



MUNICIPAL WASTE MANAGEMENT PLAN

DRAFT FOR REVIEW

2023 NONSUBSTANTIAL REVISION

ADOPTION DATE, _____ 2022

COUNTY OF DAUPHIN

County Administration Building
2 South Second Street
Harrisburg, PA 17101

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DAUPHIN COUNTY

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EXECUTIVE SUMMARY

The County adopted its most recent Non-Substantial Plan Revision on October 23, 2013.

This 2023 Non-Substantial Plan Revision is submitted in accordance with §§ 272.251 and 272.252 of the Department's regulations. The primary purpose of this Non-substantial Plan Revision is to update waste generation data and provide a ten year projection of waste disposal needs within the County. No substantive changes to the County's Flow Control Plan are proposed in this Non-substantial Plan Revision.

The contents of this Non-substantial Plan Revision are those required by § 272.252(c)(2). To ensure completeness, Chapters are provided for each of the Plan contents specified by §§ 272.221 – 272.233, but the information in each Chapter is limited to a discussion of the changes or updates from the 2013 Plan Revision (see § 272.252(c)(1)). Hence, some Chapters of this Non-substantial Plan Revision contain extensive data and discussion, while others are minimal or merely recite that no changes from the 2005 Plan Revision are proposed.

DEFINITIONS

The terms as defined in the 2013 Non-Substantial Plan Revision remain valid with the following additions or revisions:

DAUPHIN COUNTY TONNAGE:

All Municipal Waste generated within the County.

DESIGNATED CONSTRUCTION & DEMOLITION WASTE FACILITY

Facilities designated by the County for the processing and disposal of Regulated C&D Waste.

DESIGNATED REGULATED MUNICIPAL WASTE FACILITY

The Susquehanna Resource Management Complex (SRMC)., owned and operated by LCSWMA

HAULERS:

Persons engaged in the collection, storage or transportation of Regulated Municipal and/or Construction and Demolition Wastes generated within Dauphin County.

REGULATED MUNICIPAL WASTE:

Any garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material, resulting from operation of residential, municipal, commercial or institutional establishments and from community activities and any sludge not meeting the definition of residual or hazardous waste in the Solid Waste Management Act from a municipal, commercial or institutional water supply treatment plant, wastewater treatment plant or air pollution control facility. The term does not include source-separated recyclable materials.

REGULATED CONSTRUCTION & DEMOLITION WASTE

Construction and demolition waste generated or collected in Dauphin County including the City of Harrisburg,

REGULATED MUNICIPAL WASTE (RMW)

Municipal Waste generated in Dauphin County including the City of Harrisburg.

REGULATED WASTE

Regulated Municipal Waste and Regulated C&D Waste.

CHAPTER ONE | Description of Waste

1.1 PURPOSE

The primary purpose of this chapter is to describe the quantity of Municipal Solid Waste (MSW) and Construction/Demolition (C&D) Wastes currently generated within the borders of Dauphin County, and to project the quantity of MSW and C&D Waste that will be generated within the next ten (10) years (2023–2033). Other wastes reported herein include sewage sludge, Infectious/Chemotherapeutic wastes (ICW), and Household Hazardous Wastes (HHW).

1.2 MUNICIPAL SOLID WASTE

The MSW portion of the County’s solid waste stream consists of waste generated by the residential, commercial, and institutional sectors. Table 1-2 reports the quantities of municipal waste disposed from 2019-2021. For purposes of Table 1-2, MSW is reported as the sum of Municipal Waste and Residual Waste as recorded by DEP.

**Table 1-2
Regulated MSW Generation and County Population 2019 to 2021**

YEAR	POPULATION	MUNICIPAL WASTE ANNUAL TONNAGE (1)	TONS PER CAPITA
2019	275,630	243,346	0.88
2020	286,400	246,730	0.86
2021	287,400	295,797	1.03
AVERAGES:	283,143	261,958	0.92

(1) Source: PADEP MSW Disposal Reports; sum of Municipal and Residual Waste.

1.3 CONSTRUCTION/DEMOLITION WASTE

Dauphin County has authorized via contract a total of three (3) C&D Waste landfills (see § 2.1.2). The primary sources of C&D waste are construction, renovation, and demolition projects. C&D Waste generally consists of wood debris; plaster and metals; and asphaltic substances, brick, block and concrete generated from the construction or demolition of buildings and other structures. C&D Waste is managed as Municipal Waste under §287.2(b) of the Department’s regulations.

The amount of C&D Waste generated in Dauphin County for disposal at designated landfills on an annual basis and population figures are provided on Table 1-3.

Table 1-3.1

Dauphin County C&D Waste Disposed and Population, 2019 to 2021.

Year	Population	C&D Disposal (tons)	Annual Tons (per capita)
2019	275,630	107,429	0.39
2020	286,400	78,378	0.27
2021	287,400	82,686	0.29
Average:			0.32

Source: DEP Waste Disposal Reports

1.4 SEWAGE SLUDGE

1.4.1 Treatment Facilities

To update data on biosolids generation, the County conducted a survey of all public sewage treatment facilities within the County. A list of all biosolids generators was provided by the Department of Environmental Protection, Southcentral Regional Office, Bureau of Water Quality Management. The County is presently served by 20 public sewage treatment facilities and 71 private treatment facilities. The private facilities are categorized as follows:

Table 1-4-a**Private Sewage Treatment Facilities by Type**

Sewage Facility Type	Quantity
Private Residence	21
Mobile Home Park& Apartments	11
Subdivision	4
School	3
Industry	19
Hotel, Campground, Church	6
Gas Station or Truck Stop	5
Casino/Racetrack	1
Airport	1

A survey to collect data on sewage sludge disposal was mailed to all public sewage treatment facilities in the County in 2022. Table 1-4b identifies the methods of sewage sludge disposal reported by the public treatment facilities and the total tons disposed by each method in the County in 2021.

