

LSWMP BIENNIAL UPDATE

FOR THE

BROOME COUNTY SOLID WASTE MANAGEMENT PLAN

BROOME COUNTY DIVISION OF SOLID WASTE MANAGEMENT

BASED ON THE APPROVED 2022 LSWMP

JANUARY 1, 2022 THROUGH DECEMBER 31, 2023

SUBMITTED

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EXECUTIVE SUMMARY

This document serves to fulfill the requirements for the Local Solid Waste Management Plan Compliance Report for Broome County for the period of January 1, 2022 through December 31, 2023 (per 6 NYCRR Section 366-5.1). This report demonstrates the progress toward the goals set forth in the Local Broome County Solid Waste Management Plan (approved in 2020). The updates discussed in this report reflect the many challenges caused by the global Covid-19 pandemic and resulting state-wide shutdown. There still lasting effects from the pandemic which will continue to force changes to our implementation schedule and goals in the coming years.

1. SUMMARY REPORT

I. PLANNING UNIT STRUCTURE

There have been no changes to the planning unit structure. The County is divided into 24 municipalities: City of Binghamton, Town of Barker, Town of Binghamton, Town of Chenango, Town of Colesville, Town of Conklin, Town of Dickinson, Town of Fenton, Town of Kirkwood, Town of Lisle, Town of Maine, Town of Nanticoke, Town of Sanford, Town of Triangle, Town of Union, Town of Vestal, Town of Windsor, Village of Deposit, Village of Endicott, Village of Johnson City, Village of Lisle, Village of Port Dickinson, Village of Whitney Point, and the Village of Windsor.

Below is a listing of demographic information for Broome County:

Population (2022 census)	197,117
Households (2018-2022)	81,339
Housing units (2022)	93,205
Home Ownership Rate (2016-2020)	65.1%
Persons per household (2018-2022)	2.31
Land area (Square Miles) (2020)	705.64
Persons per square mile (2020)	281.6

The County's existing and future solid waste management programs will continue to be self-funded from revenue generated through permits, licenses, and tipping fees at the landfill. Capital investments are funded through capital reserves (through a dedicated enterprise fund) and revenue bonds.

Control of Broome County-generated waste and revenue from waste disposal tipping fees is critically important to the County in terms of expanding and funding additional solid waste management programs. There are a variety of costs to the Division of Solid Waste for managing programs. These include costs for contract services with a private MRF for processing recyclables; cost for purchasing and distribution of recycling containers; cost for contracting for disposal of HHW; staff cost associated with coordination and permitting local haulers; staff time for public outreach and education activities; landfill operations; long-term maintenance and closure; payment to the host communities and

administrative costs for managing and reporting on the overall solid waste management program.

II. WASTE GENERATION & RECYCLING DATA

A. WASTE & RECYCLING DATA & COMPARISON WITH PROJECTIONS

Material recycled in 2022 and 2023 can be found below in Table 1 in the Appendix. Please note the recycling tonnages are based on scale weights and figures provided by area haulers, material recovery facilities, and businesses. Not all entities provided tonnages. Tonnages from the DEC reporting database were also included. The waste data for the Broome County Landfill from 2022 and 2023 can be found in Table 2 of the Appendix.

The projections originally published in the Solid Waste Management Plan approved in 2022 were updated as there were some mathematical calculation errors in the original formatting. The new projections can be found in Table 3 in the Appendix. As with the original projections these estimates are based on the 2007 waste characterization study reported in Table 3-3 of the Solid Waste Management Plan.

In 2022, we disposed of 128,596.66 tons of MSW and 6,209.72 tons of sludge for a total of 134,806.38 tons of waste. This total was under the estimated value for 2022, which was approximately 14,748 tons and lower than 2021 tonnages; we expect this still may be a long-lasting effect of disposal habits made during the pandemic. These changes may include an increase of home composting and food scrap drop offs, eating more meals at home instead of take-out or in restaurants, and the decrease of construction projects occurring. Residents are also trying to utilize scraps from these projects or are willing to donate items to others in the community through reuse groups and thrift stores. Schools are also utilizing remote learning during the winter instead of snow days, so less days physically in school may affect this tonnage.

The total amount of waste diverted in 2022 was approximately 56,479.38 tons. We saw a decrease in participation from business reporting due to challenges within the market. Some businesses continue to refuse reporting though we continue to reach out annually. The difference in diversion tonnage projected versus actual can be accounted for by multiple factors. We expect much lower paper tonnages as most magazines and newspapers are read online now. We are seeing decreased in plastic packaging due to law changes and the addition of more recyclable packaging. Also, we are seeing increases in collected electronics due to DEC law changes for accepting free electronics throughout the state. Lastly, the tonnages we report are collected from the DEC annual reporting forms and reaching out to business owners directly, but some businesses refuse to report their material.

