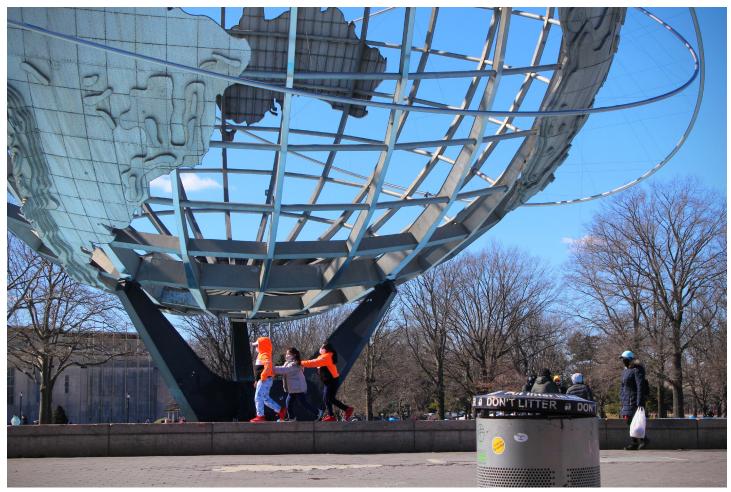
The State of Waste in Queens



Source: Queens SWAB Organizing Committee member

A Report by the Queens Solid Waste Advisory Board Organizing Committee



April 2021

TABLE OF CONTENTS

Background

About QSWAB Organizing Committee

Executive Summary

Introduction

Waste Statistics

Community Needs

Community Assets

Waste Impacts

COVID-19 Impacts

Recommendations

Appendices

Glossary

2

REPORT CONTRIBUTORS

Mary Arnold, Rachel Boeglin (Project Manager, Writer, Editor, Photographer), Katy Burgio, Anita Chan, Belinda Chiu, Ruth Esa, Michael Cyr, Caitlin Enz, Wylie Goodman (Project Supervisor, Lead Writer, Editor), Zhi Keng He (Data Visualization/Mapping), Gabby Langston (Data Visualization/Mapping), Susan Latham (Copy Editor/Proofreader), Mortimer "Mac" Lawrence, Perry Leung (Report Draft 2019: Researcher), Jenny Lin, Adam Mitchell, Kathy Mu (Graphics Designer), Jennifer McDonnell, Kara Napolitano (Project Manager), Racheal Notto (Project Manager), Mary Parisien, Andrea Scarborough, Arianna Stenta, Maura Troester (Copyeditor/Proofreader), Vanessa Ventola, Jauna Vitale, Jane Wu

ACKNOWLEDGMENTS

SWAB Leadership Readers: Matthew Civello (Chair, Manhattan SWAB), Amy Marpman (Vice-Chair, Queens SWAB Organizing Committee), Shari Rueckl (Chair, Brooklyn, SWAB), Dior St. Hilaire (Chair, Bronx SWAB)

Partner Contributors: Barbara Brown (Eastern Queens Alliance), Gloria Boyce-Charles (Eastern Queens Alliance), Caren Tedesco Cardoso (Astoria Pug), Belinda Chiu (A Healthy Blueprint), Debbie Lee Cohen (Cafeteria Culture), Kathleen Corradi (NYC Department of Education | Division of School Facilities), Keith Dumanski (Materials for the Arts), Chelsea Encababian (Queens Botanical Garden), Sonia Ferraro (Paradise Community Garden), Thomas Goldsmith (St. John's University), Justin Green (Big Reuse), Nicole Grossberg (Zero Waste NYC Workshops), Danielle Dubno-Hammer (The Institute for Health Professions at Cambria Heights), David Hurd (GrowNYC), Clarisa James (Laurelton Cleanup), Rhonda Keyser (Cafeteria Culture), Katherine Kitchener (DSNY), Jennifer Kline (DSNY), Karen Irby-Lawson (SEQ Cleanup), Benjamin Lucas (Woodside Sunnyside Composting), Robert Lee (Rescuing Leftover Cuisine), Angela Miskis (Abuela Neighborhood Maintenance), Michael Otterman (45th Street Composters), Kate Person (Proud Astorian), Rebecca Pryor (Guardians of Flushing Bay), Lou Reyes (Astoria Pug), Dawn Roberts-Semple (York College), Catherine Smiley (Rescuing Leftover Cuisine), Jennifer Walden Weprin (Queens County Farm Museum), Kate Wimsatt (GrowNYC)