Sludge generation is dependent on population and, to some degree, industrial activity. Sludge generation is projected to increase at the same rate as population, approximately 1.2% per year. Each municipality is responsible for disposing of its sludge under the DEP regulations and the County does not regulate or track that activity.

**Table 1-4-b
Public Sewage Treatment Facilities
2021 Biosolids Generation & Disposal Methods**

Authority/Wastewater Treatment Facility	Generation (Dry tons)	Generation (Wet tons)	Land Applied	Landfilled	Other
Berrysburg Borough	2.8	280.4			283.2
Dauphin Borough	DNR				
Derry Township	3,361	-	1267.06	2,093.94	-
East Hanover Grantville	58.2	735k Gallons	-	-	58.2 + 735k
East Hanover Dairy Ln	DNR				
Elizabethville Borough	DNR				
Gratz Borough	DNR				
Halifax	DNR				
Harrisburg City	2,685	15,293	18,416	1,948	
Highspire Borough	101.5	494.2		101.5	494.2
Lower Paxton/ Springford Village	DNR				
Lykens Borough	188.37	-	-	-	-
Middletown Borough	DNR				
Millersburg Borough	91.18	-	50.83	-	40.36
Swatara Township	DNR				
Washington Township	DNR				
West Hanover Twp.	293.82	1168.61	1462.43	-	-
Wiconisco Village Township	DNR				
Williamstown Borough	-	15.44	15.44	-	-

DNR: Did not respond.

1.4.2 Septage Haulers

The following DEP- licensed septage waste haulers are reported to operate in the County.

**TABLE 1-4-2
List of Approved Septage Haulers**

Septage Hauler	Location	Telephone
Associated Product Services, Inc.	Mechanicsburg, PA 17050	(717) 766-5397
Bauman's Septic Service	Grantville, PA 17028	(717) 469-2463
Baker's Septic Service	* No Address Provided	(717) 367-7271
Blue Chip Services	Harrisburg, PA 17101	(717) 238-3991
Central Penn Septic LLC	Mechanicsburg, PA 17055	(717) 766-1280
Charlie's Septic Service	Annaville, PA 17003	(717) 679-5359
Collins Trucking, Inc.	Lebanon, PA 17046	(717) 274-3131
Dillsburg Excavating & Septic, Inc.	Dillsburg, PA 17019	(717) 638-9573
Gerberich-Hoffman Septic Service	Hummelstown, PA 17036	(717) 867-5024
Groff's Septic Service	* No Address Provided	(717) 776-7402
Hoke's Septic Service	Harrisburg, PA 17112	(717) 599-5794
Hoke's Septic Service	Halifax, PA 17032	(717) 896-7867
Kauffman's Septic Service	Middletown, PA 17057	(717) 944-4308
Kline's Services, Inc.	Landisville, PA 17538	(717) 898-8158
Litzenberger's Septic Service	Lebanon, PA 17046	(717) 865-2478
Masser & Smeltz Inc.	Halifax, PA 17032	(717) 896-8228
Mr. Rooter	* No Address Provided	(877) 766-8396
Page Septic LLC dba Li'l Mtn Honey Dippers	Skyline View, PA	(717) 865-5752
Peterman Brothers Septic Service	Hummelstown, PA 17036	(717) 566-1182
ProTank Limited	* No Address Provided	(866) 776-8265
Roto-Rooter Plumbing & Drain Services	Harrisburg, PA 17111	(717) 234-3332
Roto-Rooter Plumbing	Middletown, PA 17057	(717) 944-5774
Roush Roy Septic Cleaning	Middletown, PA 17057	(717) 944-4308
Septic Solutions	Myerstown, PA 17067	(717) 933-5819
Tillett Inc.	Palmyra, PA 17078	(717) 838-9664
Walters Services	Grantville, PA 17028	(877) 826-7511
Young's Sanitary Septic Service, Inc.	* No Address Provided	(717) 691-9360

1.5 INFECTIOUS/CHEMOTHERAPEUTIC WASTES

Generators of infectious and chemotherapeutic wastes (“ICW”) are hospitals, nursing homes, outpatient clinics, and dental, medical and veterinarian offices. Generators either process ICW onsite by way of incineration or autoclave, or transport such wastes to processing facilities. The ash and processed waste is then disposed of at designated landfills. The PaDEP ensures safe and proper transportation of ICW through a comprehensive hauler licensing program and the County does not regulate it or include in its flow control scheme.

The County surveyed the two hospital providers in the County, UPMC (which operates two hospitals) and the Penn State Milton S. Hershey Medical Center, concerning the way they treat ICW at their facilities. Penn State Hershey did not reply to the County’s inquiries. UPMC Pinnacle reported that all Infectious Waste and Chemotherapeutic wastes are collected and disposed of by a private contractor, Stericycle.

Table 1-5 presents ICW generation data obtained from UPMC; Infectious Waste figures are the sum of reported Medical Waste and Sharps from UPMC’s two hospitals. Penn State Hershey Medical Center did not respond to the data request.

Table 1-5
Dauphin County ICW Generation, UPMC 2019 – 2021

YEAR	INFECTIOUS WASTE (TONS)	CHEMOTHERAPEUTIC WASTE (TONS)
2019 †	19.5	4.9
2020	251.3	16.6
2021	234.0	13.76

Sources: UPMC Data Response to County Inquiry
(† 2019 data are for September--December)

1.6 HOUSEHOLD HAZARDOUS WASTE

The County has been using a curbside HHW program since the late 1990s and will discontinue the Waste Management, Inc.’s “At Your Door” program in 2022. The County will implement an annual HHW drop-off event, one time per year, unless otherwise necessary to host additional events to increase participation. The County will consider and investigate other permanent options for HHW during this planning period.

