that it must be revised, the District will determine if a material change in circumstance has occurred. If a material change in circumstance has not occurred but budget revisions are needed that go beyond normal adjustments (as determined by the District), the District may revise the budget per ORC Section 3734.56 and follow the appropriate ratification requirements to finalize the budget revisions.

The District is committed to implementing planned strategies, in a cost-effective manner. The District Board is authorized to expend District funds among other uses included in the Plan when costs are reduced. The Board is also authorized to use reduced costs to provide grant funds or direct funding to evaluate, test or implement new programs. These cost changes would be in compliance with this Plan and are not a "material change in circumstance" regarding the implementation of this Plan.

### A. Funding Mechanisms and Revenue Generated

#### 1. *Disposal Fee*

The District does not receive revenue from disposal fees.

#### 2. *Generation Fee*

The District does not receive revenue from generation fees.

#### 3. *Designation Fees*

The District has designated solid waste facilities pursuant to ORC 343.014 and has entered into contracts with these facilities. Designation Agreements state facilities receiving solid waste generated in the District will pay a contract fee to the District based on tonnage received. The District collects the

contract fee from designated facilities monthly. The per ton contract fee in the reference year was \$6.00. The contract fee has been unchanged since 2012 when it was raised to \$6.00.

The District plans to increase the contract fee in 2026 to \$7.50 in order to continue current programming and allow for new initiatives to be implemented. Without this increase, the District would have to significantly reduce programming. Actual contract fee adjustments occur under a separate process and are not automatically changed with the approval of this Plan. The Policy Committee will review the contract fee annually and determine if any adjustments need to be made at that time.

**Table O-1 Designation Fee Schedule and Revenue**

<b>Year</b>	<b>Contract Fee Schedule (\$ per ton)</b>	<b>Total Disposed (tons)</b>	<b>Total Contract Fee Revenue (\$)</b>
2017	\$6.00	271,461	\$1,628,765
2018	\$6.00	279,599	\$1,677,596
2019	\$6.00	295,516	\$1,773,094
2020	\$6.00	302,135	\$1,812,809
<b>2021</b>	<b>\$6.00</b>	<b>294,548</b>	<b>\$1,760,616</b>
2022	\$6.00	315,727	\$1,894,362
2023	\$6.00	317,392	\$1,904,352
2024	\$6.00	319,424	\$1,916,544
2025	\$6.00	321,862	\$1,931,172
2026	\$7.50	324,747	\$2,435,603
2027	\$7.50	328,124	\$2,460,930
2028	\$7.50	332,043	\$2,490,323
2029	\$7.50	336,559	\$2,524,193
2030	\$7.50	341,734	\$2,563,005
2031	\$7.50	347,634	\$2,607,255
2032	\$7.50	354,335	\$2,657,513
2033	\$7.50	361,919	\$2,714,393
2034	\$7.50	361,919	\$2,714,393
2035	\$7.50	361,919	\$2,714,393
2036	\$7.50	361,919	\$2,714,393
2037	\$7.50	361,919	\$2,714,393
2038	\$7.50	361,919	\$2,714,393
2039	\$7.50	361,919	\$2,714,393
2040	\$7.50	361,919	\$2,714,393

**Source(s) of Information:** District Annual Disposal Spreadsheets outlining actual income per month and Appendix G waste projections.

**Sample Calculations:** contract fee x tons disposed = contract fee revenue

Data for 2017 - 2023 has been updated to include actual figures and are not projected.

4. *Debt/Loans*

The District does not have current loans and does not anticipate securing loans during the planning period. The District reserves the right to secure a loan if determined to be in the best interest of the District and approved by the District Board.

5. *Other Sources of District Revenue*

**Table O-2 Other Sources of Revenue**

Year	Program Fees	Refunds	Reimbursements	Miscellaneous & Donations	Total Other Revenue
2017	\$0	\$0	\$18,670	\$454	\$19,124
2018	\$0	\$0	\$25,894	\$677	\$26,571
2019	\$0	\$0	\$30,707	\$728	\$31,435
2020	\$0	\$0	\$7,284	\$50	\$7,334
<b>2021</b>	<b>\$25,340</b>	<b>\$23,503</b>	<b>\$2,234</b>	<b>\$14</b>	<b>\$51,091</b>
2022	\$22,993	\$37,543	\$6,909	\$1,024	\$68,469
2023	\$29,000	\$12,741	\$6,000	\$900	\$48,641
2024	\$29,000	\$0	\$6,120	\$0	\$35,120
2025	\$29,000	\$0	\$6,242	\$0	\$35,242
2026	\$29,000	\$0	\$6,367	\$0	\$35,367
2027	\$29,000	\$0	\$6,495	\$0	\$35,495
2028	\$29,000	\$0	\$6,624	\$0	\$35,624
2029	\$29,000	\$0	\$6,757	\$0	\$35,757
2030	\$29,000	\$0	\$6,892	\$0	\$35,892
2031	\$29,000	\$0	\$7,030	\$0	\$36,030
2032	\$29,000	\$0	\$7,171	\$0	\$36,171
2033	\$29,000	\$0	\$7,314	\$0	\$36,314
2034	\$29,000	\$0	\$7,314	\$0	\$36,314
2035	\$29,000	\$0	\$7,314	\$0	\$36,314
2036	\$29,000	\$0	\$7,314	\$0	\$36,314
2037	\$29,000	\$0	\$7,314	\$0	\$36,314
2038	\$29,000	\$0	\$7,314	\$0	\$36,314
2039	\$29,000	\$0	\$7,314	\$0	\$36,314
2040	\$29,000	\$0	\$7,314	\$0	\$36,314

**Source(s) of Information:** Quarterly Fee Reports, District Records

Prior to 2021, the county auditor classified “other revenue” differently.

### Program Fees

The District collects a small fee from those participating in special collection events. The fees collected in the reference year were \$20 per television, \$20 per car for one day hazardous waste collections and \$1.00 per pound of hazardous waste disposed at the semi-permanent hazardous waste collections. In the reference year, the District collected \$25,340 in fees to help offset the cost of holding these collections.

All program fees are set by the District Board and are not expected to change throughout the planning period so annual increases are not included. The District may change program fees as needed with Board approval.

The average person paid \$74.50 at the Knox semi-permanent hazardous waste collection location in 2023. Assuming 275 residents participate in the Delaware and Knox collection a total of \$20,487.50 will be collected. This was rounded down to \$20,000.

Since the reference year, the average number of participants in hazardous waste one-day collections was 414. It is assumed approximately half of these participants will choose to participate in the semi-permanent collections rather than the one-day events. If 200 residents participate in the one-day hazardous waste collections at \$20 each a total of \$4,000 will be collected.

It is assumed that a total of 250 televisions will be collected between the semi-permanent locations and the one-day electronics collections which equals \$5,000.

### Refunds

Refunds consist of contracts, typically education and health department enforcement, that were not fully expended. These contracts stipulate only 10% of the total contract amount can be carried over into the next program year. All other monies not expended must be paid back to the District. In the reference year, two educators and one health department did not fully expend their contracts and paid the District the remaining funds.

The District expects all contracts to be fully expended each year so nothing is budgeted under this category.

### Reimbursements

Starting in 2021, the District began the municipal tire program in which municipalities hold a tire collection event for their residents and the District cost shares the collection. The District pays invoices directly to the vendors and then invoices the municipality for their agreed upon portion. The payment back to the District is considered a reimbursement. In 2021, only five events were funded but the program has since grown, and ten events have been funded in each of the past two years.

The average reimbursement for one tire event was \$624 in 2023. A 2% increase is included each year.

Miscellaneous/Donations

The District does not solicit donations but occasionally does receive them. Any other money not fitting the above categories would be considered miscellaneous. For example, in 2022 the District sold office furniture and the revenue was classified as miscellaneous.

Miscellaneous revenue and donations are so infrequent, the District has not budgeted anything under this category.

6 *Summary of District Revenues*

**Table O-3 Total Revenue**

<b>Year</b>	<b>Designation Fees</b>	<b>Other Revenue</b>	<b>Total Revenue</b>
2017	\$1,628,765	\$19,124	\$1,647,890
2018	\$1,677,596	\$26,571	\$1,704,167
2019	\$1,773,094	\$31,435	\$1,804,529
2020	\$1,812,809	\$7,334	\$1,820,144
<b>2021</b>	<b>\$1,760,616</b>	<b>\$51,091</b>	<b>\$1,811,707</b>
2022	\$1,894,362	\$68,469	\$1,962,831
2023	\$1,904,352	\$48,641	\$1,952,993
2024	\$1,916,544	\$35,120	\$1,951,664
2025	\$1,931,172	\$35,242	\$1,966,414
2026	\$2,435,603	\$35,367	\$2,470,970
2027	\$2,460,930	\$35,495	\$2,496,425
2028	\$2,490,323	\$35,624	\$2,525,947
2029	\$2,524,193	\$35,757	\$2,559,949
2030	\$2,563,005	\$35,892	\$2,598,897
2031	\$2,607,255	\$36,030	\$2,643,285
2032	\$2,657,513	\$36,171	\$2,693,683
2033	\$2,714,393	\$36,314	\$2,750,706
2034	\$2,714,393	\$36,314	\$2,750,706
2035	\$2,714,393	\$36,314	\$2,750,706
2036	\$2,714,393	\$36,314	\$2,750,706
2037	\$2,714,393	\$36,314	\$2,750,706
2038	\$2,714,393	\$36,314	\$2,750,706
2039	\$2,714,393	\$36,314	\$2,750,706
2040	\$2,714,393	\$36,314	\$2,750,706

**Source(s) of Information:** Quarterly Fee Reports and District records

In the reference year, the total revenue, comprised of contract fees and other revenue, was \$1,811,707 in the reference year. Revenue in the first year of the planning period (2026) is projected to be \$2,470,970. Revenue is projected to increase annually thereafter.