BACKGROUND

The following report, nearly a year in the making, represents the collective effort of over 20 Queens Solid Waste Advisory Board (SWAB) Organizing Committee members and countless government, agency, civic, nonprofit, commercial, and community readers and contributors.

This report provides a baseline for measuring Queens' contributions to New York City's goal of sending zerowaste to landfills by the year 2030.

The report also introduces the QSWAB Organizing Committee (soon to be formally recognized) to Queens residents, many of whom may be unfamiliar with the civic group's role as a legally mandated advisor to the Queens Borough President and local electeds on the City's Solid Waste Management Plan.

The report begins by exploring Queens' Waste Statistics, highlighting the materials residents use and discard and how well or poorly we divert recoverable resources from our waste stream. Given the City's rising export costs, the way improperly managed organics contributes to climate change, and the environmental impacts of landfills and incineration on environmental justice communities, examining our borough's waste behaviors is critical to helping the City pilot and implement prevention and intervention strategies.

One way to understand Community Needs around waste is through facilitated listening sessions. Due to the social distancing constraints of COVID-19, we turned instead to publicly available data that captured how Queens residents want to improve their waste landscape. Using 311 data, Community Board (CB) FY21 Annual Needs Statements, and Participatory Budgeting submissions, we captured the waste-related priorities and services residents want in order to address local challenges.

Although the conversation around waste often skews negative, this report also highlights Queens' **Community** Assets related to recycling, diversion, and resource recovery. Among these are a nationally recognized small compost processor, a nonprofit that provides meals by rescuing food from commercial establishments, and countless volunteer groups providing food scrap diversion and compost processing to replace services lost this past year due to COVID budget cuts.

Because waste has often been linked to public health, we next examine how Queens residents view the Impact of Waste on their lives. We created a broad online survey completed by over 400 respondents and administered a narrower, in-person survey at three waste-collection sites. With a focus on environmental justice, we also held in-depth conversations with leaders from Community Districts 5 and 12 who have fought for decades to address waste inequities caused, respectively, by outmoded diesel trains carrying construction and demolition debris and unenclosed waste transfer stations.

COVID-19 Impacts to the City and borough were farreaching, affecting both waste output and public sector services. Queens' pandemic experience as it relates to waste serves to remind us why a clean city is critical to public confidence and urges us to heed the lessons of COVID to ensure we are prepared for the next health or economic crisis.

Finally, we conclude the report with policy and practice **Recommendations** designed to engage a broad range of stakeholders. If we want to achieve a zero-waste future, we need all parties at the table and mutually committing to the change we want to see.













Queens SWAB Organizing Committee Meetings and Events: 2018 - 2021 Source: Queens SWAB Organizing Committee members

ABOUT THE QUEENS SOLID WASTE ADVISORY BOARD ORGANIZING COMMITTEE

In early 2020, the **Queens Solid Waste Advisory** Board (QSWAB) Organizing Committee established as its mission to serve as a trusted voice advocating for fairness, equity, and anti-racism within the waste sector in Queens. In carrying out the functions of the citizens' board as outlined in the City's Administrative Code (§ Title 16-317; § Title 16-318), the QSWAB Organizing Committee aimed to raise awareness about the importance of responsible waste management and resource recovery on the local, state, and regional environment and the health and well-being of Queens' communities. The group shared information and resources with the Queens Borough President, Queens City Council Members, Queens Community Boards, and the public via meeting agendas and minutes maintained from January 2018 through March 2021.