As a result of these initiatives, it is expected that the proper disposal of HHW will increase in the future and less HHW will find its way into the Municipal Solid Waste stream.

1.7 COMMUNITY EVENTS RECYCLING OPPORTUNITIES

The County will provide guidance on available resources and how to develop a recycling collection program for community events. The County owns two recycling trailers available, as requested, to encourage recycling at community events while reminding the residents and businesses that recycling is always appropriate.

Table 1-7 provides a list of Dauphin County’s major annual community special events and activities.

Table 1-7
Annual Community Special Events and Activities

Event	Location/Municipality	Month of Event
PA Farm Show	Farm Show Complex & Expo Center / Harrisburg	January
PA Auto Show	Farm Show Complex & Expo Center / Harrisburg	January
Eastern Sports & Outdoors Show	Farm Show Complex & Expo Center / Harrisburg	February
PA Garden Expo	Farm Show Complex & Expo Center / Harrisburg	February
Wetlands Festival	Wildwood Lake & Nature Center / Harrisburg	April
Arts Festival	Riverfront Park / Harrisburg	May
Shakespeare In The Park	Reservoir Park / Harrisburg	June
Annual Arts & Crafts Fair	Hoffer Park / Middletown	June
Jazz & Multi-Cultural Festival	Riverfront Park & City Island / Harrisburg	July
Ned Smith Center Nature and Arts Festival	Ned Smith Center / Millersburg	July
Annual July 4th Celebration	Millersburg	July
Dauphin County Cultural Festival	Downtown Harrisburg / Harrisburg	August
KIPONA Celebration	Riverfront Park & City Island / Harrisburg	September
Annual Fishing Derby	Jackson Lick Pool / Harrisburg	September
Gratz Fair	Gratz Fair Grounds / Gratz Borough	September
PA National Horse Show	Farm Show Complex & Expo Center / Harrisburg	October
Harrisburg Holiday Parade	Downtown Harrisburg, City Island / Harrisburg	November
New Year's Eve Celebration	Downtown Harrisburg / Harrisburg	December
New Year's Eve Celebration	Downtown Hershey / Derry Township	December
New Year's Eve Celebration	Downtown Hummelstown Borough	December
Harrisburg Senators Baseball	City Island / Harrisburg	Seasonal
Hershey Bears™ Hockey	Giant Stadium / Derry Township	Seasonal
City Islanders™ Soccer	City Island / Harrisburg	Seasonal
Harrisburg University Concert Series	Riverfront Park / Harrisburg	Seasonal

1.8 PROJECTED MSW GENERATION, 2023 to 2032

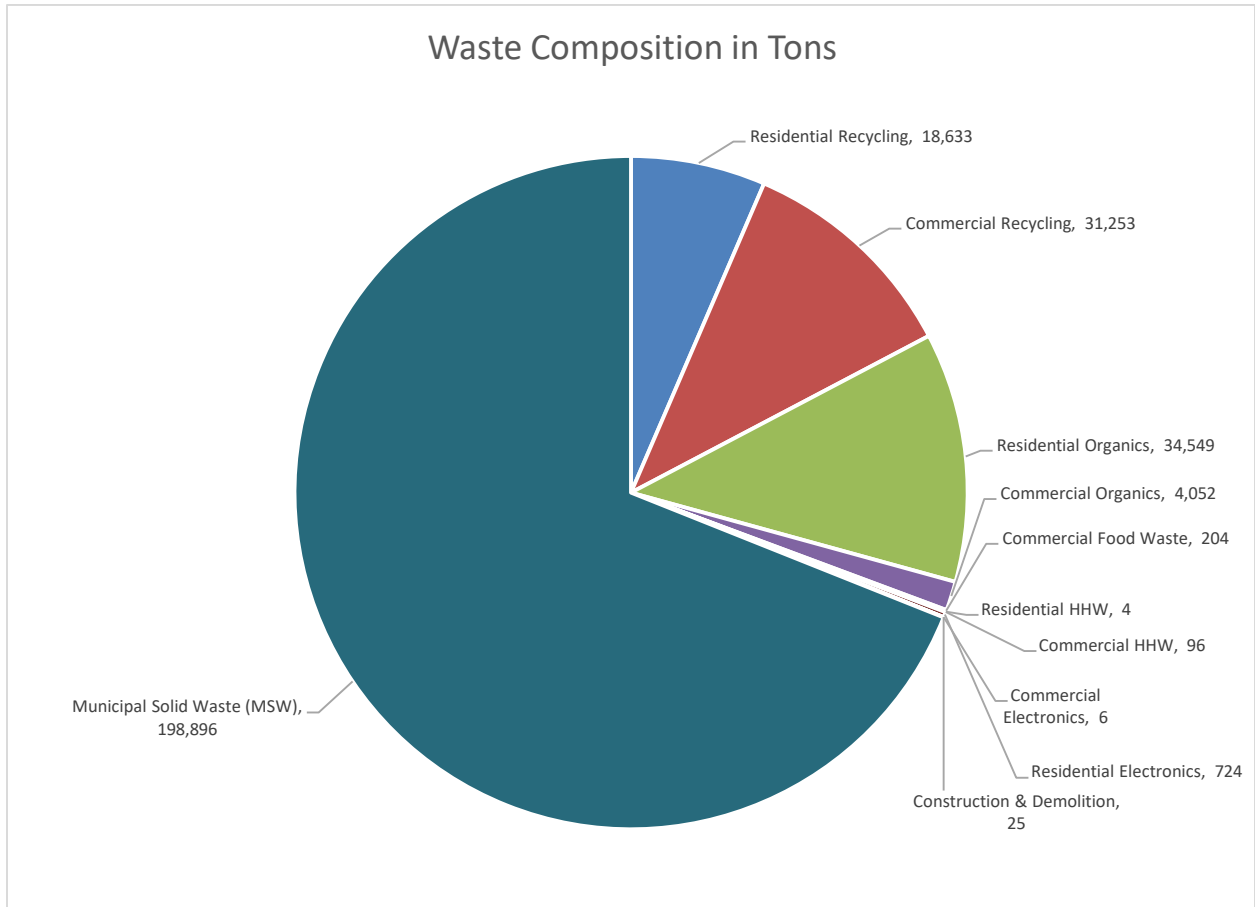
Table 1-8 projects the amount of MSW generated and disposed in the years 2023 to 2032. The projections are based on an historical rate of annual population growth of 0.5% per the US Census, an estimated 2022 population of 282,600, and the average of 0.92 tons per capita per year MSW derived from previous years.

