

The NYC Department of Sanitation



ZeroWaste Plan

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The NYC Department of Sanitation Zero Waste Plan

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Plan Summary

The NYC Department of Sanitation (DSNY) is pleased to submit its 2023 Zero Waste Plan that provides an overview of our portfolio of waste diversion programs. Reducing the amount of waste we generate, collect, and dispose of – and the associated air pollution and greenhouse gas emissions (GHG) – has been, and will continue to be, a core mission of our Department. The wide range of diversion programs is meant to reduce the amount of waste we send to landfill, which will save NYC money, conserve energy, and, of course, do our part to meet our City’s ambitious climate goals. This plan fulfills the requirement of Local Law 87 of 2023 to submit a Zero Waste Plan.

DSNY is committed to continuing programs and initiatives that reduce and divert a significant amount of waste away from landfills in a cost-effective way. There is ample opportunity to improve diversion rates and increase participation in our programs. Traditional recycling and compostable materials make up more than two-thirds of NYC’s waste. If every New Yorker composted and recycled perfectly, the curbside diversion rate would be 68%. While achieving “Zero Waste” by 2030 may not be attainable, by focusing efforts on this largest part of the waste stream (without ignoring other divertible materials), NYC can continue to see great improvements in waste diversion. This is the best strategy toward the realization of our zero waste goals.

Residential Diversion: Focus on Organics

Organics account for more than one-third of New York City’s residential waste stream. DSNY has centered much of its focus on diverting organic material through improved access to collection locations, participation through simplified programs, and collection. These changes have the greatest potential impact on citywide diversion rates.

In February 2023, Mayor Adams announced the creation of the City’s first-ever, universal Curbside Composting program, following a successful pilot in Queens in Fall 2022. In Fall of 2023, the program expanded to all of Brooklyn. Today, nearly 5 million New Yorkers have an easy and convenient way to compost their food scraps and yard waste.

The program is the largest composting program in the country. It is based on successful models from other US cities by first mandating the separation of yard waste from trash, while also accepting voluntary separation of food scraps. Curbside Composting service is easy to use, with no sign-up required. The program will expand to all New Yorkers by the end of 2024. In alignment with Local Law and New York City Administrative Code, separation of yard waste and food waste has been mandatory in Brooklyn and Queens as of October 2023 and will become mandatory in Staten Island, Manhattan, and The Bronx once curbside composting is rolled out in all boroughs.

The expansion of Curbside Composting service is accompanied by the rollout of Smart Composting Bins across all five boroughs. Currently, there are approximately 400 Smart Composting Bins that residents can drop off their food scraps, plant waste, and food-soiled paper for free, 24/7, via a smartphone app.

In addition to these programs, DSNY continues to mandate separation of and provides universal collection for Metal, Glass, and Plastic waste stream and separately, Paper and Cardboard waste stream as detailed in “Diversion and Capture Rates.”

Commercial Diversion

Commercial waste is collected by private carters. DSNY currently sets rules and, along with the Business Integrity Commission (BIC), provides oversight of the management and performance of commercial carters. To improve the diversion rates, DSNY has instituted expanded rules that focus on organic waste diversion and is in the process of implementing the Commercial Waste Zone program, which incentivizes the collection of recycling and compostable waste through targeted price reductions. Those programs are detailed here.

Commercial Diversion: Focus on Organics

In July of 2022, the commercial organics rules were fully implemented as the warning period had ended. The list of “covered generators” that are now required to separate their organic waste for diversion includes:

- Arena or stadiums having a seating capacity of 15,000 or more persons.
- Food service establishments having 7,000 or more square feet.
- Chain food service establishments of 2 or more NYC locations with a combined floor area of 8,000 square feet or more.
- Food service establishments in hotels having 100 or more guest rooms.
- Food service establishments with a combined floor area of 8,000 square feet or more in the same building or location.
- Retail food stores having at least 10,000 square feet.
- Chain retail food stores of 3 or more NYC locations w/combined floor area of 10,000 square feet or more.
- Food preparation locations having 6,000 square feet or more.
- Catering establishments hosting on-site events to be attended by more than 100 people.
- Temporary public events to be attended by more than 500 people.
- Food manufacturer that has a floor area of 25,000 square feet or more.
- Food wholesaler that has a floor area of 20,000 square feet or more.

Commercial Waste Zones: Incentivize Collection of Recycling and Organics

In the commercial sector, there is significant focus on organic waste. As of 2013, certain commercial establishments were required to separate their organic waste. In addition, Local Law 199 of 2019 established the Commercial Waste Zone (CWZ) program. In addition to the multitude of benefits related to reduced truck traffic and improved labor standards, the Commercial Waste Zone program will also incentivize recycling and the collection of organics. DSNY is finalizing the procurement process and plans to roll out the first Zone of the program in the second half of 2024.

Once rolled out, all carters who provide services within commercial waste zones will be required to provide recycling and organics collection in addition to trash collection as standard services. Carters cannot opt out of providing these services to all customers and cannot refuse to collect these waste streams from any customer. To promote increases in recycling and organics separation and to incentivize businesses, the rates for recycling and organics will be lower than rates for trash.

In addition, greater enforcement tools through contractual mechanisms and in-field enforcement will give DSNY the ability to ensure carters are abiding by these new rules. Part of the submitted proposals focus on carters explaining their processes for adhering to rules regarding diversion and Zero Waste, ensuring responsible carters are granted contracts.

Construction and Demolition Sector

The Mayor has shown leadership in addressing waste in the construction and demolition (C&D) sector. In September of 2022, Mayor Adams signed Executive Order 23 which requires certain City agencies with capital projects to consider several environmental practices in their construction projects including embodied carbon, green building standards, and lifecycle assessments. These tools should help reduce C&D waste by supporting building projects that last longer and are more recyclable when they reach their end-of-life. In addition, Mayor Adams also signed onto a C40 Clean Construction Coalition with other mayors to reduce construction waste and carbon output.