## B. Cost of Implementing Plan

Table O-4 includes actual expenses from 2017 to 2022, anticipated expenses from the District's approved budgets for 2023 and 2024, and projected expenditures from 2025 to 2040.

**Table O-4 Expenses**

Line #	Category/Program	2017	2018	2019	2020	2021	2022
<b>1</b>	<b>1. Plan Monitoring/Prep.</b>	\$28,477	\$11,577	\$878	\$0	\$0	\$0
1.a	a. Plan Preparation	\$28,477	\$11,577	\$878	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>2</b>	<b>2. Plan Implementation</b>	\$1,205,361	\$1,234,291	\$1,395,178	\$1,721,901	\$1,714,732	\$1,931,888
2.a	a. District Administration	\$189,299	\$200,125	\$207,402	\$236,308	\$213,388	\$219,660
2.a.1	Personnel	\$152,686	\$159,871	\$162,890	\$173,868	\$190,426	\$187,517
2.a.2	Office Overhead	\$36,613	\$40,255	\$44,512	\$62,440	\$22,962	\$32,143
2.a.3	Other	\$0	\$0	\$0	\$0	\$0	\$0
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0
2.b.2	Compost	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0
2.c	c. Landfill Closure/Post-Closure	\$0	\$0	\$0	\$0	\$0	\$0
2.d	d. Recycling Collection	\$578,902	\$579,481	\$710,183	\$845,089	\$882,398	\$999,026
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$578,902	\$579,337	\$703,117	\$845,089	\$882,398	\$999,026
2.d.3	Combined Curbside/Drop-off	\$0	\$0	\$0	\$0	\$0	\$0
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0
2.d.5	Business/Institutional	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other (Capital Improvements)	\$0	\$144	\$7,066	\$0	\$0	\$0
2.e	e. Special Collections	\$48,732	\$51,747	\$63,443	\$60,281	\$54,913	\$61,220
2.e.1	Tire Collection	\$9,139	\$9,794	\$7,809	\$0	\$0	\$9,602
2.e.2	HHW Collection	\$32,756	\$40,366	\$41,857	\$59,026	\$45,027	\$45,161
2.e.3	Electronics Collection	\$4,904	\$1,587	\$13,777	\$628	\$9,886	\$3,680
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0
2.e.5	Other Collection Drives	\$1,933	\$0	\$0	\$628	\$0	\$2,777
2.f	f. Yard Waste/Other Organics	\$95,130	\$101,231	\$99,563	\$100,942	\$116,892	\$156,592
2.g	g. Education/Awareness	\$281,816	\$289,208	\$299,396	\$321,208	\$314,765	\$306,687
2.g.1	Education Staff	\$281,816	\$288,437	\$299,396	\$307,574	\$307,455	\$306,687
2.g.2	Advertisement/Promotion	\$0	\$771	\$0	\$0	\$0	\$0
2.g.3	Other	\$0	\$0	\$0	\$13,634	\$7,310	\$0
2.h	h. Recycling Market Development	\$2,902	\$0	\$0	\$138,894	\$122,756	\$188,377
2.h.1	General Market Development Activities	\$2,902	\$0	\$0	\$138,894	\$122,756	\$188,377
2.h.2	ODNR pass-through grant	\$0	\$0	\$0	\$0	\$0	\$0
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies	\$0	\$0	\$0	\$3,639	\$4,750	\$0
2.k	k. Waste Assessments/Audits	\$0	\$0	\$0	\$0	\$0	\$0
2.l	l. Dump Cleanup	\$8,581	\$12,499	\$15,191	\$15,541	\$4,871	\$325
2.m	m. Litter Collection/Education	\$0	\$0	\$0	\$0	\$0	\$0
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0
2.o	o. Loan Payment	\$0	\$0	\$0	\$0	\$0	\$0
2.p	p. Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>3</b>	<b>3. Health Dept. Enforcement</b>	\$161,942	\$161,942	\$164,371	\$165,193	\$158,000	\$150,000
	<i>Health Department : Split between 4 counties</i>	\$55,002	\$55,002	\$55,827	\$56,106	\$43,783	\$43,674
	<i>Health Department:</i>	\$35,118	\$35,118	\$35,645	\$35,823	\$35,196	\$31,125
	<i>Health Department:</i>	\$44,268	\$44,268	\$44,932	\$45,157	\$52,702	\$52,929
	<i>Health Department:</i>	\$27,554	\$27,554	\$27,967	\$28,107	\$26,318	\$22,272
<b>4</b>	<b>4. County Assistance</b>	\$2,020	\$7,160	\$19,235	\$1,951	\$0	\$20,000
4.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
4.b	b. Maintaining Public Facilities	\$2,020	\$7,160	\$19,235	\$1,951	\$0	\$20,000
4.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
4.d	d. Providing Other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
<b>5</b>	<b>5. Well Testing</b>	\$0	\$0	\$0	\$0	\$0	\$0
<b>6</b>	<b>6. Out-of-State Waste Inspection</b>	\$0	\$0	\$0	\$0	\$0	\$0
<b>7</b>	<b>7. Open Dump, Litter Law Enforcement</b>	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Health Departments	\$0	\$0	\$0	\$0	\$0	\$0
7.b	b. Local Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0
7.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
<b>8</b>	<b>8. Health Department Training</b>	\$0	\$0	\$0	\$0	\$0	\$0
<b>9</b>	<b>9. Municipal/Township Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$6,424
9.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$6,424
9.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
9.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
9.d	d. Providing other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
<b>10</b>	<b>10. Compensation to Affected Community (ORC Section 3734.35)</b>	\$0	\$0	\$0	\$0	\$0	\$0
	<b>***Total Expenses***</b>	\$1,397,801	\$1,414,970	\$1,579,663	\$1,889,044	\$1,872,732	\$2,108,312

Line #	Category/Program	2023	2024	2025	2026	2027	2028
1	<b>1. Plan Monitoring/Prep.</b>	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$0	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
2	<b>2. Plan Implementation</b>	\$1,887,363	\$2,050,916	\$2,051,780	\$2,177,445	\$2,387,191	\$2,298,920
2.a	a. District Administration	\$266,247	\$279,543	\$286,135	\$284,800	\$293,774	\$303,069
2.a.1	Personnel	\$194,737	\$201,543	\$206,695	\$213,877	\$221,323	\$229,045
2.a.2	Office Overhead	\$41,510	\$48,000	\$49,440	\$50,923	\$52,451	\$54,024
2.a.3	Other	\$30,000	\$30,000	\$30,000	\$20,000	\$20,000	\$20,000
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0
2.b.2	Compost	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0
2.c	c. Landfill Closure/Post-Closure	\$0	\$0	\$0	\$0	\$0	\$0
2.d	d. Recycling Collection	\$1,086,680	\$1,240,645	\$1,240,645	\$1,255,645	\$1,298,018	\$1,341,873
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$1,086,680	\$1,210,645	\$1,210,645	\$1,210,645	\$1,253,018	\$1,296,873
2.d.3	Combined Curbside/Drop-off	\$0	\$0	\$0	\$0	\$0	\$0
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0
2.d.5	Business/Institutional	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other (Capital Improvements)	\$0	\$30,000	\$30,000	\$45,000	\$45,000	\$45,000
2.e	e. Special Collections	\$85,000	\$70,000	\$70,000	\$115,000	\$118,450	\$122,004
2.e.1	Tire Collection	\$10,000	\$15,000	\$15,000	\$18,000	\$18,540	\$19,096
2.e.2	HHW Collection	\$60,000	\$41,000	\$40,000	\$70,000	\$72,100	\$74,263
2.e.3	Electronics Collection	\$15,000	\$14,000	\$15,000	\$27,000	\$27,810	\$28,644
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0
2.e.5	Other Collection Drives	\$0	\$0	\$0	\$0	\$0	\$0
2.f	f. Yard Waste/Other Organics	\$140,000	\$148,000	\$140,000	\$150,000	\$150,000	\$150,000
2.g	g. Education/Awareness	\$300,929	\$312,728	\$315,000	\$344,000	\$348,950	\$353,974
2.g.1	Education Staff	\$300,619	\$312,728	\$312,728	\$330,000	\$334,950	\$339,974
2.g.2	Advertisement/Promotion	\$0	\$0	\$0	\$6,000	\$6,000	\$6,000
2.g.3	Other	\$310	\$0	\$0	\$8,000	\$8,000	\$8,000
2.h	h. Recycling Market Development	\$8,507	\$0	\$0	\$0	\$150,000	\$0
2.h.1	General Market Development Activities	\$8,507	\$0	\$0	\$0	\$150,000	\$0
2.h.2	ODNR pass-through grant	\$0	\$0	\$0	\$0	\$0	\$0
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies	\$0	\$0	\$0	\$0	\$0	\$0
2.k	k. Waste Assessments/Audits	\$0	\$0	\$0	\$20,000	\$20,000	\$20,000
2.l	l. Dump Cleanup	\$0	\$0	\$0	\$8,000	\$8,000	\$8,000
2.m	m. Litter Collection/Education	\$0	\$0	\$0	\$0	\$0	\$0
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0
2.o	o. Loan Payment	\$0	\$0	\$0	\$0	\$0	\$0
2.p	p. Other	\$0	\$0	\$0	\$0	\$0	\$0
3	<b>3. Health Dept. Enforcement</b>	\$149,999	\$150,000	\$150,000	\$150,000	\$151,500	\$153,015
	<i>Health Department : Split between 4 counties</i>	\$42,253	\$42,242	\$150,000	\$150,000	\$151,500	\$153,015
	<i>Health Department:</i>	\$29,258	\$31,612		\$0	\$0	\$0
	<i>Health Department:</i>	\$53,049	\$54,922		\$0	\$0	\$0
	<i>Health Department:</i>	\$25,439	\$21,223		\$0	\$0	\$0
4	<b>4. County Assistance</b>	\$27,185	\$0	\$0	\$0	\$0	\$0
4.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
4.b	b. Maintaining Public Facilities	\$27,185	\$0	\$0	\$0	\$0	\$0
4.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
4.d	d. Providing Other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
5	<b>5. Well Testing</b>	\$0	\$0	\$0	\$0	\$0	\$0
6	<b>6. Out-of-State Waste Inspection</b>	\$0	\$0	\$0	\$0	\$0	\$0
7	<b>7. Open Dump, Litter Law Enforcement</b>	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Health Departments	\$0	\$0	\$0	\$0	\$0	\$0
7.b	b. Local Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0
7.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
8	<b>8. Health Department Training</b>	\$0	\$0	\$0	\$0	\$0	\$0
9	<b>9. Municipal/Township Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$0
9.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
9.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
9.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
9.d	d. Providing other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
10	<b>10. Compensation to Affected Community (ORC Section 3734.35)</b>	\$0	\$0	\$0	\$0	\$0	\$0
	<b>***Total Expense***</b>	\$2,064,547	\$2,200,916	\$2,201,780	\$2,327,445	\$2,538,691	\$2,451,935