**Table 1-8
Population and MSW Generation Projections 2023-2032**

YEAR	POPULATION	MSW (TONS)
2023	284,000	261,280
2024	285,430	262,600
2025	286,860	263,910
2026	288,295	265,230
2027	289,740	266,560
2028	291,180	267,890
2029	292,640	269,230
2030	294,100	270,575
2031	295,570	271,930
2032	297,050	273,290

FIGURE 1

Source: PaDEP 2021 MSW Disposal & ReTrac data.



1.9 PROJECTED C&D GENERATION: 2023 to 2032

Table 1-9 projects the amount of C&D waste generated and disposed in the years 2023 to 2032. The projections are based on an historical rate of population growth (0.5%) and the average of 0.32 tons per capita per year C&D derived from Table 1-3.

**Table 1-9
Population and C&D Waste Generation Projections 2023-2032**

YEAR	POPULATION	C&D (TONS)
2023	284,000	90,880
2024	285,430	91,337
2025	286,860	91,795
2026	288,295	92,254
2027	289,740	92,716
2028	291,180	93,178
2029	292,640	93,645
2030	294,100	94,112
2031	295,570	94,582
2032	297,050	95,056

CHAPTER TWO | Description of Facilities

2.1 Municipal Waste

Throughout the planning period of this Non-substantial Plan Revision, the SRMC will have ample capacity to accept and process all MSW generated in Dauphin County. The SRMC can process approximately 280,000 tons per year. It is noted on the DEP reports that several non-designated facilities accepted Dauphin County MSW from 2019 to 2021. The County was not aware of this and will investigate and will notify the facility to reject any future loads.

Table 2-1-1

Tons of County-Generated MSW Processed or Disposed of by Facility: 2019 to 2021

Table 2-1-1 identifies each facility that disposed or processed County MSW from 2019 to 2021. When the SRMC is not able to accept waste, MSW was directed to the Designated Bypass Facilities. Source: PaDEP MSW Disposal Database

Facility Name	MSW Designated Facility	MSW			Residual		
		2019	2020	2021	2019	2020	2021
ADS Greentree Landfill		0	0	0	5.8	46.4	12.7
ADS Mosteller Landfill		0	0	0	113.5	265.9	0
ADS Sandy Run Landfill		0	333.2	0	3,306.6	333.2	189.1
Blue Ridge Landfill		0	0	0	0	0	282.9
Chester County Lanchester Landfill		0	4.1	0	0	0	0
Clinton County/Wayne Twp. Landfill		0	0	0	1.1	0.2	1.7
Commonwealth Environmental Systems Landfill		90.5	5.7	14.1	1307.4	1,535.9	1,705.7
Chrin Bros. Landfill		0	0	107.8	0	0	1.0
Conestoga Landfill		0	0	0	40.4	8.6	0
Cumberland County Landfill		305.5	37.6	77.2	19,614.5	15,803.4	37,436.9
Fairless Landfill		0	0	0	73	6,877.2	26,194
LCSWMA Frey Farm Landfill	Y	0	0	0	0	0	0
LCSWMA Susquehanna Resource Mgmt. Complex (WTE)	Y	190,790.4	181,450.1	197,932.8	7,254.5	8,629.7	9,369.7
LCSWMA Resource Facility (WTE)	Y	1,863.6	4,994.5	568.2	4,080.1	3,312.8	3,167.1
Lycoming County Landfill		0	0.3	6.5	310	170.2	350.2
Modern Landfill		0	0	0	7,082.7	8,752.0	5,595.1
Mountain View Reclamation Landfill		20.5	0	0	10,506.1	10,953.6	12,027.4
Pioneer Crossing Landfill		0	0	0	4.5	1,858.6	726.2
York County Resource Recovery Facility (WTE)		0	0	0	1.8	3.3	3.3
TOTALS:		193,070.5	186,825.5	198,706.6	53,702	58,551	97,063

2.1.2 Construction & Demolition (C&D) Waste

All C&D Waste generated within Dauphin County is accepted at three designated C&D Waste disposal facilities, as well as the SRMC. The designated facilities are shown on Table 2-3; those that accepted C&D Waste during 2019–2021 are shown on 2-1-2. It is noted that DEP reports several facilities that are not designated for such, as having accepted County C&D waste. The County was not aware of these events and will investigate and either enter into contracts for additional C&D waste disposal or notify the facility to reject any future loads. It is noted on the DEP reports that several non-designated facilities accepted Dauphin County MSW from 2019 to 2021.