Prior to the QSWAB Organizing Committee, Queens had a SWAB from 1989, shortly after passage of Local Law <u>1989</u> the Mandatory Recycling Law, until approximately 2011 when the group disbanded. In January 2018, five Queens residents reactivated a Queens SWAB, brought together by a shared desire to ensure the borough was contributing to the broader New York City conversation about re-imagining "waste" as a "resource." The group continued to meet monthly, growing from the original five organizers to over 25 attendees by the end of 2020.

From January 2018 until March 2021, the group operated under the name Queens Solid Waste Advisory Board Organizing Committee due to lack of formal recognition. Encouraged by New York City Council Member Antonio Reynoso (Chair of the New York City Council's Sanitation and Solid Waste Committee), Queens Borough President Donovan Richards began the legal process to appoint a formally recognized QSWAB. Applications were posted on the Queens Borough President's website in February 2021 and a new group with formal recognition was appointed in April 2021. SWABs are required to have at least 20 members representing a diverse range of constituencies that may include representatives from Community Boards, recycling and carting industry representatives, environmental organizations, government agencies, labor and business groups, property owners, tenant organizations, and the general public. Like Community Boards, SWAB members are appointed by the Borough President with additional input from local elected officials. Members are expected to serve two-year terms in a voluntary, unpaid capacity.

Each borough's SWAB is responsible for submitting to their respective Borough President an annual recycling plan and advising him or her on the following:

1. recycling and reduction goals, and the methods proposed to achieve such goals;

2. means to encourage community participation in the recycling program; and

3. means to promote the recycling program and educate the public about the program.

Both Manhattan and Brooklyn have had active SWABs for decades. A Bronx SWAB, inactive for many years, began taking shape with new leadership in November 2020 with new leaders formally appointed in March 2021. Only Staten Island currently lacks an active SWAB. The SWABs' work today extends beyond annual recycling reporting to include advocating around issues ranging from mandatory composting to pharmaceutical diversion that inform the City's public policy and practices.

EXECUTIVE SUMMARY

New York City last submitted a Comprehensive <u>Solid</u> <u>Waste Management Plan (SWMP)</u> to New York State's Department of Environmental Conservation (DEC) in 2006, five years after the City's last-remaining landfill, Fresh Kills, closed.¹ The SWMP detailed how the NYC Department of Sanitation's (DSNY) Bureau of Solid Waste Management would reduce and dispose of residential waste, residential recycling, and commercial waste for the next 20 years — until 2025.²

When the City's Independent Budget Office reviewed the plan at its halfway mark, they discovered something unexpected: predictions about the City's waste output had been overstated. The SWMP envisioned a nearly 21% increase in curbside and containerized waste, but by 2017 residential waste had decreased by nearly 9% from a high of 13,456 tons per day in 2007 to 12,246 tons in 2016.² As of DSNY's Fiscal Year (FY) 2020 Annual Report, tonnage had declined further to 10,154 per day.³

DSNY will soon draft a new SWMP to guide policy for the next 20 years. But in light of the challenges inherent in forecasting, combined with the still-uncertain realities about City life post-pandemic, it may be time for a collective pause to ask how are we doing *now* in terms of residential and commercial waste management?

For the purpose of this report, our focus is not on the City overall but a single borough: Queens. Queens is the most ethnically diverse urban area in the world,⁴ with the City's largest land mass (178 square miles).⁵ And how Queens is doing in terms of waste management may be an indicator for conditions Citywide.

Queens is also home to the QSWAB Organizing Committee members who wrote this report. Founded in January 2018 to serve as an interim guide to elected officials, City agencies, and residents in advance of formal appointment by an incoming Queens Borough President, the group wanted to address waste by not only reporting quantitative data but also telling the stories of people working outside formal structures to manage resources, reduce waste, and ensure a more equitable environment for all.

Here is what the data and Queens residents told us.

8

What is the current state of waste and resource recovery in Queens?

Queens residents throw out trash in numbers nearly equal to their share of New York City's total population and recycle at nearly the same rate. But while some Queens Community Districts divert recyclable materials (Paper, Metal-Glass-Plastic-Cartons, Organics) at levels approaching DSNY's 2020 Recycling Goal of 25%, others are as low as 13%. This suggests a clear need to tailor education and outreach to communities' unique dynamics to ensure full participation across the borough in removing recoverable materials from our waste stream.