Line #	Category/Program	2029	2030	2031	2032	2033	2034
1	<b>1. Plan Monitoring/Prep.</b>	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$0	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
2	<b>2. Plan Implementation</b>	<b>\$2,515,698</b>	<b>\$2,431,597</b>	<b>\$2,649,690</b>	<b>\$2,573,111</b>	<b>\$2,795,822</b>	<b>\$2,645,822</b>
2.a	a. District Administration	\$312,697	\$322,671	\$333,003	\$343,707	\$354,799	\$354,799
2.a.1	Personnel	\$237,052	\$245,356	\$253,969	\$262,902	\$272,170	\$272,170
2.a.2	Office Overhead	\$55,645	\$57,315	\$59,034	\$60,805	\$62,629	\$62,629
2.a.3	Other	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0
2.b.2	Compost	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0
2.c	c. Landfill Closure/Post-Closure	\$0	\$0	\$0	\$0	\$0	\$0
2.d	d. Recycling Collection	\$1,387,264	\$1,434,243	\$1,482,866	\$1,533,192	\$1,585,279	\$1,585,279
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$1,342,264	\$1,389,243	\$1,437,866	\$1,488,192	\$1,540,279	\$1,540,279
2.d.3	Combined Curbside/Drop-off	\$0	\$0	\$0	\$0	\$0	\$0
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0
2.d.5	Business/Institutional	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other (Capital Improvements)	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
2.e	e. Special Collections	\$125,664	\$129,434	\$133,317	\$137,316	\$141,435	\$141,435
2.e.1	Tire Collection	\$19,669	\$20,259	\$20,867	\$21,493	\$22,138	\$22,138
2.e.2	HHW Collection	\$76,491	\$78,786	\$81,149	\$83,584	\$86,091	\$86,091
2.e.3	Electronics Collection	\$29,504	\$30,389	\$31,300	\$32,239	\$33,207	\$33,207
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0
2.e.5	Other Collection Drives	\$0	\$0	\$0	\$0	\$0	\$0
2.f	f. Yard Waste/Other Organics	\$153,000	\$153,000	\$153,000	\$156,060	\$156,060	\$156,060
2.g	g. Education/Awareness	\$359,074	\$364,250	\$369,504	\$374,836	\$380,249	\$380,249
2.g.1	Education Staff	\$345,074	\$350,250	\$355,504	\$360,836	\$366,249	\$366,249
2.g.2	Advertisement/Promotion	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
2.g.3	Other	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
2.h	h. Recycling Market Development	\$150,000	\$0	\$150,000	\$0	\$150,000	\$0
2.h.1	General Market Development Activities	\$150,000	\$0	\$150,000	\$0	\$150,000	\$0
2.h.2	ODNR pass-through grant	\$0	\$0	\$0	\$0	\$0	\$0
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies	\$0	\$0	\$0	\$0	\$0	\$0
2.k	k. Waste Assessments/Audits	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.l	l. Dump Cleanup	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
2.m	m. Litter Collection/Education	\$0	\$0	\$0	\$0	\$0	\$0
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0
2.o	o. Loan Payment	\$0	\$0	\$0	\$0	\$0	\$0
2.p	p. Other	\$0	\$0	\$0	\$0	\$0	\$0
3	<b>3. Health Dept. Enforcement</b>	<b>\$154,545</b>	<b>\$156,091</b>	<b>\$157,652</b>	<b>\$159,228</b>	<b>\$160,820</b>	<b>\$160,820</b>
	<i>Health Department : Split between 4 counti</i>	\$154,545	\$156,091	\$157,652	\$159,228	\$160,820	\$160,820
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
4	<b>4. County Assistance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
4.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
4.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
4.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
4.d	d. Providing Other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
5	<b>5. Well Testing</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
6	<b>6. Out-of-State Waste Inspection</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
7	<b>7. Open Dump, Litter Law Enforcement</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
7.a	a. Health Departments	\$0	\$0	\$0	\$0	\$0	\$0
7.b	b. Local Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0
7.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
8	<b>8. Health Department Training</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
9	<b>9. Municipal/Township Assistance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
9.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
9.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
9.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
9.d	d. Providing other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
10	<b>10. Compensation to Affected Community (ORC Section 3734.35)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
	<b>***Total Expenses***</b>	<b>\$2,670,244</b>	<b>\$2,587,688</b>	<b>\$2,807,341</b>	<b>\$2,732,339</b>	<b>\$2,956,642</b>	<b>\$2,806,642</b>

Line #	Category/Program	2035	2036	2037	2038	2039	2040
1	<b>1. Plan Monitoring/Prep.</b>	\$0	\$0	\$0	\$0	\$0	\$0
1.a	a. Plan Preparation	\$0	\$0	\$0	\$0	\$0	\$0
1.b	b. Plan Monitoring	\$0	\$0	\$0	\$0	\$0	\$0
1.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
2	<b>2. Plan Implementation</b>	\$2,645,822	\$2,645,822	\$2,645,822	\$2,645,822	\$2,645,822	\$2,645,822
2.a	a. District Administration	\$354,799	\$354,799	\$354,799	\$354,799	\$354,799	\$354,799
2.a.1	Personnel	\$272,170	\$272,170	\$272,170	\$272,170	\$272,170	\$272,170
2.a.2	Office Overhead	\$62,629	\$62,629	\$62,629	\$62,629	\$62,629	\$62,629
2.a.3	Other	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.b	b. Facility Operation	\$0	\$0	\$0	\$0	\$0	\$0
2.b.1	MRF/Recycling Center	\$0	\$0	\$0	\$0	\$0	\$0
2.b.2	Compost	\$0	\$0	\$0	\$0	\$0	\$0
2.b.3	Transfer	\$0	\$0	\$0	\$0	\$0	\$0
2.b.4	Special Waste	\$0	\$0	\$0	\$0	\$0	\$0
2.c	c. Landfill Closure/Post-Closure	\$0	\$0	\$0	\$0	\$0	\$0
2.d	d. Recycling Collection	\$1,585,279	\$1,585,279	\$1,585,279	\$1,585,279	\$1,585,279	\$1,585,279
2.d.1	Curbside	\$0	\$0	\$0	\$0	\$0	\$0
2.d.2	Drop-off	\$1,540,279	\$1,540,279	\$1,540,279	\$1,540,279	\$1,540,279	\$1,540,279
2.d.3	Combined Curbside/Drop-off	\$0	\$0	\$0	\$0	\$0	\$0
2.d.4	Multi-family	\$0	\$0	\$0	\$0	\$0	\$0
2.d.5	Business/Institutional	\$0	\$0	\$0	\$0	\$0	\$0
2.d.6	Other (Capital Improvements)	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
2.e	e. Special Collections	\$141,435	\$141,435	\$141,435	\$141,435	\$141,435	\$141,435
2.e.1	Tire Collection	\$22,138	\$22,138	\$22,138	\$22,138	\$22,138	\$22,138
2.e.2	HW Collection	\$86,091	\$86,091	\$86,091	\$86,091	\$86,091	\$86,091
2.e.3	Electronics Collection	\$33,207	\$33,207	\$33,207	\$33,207	\$33,207	\$33,207
2.e.4	Appliance Collection	\$0	\$0	\$0	\$0	\$0	\$0
2.e.5	Other Collection Drives	\$0	\$0	\$0	\$0	\$0	\$0
2.f	f. Yard Waste/Other Organics	\$156,060	\$156,060	\$156,060	\$156,060	\$156,060	\$156,060
2.g	g. Education/Awareness	\$380,249	\$380,249	\$380,249	\$380,249	\$380,249	\$380,249
2.g.1	Education Staff	\$366,249	\$366,249	\$366,249	\$366,249	\$366,249	\$366,249
2.g.2	Advertisement/Promotion	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
2.g.3	Other	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
2.h	h. Recycling Market Development	\$0	\$0	\$0	\$0	\$0	\$0
2.h.1	General Market Development Activities	\$0	\$0	\$0	\$0	\$0	\$0
2.h.2	ODNR pass-through grant	\$0	\$0	\$0	\$0	\$0	\$0
2.i	i. Service Contracts	\$0	\$0	\$0	\$0	\$0	\$0
2.j	j. Feasibility Studies	\$0	\$0	\$0	\$0	\$0	\$0
2.k	k. Waste Assessments/Audits	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
2.l	l. Dump Cleanup	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
2.m	m. Litter Collection/Education	\$0	\$0	\$0	\$0	\$0	\$0
2.n	n. Emergency Debris Management	\$0	\$0	\$0	\$0	\$0	\$0
2.o	o. Loan Payment	\$0	\$0	\$0	\$0	\$0	\$0
2.p	p. Other	\$0	\$0	\$0	\$0	\$0	\$0
3	<b>3. Health Dept. Enforcement</b>	\$160,820	\$160,820	\$160,820	\$160,820	\$160,820	\$160,820
	<i>Health Department : Split between 4 counties</i>	\$160,820	\$160,820	\$160,820	\$160,820	\$160,820	\$160,820
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
	<i>Health Department:</i>	\$0	\$0	\$0	\$0	\$0	\$0
4	<b>4. County Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$0
4.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
4.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
4.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
4.d	d. Providing Other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
5	<b>5. Well Testing</b>						
6	<b>6. Out-of-State Waste Inspection</b>						
7	<b>7. Open Dump, Litter Law Enforcement</b>	\$0	\$0	\$0	\$0	\$0	\$0
7.a	a. Heath Departments	\$0	\$0	\$0	\$0	\$0	\$0
7.b	b. Local Law Enforcement	\$0	\$0	\$0	\$0	\$0	\$0
7.c	c. Other	\$0	\$0	\$0	\$0	\$0	\$0
8	<b>8. Heath Department Training</b>						
9	<b>9. Municipal/Township Assistance</b>	\$0	\$0	\$0	\$0	\$0	\$0
9.a	a. Maintaining Roads	\$0	\$0	\$0	\$0	\$0	\$0
9.b	b. Maintaining Public Facilities	\$0	\$0	\$0	\$0	\$0	\$0
9.c	c. Providing Emergency Services	\$0	\$0	\$0	\$0	\$0	\$0
9.d	d. Providing other Public Services	\$0	\$0	\$0	\$0	\$0	\$0
10	<b>10. Compensation to Affected Community (ORC Section 3734.35)</b>	\$0	\$0	\$0	\$0	\$0	\$0
	<b>***Total Expenses***</b>	\$2,806,642	\$2,806,642	\$2,806,642	\$2,806,642	\$2,806,642	\$2,806,642