Table 2-1-2
County-Generated C&D Waste Disposed of
by Facility, 2019 – 2021¹

Facility Name	2019 Tons/pct of total	2020 Tons/pct of total	2021 Tons/pct of total
ADS Sandy Run Landfill	0	0	494.4
IESI Blue Ridge Landfill	17.6	4.9	116.5
Commonwealth Environmental Systems	2,439.9 (2.2%)	1,237.4 (1.6%)	1,239.8 (1.5%)
Cumberland County Landfill	2,124.8 (1.9)%	458.6	1,225.4 (1.5%)
LCSWMA SRMC	36,184.6 (33.7%)	29,921.8 (38.2%)	34,374.4 (41.6%)
LCSWMA Frey Farm Landfill	49,977.7 (46.5%)	32,826.0 (41.9%)	33,494.4 (40.5%)
Modern Landfill	13,916.4 (13.0%)	9,803.1 (12.5%)	10,124.5 (12.2%)
Mountain View Reclamation Landfill	2,120.0 (2.0%)	2,304.8 (2.9%)	1,344.7 (1.6%)
Chrin Bros Landfill	0	0	22.4
Clinton County Wayne Twp	61.0	1,463.8 (1.9%)	4.9
Conestoga	0	0	15.1
Fairless	584.1	356.6	224.8
Lycoming County	0	0.7	0
Pioneer Crossing	0	0	5.2
TOTAL C&D (Table 1-3)	107,426.1	78,377.7	82,686.5

¹ Designated C&D Waste facilities not listed on Table 2-1-2 did not report receiving any C&D Waste during the reporting period. Source: PaDEP MSW Disposal Reports. Percentages less than 1% not displayed.

2.2 REMAINING PERMITTED CAPACITY OF DESIGNATED FACILITY(S)

As projected in Table 1-8, by 2032 Dauphin County will generate approximately 273,000 tons per year of MSW, which is 97% of the capacity of the SRMC. Pursuant to the Delegation Agreement with the LCSWMA, as discussed in the 2013 Non-Substantial Plan Revision, the capacity of the SRMC will be augmented by the capacity of the LCSWMA Waste-to-Energy Facility and the Frey Farm Landfill if necessary. The Delegation Agreement ensures that adequate disposal capacity for Regulated Municipal Waste will exist for the Term of this Non-substantial Plan Revision.

2.3 DESCRIPTION OF EXISTING FACILITIES

Each of the available facilities was described in detail in the 2005 Plan Revision and updated in the 2013 Non-substantial Plan Revision. Table 2–3 provides a summary of the existing contracts with C&D Disposal Facilities. Since the availability of the LCSWMA Waste-to-Energy Facility and Frey Farm Landfill owned by the LCSWMA avoids the need for other designated Bypass Waste facilities, pre-existing contracts for Bypass Waste will expire by their terms and will not be renewed. Contracts for Regulated C&D Waste Disposal will be negotiated upon their expiration (a Model Contract is provided in Appendix D).

Table 2-3
Summary of Current Designated Bypass and Designated C&D Facilities Contracts

Disposal Facility	Bypass	C&D	Contract Expiration
Cumberland County Landfill	X		November 2026
Frey Farm Landfill (LCSWMA)	X	X	November 2024
Lancaster Waste to Energy Facility (LCSWMA)	X		December 2033
Susquehanna Resource Management Complex (LCSWMA)		X	December 2033
Mostoller Landfill	X		November 2026
Mountain View Reclamation Landfill	X		February 2026
Sandy Run Landfill	X		November 2026
Wayne Township Landfill		X	December 2024

2.4 THIS PLAN DOES NOT IMPAIR USE OF EXISTING FACILITIES

This Plan does not substantially impair the use of the remaining permitted capacity, or the capacity that could be made available through reasonable expansion of Existing Facilities as defined at 25 Pa. Code § 272.224(b)(2). The County will not interfere with, or attempt to interfere with, the efforts of facilities to find Municipal Waste customers whose Municipal Waste does not comprise part of the Dauphin Tonnage.

2.5 EFFECT OF RECYCLING ON EXISTING FACILITIES

Recycling will continue to have a positive impact on the operation and available processing capacity of the SRMC. Recycling of single stream materials, various grades of paper, metals, and organics will assure that the capacity needed at the SRMC to process MSW will be available throughout the planning period. Additionally, the County-sponsored recycling of electronics will reduce the number of heavy metals, such as lead and mercury, processed at the SRMC.

The implementation of a drywall recycling program, detailed in Section 4.2 will remove from the waste stream approximately 4,000 tons per year of material that is currently being landfilled in Designated C&D Waste facilities. This initiative will have a positive impact on the available capacity of the Designated C&D facilities as this material will be recycled rather than disposed.

CHAPTER THREE | MSW Estimated Future Capacity

3.1 PROJECTION OF MSW DISPOSAL CAPACITY NEEDS, 2023–2032

Descriptions of MSW and other wastes generated from 2019 through 2021 are provided in Chapter 1 and projections of future County Tonnage are provided on Table 1-8 for Municipal Waste and on Table 1-9 for C&D Waste.

3.2 NO DEFICIENCY IN REGULATED MUNICIPAL WASTE DISPOSAL CAPACITY, 2013–2022

As discussed in Section 2.2 the projected rate of disposal through 2032 will not exceed the capacity of the Designated RMW Facility (the SRMC), when supplemented with designated Bypass Facilities.

CHAPTER FOUR | Description of Recyclable Materials

4.1 DESCRIPTION OF RECYCLABLE MATERIALS

This Chapter describes the recyclable materials generated within the County. Table 4-1 below identifies the Residential and Commercial tonnages by material type for 2021.