Schools, NYCHA, and City Agency Diversion

To foster improved diversion, and serve as examples of effective diversion, it is critical that City Agencies, Schools, and NYC Housing Authority (NYCHA) lead the way in diversion efforts. As a result, DSNY has implemented expanded diversion programs across these City-run organizations.

School Diversion

DSNY continues to expand school curbside composting, completing the expansion to all New York City Public Schools (NYCPS) schools in the Bronx in Fiscal Year 2023, and is on target to expand curbside composting to all NYCPS citywide by the end of the 2023-2024 school year.

In addition, DSNY continues to provide technical assistance and educational resources to schools to educate staff and students to encourage proper recycling and organics diversion. Recycling education is an integral part of the curbside composting education program. Schools are equipped with sorting stations for all streams, as well as posters, decals, and comprehensive education for both staff and students, by DSNY.

NYCHA Diversion

DSNY has continuously supported NYCHA's efforts to improve setout of materials and increase waste diversion by enrolling NYCHA developments in ecycleNYC. DSNY provides recycling trainings to caretakers and staff, coordinates resident engagement recycling training sessions, and attends outreach events to promote DSNY initiatives.

As part of DSNY's Smart Composting Bin program, DSNY prioritized placement of Smart Bins near NYCHA properties to provide NYCHA residents with access to food waste recycling locations. DSNY conducted tabling events to promote the program as well as site visits to assess how residents are using the bins.

City Agency Diversion

Pursuant to Local Law 36 of 2010 city agencies are required to submit plans to DSNY to increase waste reduction and recycling in all city-owned and city-managed buildings, and to prepare annual updates each year. To aid with compliance and support proper waste management practices, DSNY has expanded and revamped the long-standing Zero Waste Building Maintenance training, which is now called the Clean Buildings Training Program that is provided to all NYC Agencies.

DSNY also works with Mayoral agencies to provide guidance in proper handling of fluorescent bulbs, ballasts, batteries, mercury-containing items, and electronics through its Agency Safe Handling Program.

Other Programs Contributing to Diversion

As referred to earlier, other diversion programs – in addition to composting and recycling – that help divert materials that would otherwise be reusable, reclaimable, dangerous, or toxic are detailed below.

Textiles

DSNY offers a citywide textile collection program, refashionNYC, that is available to residential apartment buildings with 10 or more units and other non-residential buildings such as office buildings, commercial businesses, schools, and institutions. All participating buildings receive a convenient in-building textile collection bin and on-call pickup service. This program is operated through a partnership with New York City non-profit Housing Works. Textile items that are suitable for resale get resold in area thrift stores and the rest are sent to textile merchants for salvage (to make fillings for mattresses, car seats, carpet padding, insulation, etc.).

Since the program launched in 2011, refashionNYC has collected over 17,000 tons of textile waste. By the end of Fiscal Year 2023, there were 2,360 buildings participating in refashionNYC and more than 1,826 tons were collected. In Fiscal Year 2023, DSNY collected 3 tons from its refashionNYC DSNY Garage Pilot.

Hazardous Waste

DSNY's Special Waste Programs target the safe disposal of harmful products generated by residents and DSNY managed institutions, including solvents, automotive materials, flammables, and electronics (SAFE materials) as well as other potentially harmful household products.

In Fiscal Year 2023, DSNY held ten SAFE Disposal Events — two events in each of the five boroughs — attracting approximately 22,000 residents dropping off harmful products and pharmaceuticals, in addition to electronics (described below).

DSNY also continued to operate Special Waste Drop-off Sites for use by residents in each borough. These facilities are typically open one day per week to accept both special waste (latex paint, used oil, fluorescent tubes and bulbs, batteries, mercury-containing thermostats) and electronic waste from city residents for subsequent off-site recycling, energy recovery or disposal. In Fiscal Year 2023, 514 tons of hazardous waste and electronics were collected at DSNY Special Waste Dropoff sites.

In May 2022, the State of New York implemented the paint product stewardship program, operated by PaintCare. DSNY has worked closely with this paint stewardship program to ensure that New York City households, businesses, and government agencies have convenient drop-off locations for their unwanted paint to be recycled. The program now offers 55 drop-off locations in NYC, with new locations being added.

Electronic Waste

DSNY has worked to expand the range of convenient options (alternatives to landfill waste) for New Yorkers to recycle computers, printers, televisions, cell phones, and other electronic/audiovisual equipment, in accordance with the NY State Electronic Equipment Recycling and Reuse Act of 2010. As of the end of Fiscal Year 2023, almost 19,000 buildings were enrolled in ecycleNYC, DSNY's in-building electronics recycling program. DSNY has collected 714 tons of e-waste through FY23, and over 10,500 tons since the launch of the program in 2013.

DSNY's electronics recycling partner, ERI, is certified with e-stewards and R2/RIOS (Recycling Industry Operating Standards), ensuring that all materials are handled in an environmentally responsible manner and not landfilled or exported illegally.

Through our partnership with ERI, DSNY is also able to coordinate e-waste collection events with local elected officials and community organizations. These collection services have further helped DSNY to provide electronic waste disposal service to residents without convenient access to Special Waste Drop-Off Sites, SAFE Disposal Events, or in-building electronics recycling services.

Community Reuse and Recycling Events

DSNY holds reuse and recycling events in every community board district in New York City. At these free swap events, New Yorkers can exchange clean, portable, reusable items with others in their community while helping the City meet its waste diversion goals. In FY23, DSNY held 34 reuse and recycling events attended by over 6,000 residents and collected approximately 71,000 pounds of reusable goods.