## *Explanation of Expenses*

Budgeted line items explained below are numbered according to the corresponding line-item number in the quarterly fee reports. Line items that did not have any expenditures projected throughout the planning period were omitted from the discussion below.

## **2 Plan Implementation**

### 2.a District Administration

#### 2.a.1 Personnel

Personnel items include salaries, health insurance, workers' compensation, Medicare, PERS, and life insurance. A 3% annual salary increase was budgeted each year based on historic trends. Due to the large fluctuations in health insurance costs over the past four years, the District budgeted a 5% increase for insurance.

#### 2.a.2 Office Overhead

The budget includes expenditures for a variety of administrative costs, including but not limited to, office supplies, rent, utilities, postage, staff training, trade organization memberships, and county administrative services. An annual 3% increase was budgeted for annually.

#### 2.a.3 Other

A flat amount of \$20,000 will be allocated annually for the remainder of the planning period. This amount will cover any additional costs that may occur past budgeted expenses and may be reallocated to other plan implementation items, such as special projects, education, recycling drop-offs, etc.

### 2.d Recycling Collection

#### 2.d.2 Drop-off

The last drop-off contracts were signed for 5 years and included an incremental increase each year. The current contract runs 2024-2026 and contains a 5% increase in the first year with no additional increases throughout the remainder of the contract. An annual 3.5% increase has been budgeted beginning in 2027. This rate of increase will accommodate any additional service that may be needed, and any rate increases in the future.

## 2.e Special Collections

### 2.e.1 Tire Collection

The District will continue the Municipal Tire Collection Program. Projections increase annually by 3% starting in 2026.

### 2.e.2 HHW Collection

In 2026, an additional \$30,000 is budgeted for holding one Saturday collection event. Projections increase annually by 3% starting in 2027.

### 2.e.3 Electronics Collection

In 2026, an additional \$12,000 is budgeted for holding one Saturday collection event. Projections increase annually by 3% starting in 2026.

## 2.f Yard Waste/Other Organics

Yard waste contracts are generally three years with two-year extensions available. Historically, contracted amounts haven't changed significantly so a 2% increase is budgeted every three years.

In 2026 an additional \$10,000 is budgeted for a residential food scrap program.

## 2.g Education/Awareness

### 2.g.1 Education Staff

The District will continue supporting a Recycling & Litter Prevention office in each county. A 1.5% annual increase is budgeted based on historical data.

### 2.g.2 Advertisement/Promotion

Contamination reduction is the educational focus of this plan. The District will fund contamination reduction programs to meet this educational requirement.

### 2.g.3 Other

Each county educator works with their largest city to develop and implement a waste reduction project specific to their needs.

## 2.h Recycling Market Development

### 2.h.1 General Market Development Activities

Beginning in 2027, the District will budget \$150,000 for a DKMM Grant Program. Funding will be budgeted every other year to support waste reduction projects.

### 2.h.2 Ohio EPA pass-through grant

The District will support business OEPA Market Development Grant applications but is not budgeting any funding due to the uncertainty of grants being awarded.

## 2.i Dump Cleanup

Beginning in 2026, the District will budget an additional \$8,000 to assist with cleanup activities identified by Health Department partners.

## 2.n Emergency Debris Management

The District is not budgeting money in this category but may provide funding on an as needed basis as the budget allows.

## **3 Health Dept. Enforcement**

The District will fund Ohio EPA approved Health Departments according to the District developed funding formula. The funding formula divides a set budgeted amount based on the percentage of work completed by each health department. An annual 1% increase is budgeted beginning in 2027. This program is anticipated to carry through the entire planning period but is considered an optional program with funding being dependent on the District's financial status each year.

### Conclusion

The District started the 2021 reference year with a carry-over balance of \$2,101,663. Based on revenue and expenditure projections discussed throughout this appendix, the District is expected to begin the planning period in 2026 with a carry-over balance of \$1,503,535 and end the planning period with a carry-over balance of \$635,996.

Ample funding is projected to be available to finance the implementation of this plan update as presented in Table O-5 on the following page.

**Table O-5 Budget Summary**

<b>Year</b>	<b>Revenue</b>	<b>Expenses</b>	<b>Annual Surplus/Deficit (\$)</b>	<b>Balance (\$)</b>
<b>2016</b>	<b>Ending Balance</b>			<b>\$1,467,436</b>
2017	\$1,647,890	\$1,397,801	\$250,089	\$1,717,525
2018	\$1,704,167	\$1,414,970	\$289,198	\$2,006,723
2019	\$1,804,529	\$1,579,663	\$224,866	\$2,231,588
2020	\$1,820,144	\$1,889,044	-\$68,901	\$2,162,688
<b>2021</b>	<b>\$1,811,707</b>	<b>\$1,872,732</b>	<b>-\$61,025</b>	<b>\$2,101,663</b>
2022	\$1,962,831	\$2,108,312	-\$145,481	\$1,956,182
2023	\$1,952,993	\$2,064,547	-\$111,554	\$1,844,627
2024	\$1,951,664	\$2,200,916	-\$249,252	\$1,595,376
2025	\$1,966,414	\$2,201,780	-\$235,366	\$1,360,010
2026	\$2,470,970	\$2,327,445	\$143,525	\$1,503,535
2027	\$2,496,425	\$2,538,691	-\$42,267	\$1,461,268
2028	\$2,525,947	\$2,451,935	\$74,012	\$1,535,279
2029	\$2,559,949	\$2,670,244	-\$110,294	\$1,424,985
2030	\$2,598,897	\$2,587,688	\$11,210	\$1,436,195
2031	\$2,643,285	\$2,807,341	-\$164,056	\$1,272,139
2032	\$2,693,683	\$2,732,339	-\$38,656	\$1,233,483
2033	\$2,750,706	\$2,956,642	-\$205,936	\$1,027,547
2034	\$2,750,706	\$2,806,642	-\$55,936	\$971,611
2035	\$2,750,706	\$2,806,642	-\$55,936	\$915,675
2036	\$2,750,706	\$2,806,642	-\$55,936	\$859,739
2037	\$2,750,706	\$2,806,642	-\$55,936	\$803,804
2038	\$2,750,706	\$2,806,642	-\$55,936	\$747,868
2039	\$2,750,706	\$2,806,642	-\$55,936	\$691,932
2040	\$2,750,706	\$2,806,642	-\$55,936	\$635,996

## Appendix P Designation

### A. Statement Authorizing/Precluding Designation

The Board of Directors of the Delaware-Knox-Marion-Morrow Solid Waste Management District is hereby authorized to establish facility designations in accordance with Section 343.014 of the Ohio Revised Code after this plan has been approved by the director of the Ohio Environmental Protection Agency.

### B. Designated Facilities

**Table P-1 Designated Facilities**

Facility Name	County	State	Facility Type	Year Designated
American Landfill Inc.	Franklin	Ohio	Landfill	2006
Athens-Hocking Reclamation Center	Athens	Ohio	Landfill	2006
Beech Hollow Landfill	Jackson	Ohio	Landfill	2006
Brown County Landfill	Browns	Ohio	Landfill	2006
Carbon Limestone Landfill *	Mahoning	Ohio	Landfill	2015
Celina Landfill *	Mercer	Ohio	Landfill	2019
Cherokee Run Landfill, Inc.	Logan	Ohio	Landfill	2006
Crawford County Landfill, Inc. *	Crawford	Ohio	Landfill	2019
Defiance County Landfill *	Defiance	Ohio	Landfill	2019
Evergreen Recycling & Disposal *	Wood	Ohio	Landfill	2019
Franklin County Landfill	Franklin	Ohio	Landfill	2006
Hancock County Landfill	Hancock	Ohio	Landfill	2006
Kimble Sanitary Landfill	Tuscarawas	Ohio	Landfill	2006
Noble Road Landfill	Richland	Ohio	Landfill	2006
Ottawa County Landfill	Ottawa	Ohio	Landfill	2006
Pike Sanitation Landfill *	Pike	Ohio	Landfill	2019
Pine Grove Landfill	Fairfield	Ohio	Landfill	2006
Rumpke Landfill	Hamilton	Ohio	Landfill	2006
Stony Hollow Landfill	Montgomery	Ohio	Landfill	2006
Suburban Landfill	Perry	Ohio	Landfill	2006
Sunny Farms Landfill	Seneca	Ohio	Landfill	2009
Tunnel Hill Reclamation *	Perry	Ohio	Landfill	2022
Wood County Landfill *	Wood	Ohio	Landfill	2019
Wyandot County Landfill	Wyandot	Ohio	Landfill	2006