In 2023, we disposed of 129,227.78 tons of MSW and 8,132.40 tons of sludge making for a total of 137,360.18 tons disposed which is comparable to our tonnages from 2022. We are seeing increases in disposal due to the increases in home improvements, natural disasters, and the surge within the housing market. Companies are also acquiring more grants and projects, allowing them to deconstruct houses and buildings around the county. Construction projects throughout the county were able to resume and although we do accept C&D debris separately, we also accept it in

mixed loads coming in from our haulers.

The total amount of waste diverted in 2023 has been recorded at 136,644.33. These tonnages do not include tonnages from the DEC reporting forms. We anticipate the total recycling tonnage to be approximately double this initial amount once those numbers are available. Our numbers reflect the entities willing to share information, since not all do. Numbers continue to rise within Broome County due to the increase in education and accepted materials. People are also more willing to participate if recycling outlets are closer to their homes and if the program is free. We have seen great improvements to our electronics and household hazardous waste program as they are free to residents and available frequently.

III. CHANGES TO SOLID WASTE MANAGEMENT PRACTICES

There have been some changes to solid waste management practices at the Broome County Landfill from 2022 to 2023. Tipping fees remain at \$55/ton for materials such as household garbage, tree trunks & stumps, freon units, bulk metals, construction & demolition, aggregates, and non-friable asbestos.

The Landfill continues to operate as per our Part 360 permit. The landfill continues to only accept waste from Broome County residents and businesses. The focus of current operations includes continuing to maximize compaction by using GPS technology in our equipment in order to fully utilize Landfill airspace.

The continued planning and construction for the Old Landfill Reclamation Phase I project took place throughout 2023. The project is currently under construction and includes reclaiming waste from an approximate 20-acre footprint of our Old Landfill and relocating it within the same contiguous footprint to lined section. It is anticipated to begin refilling this section in 2025, now that it is lined. The Old Landfill section was unlined and was capped in the late 1970s. There are multiple positive environmental and economic impacts surrounding this project.

The County continues to increase its educational outreach program to promote recycling, composting and waste reduction efforts. These efforts are detailed in the below Section IV. Additionally, the County remains active in product stewardship initiatives and supports many extended producer responsibility efforts.

IV. EDUCATION & OUTREACH ACTIVITIES

A. 2022 EDUCATION & OUTREACH

The Broome County Materials Recovery Manager has made great efforts to continue to reach all County residents regarding Landfill programs, waste reduction methods, and recycling contamination reduction. In 2022, the community started to rally around bringing back events such as Earth Fest.

The Division focused a large portion of education and outreach on local advertising through social media and news stations to get information to residents about recycling and programs at the Landfill. The advertising in 2022 focused on the NY State plastic bag ban, the Broome County household hazardous waste and electronics recycling program, the Eco Center construction materials reuse program, home composting, and recycling contamination reduction. These ads drove residents to the Division of Solid Waste website where they could learn more about recycling topics and increased participation in our programs throughout the year.

In 2022, we continued to monitor the need of recycling bins in schools, local businesses, and households. Our ongoing goal is to provide recycling bins and educational materials to those in Broome County in order to divert as much waste from the Landfill as possible.

A Facebook page for the Broome County Division of Solid Waste titled Broome County Recycles was created in 2019 and an Instagram page was also added and linked to this account in 2020 to increase message spread and awareness of the different Landfill programs available to our residents. These pages are monitored on a daily basis to answer resident questions via comments and messages. Social media content was created and scheduled to post every day, Monday-Friday, with the help of the Recycling & Composting Educator that we work with through a contract with Cornell Cooperative Extension (CCE). This social media content allowed us to supplement the advertising and outreach the paid ads were already doing and answer questions directly from residents in a quick manner.

Along with our social media pages, the Division of Solid Waste Management maintains our website and continue to update it as new information is developed. The site is updated to include our new brochures, better graphics, and a more streamlined approach to how information is seen by our residents.

B. 2023 EDUCATION & OUTREACH

As time progresses, we are starting to see the comeback of many local events, such as Earth Fest and other local tabling opportunities like Broome County Parks' Beach Bash. In 2023, the Materials Recovery Manager was able to table in person at events held at the Ross Park Zoo, Lourdes Hospital, and Broome County Parks. During these events, residents were able to take informational brochures, ask questions, learn more about landfill programming, and take-home promotional products like reusable grocery bags. Promotional products like pens made from recycled plastic, koozies made from recycled plastic, jar openers made of recycled tires, notebooks made of recycled paper, and recycling information magnets were also offered to residents at these events. A new brochure created to promote the sale of home compost bins received a lot of interest at these events. The Division continued to hand out magnets to residents as a reminder of how to reduce wasted food, how to compost at home, and what materials are recyclable curbside.