DSNY and its partners provide literature and educate the public on proper disposal, reuse, and recycling of their waste.

Below is a summary of event attendance and staffing:

DATE	VENUE	Attendance	F/T Staff	P/T Staff	Volunteers
8/13/2022	James Baldwin Outdoor Learning Center Farmers Market	146	4	2	7
8/27/2022	Baychester Community Center	77	2	3	5
9/11/2022	Pioneer Works	242	2	2	10
9/17/2022	Pomonok Houses	170	1	4	8
9/24/2022	Wagner Houses	142	2	2	4
9/27/2022	Brooklyn Borough Hall	345	3	3	9
10/14/2022	BPL New Lots	99	2	3	6
10/22/2022	M.S. 35 Stephen Decatur	152	2	1	9
11/5/2022	Hope Gardens Comm Ctr	144	2	2	7
11/12/2022	Roosevelt Island Senior Center	508	3	2	13
11/19/2022	CAMBA Beacon 361	58	2	3	4
12/3/2022	College of Staten Island	97	2	1	6
12/11/2022	Free Synagogue of Flushing	152	2	3	9
12/14/2022	Clay Pit Ponds Int Ctr	45	2	3	5
1/15/2023	Cooper Park Community Center	140	2	4	7
1/28/2023	M.S. 210Q The Elizabeth Blackwell School	204	2	3	10
2/11/2023	St. Mary's Episcopal Church	200	2	3	5
2/25/2023	William Hodson Senior Center	78	2	5	6
3/4/2023	Bronx Studio School	78	2	3	2
3/8/2023	Forte Preparatory Academy	71	2	2	4
3/11/2023	P.S. 1 The Courtland School	62	2	2	2
3/19/2023	P.S. 69	350	2	4	13
3/25/2023	BK Green Magnet School of Eco-Activism	180	2	6	9
4/1/2023	Mary Mitchell Family Youth Center	53	2	3	4
4/15/2023	Madison Square Park	501	2	4	12
4/21/2023	NYU - Schwartz Plaza	320	3	4	21
4/30/2023	District 44 Clean & Green	100	2		4
5/4/2023	Pace University	163	2	4	12
5/13/2023	P.S. 83 Donald Hertz Schoolyard	113	2	4	2
5/21/2023	QNS County Farm Museum	245	2	6	8
5/25/2023	Brooklyn Army Terminal	95	2	4	5
6/3/2023	RISE Center Rockaway	190	2	3	5
6/17/2023	Old Stone House	373	2	4	12
6/28/2023	P.S. 9 Sarah Smith Garnet	167	2	2	4