Table 4-1

Composition of Residential and Commercial Recycling Streams—2021

Source: PaDEP ReTRAC database, except Electronics data from County records

Recyclable Material	Residential TONS	Commercial TONS	Total TONS
Cardboard	1,550	10,983	12,533
Commingled	0	561	561
Construction & Demolition Waste	0	25	25
Electronics	724	6	730
Food Waste	0	204	204
Glass	164	0	164
HHW & CHW	4	96	100
Metals	340	2,898	3,238
Miscellaneous	0	41	41
Newspaper	350	0	350
Office & Mixed Paper	104	1,247	1,351
Plastics	241	375	616
Single Stream	15,873	15,148	31,021
Tires	11	775	786
Yard Waste/Organics	34,549	5005	39,554
TOTAL	53,910	37,364	91,274

The following sections provide greater detail about the main recyclable material streams in the County.

4.1.1 Single Stream

Single stream recyclables are collected curbside from residential units and to a lesser extent, from commercial properties. Single stream tonnages have steadily increased as haulers have transitioned to this collection method in the past few years. A corresponding decrease has been seen in commingled materials and newsprint tonnages as these materials now constitute single stream. Another reason for the steady increase in single stream is that the recycling facilities that haulers are delivering this material to are accepting a wider array of paper in the mix, such as magazines, non-corrugated cardboard (chipboard), junk mail, office paper, etc. Single stream tonnages are expected to continue to increase with additional paper grades being added, as well as the population growth leading to more residential units in the County.

4.1.2 Yard Waste/Organics

Act 101, Section 1501(c)(1)(ii) and (iii), requires persons in mandated municipalities to separate leaf waste from other municipal waste generated at residential, commercial, municipal and institutional establishments. “Leaf waste” is defined in the Act and its regulations as “Leaves, garden residues, shrubbery and tree trimmings, and similar material, but not including grass clippings.” Ten municipalities within Dauphin County have composting programs for leaf and yard waste, a list of these facilities is provided in Section 6.3. The amount of organic waste that was reported by Dauphin County municipalities for the years 2019 to 2021 is shown on Table 4–1–2. These data are also included in the Recycling data on Table 4–1.

Table 4-1-2 Residential and Commercial Organic Waste

Source: PaDEP Re-TRAC data

Year	Residential Organics	Commercial Organics	Total Tons
2019	18,303	2,410	20,713
2020	19,258	5,515	24,773
2021	34,549	5,005	39,554

4.1.3 Electronic Equipment

The County initially began an e-Cycling program in 2002 by way of one-day drop-off events; and continued to have semi-annual one day drop-off events at the Harrisburg Area Community College until October 2008. On April 21, 2009 the Dauphin County Recycling Center opened to accept electronics for recycling from County residents, institutional establishments, and non-profits. Some items are also accepted from out-of-County residents as resources permit. In addition to electronics collection at the Dauphin County Recycling Center, the County has added a secure drop off site for electronics at the West Hanover Township Public Works site. The West Hanover site services both East Hanover and West Hanover Townships.

The amount of electronic equipment recycled by Dauphin County for the years 2019 to 2021 is shown on Table 4-1-3 below.

Table 4-1-3 eCycling Data, 2019-2021

Source: Dauphin County Department of Solid Waste Management & Recycling & PADEP ReTrac.

Year	County Drop-Off Electronics	Commercial Electronics	Total Tons
2019	856	32	888
2020	676	-	676
2021	724	6	730

4.1.4 Summary of Recycling Rate

Table 4-1-4 provides an analysis of the percentage recycling achieved in the County during the subject years.

Table 4-1-4

County Recycling Rate 2019-2021

Year	MSW Tons	Recycling Tons	Recycling Rate
2019	243,346	85,954	35%
2020	246,730	76,555	31%
2021	295,797	91,274	31%

Source: PADEP ReTrac

The data indicate that Dauphin County has not achieved on a consistent basis, the statewide recycling goal of 35%. It is noted, however, that the review period encompassed a significant economic downturn which likely affected recycling rates. As discussed in the following section, the County is taking steps to increase recycling and it is believed that the 35% goal will again be accomplished and sustained.

4.2 County Plan to Reach 35% Recycling Rate

The County and municipalities within the County will make the following efforts to increase the recycling rate:

Table 4-2
Projected County Recycling Rate 2023-2026

YEAR	MSW (TONS)	TOTAL RECYCLING (TONS)	RECYCLING RATE
2023	261,280	83,050	28.9%
2024	262,600	94,300	31.5%
2025	263,910	105,550	34.0%
2026	265,230	116,800	36.2%

4.2.1. Enhanced Data Collection

The County relies on various parties to report the data that are used as the basis for calculating the recycling rate. Haulers, municipalities, material recovery facilities and commercial establishments are all relied on to report recycling data to the County. Accurate data collection and aggregation forms the basis for benchmarking the successes or failures of recycling programs. Any major fluctuations in recycling data that have been reported to DEP could be the result of deficiencies in collection or reporting of data. The County has had difficulty in the past in obtaining recycling data from commercial sources, such as large department stores that recycle large amounts of corrugated cardboard and will mostly rely on the municipal data provided. To measure the potential impact of data collection that was recorded in past years, the County anticipates that it will increase the data collection for all materials over the planning period.

4.2.2. City of Harrisburg MSW and Recycling Collection

All residential MSW and recycling in Harrisburg is collected by the City of Harrisburg's Department of Public Works. Every resident is serviced on time weekly, with the city divided into five collection zones, one for each day of the week. Every customer/resident is to use the standard waste and recycling receptacles that are provided by the City of Harrisburg. Each household is entitled to dispose of one bulk item each week.