The Division continued to promote multifamily recycling with the addition of 6-gallon recycling bins for apartment buildings and complexes. Information on these bins was relayed through social media and the use of our website. These bins are available to tenants and landlords and are one per unit. The idea behind the bins is the versatility of the small bin to tight spaces to make it easier to store and transport recyclables in these units. We have received positive responses to those who use these bins as storage then combining with larger curbside bins at their housing facility.

As in 2022, the Division contracted with a television network and digital advertising company in order to advertise the Eco Center materials reuse program, the household hazardous waste, and electronics recycling program, recycling contamination reduction, waste reduction methods, and composting throughout the year. This advertising included television ads that ran during news and sporting events throughout the year as well as ads on social media through Facebook and Instagram.

The Broome County Recycles Facebook and Instagram pages continued to grow in following throughout 2023 and social media content was posted every weekday to promote Landfill programming, waste reduction, composting, the Eco Center, recycling contamination reduction, or other recycling topics. The Broome County Division of Solid Waste Management website continues to receive more traffic due to the digital advertising and social media content where we encourage residents to check our website to further their education on many topics. The website was also updated to include information on alternative outlets for paint and electronics, our updated brochures, and new items were added to our recycling and disposal guide.

V. COMPLIANCE WITH LOCAL RECYCLING LAWS

The Broome County Source Separation Law can be found under County Code 317-26 listed below:

§ 317-26. Source separation required.

- A. *Source separation shall be required of each and every generator within Broome County producing solid waste destined for a disposal facility within Broome County and by any generator outside of Broome County where such waste will be processed or disposed in a Broome County solid waste management facility.*
- B. *Materials that must be source separated include paper, corrugated cardboard, glass, metals, plastics, leaves, yard wastes, tires, batteries (wet and dry cell) and household hazardous waste. A detailed published list of materials to be accepted will be on file with the Broome County Legislature. [Amended 12-19-2002 by L.L. No. 2-200315; 2-6-2013 by L.L. No. 3-2013]*
- C. *For the purpose of this article, the term "recyclable material" shall mean those materials that must be source-separated, as defined in § 317-26B, with the exception of household hazardous waste.*

- D. Each and every waste hauler, public and private, providing waste collection services in the County of Broome shall be required to provide curbside or drop off collection of source-separated recyclables for all units serviced by the hauler.*
- E. All municipal and private haulers are prohibited from commingling source-separated recyclables with solid waste. [Added 2-6-2013 by L.L. No. 3-2013]*

The goals and current activities of the Broome County Division of Solid Waste continue to ensure compliance with the Source Separation Law. For example, the educational outreach through social media, television, and digital advertising follows the materials listed for source separation. Also, the expectations upheld for municipal, commercial, and institutional facilities align with the Source Separation Law. The residential recycling drop off at the Broome County Landfill remains open in order to ensure source separation of materials could continue. The Division also provides three sizes of recycling bins in an effort to increase curbside separation efforts by residents.

VI. OBSTACLES IMPEDING TASKS & GOALS

The global pandemic still has unprecedented effects on our goals and has continued to extend our timelines. The implementation of potential staff and the needs of the landfill have also changed due to the pandemic and the ever-changing needs of our residents. For example, the need for additional staff will be a consideration to be evaluated annually but will not be implemented at this time due to budgetary constraints and a current lack of need for additional assistance. We have successfully adjusted staffing to create additional positions to separate job duties for household hazardous waste and the management of the leachate treatment facility.

Our goal of increasing recycling participation by 10% by targeting CII&M buildings is still in progress, however, changes to the implementation schedule were made to account for the ongoing effects of the pandemic and staff changeover.

The goals relating to increasing diversion of construction and demolition debris are also still in progress and some have been achieved by the implementation of our Eco Center building materials reuse program at the Landfill. The Eco Center is a warehouse on the Landfill property which accepts usable building materials from residents and businesses within Broome County at no cost for items up to 500 lbs. or \$20/ton for anything greater. The Eco Center program allows our residents to then pick up these building materials at no cost for use in their own projects. The program is used, especially when materials are available, and we advertise the program during the summer months in order to increase inventory and spread awareness. Our main goal of this program is increasing education and outreach to divert more material and increase inventory in the near future.

Our goals for increasing household hazardous waste and electronics diversion are currently in progress with the addition of full-time staff. The Division is increasing the efficiency of our hazardous waste facility with this addition as well as our monthly collections. This has allowed us to continuously separate and dispose of this waste properly with updates to contracts and storage.

Lastly, although an organics recycling program located on the Landfill property was originally one of our goals this plan still cannot move forward due to the Landfill property location in comparison to the Binghamton Airport. According to the FAA, an organics recycling operation would attract

too many vectors to be safe for air travel at the airport. Therefore, these goals have been put on hold until changes to technology or regulations can be re-evaluated. We will continue to offer yard waste composting at the Broome County Landfill for our residents and support at-home composting through the sale of Earth Machine compost bins to our residents.