Cambridge Transfer Station	Guernsey	Ohio	Transfer Station	2006
Canal Winchester Transfer Station	Franklin	Ohio	Transfer Station	2006
Canton Transfer Station	Stark	Ohio	Transfer Station	2012
Chillicothe Transfer Station	Ross	Ohio	Transfer Station	2012
Circleville Transfer Station	Pickaway	Ohio	Transfer Station	2006
Columbus Transfer Station	Franklin	Ohio	Transfer Station	2008
Delaware County Transfer Station *	Delaware	Ohio	Transfer Station	2020
Greensville Transfer Station	Darke	Ohio	Transfer Station	2006
J & J Transfer Station	Carroll	Ohio	Transfer Station	2006
Jackson Pike Road Transfer Station	Franklin	Ohio	Transfer Station	2006
Lima Transfer Station	Allen	Ohio	Transfer Station	2006
Local Waste Transfer Station *	Franklin	Ohio	Transfer Station	2019
Marion County Transfer Station	Marion	Ohio	Transfer Station	2006
Montgomery County Transfer Station *	Montgomery	Ohio	Transfer Station	2021
Morse Road Transfer Station	Franklin	Ohio	Transfer Station	2006
Mount Vernon Transfer Station	Knox	Ohio	Transfer Station	2006
Reynolds Avenue Transfer Station	Franklin	Ohio	Transfer Station	2006
Richland County Transfer Station	Richland	Ohio	Transfer Station	2006
Shelby Transfer Station	Shelby	Ohio	Transfer Station	2006
Twinsburg Transfer Station	Summit	Ohio	Transfer Station	2012
Win Waste Innovations of Heath *	Licking	Ohio	Transfer Station	2022

*Facilities with \* are facilities that did not go through the formal designation process or have changed owner/operator and are considered waived from designation.*

Decisions regarding designation, or the granting of a designation waiver, shall be made by the District, following a review and request to the Board by the District Director.

The District may grant a waiver to a non-designated entity to provide solid waste disposal, transfer or resource recovery facilities or activities at any time after the plan update is approved and in accordance with the criteria specified in ORC 343.01(1)(2).

The following waiver process may be followed by a person, municipal corporation, township or other entity that wishes to deliver waste to a solid waste facility not designated by the District.

In the event any person wants to use a facility, other than a designated facility, for the disposal of municipal solid waste, the person must submit a written request for a waiver of designation to the District Board of Directors. The request must state the type and amount of material, the facility to be used, the intended duration of the waiver, and the reason for requesting the waiver.

The District will initially review the request and may ask for additional information if necessary. The Board of Directors shall act on the request for a waiver within 90 days of receiving the request. The Board may grant the request for a waiver if they determine that:

- Issuance of the waiver is not inconsistent with projections contained in the District's approved plan under Section 3734.53 (A) (6) and (A) (7); and
- Issuance of the waiver will not adversely affect implementation and financing of the District's approved plan.

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## Appendix Q District Rules

### A. Existing Rules

The Delaware, Knox, Marion, Morrow Solid Waste Management District is authorized under this Plan Update to make, public, and enforce rules in accordance with Section 343.01(G)(1), (2), (3) and (4) and Section 3734.53 (1), (2), (3) and (4) of the Ohio Revised Code (ORC).

The Existing rules of the District are as follows:

#### **Definitions**

**“District”** means the Delaware- Knox-Marion- Morrow Joint Solid Waste Management District with its principal offices located at 619 West Marion Road, Suite 107, Mount Gilead.

**“Person”** includes any natural person, the state, any political subdivision of the state or other state or local body, the United States and any agency or instrumentality thereof, and any legal entity or organization defined as a person under section 1.59 of the Ohio Revised Code.

**“Recyclable Material”** means any material generated by a Person or entity within the District which is capable of processing at a recycling or material recovery facility, for which there is a resale market, and which is identified by the District in writing from time to time. Such material typically includes, but are not necessarily limited to, glass bottles and jars, paper, metal products and containers, plastics, fiber material and other similar materials.

**“Rule”** means any rule promulgated, adopted and published by the Board, within its power to adopt rules reserved in the Plan, and authorized by Sections 343.01(G) and 3734.53© of the Ohio Revised Code, as now existing or hereafter amended.

**“Separated Recyclable Material”** means a Recyclable Material which has been separated at the point of generation or at the point of collection from other solid waste, and includes, but is not limited to, such measures as placing recyclables in portable containers, compartments of portable containers, or vehicles dedicated to Separated Recyclable Material collection.

**“Solid Waste”** means such unwanted residual solid or semisolid material as results from residential, industrial, commercial, agricultural and community operations, excluding earth or material from construction, mining or demolition operations, or other waste materials of the type that would normally be included in demolition debris, non-toxic fly ash, spent non-toxic foundry sand, and slag and other substances that are not harmful or inimical to public health, and includes, but is not limited to, garbage, tires, combustible and non-combustible material, street-dirt and debris. Solid waste does not include any material that is an infectious waste or a hazardous waste.

## **Rules**

### **DKMM Rule 1.01**

No person, as that term is defined in Section 1.59 of the ORC, or municipal corporation, township or other political subdivision or agency thereof, shall construct any solid waste transfer facility or disposal facility until general plans and specifications for the proposed construction have been submitted to and approved by the Board of Directors of the DKMM District, as complying with the District's solid waste management plan. (#98-017, 10/98)

### **DKMM Rule 2.01**

No person shall incinerate or landfill Separated Recyclable Materials without the prior written consent of the District. (#3-025, 7/03)

### **DKMM Rule 2.02**

No person shall combine Separated Recyclable Materials with Solid Waste that is intended for processing or landfilling without the prior written consent of the District. (#03-025, 7/03)

### **DKMM Rule 2.03**

No person shall deliver or cause to be delivered solid waste to any facility other than a solid waste facility designated by the Board of Directors pursuant to R.C. 343.014 unless the Board has granted a waiver from designation to such person. (#06-008, 2/06)

## **B. Proposed Rules**

There are no new rules being proposed with this plan.

## Appendix R Survey Forms and Survey Process

### 2021 Annual Recycling Survey DKMM Solid Waste District

Thank you for completing this survey. The information you provide for your company is crucial to monitoring the Delaware, Knox, Marion, Morrow Solid Waste Management District's progress towards achieving Ohio's recycling goals. Your information will be combined with information submitted by others and used to calculate the amount of material businesses recycled in the Delaware, Knox, Marion, Morrow Solid Waste Management District, in 2021. Your company's survey response will not be reported individually.

For assistance completing this form or any questions related to the survey, please contact Jenna Hicks, the Delaware, Knox, Marion, Morrow Solid Waste Management District's District Director, at [jhicks@dkmm.org](mailto:jhicks@dkmm.org) or (740) 393-4600.

**Please complete and submit this survey no later than 2/28/2022.**

#### Options for Returning the Completed Survey

- Email directly to Jenna Hicks at [jhicks@dkmm.org](mailto:jhicks@dkmm.org). Subject Line: 2021 Recycling Survey
- Fax to (740) 392-3298, Attention: Jenna Hicks
- Mail to DKMM Solid Waste District, 117 E. High Street, Suite 257, Mt. Vernon, Ohio 43050

#### Instructions for Table A:

Please provide all information requested in Table A below. Even if your business does not currently recycle or is unable to report quantities of materials recycled, please complete Table A. Doing so will allow the Delaware, Knox, Marion, Morrow Solid Waste Management District to contact you in the future to discuss your recycling needs.

Table A: Company Information			
Name:		County:	
Address:		City:	Zip:
Contact Person:		Title:	
Email:		Telephone Number (include area code):	
Primary NAICS:	Secondary NAICS:	Number of full-time employees:	
Which best describes your business?	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industry	<input type="checkbox"/> Institution

#### Instructions for completing Table B:

*Table B* provides a list of common materials that are recycled by businesses in Ohio. Please indicate the unit of each quantity of material that is reported (pounds, tons or cubic yards). Provide any comments related to each material as necessary. Please do not report any liquid waste, hazardous waste or construction & demolition debris.

The list in Table B is not all-inclusive. If your facility recycles a material that is not listed in Table B, please enter the name and quantity of that material on a line labeled "Other." Some materials may not apply to your operation; simply enter "0" for those materials. Some of the materials are listed in broad categories. For example, "Plastics" include plastics #1-7, plastic films, etc.

If you do not currently track this information internally, your solid waste hauler or recycling processor may be able to provide it upon request.

Table B: Quantities of Recycled Materials			
Recyclable Material Category	Amount Recycled 2021	Units	Name of hauler or processor that takes the material
Ash (recycled ash only)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Commingled Recyclables		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Corrugated Cardboard		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Dry Cell Batteries		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Electronics		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Ferrous Metals (steel & iron including appliances)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Flue Gas Desulfurization		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Food		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Glass		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Lead Acid Batteries		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Motor Oil (residential origin)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Non-Excluded Foundry		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Non-Ferrous Metals (aluminum, copper, brass, silver, lead)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Paper Mixed		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Plastics		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Rubber (non-tire)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Scrap Tires		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Source Reduction		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Textiles (clothes & fabrics)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Wood (non- construction)		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Yard Waste including leaves		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Other:		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Other:		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	
Other:		<input type="text"/> lbs. <input type="text"/> tons <input type="text"/> yd <sup>3</sup>	

Table C: Please provide any additional information, comments, suggestions, questions etc.

Thank you for taking the time to complete this survey.

## Appendix S Siting Strategy

The District's Siting Strategy includes the following:

Submission and review of general plans and specifications and application of the Siting Strategy to proposals to modify or construct solid waste facilities within the District must demonstrate how such modifications or construction of solid waste facilities within the District maximize the feasible utilization of existing in-District solid waste facilities.