One reason diversion rates lag is unequal access to resources. For example, only 9 of Queens' 14 Community Districts, or 46% of Queens' households, had access to Curbside Organics Collections (COC) prior to the COVID-19 Citywide suspension. While voluntary COC has not yet realized the promise of recovering the 34% or more of organic materials New Yorkers now pay to export to landfills — and diverting it to beneficial uses (i.e., compost) — failure to provide COC, along with a lack of local, alternative diversion options (i.e., food-scrap drop-off sites, community garden compost bins), guarantees that participation rates will remain low when COC returns in Fall 2021 and that widespread acceptance around separating food waste, should Mandatory Organics legislation be passed, is unlikely.

Finally, while Queens is thought of as a borough of single-family homes, many of the borough's large buildings (10 units or more) are not taking full advantage of free DSNY diversion programs that could further eliminate textile and e-waste from the waste stream. More information is needed to determine what distinguishes participating from non-participating buildings, but the fact that 638 of Queens' 422,970 (.15%) larger buildings are enrolled in refashion NYC and 3,497 in eCycle NYC (.82%) is a missed opportunity.

What are Queens residents and organizations doing to help the borough manage waste and resources?

In the wake of COVID-19, countless Queens residents, nonprofits, businesses, and institutions stepped up in ways large and small to contribute to waste management and resource recovery in the borough. The last year saw the activation of at least nine cleanup groups, 17 volunteer-led food scrap drop-off sites, and an overall increase in businesses supporting zero-waste practices. From buy-nothing groups (15) that encourage reuse to sustainability/beautification advocacy nonprofits (8), this report identified nearly 200 Queens community assets — some long-established others newly formed — that directly or indirectly help Queens residents contribute to a greener, cleaner borough.

Yet as with recycling diversion, **community assets are not always distributed equally.** We found in our research that Astoria and Long Island City were represented by 20 or more assets, while neighborhoods like Bayside, Hollis, and College Point had less than five. DSNY's own data showed that, compared to other boroughs, Queens ranked third in the number of its retail, repair, and reuse outlets. Council Member Keith Power and Antonio Reynoso's proposed <u>Community</u> <u>Organics and Recycling Empowerment (CORE) Act</u>, which would ensure a minimum of three food-scrap drop-off sites and potentially more compost-processing sites in each Community District, could help level the playing field.

What still needs to be done in Queens and Citywide to achieve the goal of sending zero waste to landfills by 2030?

Although budget cuts linked to COVID-19 have been devastating, there are reasons to feel encouraged about what this period revealed about Queens' commitment to creating a healthier environment. **Groups like** <u>Rescuing Leftover Cuisine</u>, founded by an Astoria resident, last year diverted more than 1.6M lbs. of food from the waste stream by redirecting it to people facing food insecurity.⁶ Currently though, only one Queens restaurant — a commercial kitchen — partners with the nonprofit. More Queens restaurants should be enlisted in the effort in 2021. To ensure Queens youth learn why getting to zero waste is critical to their future as environmental citizens — and how they can contribute — far more Queens public schools need to be brought into the fold. **Currently, approximately half (148) of Queens 377 DOE schools are included in DSNY's Organics Collection, but less than 20 engage in higher-level zero waste educational offerings, including** Zero Waste Pledge, S.E.E.D., and <u>Race Against Waste</u>.⁷ Likewise, the nonprofit <u>Cafeteria</u> <u>Culture</u>, which successfully engaged youth to pass <u>Local Law 142 of 2013 banning single-service foam</u> <u>food and beverage containers</u>, among their many accomplishments, has only worked in 10 Queens public schools.^{8.}

That needs to change.

We also know that not all neighborhoods are shouldering the burden of waste externalities equally. Many of our neighbors in CD12 live in areas that coexist with unenclosed waste transfer stations that release dust, leachate, and particulate matter into the environment. In CD5, transporting of waste by rail has for decades polluted the air and land in ways activists are still fighting to have taken seriously.