VII. CONFORMANCE WITH IMPLEMENTATION SCHEDULE

A. DISCUSSION OF DEVIATIONS FROM THE IMPLEMENTATION SCHEDULE

The Covid-19 pandemic continues to have a profound effect on our goals and the timing of our implementation schedule as well as staffing changes. Many of our goals were pushed back including all remaining goals for CII&M due to the restrictions and effects of the pandemic. An updated implementation schedule with changes in red can be found in the Appendix.

Our goal to increase collection hours for the household hazardous waste program cannot occur at this time due to our limited staffing although we will continue to evaluate this possibility each year. We have made improvements in 2023 with the addition of a full-time staff member and anticipate more growth over the next two years. Our current household hazardous waste program allows our residents to drop off hazardous waste and electronics for recycling free of charge on designated days (2 or 3 days) we hold each month. County residents can also drop off hazardous waste and electronics on non-designated days for a \$5 per vehicle fee. The usage of this program has increased due to the increased educational outreach and awareness of this opportunity. We expect this increased participation to continue going forward as the program grows and improves.

Our goals for C&D debris recycling were still delayed due to the pandemic and staff changeover. We hope to be able to establish a communication system with the County Code Enforcement Office and Green Building Council by 2025 and will continue to research local businesses that can divert building material for reuse.

As previously mentioned, although our goal was originally to establish organics recycling for food waste and wastewater treatment sludge at the Broome County Landfill this goal has had to be put on hold due to FAA regulations. Due to our proximity to the Binghamton Airport, the landfill is restricted from developing an organics recycling program beyond our current yard waste recycling program as the risk of increased vectors can be a safety hazard for the airport. We will continue to evaluate this goal as new technology and regulations are implemented.

B. UPDATED IMPLEMENTATION SCHEDULES

An updated implementation schedule with changes in red can be found as Table 4 in the Appendix.

2. FACILITIES ACCEPTING WASTE & RECYCLABLES FROM THE PLANNING UNIT

I. C&D FACILITIES

- Seneca Meadows: 1786 Salcman Road, Waterloo, NY, 13165
- C&D Hakes Landfill: 4376 Manning Ridge Road, Painted Post, NY, 14870

II. RECYCLING FACILITIES

The facilities which accept recyclable material from within Broome County can be found in Table 5 in the Appendix.

3. APPENDIX

TABLE 1: ANNUAL RECYCLING TONNAGE DATA

Material Type	2022 Total Tonnages	2023 Total Tonnages
Aluminum	254.49	933.48
Antifreeze	7.23	386.40
Batteries (All)	420.185	32.3
Biosolids	420.18	-
Books	-	22.04
Catalytic Converters	-	-
Cellphones	-	-
Dry Cell Batteries	30.42	23.03
Electronics	328.87	65,832.25
Emulsion	1.07	-
Ferrous	12,617.36	28,931.17
Film Plastic	40.60	-
Fluorescent Bulbs & Ballasts	5.72	-
Food Waste	11,772.20	11,356.70
Food Donations	-	-
Glass	2,099.85	2,006.55
Ink Cartridges	-	0.14
Lead Acid Batteries	429.34	308.27
Misc. Haz Waste	36.19	59.27
Mixed Paper	3,818.60	2,908.19
Mixed Plastics	2,112.63	256.79
Newspaper	1,058.17	70.70
Non-Ferrous	101.47	1,336.32
OCC	15,850.81	12,570.30
Oily Water	-	-
Oil Water Separator	-	-
Office Paper / Shred	-	254.97
Oil Filters	3.65	1.45
Paint	13.20	11.98
Pallets	12.87	74.41
Paperboard	-	-
Refrigerants	0.25	0.15
Rigid Plastics	23.03	18.63
Scrap Metal	47.88	203.77

Single Stream	1,422.57	2,532.60
Textiles Recycled	-	259.97
Tires	2,042.23	1,250.99
Vegetable Oil	-	148.34
Waste Oil	75.98	3,020.23
Waste Oil Sludge	-	-
Waxed OCC	-	-
White Goods	5.60	4.7
Yard Waste/Branches	1,111.34	1,828.24
Total	56,479.38	136,644.33