For purposes of implementing the Siting Strategy, proposals to modify or construct a solid waste facility within the District, shall include the process by which the Board of Directors (Board) shall review proposals for the construction and modification of any solid waste facilities within the District, and determine whether such proposals comply with the District Plan.

### A. Purpose and Objective

The District's Siting Strategy for Solid Waste Facilities is to ensure that proposals to construct a new Solid Waste Facility within the District or modify an existing Solid Waste Facility within the District are in compliance with the Plan. The Board shall not approve the General Plans and Specifications for any proposed Solid Waste Facility 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;
- 2) interfere with the Board's obligation to provide the maximum feasible utilization of existing in-District Solid Waste Facilities;
- 3) materially and adversely affect the quality of life of residents within 300 feet of the proposed facility; or
- 4) have material adverse impacts upon the local community, including businesses within 500 feet of the proposed facility, including the adequacy of existing infrastructure to serve the proposed facility.

Except as otherwise provided herein, all proposed Solid Waste Facilities shall be subject to this Siting Strategy and shall comply with Rules to be adopted requiring the submission of general plans and specifications to the District.

- a. Exemption for District Facilities and Anticipated District Facilities: Solid Waste Facilities, including but not limited to yard waste management facilities, recycling facilities, transfer stations and other types of solid waste management facilities may be constructed by the District. Board approval of the costs associated with any construction, expansion or modification of such facilities shall constitute a determination by the Board that the

proposed construction, expansion or modification of such facilities complies with the Plan.

## **B. Siting Procedure and Limited Exemptions**

Notwithstanding the foregoing requirement, existing in-District solid waste facilities specifically identified in the Plan are not subject to the Siting Strategy unless the owner/operator of any such in-District solid waste facility proposes a modification to the operation of the in-District solid waste facility that:

- Requires the approval of the Director of the Ohio Environmental Protection Agency; or
- Involves a change in the type of material, manner of operation or activities conducted at the solid waste facility (i.e., a conversion of a legitimate recycling facility to a transfer station, or acceptance of food waste at a yard waste composting facility).

## **C. Requirements**

The District has an existing rule that supports the siting strategy listed in this appendix. DKMM Solid Waste Management District Rule 1.01 requires the following:

“Unless the Board of Directors of the District has issued a waiver in accordance with the procedures set forth pursuant to the DKMM Solid Waste Management Plan, no person, as that term is defined in Section 1.59 of the ORC, municipal corporation, township or other political subdivision, shall construct or modify any solid waste transfer, disposal, recycling or resource recovery facility until the general plans and specifications for the proposed construction or modification have been submitted to and approved by the Board of Directors of the District as fully in compliance with the DKMM Solid Waste Management Plan.”

## **D. Procedure Implementing Siting Strategy Information**

Applicants seeking approval for the construction of a new Solid Waste Facility to be located within the District, or the modification of an existing in-District Solid Waste Facility, shall follow the procedures set forth below unless the Board has granted an exemption or waiver from this requirement:

### **STEP 1: Submittal of General Plans and Specifications**

Any person, municipal corporation, township or other political subdivision proposing to construct a new Solid Waste Facility or modify an existing Solid Waste Facility within the District shall:

- a. Provide General Plans and Specifications for the proposed facility to the Director. The Director will then conduct an initial review, and within 20 days of receiving the General

Plans and Specifications will notify the Board of the submission. Such General Plans and Specifications shall include, but may not be limited to, the following documents and information:

- i. A site plan for the proposed Solid Waste Facility
  - ii. Architectural drawings or artists renderings of the proposed Solid Waste Facility
  - iii. Availability of necessary utilities
  - iv. Projected size and capacity of the proposed Solid Waste Facility
  - v. Hours of operation
  - vi. Anticipated source of solid waste or recyclable materials to be received at the proposed Solid Waste Facility. 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
  - vii. types and anticipated number of vehicles utilizing the proposed Solid Waste Facility on an hourly and daily basis
  - viii. Route to be used by vehicles utilizing the facility and methods of ingress and egress to the facility
  - ix. Any other information the Board deems necessary to evaluate whether the proposed Solid Waste Facility complies with each of the criteria listed below
- b. Adequately demonstrate to the Board that the construction or modification and subsequent operation of the proposed Solid Waste Facility will:
- i. Be consistent with the goals, objectives, projections and strategies contained in the Plan, including but not limited to the District's obligations to meet recycling and waste reduction goals or meet solid waste disposal capacity needs
  - ii. Not adversely affect financing for the implementation of the District's Plan
  - iii. Not adversely affect the Board's objectives for entering into contract designation agreements with existing in-District and out of-District solid waste facilities, including, but not limited to, promoting the maximum feasible utilization of existing in-District solid waste facilities in accordance with ORC 3734.52
  - iv. Be installed, operated, and maintained to be harmonious and appropriate in appearance and use with the existing or intended character of the area proximately located to the proposed construction or modification
  - v. Not create excessive additional requirements at public cost for essential public facilities or services, or be adequately served by existing essential public facilities or services
  - vi. Not be detrimental to the economic welfare of the community
  - vii. Not involve the excessive production of traffic, noise, smoke, fumes or odors

- viii. Have vehicular approaches to the property that are designed not to create an interference with traffic
- ix. Not result in the destruction, loss or damage of a natural, scenic, or historical feature of major importance
- x. Not adversely affect property values within the surrounding community. To the extent that any of the criteria listed above in b(i) through b(x) establishes a design standard that is addressed by rules of the Ohio Environmental Protection Agency for the issuance of a solid waste facility construction permit, the Board shall exclude such criteria from the Board's review of the General Plans and Specifications
- xi. The Applicant shall submit any additional information as the Board and/or Director requests to establish, to the satisfaction of Board, that the construction or modification and subsequent operation of the proposed Solid Waste Facility or proposed modification of an existing in-District Solid Waste Facility will comply with the Plan.

## **STEP 2: 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 will be constructed or modified and subsequently operated in compliance with the Plan and demonstrated that the impacts listed in Step 1 do not adversely affect the District, its residents and/or businesses. The Board may expend District funds to employ a consultant or consultants familiar with Solid Waste Facility construction and operation, land use planning and solid waste planning to assist the Board in implementing this Siting Strategy and in its determination of whether a proposed Solid Waste Facility or modification of an existing in-District Solid Waste Facility complies with the Plan.

Within sixty (60) days of receiving the General Plans and Specifications from an applicant, the Board shall make a determination 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 a majority of the Board determines that more information is necessary to complete its review of the proposal, the Board shall send the Applicant written notice of its decision and request for additional information within five (5) days of reaching its decision that additional information is required.

Within one hundred eighty (180) days of determining that the Applicant has submitted General Plans and Specifications containing information sufficient for the Board to complete its review of the proposal, the Board shall determine by majority vote whether the proposal complies with the Plan and the criteria identified in Step 1 herein and notify the Applicant of its decision in writing within five (5) days of reaching its determination. 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 and the criteria identified in Step 1 herein.

The Board has the authority, but is not obligated, to convene a seven (7) member Siting Committee to assist in the review of the General Plans and Specifications. If so constituted, the Siting Committee will be comprised of one member of the Board of Directors from each county within the District. The Chairman of the Board will select one additional member, the Policy Committee Chair will select one additional member, and a representative from the political jurisdiction where the facility is to be located will be selected by the other six Siting Committee members.

The purpose and objective of the Siting Committee shall be:

- To generally evaluate, prepare and submit advisory reports to the Board concerning the General Plans and Specifications submitted
- To confirm that the General Plans and Specifications meet local, District and Ohio EPA criteria, and advise the full Board of Directors of any concerns that the Siting Committee concludes should be referred to the appropriate local, District or Ohio EPA department or agency for their review, evaluation and action, if appropriate; and
- To ensure that proposals to construct or modify the Solid Waste Facility will not adversely affect the projections contained in the District Plan, or the ability of the District to finance implementation of the Plan.

The Siting Committee may request meetings with an Applicant to raise questions about the permit application or negotiate with the Applicant regarding specific community concerns. Within 90 days from the date the Board decided to convene a Siting Committee, the Siting Committee shall submit a recommendation to the Board of Directors whether the General Plans and Specifications comply with the Plan. The Siting Committee may request extensions from the Board to continue negotiations and review.

### **STEP 3: 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, the person, municipal corporation, township or other political subdivision proposing to construct or modify the Solid Waste Facility 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. The party proposing to construct a Solid Waste Facility shall have an ongoing obligation to comply with the Plan and the development agreement.

### **E. Waiver of Siting Strategy**

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 siting strategy rule or rules of the District, or unilaterally modify or amend the Siting Strategy if the Board concludes that 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 and further the District's goals with respect to solid waste management and waste reduction activities.

## Appendix T Miscellaneous Plan Documents

### CERTIFICATION STATEMENT FOR THE DRAFT PLAN

We as representatives of the policy committee for the Delaware-Knox-Marion-Morrow Joint Solid Waste Management District (District) do hereby certify that to the best of our knowledge and belief, the statements, demonstrations, and all accompanying materials that comprise the draft District's Solid Waste Management Plan Update, and the availability of and access to sufficient solid waste management facility capacity to meet the solid waste management needs of the District for the fifteen year period covered by the Plan Update are accurate and are in compliance with the requirements in the District Solid Waste Management Plan Format, version 4.1, the 2020 State Solid Waste Management Plan, and the Ohio Revised Code.

This resolution shall be in effect immediately upon its adoption.

This is to certify that the foregoing is a true and correct copy of the resolution passed by the Solid Waste Management District Policy Committee on July 23, 2024, and recorded in the Journal of said Policy Committee.