As the 20+ volunteers who researched, wrote, edited, and designed this report — in the middle of a pandemic during one of the worst economic crises in modern history — we know this document is just the start of a longer conversation with local electeds, agencies, and community stakeholders about our borough's waste and resource recovery accomplishments and challenges. Notably, the report barely touches on waste produced by restaurants, retailers, hospitals, offices, and other businesses, which in 2018 were estimated by the New York City Comptroller to generate 13,000 tons of solid waste every day, representing over half of the City's overall solid waste output.⁹ The next step is to track progress over time and, ideally, inform the next SWMP.

In addition to reading the report, we encourage people to visit our website to find local resources, see data visualizations, and read summaries from three years of guest presenters to learn what experts and innovators in the field recommend as best practices.

In the end, with support from the public, private, and nonprofit sectors — and if we each do our part — Queens can lead the way in sending zero waste to landfills by 2030.

INTRODUCTION



Flushing Meadows Corona Park <u>Photo Source: Queens SWAB Organizing Committee member</u>

Many who write about New York City's history of waste focus on its landfills and for good reason. Landfills served as the earliest solution to managing the City's refuse and still function as a resting place for much of the trash we generate today. That we have built so many City landmarks on landfill debris — the World Financial Center, Staten Island Ferry Terminal, Battery Park City, FDR Drive, South Street Seaport, and others — attests to their massive scale.¹

Queens has its own infamous history when it comes to landfills. Fifty years before the City formalized a "Street Cleaning Department" in the mid-1800s, Jamaica Bay was the center of the City's waste-management industries.² The borough's most notorious landfill, Edgemere, opened in 1938 — a decade before Freshkills — and by the time it closed in 1991 was "the longest continuously operating dump in the United States," receiving more than 9M cubic yards of waste over its lifetime." ³

There was, however, one encouraging event that took place at Edgemere. A year before it closed, DSNY's Borough of Waste Prevention, Reuse, and Recycling "formally incorporated composting into its larger recycling program by composting 1,000 tons of leaves under a pilot project" based at Edgemere.⁴ New York City's waste management practices have come a long way in the 31 years since Edgemere closed. In 2013, the City established a Curbside Organics Collection Pilot to collect food and yard waste directly from households.⁵ Zero waste education is available today in all public schools that want access.⁶ And righting the wrongs of waste inequity and environmental injustice in BIPOC (Black, Indigenous, and People Of Color) communities engages a broader audience than ever before.⁷

But problems remain in how our borough — and the City — manage waste. We spend energy recovering plastics that may ultimately be unusable.⁸ We continue landfilling organic material we could instead apply beneficially to improve local soils. And while we no longer bury trash within the borough, we pay exorbitantly to ship it, often in uncovered rail cars, to towns as far away as Virginia, Ohio, and South Carolina.⁹ There its harms are keenly felt, often by people who lack the power to have their concerns heard.

Queens' landfills may be long gone, but our waste problems never left. We just asked other communities to take over its management and disposal. In writing this report, we hope this practice, like Edgemere Landfill, soon reaches its inevitable end.

ENDNOTES: EXECUTIVE SUMMARY

- 1 Solid Waste Management Plan. DSNY, https://www1.nyc.gov/assets/dsny/site/resources/reports/solid-waste-management-plan, Accessed 3 April 2021.
- 2 Ibid.
- 3 Huber, Daniel. Ten Years After: Assessing Progress on the City's Solid Waste Management Plan, Independent Budget Office, 25 Aug. 2017, ibo.nyc. ny.us/iboreports/ten-years-after-assessing-progress-on-the-citys-solid-waste-management-plan-2017.html.
- 4 Overview: Queens, New York State, https://www.ny.gov/counties/queens#:~:text=Queens%20is%20the%20most%20ethnically,with%20its%20 own%20distinct%20identity., Accessed 4/3/2021.
- 5 Ibid.
- 6 @thinkzerollc. "Conversation with Rescuing Leftover Cuisine." Instagram, 2021, https://www.instagram.com/p/CKzF399hzq7/. Accessed 2 February 2021.
- 7 NYC Department of Education: Waste Management. https://storymaps.arcgis.com/stories/b56342025b2b4ae194ca08d31943aa8d. Accessed 10 April 2021.
- 8 Keyser, Rhonda. Received by Wylie Goodman, Re: Queens Schools, 15 Mar. 2020.
- 9 Unsafe Sanitation, Bureau of Budget and Bureau of Policy and Research, November 2018, https://comptroller.nyc.gov/wp-content/uploads/ documents/Commercial-Waste.pdf. Accessed 4/4/2021.