TABLE 2: BROOME COUNTY LANDFILL ANNUAL WASTE DATA

Material Type	2022 Total Tonnage	2023 Total Tonnage
Bagged Asbestos	344.17	144.32
Bulk Asbestos	7,065.33	3,281.19
Non-Friable Asbestos	972.61	2,480.06
Waived Bagged Asbestos	3.36	0
Waived Bulk Asbestos	153.11	1,588.49
Waived C&D	270.71	393.57
Waived Non-Friable Asbestos	582.90	732.54
C&D Debris	6,221.35	6,261.53
Contaminated C&D	246.92	150.88
Industrial Waste	1,333.95	392.35
Municipal Collection C&D	139.75	136.86
Municipal Collection MSW	0	0
Grit Grease Screen (Sludge & Grit)	722.67	860.33
Stabilized Sludge & Grit	6,380.54	8,132.40
MSW	128,596.66	129,227.78
Miscellaneous	0	0
Auto Fluff	69,346.92	64,435.00
Contaminated Soil	7,328.37	7,582.28
Flood Debris	0	0
Wood Ash	35.26	44.34

TABLE 3: UPDATED MSW DISPOSAL & DIVERSION PROJECTIONS

	MSW Materials Composition (%)	2021			2022			2023			2024			2025			2026			2027			2028			2029			2030			2031			2032			2033			
		MSW Generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted	MSW generated (Tons)	MSW Diverted (Tons)	% MSW Diverted				
Material	100.0%	209,068	80,658	38.4%	209,524	52,481	25.1%	207,200	53,942	26%	204,962	55,355	27.0%	202,718	56,732	28.0%	200,489	58,761	29.3%	198,305	59,300	29.9%	196,134	60,428	30.8%	193,987	61,520	31.7%	191,884	62,580	32.6%	189,794	63,615	33.5%	187,886	64,633	34.2%	185,932	65,654	35.3%	
Total Paper	38.98%	84,901	12,291	14.5%	84,878	12,917	15.2%	84,168	13,417	16%	83,461	13,905	16.5%	82,711	14,381	17.2%	82,004	14,844	18.1%	81,404	15,296	18.7%	80,720	15,725	19.5%	80,067	16,164	20.2%	79,413	16,591	20.9%	78,780	16,987	21.6%	78,157	17,417	22.3%	77,540	17,787	23%	
Total Metals	8.10%	17,029	34,112	200.1%	16,980	5,943	35.0%	16,794	6,012	36%	16,610	6,079	36.5%	16,428	6,143	37.4%	16,248	6,191	38.1%	16,071	6,229	38.8%	15,895	6,264	39.4%	15,721	6,299	40.1%	15,549	6,330	40.7%	15,379	6,391	41.4%	15,249	6,430	42.0%	15,178	6,501	42.7%	
Total Plastics	13.67%	28,701	12,099	42.2%	28,651	12,367	43.2%	28,337	12,515	44%	28,027	12,658	45.2%	27,721	12,797	46.2%	27,417	12,935	47.2%	27,117	13,025	48.0%	26,820	13,091	48.8%	26,527	13,026	49.1%	26,226	13,028	49.7%	25,940	13,041	50.3%	25,726	13,031	50.8%	25,490	13,029	51.4%	
Total Glass	4.28%	8,973	0	0%	8,967	0	0%	8,953	0	0%	8,932	0	0%	8,906	0	0%	8,871	0	0%	8,829	0	0%	8,785	0	0%	8,733	0	0%	8,622	0	0%	8,512	0	0%	8,401	0	0%	8,202	0	0%	
Total Organics	21.74%	45,637	14,445	31.7%	45,559	14,800	32.7%	45,050	15,169	34%	44,557	15,448	34.7%	44,079	15,719	35.7%	43,596	15,983	36.7%	43,119	16,229	37.7%	42,647	16,468	38.7%	42,180	16,729	39.7%	41,719	16,994	40.7%	41,262	17,180	41.7%	40,799	17,399	42.7%	40,322	18,016	43.7%	
Total Textiles	5.38%	11,288	245	2.2%	11,269	550	3.2%	11,146	464	4%	11,024	583	5.2%	10,903	672	6.2%	10,784	772	7.2%	10,666	871	8.2%	10,549	967	9.2%	10,433	1,061	10.2%	10,319	1,152	11.2%	10,208	1,241	12.2%	10,079	1,330	13.2%	10,008	1,446	14.2%	
Wood	Total Wood (Pallets, crates, adulterated and non-adulterated)	4.19%	8,794	74	0.8%	8,778	153	1.8%	8,822	243	3%	8,907	326	3.8%	8,983	408	4.6%	9,040	487	5.4%	9,108	555	6.1%	9,171	641	7.0%	9,227	715	8.0%	9,283	788	9.0%	9,360	869	10.0%	9,438	948	11.0%	9,501	1,018	12.0%
Misc	Total Miscellaneous	11.67%	24,403	7,992	32.8%	24,451	5,780	23.6%	24,103	5,946	25%	23,919	6,108	25.5%	23,657	6,269	26.5%	23,398	6,418	27.4%	23,142	6,567	28.4%	22,889	6,712	29.3%	22,638	6,854	30.3%	22,391	6,991	31.2%	22,145	7,034	32.2%	22,389	7,415	33.1%	22,145	7,544	34.1%