Date: 7/23/24

Total Yes Votes: 25

Total No Votes: 0

  
PAUL F. WISE  
Policy Committee Chairman



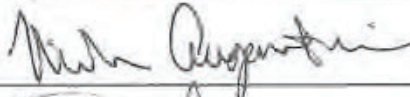
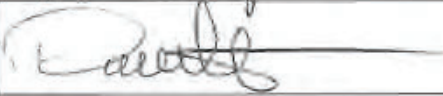
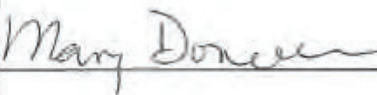
**Delaware County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner	<i>Jeff Bentz</i>	
Largest City	<i>Wm Ferrigno</i>	
Health District	<i>MSD Melissa Adams</i>	
Townships	<i>Ronald Bullard</i>	
Industry		
General Interest of Citizens	<i>Paul Wise PAUL F WISE</i>	
Public	<i>Eric White Eric White</i>	
Total Votes	6	

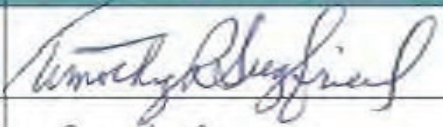

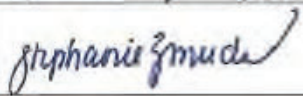

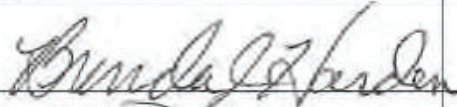
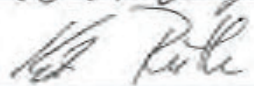
**Knox County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City		
Health District		
Townships		
Industry		
General Interest of Citizens		
Public		
Total Votes	6	

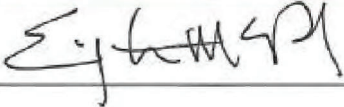
**Marion County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City		
Health District		
Townships		
Industry		
General Interest of Citizens		
Public		
<b>Total Votes</b>	6	

**Morrow County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City		
Health District		
Townships		
Industry		
General Interest of Citizens		
Public		
Total Votes	6	

**Member at Large**

Representation	Signature for YES Vote	Signature for NO Vote
Member at Large		
Total Votes	1	

**Resolution Adopting the Solid Waste Management Plan**

**Resolution # 2024- 12-12-01**

A RESOLUTION DECLARING THAT THE AMENDED SOLID WASTE MANAGEMENT PLAN FOR THE DELAWARE-KNOX-MARION-MORROW JOINT SOLID WASTE MANAGEMENT DISTRICT HAS BEEN ADOPTED.

WHEREAS, the Delaware-Knox-Marion-Morrow Joint Solid Waste Management District (District) completed the draft amended Solid Waste Management Plan (Plan) and submitted it to the Ohio Environmental Protection Agency (OEPA) for review and comment on July 24, 2024, and the OEPA provided comments in a non-binding advisory opinion on September 3, 2024.

WHEREAS, the District’s Policy Committee has reviewed the non-binding advisory opinion received from the OEPA and taken their comments into consideration and incorporated changes into the amended Plan as appropriate;

WHEREAS, the District has conducted a 30-day comment period from September 30, 2024, to October 29, 2024, and a public hearing held on October 30, 2024, to provide the public an opportunity to have comment on the Plan. No public comments were received through the above process;

NOW, THEREFORE, BE IT RESOLVED that the District Policy Committee:

1. Adopts the amended Plan as the District Plan, as amended by the Policy Committee for clerical, budgetary and language clarifications.
2. Certifies that, to the best of its knowledge and belief, the statements, demonstrations and all accompanying materials that comprise the District’s Plan, and the availability of and access to sufficient solid waste management facility capacity to meet the solid waste management needs of the District for the planning period, are accurate and are in compliance with the requirements of the District Solid Waste Management Plan Format Revision 4.1.
3. Directs that copies of the adopted Plan be delivered to the Boards of County Commissioners of Delaware, Knox, Marion and Morrow counties and to the legislative authority of each municipal corporation and township under the jurisdiction of the District for ratification.

This resolution shall be in effect immediately upon its adoption.






Date: 12/12/24  
 Total Yes Votes: 21  
 Total No Votes: 0

  
 \_\_\_\_\_  
 Policy Committee Chairman  
 Vice Chair

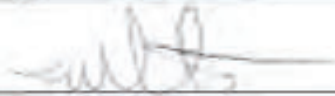
**Delaware County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner	<i>Barb Lewis</i>	
Largest City	<i>Shane Kelly</i>	
Health District	<i>Wendy Adams</i> <i>Wendy Adams</i>	
Townships		
Industry		
General Interest of Citizens	<i>Deana Brown</i>	
Public	<i>Jane Hawes</i>	
Total Votes	5	

**Knox County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City		
Health District		
Townships		
Industry		
General Interest of Citizens		
Public		
<b>Total Votes</b>	4	

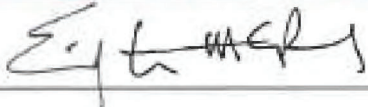
**Marion County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City	Jeff Shetler	
Health District	Van Coosop	
Townships		
Industry		
General Interest of Citizens	Mem Donaldson	
Public		
<b>Total Votes</b>	4	

**Morrow County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner	<i>County Commissioner</i>	
Largest City	<i>Derek K. Amy</i>	
Health District	<i>Jennifer J. J. J.</i>	
Townships	<i>T. White</i>	
Industry	<i>[Signature]</i>	
General Interest of Citizens	<i>Kate Vetter</i>	
Public	<i>Brendy Warden</i>	
Total Votes	7	

**Member at Large**

Representation	Signature for YES Vote	Signature for NO Vote
Member at Large		
Total Votes	1	

**Resolution Certifying the Draft, Amended  
Solid Waste Management Plan was Ratified**

**Resolution # 2025 -04-01**

The Policy Committee for the Delaware-Knox-Marion-Morrow Joint Solid Waste Management District (District) passed a resolution declaring that the District’s draft, amended Solid Waste Management Plan (Plan) was ratified in accordance with Section 3734.55 of the Ohio Revised Code.

WHEREAS, the Policy Committee adopted the draft and amended Plan on December 12, 2024;

WHEREAS, this Policy Committee received copies of resolutions and ordinances approving the draft, amended Plan from the boards of county commissioners, the legislative bodies of the largest municipality in each county within the District, and from legislative jurisdictions representing at least 60 percent of the residential population within the District;

NOW, THEREFORE, BE IT RESOLVED that the policy committee for the Delaware-Knox-Marion-Morrow Joint Solid Waste Management District declares that the draft, amended solid waste management Plan for the Delaware-Knox-Marion-Morrow Joint Solid Waste Management District was ratified in accordance with Section 3734.55 of the Ohio Revised Code, and the Policy Committee shall submit the draft, amended solid waste management plan to the director of the Ohio Environmental Protection Agency for review.

This is to certify that the foregoing is a true and correct copy of the resolution passed by the Solid Waste management District Policy Committee on the 22<sup>nd</sup> day of April 2025 and recorded in the Journal of said Policy Committee.

This resolution shall be in effect immediately upon its adoption.

Date: 4/22/25

Total Yes Votes: 21

Total No Votes: 0

Paul Wick

Policy Committee Chairman

**Delaware County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner	<i>Buck Lewis</i>	
Largest City	<i>Shirley M.</i>	
Health District	<i>WCA</i>	
Townships		
Industry	<i>George Poir</i>	
General Interest of Citizens	<i>Paul F. Ford</i>	
Public	<i>[Signature]</i>	
<b>Total Votes</b>	6	

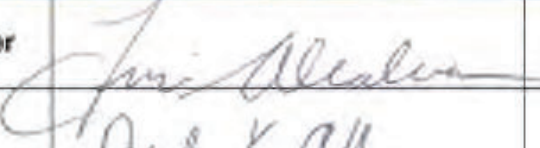
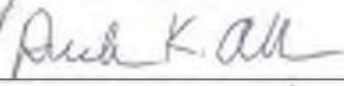
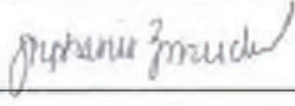

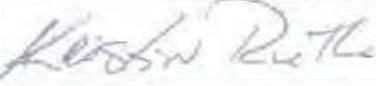
**Knox County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner	<i>Wm P. Russell</i>	
Largest City		
Health District	<i>ML</i>	
Townships	<i>David B. ...</i>	
Industry		
General Interest of Citizens		
Public	<i>Matt Bonghe</i>	
Total Votes	4	

**Marion County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City	<i>Jeff Stoltz</i>	
Health District	<i>Ho</i>	
Townships	<i>Wade Knight</i>	
Industry	<i>Paula</i>	
General Interest of Citizens	<i>May S. Donaldson</i>	
Public	<i>Michelle Koskovic</i>	
<b>Total Votes</b>	<b>6</b>	

**Morrow County**

Representation	Signature for YES Vote	Signature for NO Vote
County Commissioner		
Largest City		
Health District		
Townships		
Industry		
General Interest of Citizens		
Public		
<b>Total Votes</b>	5	

**Member at Large**

<b>Representation</b>	<b>Signature for YES Vote</b>	<b>Signature for NO Vote</b>
<b>Member at Large</b>		
<b>Total Votes</b>		

## Appendix U Ratification Results

**Table U-1 Ratification Summary**

<b>Delaware</b>			
<b>Board of County Commissioners</b>	<b>Approved</b>	<b>Rejected</b>	<b>Date Resolution Adopted</b>
		X	
<b>Community</b>	<b>Population</b>		<b>Date Resolution Adopted</b>
	<b>Approved</b>	<b>Rejected</b>	
<b>Cities</b>			
Delaware City	45,158		2/10/2025
Powell City	14,491		3/5/2025
Sunbury City	8,340		4/2/2025
<b>Townships</b>			
Berkshire Township	4,869		2/10/2025
Berlin Township	8,541		1/13/2025
Brown Township	1,543		1/14/2025
Concord Township	12,001		1/22/2025
Delaware Township	2,363		1/27/2025
Genoa Township	27,265		2/11/2025
Harlem Township	5,004		1/15/2025
Kingston Township	2,646		2/4/2025
Liberty Township	18,495		2/10/2025
Marlboro Township	no action taken		
Orange Township	33,457		2/7/2025
Oxford Township	1,035		2/11/2025
Porter Township	2,337		2/11/2025
Radnor Township	1,724		2/24/2025
Scioto Township	2,893		2/5/2025
Thompson Township	no action taken		
Trenton Township	2,515		2/5/2025
Troy Township	2,296		1/20/2025
<b>Villages</b>			
Ashley Village	1,318		2/4/2025
Galena Village	1,018		3/25/2025
Ostrander Village	1,197		2/4/2025
Shawnee Hills Village	915		3/10/2025
<b>Total</b>	<b>201,421</b>		
<b>County Population</b>			<b>202,483</b>
<b>Ratification percentage</b>			<b>99%</b>