4.2.3. Drywall Recycling Program

As detailed in Section 2.1.2, C&D waste is directed to three Designated C&D Waste landfills or the SRMC for disposal. Market development for the materials that can be source separated from the C&D waste stream has caused the amount of C&D Waste that needs to be disposed of in landfills to decrease dramatically. One component of the C&D Waste stream, drywall, can be easily source separated. There are two well-established recycling facilities in neighboring Lancaster County that accept drywall, both of which are continuously looking for more material that can be processed at the facilities. However, there is currently only a very small amount of drywall originating from Dauphin County being recycled. The County will meet with representatives from these facilities to begin implementation of a drywall recycling program. The drywall recyclers typically work with new home/new commercial property builders to set up collection routes through their various job sites to collect drywall trimmings. This collection model can be expanded to Dauphin County to achieve the County's goal of increased recycling, as well as direct a valuable material to existing facilities that have ample processing capacity for the material. Using data from the two facilities located in Lancaster County as a base, implementation of a drywall collection program could divert up to 4,000 tons per year to these facilities from the C&D Waste stream, beginning at 1,000 tons per year and increasing to 4,000 tons per year over the next four years.

4.2.4. Yard Waste Site Collaboration and Promotion

There are currently ten (10) municipalities that offer a drop-off location for yard waste (see Table 6-3). Per Act 101 requirements, residents in each mandated municipality have access to curbside yard waste collection services. The County believes that there is an opportunity to increase the tonnage of yard waste collected or dropped off at the various yard waste sites through further municipal collaboration and promotion of the facilities. The County will meet with municipal recycling coordinators in municipalities that don't currently offer yard waste collection or drop off to discuss the implementation of a collection program or drop-off, utilizing the excess processing capacity of one or more of the established facilities. Municipalities implementing new programs can share a proportionate amount of the operational costs. Additionally, will explore opportunities for municipal collaboration, further promotion of the existing yard waste sites will raise awareness of the availability of these facilities. The County estimates that further municipal collaboration and increased promotion of the yard waste sites will produce an additional 1,000 tons per year in four years.

4.2.5. Community Events Recycling

The County will provide guidance and available resources to municipalities or organizers that host community events; events include fairs, bazaars, picnics, or sporting events that will be attended by more than 200 or more people each day. Required community events must provide for the separation, storage, and collection of highgrade office paper, aluminum, corrugated paper, and leaf waste at the events. Community activities required to recycle include events sponsored in whole or in part by a municipality or held within a municipality and sponsored privately.

In summary, Table 4-2 on the previous page shows the expected effect of the County actions on the recycling rate. A baseline recyclables tonnage of 84,600 tons was used, which is the average tons recycled from 2019-2021. As shown, the County intends to meet and sustain the 35% recycling rate again by 2024.

4.3 RECYCLABLE MATERIALS PROCESSING OPERATIONS

The following privately-owned facilities conduct recycling operations in Dauphin County.

Consolidated Scrap Resources, Inc.

1616 North Cameron Street

Harrisburg, PA 17110

Telephone: (717) 233-7927

Materials Accepted: Ferrous and non-ferrous metals, scrap metals, white goods

Buy-Back Program

Residential and commercial materials accepted

Harrisburg Waste Paper Company

4200 Industrial Road

Harrisburg, PA 17110

Telephone: (717) 236-7971

Materials Accepted: All paper, plastics.

Does have buy-back program for Commercial Accounts

Commercial materials only

Royalton Recycling

3 Hollendale Street

Royalton PA 17057

Telephone: (717) 944-4823

Royaltonrecycling@yahoo.com email

Materials Accepted: Light and heavy iron, copper, aluminum and brass, cars, bikes appliances, steel siding, water heaters

Tri-State Recyclers, Incorporated

2209 North 7th Street

Harrisburg, PA 17110

Telephone: (717) 233-5606

Materials Accepted: aluminum, copper, brass, stainless steel, and high-grade office paper.

Buy-back program only.

Residential and Commercial materials accepted

CHAPTER FIVE | Selection and Justification of Municipal Waste Management System

This Non-substantial Plan Revision does not substantively change the municipal waste management system implemented as discussed in detail in the 2005 Plan Revision and updated and clarified in the 2013 Non-substantial Plan Revision. Accordingly, additional discussion of the waste management system is not required in this 2023 Non-Substantial Plan Revision.

5.1 DESIGNATION OF C&D DISPOSAL FACILITIES

The County's application process for facilities to apply to be designated as a Designated C&D Facilities remains open and available at any time, as outlined in previous Plan Revisions to ensure that the selection process remains public, open, and competitive.

5.2 RECYCLING PROGRAM AND C&D WASTE DISPOSAL TO REMAIN COUNTY FUNCTIONS

As described in the 2013 Non-Substantial Plan Revision, the County has delegated the responsibility for Municipal Solid Waste processing and disposal to the LCSWMA, which owns the SRMC as well as the LCSWMA Waste-to-Energy Facility. The delegation only affects the processing and disposal of Municipal Solid Waste. The County will continue to administer the C&D Waste Disposal and Recycling programs within the County. The income from DEP grants and County General Funds will be used to fund the drop-off recycling. Curbside recycling services throughout the County are user-fee based, as the resident is paying the Hauler for the cost of curbside waste and recycling collection. The user fee-based system ensures the sustainability of the curbside recycling programs.

CHAPTER SIX | Location of Facilities and Programs

6.1 DISPOSAL AND PROCESSING FACILITIES

As discussed in the 2013 Non-Substantial Plan Revision, the Designated RMW Facility will continue to be the SRMC, which is owned by LCSWMA. The contracts with the Designated Bypass Facilities have been allowed to expire by their terms (see Table 2-3). When it is necessary to redirect RMW due to unavailability of the SRMC, LCSWMA will be responsible for this using the Transfer Station to transfer RMW to the LWTEF. A table showing the Designated C&D Facilities is provided as Table 2.1.2 above.