Weight of Material Collected and Donated

DATE	VENUE	CLOTHING	HOUSEWARE	BOOKS	APPLIANCES	ANTS & CRAFTS	BBQ ITEMS	MEDIA	SHOES	ACCESSORIES	ELECTRONICS	BEDDING	TOYS & GAMES	PET ITEMS	PERSONAL HYGIENE	TOOLS	SPORTS ITEMS	MUSIC INSTRUMENTS	UNSORTED IN-TIME	TOTAL IN-TIME	TOTAL REUSED BY PUBLIC	UNSORTED LEFTOVERS	LEFTOVERS DONATION RECIPIENT	
8/13/2022	James Baldwin Outdoor Learning Center Farmers Market	489.0	343.0	185.0	17.0	33.0	0.0	19.0	71.5	3.5	29.5	107.5	92.0	4.5	27.0	0.0	0.0	0.0	0.0	1,421.5	1,020.0	401.5	Salvation Army	
8/27/2022	Baychester Community Center	434.0	256.0	110.0	0.0	12.0	59.5	6.5	56.0	1.0	77.5	42.0	216.5	3.5	7.5	3.0	0.0	0.0	0.0	1,285.0	794.0	491.0	Salvation Army	
9/11/2022	Pioneer Works	736.0	287.0	515.0	32.5	14.5	59.0	3.0	97.0	46.5	40.0	9.5	282.0	6.0	8.5	16.0	3.0	39.6	0.0	2,195.1	1,369.6	825.5	Goodwill	
9/17/2022	Pomono Houses	687.5	433.5	313.5	40.0	49.0	110.0	31.0	135.0	24.5	169.0	25.0	179.5	33.0	16.5	1.0	1.0	13.2	0.0	2,262.2	1,805.7	456.5	Salvation Army	
9/24/2022	Wagner Houses	496.5	115.5	87.0	8.0	15.0	0.0	10.0	70.5	40.0	17.0	6.5	33.0	0.5	9.0	0.0	1.0	13.2	0.0	922.7	803.7	119.0	BK Borough Hall Stop N Swap	
9/27/2022	Brooklyn Borough Hall	582.0	493.0	303.0	64.5	37.5	15.0	23.0	91.5	43.5	96.0	19.0	163.0	0.5	17.5	13.0	0.0	0.0	0.0	1,902.0	1,708.5	193.5	Salvation Army	
10/14/2022	BPL New Lots	451.5	113.0	109.5	20.5	14.0	22.5	4.0	46.0	26.5	18.0	10.0	137.0	0.0	5.5	5.0	0.0	26.4	0.0	1,009.4	802.4	207.0	Feed the Family Outreach Foundation	
10/22/2022	M.S. 35 Stephen Decatur	574.5	232.5	173.5	10.0	39.0	13.0	2.5	113.0	55.5	49.5	16.5	49.5	1.0	15.0	0.0	2.0	0.0	0.0	1,347.0	1,067.0	280.0	Salvation Army	
11/5/2022	Hope Gardens Comm Ctr	906.0	267.5	188.5	22.5	56.5	5.0	5.0	125.0	78.0	58.0	8.5	115.5	11.5	10.5	1.5	0.0	13.2	0.0	1,872.7	1,442.7	430.0	Salvation Army	
11/12/2022	Roosevelt Island Senior Center	1,460.5	929.5	654.0	89.5	98.0	63.5	67.5	217.5	106.5	189.0	106.0	437.5	44.0	131.5	5.0	1.0	13.2	0.0	4,613.7	3,769.2	844.5	Goodwill	
11/19/2022	CAMBA Beacon 361	590.5	186.5	151.5	58.0	31.5	16.0	12.0	67.0	47.0	70.0	21.5	70.0	2.5	31.0	6.0	1.0	52.8	0.0	1,414.8	1,124.8	290.0	Salvation Army	
12/3/2022	College of Staten Island	265.5	258.5	407.0	22.5	57.5	10.0	39.0	31.5	17.0	62.5	17.0	174.0	3.0	11.5	0.0	4.0	0.0	0.0	1,380.5	903.5	477.0	Salvation Army	
12/11/2022	Free Synagogue of Flushing	686.0	560.5	295.0	33.0	74.0	22.5	34.0	103.0	60.5	147.5	45.5	306.0	3.0	9.0	16.0	0.0	0.0	0.0	2,395.5	1,914.5	481.0	Samaritan Daytop Village, Goodwill	
12/14/2022	Clay Pit Ponds Int Ctr	78.0	0.0	48.5	0.0	4.0	27.0	1.0	0.5	2.5	0.0	7.0	419.0	0.0	3.0	5.0	0.0	0.0	0.0	595.5	251.0	339.5	CHASI	
1/15/2023	Cooper Park Community Center	1,309.0	0.0	0.0	0.0	0.0	0.0	0.0	154.0	87.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,550.0	1,394.0	156.0	Goodwill	
1/28/2023	M.S. 210Q The Elizabeth Blackwell School	827.5	521.5	692.5	68.0	97.0	156.0	80.5	155.5	93.0	135.0	142.5	227.5	0.0	28.0	15.0	0.0	0.0	0.0	3,239.5	2,444.5	795.0	Samaritan Daytop Village, Feed the Family Outreach Foundation	
2/11/2023	St. Mary's Episcopal Church	804.5	443.5	432.5	43.5	69.5	11.5	25.5	146.0	93.5	77.0	59.5	104.5	29.5	54.5	15.0	0.0	0.0	0.0	2,410.0	1,784.5	625.5	Samaritan Daytop Village, Goodwill	
2/25/2023	William Hodson Senior Center	659.0	120.5	191.0	0.0	5.5	8.5	16.5	147.5	84.0	39.5	31.5	23.5	17.5	14.0	0.0	0.0	0.0	0.0	1,358.5	776.5	582.0	William Hodson Senior Center	
3/4/2023	Bronx Studio School	740.5	108.5	119.5	0.0	4.0	35.0	10.0	65.5	28.0	25.0	61.0	70.0	0.0	10.5	0.0	0.0	0.0	0.0	1,277.5	929.0	348.5	Salvation Army	
3/8/2023	Forto Preparatory Academy	189.0	0.0	58.0	0.0	4.5	12.0	1.5	17.5	6.0	0.0	2.5	120.5	0.0	0.0	0.0	0.0	0.0	0.0	411.5	319.5	92.0	Jireh Community Foodbank	
3/11/2023	P.S. 1 The Courtland School	308.5	43.5	142.5	0.0	11.0	23.0	0.5	8.0	12.5	0.0	26.5	5.5	4.5	2.5	4.5	1.0	13.2	0.0	607.2	407.7	199.5	Salvation Army, Unidos Si Se Puede	
3/19/2023	P.S. 69	1,282.0	522.0	707.0	36.0	65.5	99.0	91.0	146.5	63.0	153.5	84.0	394.5	12.5	6.0	0.0	0.0	0.0	0.0	3,672.5	7,335.0	5,297.0	2,038.0	Universal Church, Goodwill
3/25/2023	BK Green Magnet School of Eco-Activism	880.5	383.0	231.5	79.5	25.5	0.0	23.0	141.5	114.5	60.5	102.0	193.0	8.5	13.0	8.0	0.0	0.0	0.0	2,264.0	1,875.5	388.5	Salvation Army	
4/1/2023	Mary Mitchell Family Youth Center	563.5	147.0	151.0	16.5	14.5	2.5	5.5	59.5	49.0	21.0	10.0	40.0	0.0	19.0	8.0	0.0	0.0	0.0	1,107.0	855.0	252.0	Unidos Si Se Puede	
4/15/2023	Madison Square Park	919.0	322.0	447.5	78.0	48.0	3.0	69.0	127.0	97.5	29.5	104.0	131.5	18.0	22.5	15.0	2.0	26.4	0.0	2,459.9	2,260.9	199.0	Salvation Army	
4/21/2023	NYU - Schwartz Plaza	474.5	112.5	127.0	4.0	24.5	9.0	26.5	51.5	60.0	77.5	17.5	59.5	0.5	18.0	4.5	0.0	0.0	0.0	1,067.0	1,017.0	50.0	District 44 Clean & Green Stop N Swap	
4/30/2023	District 44 Clean & Green	159.5	0.0	232.0	0.0	4.5	103.5	0.0	41.0	0.0	0.0	0.0	303.0	0.0	0.0	0.0	0.0	0.0	0.0	475.5	1,319.0	988.0	331.0	Big Reuse
5/4/2023	Pace University	368.5	235.0	63.0	18.5	5.0	10.5	13.5	51.5	46.0	17.0	32.5	52.0	0.0	9.0	0.0	0.0	0.0	0.0	922.0	854.0	68.0	The Door	
5/13/2023	P.S. 83 Donald Hertz Schoolyard	438.5	250.5	106.0	31.5	31.0	7.5	14.0	124.0	67.5	105.0	59.0	113.0	0.5	21.0	11.5	0.0	0.0	0.0	1,380.5	1,131.5	249.0	Salvation Army	
5/21/2023	QNS County Farm Museum	1,279.5	1,149.0	1,130.5	108.0	98.5	175.5	81.0	294.5	145.5	142.5	90.5	798.5	13.5	17.5	29.0	0.0	0.0	0.0	1,936.5	7,490.0	6,467.0	1,023.0	Brooklyn Emerge
5/25/2023	Brooklyn Army Terminal	516.5	0.0	0.0	0.0	0.0	0.0	0.0	58.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	610.5	565.0	45.5	Church of St. Luke in the Fields	
6/3/2023	RISE Center Rockaway	597.0	304.5	174.5	81.5	45.5	39.5	28.0	90.0	44.0	63.0	14.5	209.5	3.0	14.0	0.0	0.0	0.0	0.0	1,708.5	1,331.0	377.5	Muslim Ummah of North America (MUNA) Social Services	
6/17/2023	Old Stone House	1,105.5	658.5	513.0	60.0	116.5	18.0	60.0	134.5	116.0	133.5	119.0	451.0	14.0	55.6	0.0	0.0	0.0	0.0	3,555.1	2,697.1	858.0	Salvation Army	
6/28/2023	P.S. 9 Sarah Smith Garnet	1,129.5	591.0	613.0	54.5	40.5	70.0	8.0	159.0	63.5	169.0	135.0	429.0	18.0	18.0	0.0	1.0	13.2	787.0	4,299.2	2,971.7	1,327.5	Salvation Army	