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Population	198,493	198,493	198,303	198,114	197,925	197,735	197,547	197,359	197,169	196,981	196,792	196,604	196,417
MSW Generated (tons)	209,068	209,524	207,200	204,962	202,718	200,489	198,305	196,134	193,987	191,884	189,794	187,886	185,932
Per Capita MSW Generated (p/ps/year)	2.115	2.111	2.090	2.089	2.084	2.080	2.088	2.088	2.088	2.088	2.088	2.088	2.088
MSW Diverted (tons)	80,658	52,481	53,942	55,355	56,732	58,761	59,300	60,428	61,520	62,580	63,615	64,633	65,654
Per Capita MSW Diverted (p/ps/year)	0.41	0.29	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.32	0.33	0.34
MSW Disposed (tons)	128,227	157,003	153,258	149,606	145,987	141,728	139,005	135,706	132,467	129,304	126,179	123,253	120,279
Per Capita MSW Disposed (p/ps/year)	1.302	1.502	1.546	1.510	1.475	1.434	1.407	1.375	1.344	1.313	1.282	1.258	1.211
Per Capita MSW Disposed (p/ps/year)	3.57	4.33	4.24	4.14	4.04	3.93	3.86	3.77	3.68	3.60	3.51	3.39	3.32

TABLE 4: UPDATED IMPLEMENTATION SCHEDULE

Upstream Diversion Goals	Measurables	Milestones	Time Frame
CII&M	Quantify number of CII&M buildings	Establish a communication system with the Municipal Building Code Officers	By 2025
		Work with tax information to build a database of existing CII&M buildings in the County	Completed 2011
	Establish a baseline participation rate	Develop and distribute survey to all building units	By 2025
		Determine estimates of participation rates based on survey results	By 2025
	Education and outreach to the public	Develop and distribute education materials to participants	Began 2011
		Revise County website and offer more information and outside links	Completed 2011 update as needed
	Track participation rates and trends	Conduct a survey of occupants in a statistically representative sample of buildings regarding recycling participation	By 2025
	Track tonnages of recyclables collected in Broome County by private haulers		By 2025 and annually thereafter
HHW & Electronics Recycling	Quantify the number of HHW and E-waste collectors	Work with tax information to build a database of existing electronics stores who accept E-Waste	Began 2011 and annually thereafter
		Conduct research to find businesses who accept HHW & E-waste	Began 2012 and annually thereafter
	Count existing County participates who self deliver	Develop and distribute education materials to public forums, collection centers, and residents	Began 2013 and annually thereafter
	Measure increases in tonnage	Increase collection center hours for HHW & E-Waste	Began 2014 evaluate annually thereafter
	Determine results of program expansion efforts	Track tonnages of HHW & E-Waste collected in Broome County using County collection centers and private collectors	Began 2014 evaluate annually thereafter
		Determine estimates of participates rates based on tracking results	Began 2021 and annually thereafter

C&D Debris Recycling	Quantify C&D composition through a waste characterization study	Establish a communication system with the County Building Code Officers & Green Building Council member	By 2025
		Conduct research to create a database of local businesses who reuse building materials	Began 2014; Update as needed
		Update educational materials with reuse list, LEED and construction regulations	Began 2014; Update as needed
	Implement tip fee incentives and record participation	Develop and distribute educational material to public forums, collection centers, and all County residents	Completed and done throughout the year
	Track tonnage of C&D debris passing scalehouse and entering landfill	Designate an area at the landfill for temporary storage and processing of C&D material	Completed
	Based on the database of C&D debris recyclers, track tonnage of C&D diverted from landfill	Work with haulers to separate C&D from MSW upon delivery	By 2026
	Determine estimates of diversion rates based on tracking results	Conduct pilot C&D debris processing program at landfill	By 2027
		Conduct market research to determine potential value of reusable material	By 2028
		Determine appropriate management strategy - publicly or privately owned	By 2029
	Organics Diversion	Identify number of compost bins sold to date	Determine local organizations who promote and work with residents on composting
Establish a communication system with these local organizations			Began 2012
Track purchase of County compost bins		Update educational materials with available compost assistance and resources	Began 2014
Track businesses and institutions who develop organic diversion programs		Develop and distribute educational material to public forums, collection centers, and all County residents	By 2021 and annually thereafter
Establish feedstock and tonnages of organics available in County		Track tonnage of yard waste entering landfill at scalehouse	Began 2011 and annually thereafter
		Conduct survey of commercial, industrial, and institutional centers who process food for types and amounts	Began 2012 and annually thereafter
	Determine amount of biosolids produced in County by contacting WWTPs	Began 2011 and annually thereafter	