<b>Knox</b>			
<b>Board of County Commissioners</b>	<b>Approved</b>	<b>Rejected</b>	<b>Date Resolution Adopted</b>
		x	
<b>Community</b>	<b>Population</b>		<b>Date Resolution Adopted</b>
	<b>Approved</b>	<b>Rejected</b>	
<b>Cities</b>			
Mount Vernon City	16,551		2/10/2025
<b>Townships</b>			
Berlin Township	1,775		3/19/2025
Brown Township	2,071		2/5/2025
Butler Township	1,277		1/15/2025
Clay Township	1,298		1/22/2025
Clinton Township	2,813		4/7/2025
College Township	334		2/12/2025
Harrison Township	881		1/20/2025
Hilliar Township	2,141		2/12/2025
Howard Township	5,975		2/20/2025
Jackson Township	1,046		2/13/2025
Jefferson Township	1,592		2/12/2025
Liberty Township	no action taken		
Middlebury Township	1,410		2/10/2025
Milford Township	1,955		1/13/2025
Miller Township	1,053		3/3/2025
Monroe Township	approved prior to ratification period		1-9-2025
Morgan Township	1,057		2/3/2025
Morris Township	2,077		2/3/2025
Pike Township	1,673		1-23--2025
Pleasant Township	no action taken		
Union Township	1,470		2/19/2025
Wayne Township	no action taken		
<b>Villages</b>			
Centerburg Village	1,671		2/3/2025
Danville Village	996		2/24/2025
Fredericktown Village	2,619		2/18/2025
Gambier Village	2,330		4/8/2025
Brinkhaven Village	no action taken		
Martinsburg Village	no action taken		
<b>Total</b>	<b>56,065</b>		
<b>County Population</b>	<b>63,301</b>		
<b>Ratification percentage</b>	<b>89%</b>		

<b>Marion</b>			
<b>Board of County Commissioners</b>	<b>Approved</b>	<b>Rejected</b>	<b>Date Resolution Adopted</b>
		x	
<b>Community</b>	<b>Population</b>		<b>Date Resolution Adopted</b>
	<b>Approved</b>	<b>Rejected</b>	
<b>Cities</b>			
Marion City	35,531		2/24/2025
<b>Townships</b>			
Big Island Township	1,180		1/21/2025
Bowling Green Township	565		1/22/2025
Claridon Township	2,276		3/4/2025
Grand Township	348		2/17/2025
Grand Prairie Township	1,542		3/19/2025
Green Camp Township	no action taken		
Marion Township	7,862		2/4/2025
Montgomery Township	no action taken		
Pleasant Township	4,959		3/18/2025
Prospect Township	946		1/13/2025
Richland Township	1,798		2/3/2025
Salt Rock Township	239		1/14/2025
Scott Township	no action taken		
Tully Township	843		1/14/2025
Waldo Township	808		2/11/2025
<b>Villages</b>			
Caledonia Village	550		3/3/2025
Green Camp Village	304		1/20/2025
LaRue Village	673		2/3/2025
Morrall Village	371		2/10/2025
New Bloomington Village	414		2/10/2025
Prospect Village	1,052		1/20/2025
Waldo Village	no action taken		
<b>Total</b>	62,261		
<b>County Population</b>	64,851		
<b>Ratification percentage</b>	96%		

<b>Morrow</b>			
<b>Board of County Commissioners</b>	<b>Approved</b>	<b>Rejected</b>	<b>Date Resolution Adopted</b>
		x	
<b>Community</b>	<b>Population</b>		<b>Date Resolution Adopted</b>
	<b>Approved</b>	<b>Rejected</b>	
<b>Cities</b>			
None			
<b>Townships</b>			
Bennington Township	3,018		2/5/2025
Canaan Township	906		1/14/2025
Cardington Township	1,011		1/13/2025
Chester Township	1,811		1/27/2025
Congress Township	2,956		2/10/2025
Franklin Township	1,631		1/13/2025
Gilead Township	2,025		2/13/2025
Harmony Township	2,608		2/4/2025
Lincoln Township	1,833		1/21/2025
North Bloomfield Township	1,843		2/10/2025
Perry Township	1,978		3/10/2025
Peru Township	1,517		1/20/2025
South Bloomfield Township	1,723		2/13/2025
Troy Township	1,214		2/3/2025
Washington Township	no action taken		
Westfield Township	no action taken		
<b>Villages</b>			
Cardington Village	2,101		2/3/2025
Chesterville Village	195		1/27/2025
Edison Village	441		1/13/2025
Fulton Village	no action taken		
Marengo Village	no action taken		
Mount Gilead Village	3,533		2/18/2025
<b>Total</b>	<b>32,344</b>		
<b>County Population</b>	<b>35,595</b>		
<b>Ratification percentage</b>	<b>91%</b>		

## 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 (address or description of site location)	Materials at Site (solid waste and/or scrap tires)
None	

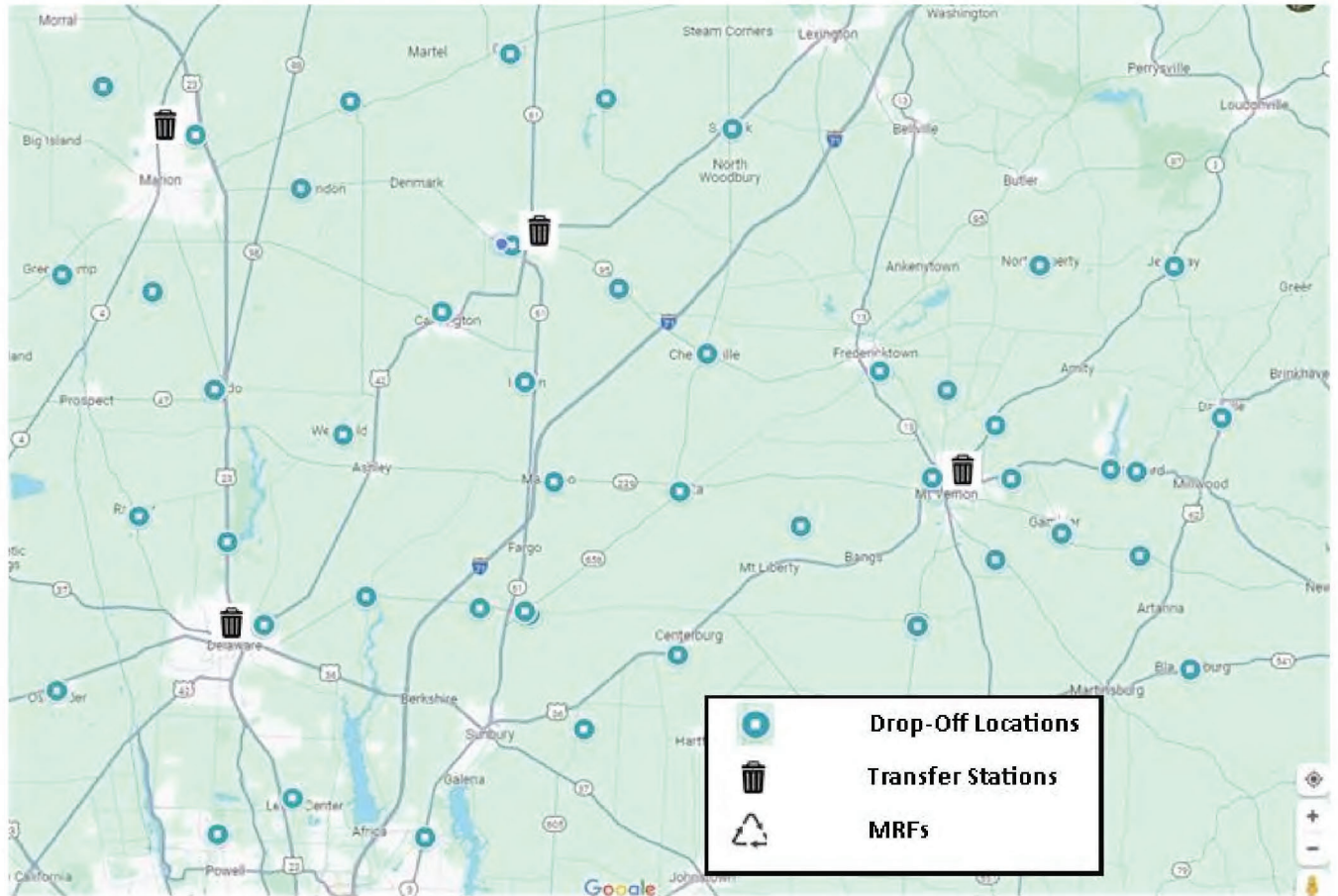
### B. Ash, Foundry Sand, and Slag Disposal Sites

**Table V-2 Existing Ash, Foundry Sand, and Slag Disposal Sites**

Site Location (address or description of site location)	Materials at Site (fly ash, bottom ash, foundry sand, slag)
None	

## Appendix W District Map

A map showing the locations of solid waste facilities, material recover facilities, and recycling drop-offs.



**SOLID WASTE**  
**APPROVED**  
OHIO ENVIRONMENTAL PROTECTION AGENCY  
December 12, 2025  
AS EVIDENCED BY COPY OF  
LETTER OF APPROVAL  
ATTACHED HERETO