Support for Extended Producer Responsibility for Packaging and Paper

DSNY supports Extended Producer Responsibility (EPR) for Packaging and Paper legislation and has participated in state-level policy discussions as New York lawmakers advance this possible framework to improve material recovery and reduce waste. Packaging and Paper makes up approximately 35% of New York City's waste stream. Targeting this large portion of the waste stream for producer responsibility would have significant downstream impacts on recycling and diversion rates.

EPR not only incentivizes producers to design for recyclability, but also acts as a source of steadfast funding for recycling programs, outreach, and infrastructure. Through municipal reimbursement, NYC could save an estimated \$150 million per year. This is a significant source of potential funding that would act as a source of resilience and ensure recycling programs remain steady in the face of financial uncertainty.

Public Litter Baskets

While DSNY maintains approximately 23,000 litter baskets citywide, they represent less than 3% of all DSNY curbside and containerized waste. As part of the 2023 Waste Characterization Study, DSNY studied the composition of litter baskets for the first time in almost 20 years and found a lower proportion of recyclables and a higher proportion of nonrecyclables in the waste stream. In addition, DSNY has released a newly designed basket that is rat-resistant, leak-

proof, harder to misuse with household trash (due to its split lid), and both easier and safer for Sanitation Workers to empty. Over 300 new baskets are on the streets today, with an additional 1,000 already on the way.

Outreach and Education

DSNY understands that a comprehensive citywide approach to outreach and education is necessary to improve recycling and reduce waste. DSNY's outreach and education programs and campaigns target several constituencies: commercial business owners, private carters, building owners, property managers, building staff, agency staff, as well as residents and tenants.

DSNY utilizes a variety of outreach methods to reach these groups including door-to-door canvassing, phone banking, text notifications, in-person information sessions, site visits and trainings. DSNY also hosts a variety of distribution events where New Yorkers can get leaf bags, brown bins, compost, kitchen containers, and more. In distributing these items, DSNY has the opportunity not only to educate New Yorkers but also to encourage participation by providing necessary tools. In addition, DSNY regularly participates in events and meetings hosted by community partners, agencies, and elected officials.

Going forward, DSNY plans to increase its digital footprint as part of its multifaceted outreach and education campaign. DSNY will continue to host virtual information sessions and trainings, as well as use email blasts to share digital toolkits with community partners, civic groups, community boards, elected officials and others. DSNY uses, and will continue to use, paid communications when appropriate, which consists of a combination of direct mail, social media, community and ethnic online publications, streaming radio, out-of-home, and print advertising to amplify our messages.

In addition to growing our digital footprint, DSNY is placing a high priority on communicating with New Yorkers in the languages they speak. DSNY staff, vendors, and community partners are fluent and will communicate in the languages most spoken throughout the five boroughs including Spanish, Mandarin Chinese, Cantonese, Russian, Korean, Haitian Creole, Arabic, Bengali, Hindi, Urdu, Yiddish, and Hebrew. This will help ensure DSNY is connecting with as many people as possible.

DSNY is implementing several outreach and education initiatives to increase diversion in residential buildings, NYCHA, commercial establishments and the construction and demolition sector. To increase diversion in residential buildings, DSNY has expanded and revamped the long-standing Zero Waste Building Maintenance training, which is now called the Clean Buildings Training Program. The Clean Buildings Training is a series of free courses to help New Yorkers keep buildings clean through best waste management and recycling practices. Topics discussed includes DSNY rules and regulations, building waste management best practices, roles and responsibilities of tenants and staff, special waste, composting & recycling, and strategies for pest control. Additionally, we have tailored new trainings for new constituent groups, and offer the following trainings:

- Clean Buildings: Residential Maintenance Staff (English and Spanish)
- Clean Buildings: NYCHA Staff
- Clean Buildings: NYC Residents
- Clean Buildings: NYC Agency Staff
- Clean Buildings: Clean & Green Schools

Separately, for Commercial entities, DSNY staff hosts off-site group trainings; provides sample signs, labels, and electronic copies of notices in multiple languages; produces the DSNY Business Rules and Regulations Guidebook; and hosts workshops with the NYC Department of Small Business Services, Chambers of Commerce, Business Improvements Districts, and other organizations to educate businesses in all five boroughs. These updated trainings focus on the importance of source separation, especially of organic wastes, and provided tools and strategies to businesses.