Determine amount of organics that could be composted at existing facilities	Conduct survey of WWTPs and food processing facilities in County to determine interest in composting at landfill	Evaluate Periodically
	Calculate feasibility of composting organics identified in survey at landfill in regard to land and bulking agents available	Evaluate Periodically
	Research permitting requirements for a biosolids and food composting facility at the landfill	Evaluate Periodically
Measure volume of organics composting	Construct a demonstration biosolids and food composting facility	Evaluate Periodically
	Determine feasibility of full scale operation	Evaluate Periodically

TABLE 5: RECYCLING FACILITIES SERVICING BROOME COUNTY

Material	2022 Tonnage	2023 Tonnage	Facility
Antifreeze	5.04	5.50	EcoMaxx - 170 Transport St, Bedford, PA, 15522
Antifreeze	2.19	0.00	Hazleton Oil - 300 Tamaqua St, Hazleton, PA, 18201
Antifreeze	0.00	380.00	Noco Fuels-6804 Main Street, Cherry Creek, NY 14723
Antifreeze	0.00	0.50	Solvents & Petroleum -1405 Brewerton Road, Syracuse, NY 13208
Batteries	0.00	2.00	Airborne Auto Repair-1808 East Main Street, Endicott, NY 13760
Batteries	337.97	0.00	East Penn Manufacturing - Deka Road, Lyons, PA, 19536
Batteries	4235.00	0.00	Elot Recycling - 64 Hanney Lane, Glenmont, NY, 12077
Batteries	37.46		EnergySys-20 Corporate Circle, East Syracuse, NY 13057
Batteries	40.44	-	Gary's U-Pull-It - 230 Colesville Rd, Binghamton, NY, 13904
Batteries	0.00	2.40	Northeast Battery - 200 Saw Mill River Rd, Hathorne, NY, 10532
Batteries	0.00	0.03	Safety Kleen - 6741 VIP Pkwy, Syracuse, NY, 13211
Batteries	4869.00		Stericycle - 31 Lower River St, Oneonta, NY, 13820
Batteries	0.00	299.00	Weitsman Recycling - 10 Brandywine Ave, Binghamton, NY, 13901
BioSolids	1326.92	0.00	Chenango Waste Water Treatment - 1256 Upper Front St, Binghamton, NY, 13901
BioSolids	520.00	0.00	Endicott Waste Waster Treatment - 1009 E Main St, Endicott, NY, 13760
Books	0.00	44080.00	ICS Industries - 7 Badger Ave, Endicott, NY, 13760
Cooking Oil	59.33	148.34	Baskin Livestock - 9778 Creek Rd, Batavia, NY, 14020
Electronics	0.00	20020.00	EACR-1950 Rutgers University Blvd, Lakewood, NJ 08701
Electronics	0.00	403.14	Ewaste+ - 7318 Victor-Mendon Road, Victor, NY, 14564
Electronics	11999.00	65297.00	ICS Industries - 7 Badger Ave, Endicott, NY, 13760
Electronics	308.63	121.00	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Electronics	18.14	0.00	Best Buy-3209 Vestal Parkway East, Vestal, NY 13850
Electronics	2.10	1.10	AERC Clean Earth - 2591 Mitchell Ave, Allentown, PA, 18103
Ferrous	45.14	50.17	Greenblott Metal Co - 7 Alice St, Binghamton, NY, 13904
Ferrous	521.00	0.00	Stericycle - 31 Lower River St, Oneonta, NY, 13820
Ferrous	12572.22	28881.00	Weitsman Recycling - 10 Brandywine Ave, Binghamton, NY, 13901
Fluorescent Bulbs	5.72	8.90	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Fluorescent Bulbs	0.01	0.00	Safety Kleen - 6741 VIP Pkwy, Syracuse, NY, 13211