6.2 DROP-OFF RECYCLING DEPOTS

The County operates nine (8) voluntary drop-off recycling depots. These depots are in the following municipalities:
Conewago Township

Gratz Borough

Halifax Borough

Highspire Borough

Lykens Borough

Millersburg Borough

Williamstown Borough

Dauphin County Recycling Center

6.3 YARD WASTE/COMPOSTING

Ten (10) municipalities operate drop-off yard waste/composting in Dauphin County. A summary of the organic yard waste recycling tonnage based on ReTrac data is provided on Table 4-1. A list of the municipal composting facilities is provided on Table 6.3 below.

TABLE 6–3

Municipal Yard Waste Composting Facilities

Municipal Composting Drop Off Sites
Derry Township
Hummelstown Borough (**free home service to residents)
Lower Paxton Township
Lower Swatara Township (**uses Middletown's facility)
Middletown Borough
Royalton Borough (**uses Middletown's facility)
Paxtang Borough (**uses Swatara's facility)
South Hanover Township
Susquehanna Township (**contracted w/ Dig My Earth)
Swatara Township

CHAPTER SEVEN | Implementing Entity Identification

7.1 IMPLEMENTING ENTITY

Dauphin County remains the implementing entity as described in detail in in previous Plans. As discussed in the 2013 Non-Substantial Plan Revision, the County has delegate certain of its powers and duties related to the disposal of Regulated Municipal Waste to LCSWMA, as authorized by Section 303 of the Act. 53 P.S. § 4000.303(d). Accordingly, LCSWMA will be the governmental entity responsible to ensure the availability of adequate permitted processing and disposal capacity for Regulated Municipal Waste as required by Act 101, Section 303(a). Dauphin County will remain responsible for regulating the disposal of Regulated C&D Waste and for recycling.

7.2 ENFORCEMENT

The Ordinance, adopted in October 2013 is not expected to be amended during the Term of this Plan. The current Ordinance is provided in Appendix “A”. LCSWMA has issued rules and regulations (the “SRMC Rules and Regulations”) for the use of the SRMC, in substantially the form reported in the 2013 Non-Substantial Plan Revision. Dauphin County and LCSWMA will jointly enforce the adopted SRMC Rules and Regulations within Dauphin County pertaining to regulation and registration of RMW Haulers. The LCSWMA current Rules & Regulations are provided in Appendix “B”.

The Dauphin County Rules and Regulations have been amended to regulate and require registration only of C&D Waste Haulers and C&D Waste Facilities. The regulation of MSW Haulers will be by LCSWMA, including registration of the vehicles. Haulers that collect and deliver C&D Waste will continue to be regulated by the County and will be registered with the County as they currently are. Any Hauler that collects both kinds of waste is required to be registered with both entities, who will use different kinds of registration stickers to ensure that the Designated Facilities can quickly identify that the Hauler is properly registered for the type of waste being delivered. The current Rules & Regulations are provided in Appendix “C”.

CHAPTER EIGHT | Public Function and County Ownership

8.1 INTRODUCTION

This Non-Substantial Plan Revision does not propose any substantive change in the County’s Flow Control Plan and the discussion of Public Function as set forth in the 2005 Plan Revision remains unchanged and is not repeated in this document.

Consistent with the Department’s *Guidelines for the Development and Implementation of County Municipal Waste Management Plan Revisions* (PaDEP #254-2212-504) the 2013 Non-Substantial Plan Revision included a detailed discussion of how the County’s Flow Control Plan comports with Constitutional requirements under the Commerce Clause as interpreted by the courts.

8.2 TERM OF THE MUNICIPAL WASTE MANAGEMENT PLAN, AS REVISED

The Dauphin County Municipal Waste Management Plan, as revised by this Non-substantial Revision, shall continue until the thirtieth (30th) anniversary of approval or deemed approval by the Department of Environmental Protection (the “Termination Date”; and the period from approval until the Termination Date shall be referred to as the “Term”). During the Term, the County shall prepare, and file as Non-substantial Plan Revisions updated waste data tabulations and projections on or about the tenth (10th), and twentieth (20th) anniversaries of Plan approval.

CHAPTER NINE | Implementing Documents and Disposal Other Than by Contract

All current implementing documents were provided to the Department in the 2005 Plan Revision and the 2013 Non-Substantial Plan Revision. None of those documents are proposed to be revised.

CHAPTER TEN | Orderly Extension

A discussion of how the County Plan provides for the orderly extension of waste management systems within the County, consistent with existing state and local plans, was provided in the 2013 Non-Substantial Plan Revision. As this Non-substantial Plan Revision makes no substantive changes to the Plan with regards to Designated Facilities, the discussion as provided in the 2005 Plan Revision remains applicable.

CHAPTER ELEVEN | Facilities Developed Pursuant to Sub-County Plans and Other Non-Interference Requirements

A discussion of how the County's Plan is consistent with and does not interfere with the contractual obligations of existing facilities was provided in the 2005 Plan Revision. As this Non-substantial Plan Revision makes no changes to the Plan with regards to Designated Facilities, the discussion as provided in the 2005 Plan Revision remains applicable.

CHAPTER TWELVE | Public Participation and Approval Process

The Solid Waste Advisory Committee and all County municipalities were provided with a draft copy of this document for their review and comment pursuant to § 272.252(b)(3). The comments received are provided in Appendix "E."

APPENDIX A
COUNTY SOLID WASTE MANAGEMENT ORDINANCE

APPENDIX B
SMRC RULES & REGULATIONS

APPENDIX C
DAUPHIN COUNTY RULES & REGULATIONS

APPENDIX D

CONTRACT FOR DESIGNATED CONSTRUCTION AND DEMOLITION WASTE FACILITIES

APPENDIX E
SWAC/MUNICIPAL COMMENTS & RESPONSES