Non-Divertible Materials

In the 2023 NYC Waste Characterization Study, which at the time of this report is being finalized, there are 117 material categories that are deemed “non-divertible.” A material can be considered non-divertible for several reasons. For some materials, the high costs of processing and recycling are prohibitive to developing a secondary recycling market. Other materials may be soiled, multi-material, or have no existing processing or recycling infrastructure. The complete list of non-divertible material categories will be found in DSNY’s most recent 2023 Waste Characterization Study when it is published. The list below combines those categories into larger material groups:

- Expanded Polypropylene Plastics
- Expanded Polystyrene Plastics
- Film Plastics and Pouches
- Carpet and Upholstery
- Disposable Diapers, Sanitary Products, and Animal By-Products
- Garden Hoses
- Construction & Demolition Waste
- Non-Recyclable Paper

Eliminating these materials from the waste stream is difficult and expensive. Prior to focusing our efforts on these materials, DSNY prioritizes expanding access and growing participation in our organics and traditional recycling programs, which make up most of NYC’s waste.

To remove or reduce these materials from the waste stream, the solution is upstream of DSNY in the form of Extended Producer Responsibility (“EPR”). EPR programs would move the management of these hard-to-recycle materials from local governments to the producers of these goods. In addition, EPR programs would disincentivize the usage of nonrecyclable material types and encourage manufacturers to design for recyclability.

Diversion and Capture Rates

This section details the diversion and capture rates.

FY2023 Curbside and Containerized Diversion Rates by District

The below table includes curbside and containerized tonnages for each stream collected by DSNY, disaggregated by DSNY District. Organics, MGP, and Paper are considered tons diverted, while Refuse is considered tons disposed.

		FY 2023 (Tons Per Day)				
Borough	District	ORGANICS TONS	MGP TONS	PAPER TONS	REFUSE TONS	Diversion Rate
Manhattan	MN01	0.1	9.0	16.5	72.1	26.1%
	MN02	0.9	10.6	16.0	82.6	25.0%
	MN03	1.8	10.7	14.5	171.1	13.6%
	MN04	0.1	13.4	18.8	118.8	21.4%
	MN05	0.0	6.5	10.5	65.1	20.7%
	MN06	0.4	14.3	20.8	128.4	21.6%
	MN07	3.4	26.5	39.0	189.0	26.7%
	MN08	0.3	27.4	42.4	209.1	25.1%
	MN09	1.0	9.7	12.6	118.2	16.5%
	MN10	0.2	11.7	10.8	139.0	14.0%
	MN11	0.6	6.9	10.9	160.2	10.3%
	MN12	0.8	17.8	16.8	193.7	15.5%
Manhattan Total		9.6	164.6	229.6	1647.3	19.7%
Bronx	BX01	0.9	5.4	5.4	142.9	7.6%
	BX02	0.6	5.4	4.4	67.9	13.3%
	BX03	0.7	6.2	5.7	116.8	9.8%
	BX04	1.8	12.5	10.0	158.8	13.3%
	BX05	2.0	12.4	8.4	145.3	13.6%
	BX06	1.9	8.7	9.3	111.7	15.1%
	BX07	1.1	16.6	10.8	150.3	15.9%
	BX08	1.6	13.5	12.9	109.2	20.4%
	BX09	0.1	13.8	9.7	193.4	10.9%
	BX10	1.2	14.1	11.8	129.1	17.3%
	BX11	0.9	12.7	11.7	140.6	15.2%
	BX12	0.2	21.0	12.7	173.3	16.4%
Bronx Total		13.0	142.3	112.9	1639.2	14.1%
Brooklyn	BKN01	1.0	16.7	28.0	256.8	15.1%
	BKN02	3.5	15.2	21.2	162.0	19.8%
	BKN03	0.5	12.8	18.0	207.0	13.1%
	BKN04	0.0	13.9	10.0	139.0	14.7%
	BKN05	0.1	16.9	10.5	228.7	10.7%
	BKN08	1.5	10.4	12.3	108.3	18.2%
	BKN09	0.1	9.2	11.0	128.2	13.7%

	BKN16	0.0	6.1	4.6	116.7	8.4%
	BKN17	0.1	16.0	12.0	178.5	13.6%
	BKS06	5.9	14.8	19.4	103.5	27.9%
	BKS07	4.0	13.9	14.7	130.4	20.0%
	BKS10	2.8	16.6	16.6	137.2	20.8%
	BKS11	0.5	19.3	20.4	200.5	16.7%
	BKS12	0.1	13.3	27.1	257.3	13.6%
	BKS13	0.1	8.7	8.4	103.5	14.3%
	BKS14	0.3	15.6	16.8	190.3	14.7%
	BKS15	2.4	18.4	20.3	191.1	17.7%
	BKS18	0.9	23.1	20.2	241.9	15.5%
Brooklyn Total		23.8	260.8	291.4	3080.7	15.8%
Queens	QE07	3.7	28.4	29.1	261.9	18.9%
	QE08	2.2	14.8	17.6	182.2	15.9%
	QE10	2.1	19.5	13.4	152.2	18.7%
	QE11	6.0	16.0	17.6	126.9	23.8%
	QE12	6.2	33.0	19.0	304.0	16.1%
	QE13	4.1	30.8	18.7	227.9	19.0%
	QE14	1.7	9.4	11.2	156.3	12.5%
	QW01	2.4	24.1	27.0	207.5	20.5%
	QW02	7.0	15.9	17.3	128.4	23.9%
	QW03	0.9	18.6	13.8	188.1	15.1%
	QW04	0.6	18.3	13.1	166.2	16.1%
	QW05	6.6	25.3	22.8	188.3	22.5%
	QW06	1.7	14.1	15.0	114.0	21.2%
	QW09	6.7	19.4	16.2	157.2	21.2%
Queens Total		51.8	287.6	251.9	2561.1	18.8%
Staten Island	SI01	1.6	25.5	22.5	233.7	17.5%
	SI02	2.3	19.0	19.5	182.0	18.3%
	SI03	2.9	25.0	27.0	221.6	19.8%
Staten Island Total		6.8	69.5	69.0	637.4	18.6%
Grand Total		105.0	924.8	954.7	9565.7	17.2%