Fluorescent Bulbs	3189.00	0.00	Stericycle - 31 Lower River St, Oneonta, NY, 13820
Food Waste	11557.00	11356.70	Baskin Livestock - 9778 Creek Rd, Batavia, NY, 14020
Food Waste	193985.00	0.00	Natural Upcycling - 1818 Linwood Rd, Linwood, NY, 14486
Food Waste	215.20	0.00	Weis Markets - 412 Day Hollow Rd, Endicott, NY, 13760
Freon	0.25	0.15	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Glass	2099.85	2006.55	Cortland County-137.5 S Pendleton Street, Cortland, NY 13045
HHW	36.19	59.27	Clean Harbors - 6741 VIP Pkwy, Syracuse, NY, 13211
Mixed Paper	0.00	70.50	Bert Adams Disposal - 521 Main Street, Chenango Bridge, NY, 13745
Mixed Paper	2962.48	2814.49	Canusa Hershman Recycling-45 NE Industrial Road, Brandford, CT 06405
Mixed Paper	0.00	56.00	Courier Printing - 24 Laurel Bank Ave, Deposit, NY, 13754
Mixed Paper	10.37	16.70	Empire Recycling - PO Box 514, 64 N Genesee St, Utica, NY, 13502
Mixed Paper	-	509924.00	ICS Industries - 7 Badger Ave, Endicott, NY, 13760
Mixed Paper	0.94	0.00	Iron Mountain-520 W. Metro Park, Rochester, NY 14623
Mixed Paper	0.00	10.25	Lineage Logistics - 101 Boome Corporate Pkwy, Conklin, NY, 13748
Mixed Paper	14.20	0.00	Weis Markets - 412 Day Hollow Rd, Endicott, NY, 13760
Mixed Plastics	283.22	252.98	Bert Adams Disposal - 521 Main Street, Chenango Bridge, NY, 13745
Mixed Plastics	1822.15	1812.54	Casella Waste - 54 Doran Ave, Geneva, NY, 14456
Mixed Plastics	0.00	3.81	Empire Recycling - PO Box 514, 64 N Genesee St, Utica, NY, 13502
Mixed Plastics	5.20	0.00	Weis Markets - 412 Day Hollow Rd, Endicott, NY, 13760
Newspaper	80.56	0.00	Bert Adams Disposal - 521 Main Street, Chenango Bridge, NY, 13745
Newspaper	745.63	65.56	Canusa Hershman Recycling-45 NE Industrial Road, Brandford, CT 06405
Newspaper	0.00	5.14	SMR Fibre-PO Box 353, Utica, NY 13503
Non Ferrous	83.53	116.32	Bert Adams Disposal - 521 Main Street, Chenango Bridge, NY, 13745
Non Ferrous	17.94	-	Gary's U-Pull-It - 230 Colesville Rd, Binghamton, NY, 13904
Non Ferrous	0.00	50.17	Greenblott Metal Co - 7 Alice St, Binghamton, NY, 13904
Non Ferrous	554.15	1220.00	Weitsman Recycling - 10 Brandywine Ave, Binghamton, NY, 13901
OCC	846.74	712.62	Bert Adams Disposal - 521 Main Street, Chenango Bridge, NY, 13745

OCC	8614.13	9160.78	Canusa Hershman Recycling-45 NE Industrial Road, Brandford, CT 06405
OCC	2273.00	2345.00	Empire Recycling - PO Box 514, 64 N Genesee St, Utica, NY, 13502
OCC	29.44	0.00	Greif-95 Jaycee Drive, Hazleton, PA 18202
OCC	0.00	41580.00	ICS Industries - 7 Badger Ave, Endicott, NY, 13760
OCC	1012.20	0.00	Weis Markets - 412 Day Hollow Rd, Endicott, NY, 13760
Oil	15.77	27.67	EcoMaxx - 170 Transport St, Bedford, PA, 15522
Oil	0.00	5.00	Hazleton Oil - 300 Tamaqua St, Hazleton, PA, 18201
Oil	0.00	2997.00	Noco Fuels-6804 Main Street, Cherry Creek, NY 14723
Oil	1.66	2.46	Safety Kleen - 6741 VIP Pkwy, Syracuse, NY, 13211
Oil	4804.00	0.00	Stericycle - 31 Lower River St, Oneonta, NY, 13820
Oil Filters	1.60	1.20	EcoMaxx - 170 Transport St, Bedford, PA, 15522
Oil Filters	0.45	0.25	Safety Kleen - 6741 VIP Pkwy, Syracuse, NY, 13211
Paint	13.20	11.98	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Pallets	12.87	19.28	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Pallets	91.88	55.30	Pallet Shop - 30 Crandall Street, Binghamton, NY, 13905
Plastic Bags	0.00	94.25	A&W Recycling-521 Main Street, Chenango Bridge, NY 13745
Single Stream	1098.17	2532.60	Casella Waste - 54 Doran Ave, Geneva, NY, 14456
Single Stream	1098.17	2532.60	Southern Tier Recyclers - PO Box 362, Vestal, NY, 13851
Stumps	188.50	102.60	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Textiles		259.97	Saint Paulys - 1067 Gateway Dr, Farmington, NY, 14425
Tires	26.80	15.18	McCarthy - 980 Broadway, Albany, NY, 12204
Tires	400.00	400.00	Lindsey Tire - 536 Old Rt 11, New Milford, PA, 18834
Tires	832.81	910.05	SGS Recovery - 4870 Packard Rd, Niagara Falls, NY, 14304
Vegetable Oil	59.33	148.00	Frito Lay - 10 Spud Lane, Binghamton, NY, 13904
Yard Waste	1111.34	928.24	Broome County Landfill - 286 Knapp Road, Binghamton, NY, 13905
Yard Waste	540.00	900.00	Endicott Waste Water Treatment - 1009 E Main St, Endicott, NY, 13760