Non-Curbside Capture Rates

A capture rate is the amount of recyclable material that was diverted in only one category. Below are estimated capture rates for DSNY's non-curbside recycling programs.

Non-curbside capture rates are based on preliminary results of the 2023 DSNY Waste Characterization Study. Tonnages collected curbside are the percentage of each category in aggregate waste found in the study, multiplied by actual Fiscal Year 2023 curbside and containerized collections. DSNY does not and cannot track tonnages of individual material types that are collected curbside outside of a waste characterization study. Thus, the total curbside tonnages of the below materials are estimates.

There is additional divertible material recycled or disposed of that is not reported to DSNY. Non-curbside tonnages are sometimes handled by third-party vendors who voluntarily provide their collections to DSNY. Additional unreported collections may exist within NYC.

Electronics

Non-curbside electronics collections include:ecycleNYC, SAFE Events, Special Waste Drop-Off Sites, Staten Island Electronics Pilot,ecycleNYC events,ecycleNYC garage collections, Agency Safe Handling, and reported collections from DSNY partners, including Electronics Recyclers International (ERI).

Textiles

Non-curbside textiles include collections from refashionNYC, the refashionNYC Garage pilot, and reports from DSNY partners including collections from public textile bins and GrowNYC.

Organics

Organics is diverted through both curbside and non-curbside programs, as well as third party-vendors. The capture rate for organics is therefore inclusive of material collected curbside as well. Divertible organics collections are inclusive of food scrap drop-off sites, food rescued by partners such as City Harvest, Rikers food waste, landscaper waste, horse manure, and leaves/brush.

Household Hazardous Waste (HHW)

Household Hazardous Waste (HHW) includes non-electronic material collected at SAFE Events, Special Waste Drop-Off Sites, Agency Safe Handling, Residual Motor Oil from used Filters, Antifreeze, Lead Acid Battery Cores, CFC removals, and reporting from our partners such as PaintCare.

Electronics FY23

Tonnage Collected Non-Curbside, Recycled ^a	8,591.4
Tonnage Collected Curbside ^b	18,795.5
All DSNY-Managed Electronics ^b	27,386.9
Electronics Capture Rate ^b	31.4%

^a Actual collection numbers.

^b Estimated based on preliminary 2023 Waste Characterization Study findings.

Textiles FY23

Tonnage Collected Non-Curbside ^a	6,673.2
Tonnage Collected Curbside ^b	180,300.2
All DSNY-Managed Textiles ^b	186,973.4
Textile Capture Rate ^b	3.6%

^a Actual collection numbers.

^b Estimated based on preliminary 2023 Waste Characterization Study findings.

Organics FY23

Tonnage Diverted Non-Curbside ^a	72,841.9
Tonnage Diverted Curbside ^a	32,772.8
Tonnage Collected Curbside ^b	1,289,482.3
All DSNY-Managed Organics ^b	1,362,324.1
Organics Capture Rate ^b	7.8%

^a Actual collection numbers.

^b Estimated based on preliminary 2023 Waste Characterization Study findings.

HHW FY23

Tonnage Collected Non-Curbside ^a	1,596.2
Tonnage Collected Curbside ^b	15,746.1
All Collected HHW ^b	17,342.3
HHW Capture Rate ^b	9.2%

^a Actual collection numbers.

^b Estimated based on preliminary 2023 Waste Characterization Study findings.

Recyclable Material Market Analysis

Whether recycling markets are positive or negative, DSNY is mandated to collect all rigid plastics, glass, metal, cartons, and paper, and our processors must accept it. The status of recycling markets has no effect on New Yorker's abilities to participate in recycling.

Recycling commodity markets are volatile and dependent on factors beyond any local government's control. Global events and broad changes in the economy can quickly and dramatically alter commodity prices. The value of recyclables such as metals, glass, plastics, and paper largely rely on economic factors beyond the control of New York City. Recently, economic downturns and supply disruptions affecting advanced economies have led to price decreases for post-consumer recycling commodities. However, latent, post-COVID-19 demand could potentially reverse that trend.

Market	Description
Plastics	Trends in Post-Consumer Recycled material ("PCR") markets show that post-consumer plastic resin has generally gotten more expensive than their virgin counterparts. This can be attributed in part to increased demand for PCR in consumer-facing products, lower supplies of PCR than virgin material, and increased chemical recycling. Upstream of post-consumer resins, the price of feedstock (ex: plastic scraps) remains relatively low.
Metal	Metals can be classified as either ferrous or nonferrous. Metal prices can fluctuate significantly based on distances for which metals must be transported for processing, the cost of transport fuel, and international demand and policies surrounding scrap metal. The global metal recycling market is anticipated to continue to grow due to a projected construction increase as well as concerns about GHG emissions and environmental regulations (leading to greater demand for recycled metals specifically). Changes in oil prices can alter the demand for metal feedstock as well since raw materials require more processing – and thus energy – to be manufactured into product.
Glass	Glass bottles and jars can be recycled endlessly without reduction in quality. Glass brought for recycling is processed into cullet, which is then further processed into new products. Prices for glass cullet can vary significantly by color. Financial incentives and sustainability policies are likely to continue increasing demand for recycled glass products. Separately, the increased use of glass in construction and solar panels is also likely to increase the demand for glass long-term.
Paper	Recycled paper markets are volatile. A positive trend in post-consumer paper prices can turnaround quickly, dipping into negative value (meaning entities have to pay for paper materials to be recycled) due to changes in international processing capacity or import restrictions. Factors that have had a positive effect on U.S. recycled paper markets include increased exports to other countries, sustainability initiatives increasing demand for recycled paper products, and U.S. investment in paper processing infrastructure.

DSNY Disposal and Processing Capacity

Municipal solid waste in NYC is managed by a variety of facilities and typically involves multiple stops along a journey. DSNY collects residential, agency and institutional waste; commercial waste is collected by the private sector and shares some of the infrastructure and capacity discussed in this report. Most refuse collected by DSNY arrives at a transfer station prior to final disposition. The exception to this is refuse that is brought directly to waste-to-energy facilities. Recyclable materials and organics are brought directly to a sorting or processing site by DSNY. Below is the capacity of each transfer station, waste-to-energy facility, recyclable processor, and organics processor to which DSNY delivers material.

Waste Transfer Stations

Transfer facilities, also called transfer stations, receive, and consolidate refuse collected by DSNY. After being consolidated at a transfer facility, the material is transported to another facility for processing or disposition. Transfer facilities may be publicly or privately owned.

DSNY utilizes the City owned marine transfer station (MTS) network and contracts with private transfer stations to manage DSNY-collected refuse. The transfer stations used for DSNY-collected refuse are shown in the table below. The Waste Management transfer stations listed are currently under the Long-Term Export Program with the City. DSNY also has interim contracts with private transfer stations that are contracted to transfer DSNY-collected refuse as needed.

DSNY Permitted or Contracted Transfer Station Throughput

Facility	DSNY Permitted or Contracted Throughput (Tons per Day)	Total DSNY Cost FY23	Average Cost per Ton FY23
Hamilton Marine Transfer Station and Southwest Marine Transfer Station*	5,778	\$126,229,429.24	\$184.127
North Shore Marine Transfer Station and 91st St. Marine Transfer Station*	5,532	\$117,283,747.16	\$183.383
Staten Island Transfer Station	1,950	\$29,515,801.07	\$142.345
Covanta Essex	2,277	\$38,077,201.69	\$105.964
Private Transfer Station Network (Long Term and Interim), 8 Facilities	14,895	\$162,762,533.35	\$128.138

Private Transfer Stations	DSNY Permitted or Contracted Throughput (Tons per Day)	Total DSNY Cost FY23	Average Cost per Ton FY23
Waste Management (Harlem River Yard) Transfer Station	4,000	\$71,621,742.46	\$120.5443
Waste Management (Varick Avenue) Transfer Station	4,250	\$41,879,407.10	\$129.7623
Waste Management (Review Avenue) Transfer Station	2,100	\$41,228,167.23	\$142.7538
Tully Environmental Transfer Station	1,395	\$6,262,775.04	\$124.8709
American Management Transfer Station	1,395	\$1,170,893.74	\$126.0302
Royal Waste/Regal Recycling Transfer Station	462	\$532,544.96	\$125.1845
Interstate Waste Services (Jersey City, NJ) - Non-Putrescible	55	\$53,264.68	\$79.2700
Zevel Transfer Station - Non-Putrescible	738	\$13,738.14	\$98.8000

Material Recovery Facilities (MRFs)

All MRFs in NYC are privately owned. DSNY has contracts with SIMS Municipal Recycling (SMR) to receive and sort metal, glass, and plastic and bulk metal and an agreement with Pratt Paper on Staten Island for paper and cardboard. Some of the paper collected by DSNY is transferred to Pratt via SMR.

NYC Materials Recovery Facilities (2022 Capacity)

MRF	Borough	Recyclable Material	Processing Capacity (Annual Tons)
SIMS Municipal Recycling	BK	Commingled Metal, Glass & Plastic	297,600
SIMS Municipal Recycling	BK	Scrap Metal	120,000
SIMS Municipal Recycling	BK	Paper	93,600
Pratt Paper Mill	SI	Paper	450,000

Organics Transfer and Processing Facilities

The current system for the receipt, transfer, and processing of organics collected by DSNY is summarized in the table and notes below. DSNY is in the process of expanding the Staten Island Compost Facility capacity as a result of capital investments to upgrade the processing technology to an aerated static pile system.

DSNY-Collected Organics Waste Capacity and Recovery

Facility Name	Capacity (TPD)	Function	Final Destination (s)
Soundview Park	166	Windrow composting of leaf and yard waste	On-site
Waste Management of NY – Varick Avenue	500	Pre-processing of food scraps into a slurry; transfer of leaf and yard waste for mulching or composting	NYCDEP’s Newtown Creek WRRF, anaerobic digester; Reliable Wood Recycling
American Recycling Management	100	Pre-processing of food scraps into a slurry; transfer of leaf and yard waste for mulching or composting	Pine Island Farm AD; Long Island Compost
DSNY’s Staten Island Compost Facility	5	Tiger depacking Pre-processing & Aerated Static Pile Composting	On-site
DSNY’s Rikers Island Compost Facility	N/A	In-vessel composting for organics generated on the island	On-site

Notes: TPD – tons per day; WRRF – wastewater resource recovery facility; SICF – Staten Island Compost Facility

SICF currently has a maximum weekly capacity of 30 tons per week and operates 6 days a week. Based on this, the daily capacity is calculated as 5 tons per day; a permit expansion to 600 tons per week is near final.