ENDNOTES: INTRODUCTION

- 1 "Environmental Initiatives." NYCdata: Recycling and Waste Removal, Baruch College, 2018, www.baruch.cuny.edu/nycdata/environmental/ recycling-waste.htm.
- 2 Orts, Eric, and Joanne Spigonardo. Initiative for Global Environmental Leadership: Wharton School of Business, 2014, pp. 1–20, Special Report: Disrupting the World's Oldest Industry.
- 3 "Rockaway Journal; Dump's Close Ends Malodorous Era." Allan R. Gold. New York Times. July 15, 1991. https://www.nytimes.com/1991/07/15/ nyregion/rockaway-journal-dump-s-close-ends-malodorous-era.html. Accessed 6 March 2021.
- 4 "Composting in New York City, A Complete Program History." DSNY, Bureau of Waste Prevention, Reuse and Recycling, 2001. https://dsny. cityofnewyork.us/wp-content/uploads/2017/12/about_2001-composting-in-nyc_0815.pdf. Accessed 3/6/21.
- 5 Garcia, Kathryn. Local Law 77 of 2013 Organics Collection Pilot Program Report, through March 2014, NYC Department of Sanitation, 1 Apr. 2014, www1.nyc.gov/assets/dsny/docs/about_OrganicsCollection-LL77-DiversionReportI-2014_0815.pdf.
- 6 DSNY: Zero Waste Schools, DSNY, DOE, GrowNYC, www1.nyc.gov/assets/zws/index.shtml. Accessed 26 April 2021.
- 7 Beecham, Marie. "How to Unite the Fight for Racial Equity and Environmental Action." NRDC, 22 Mar. 2021, www.nrdc.org/stories/how-unite-fightracial-equity-and-environmental-action.
- 8 Menegon, IYNN. "Exposing The Myth Of Plastic Recycling: Why A Majority Is Burned Or Thrown In A Landfill." Exposing The Myth Of Plastic Recycling: Why A Majority Is Burned Or Thrown In A Landfill | WBUR News, WBUR.org, 20 Sept. 2019, www.wbur.org/npr/762760160/how-torecycle-plastic.
- 9 "The Impact of NYC's Trash on Other Communities," Waste 360, https://www.waste360.com/landfill-operations/impact-nycs-trash-othercommunities, Accessed 3/6/21

WASTE STATISTICS



Source: Queens SWAB Organizing Committee member

Background

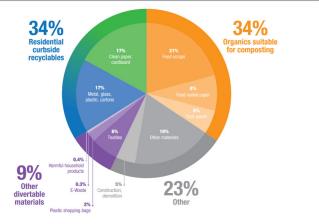
DSNY provides free, regularly scheduled curbside and containerized trash collection to every residence, public school, public building, and many large institutions in New York City.¹ DSNY is also responsible for cleaning the City's streets, sidewalks, vacant lots, and, in the winter, clearing snow and ice from approximately 6,000 miles of roadways.² DSNY does not provide services to commercial and industrial businesses, which by law must hire private haulers to manage their waste and recyclable materials.³

DSNY categorizes waste in four ways:⁴

- Refuse or trash that cannot be recycled
- Recyclable Paper (Mixed Paper and Cardboard)
- Recyclable Metal, Glass, Plastic, and Cartons
 (MGPC)
- Recyclable **Organics** (e.g., Food Scraps, Yard and Leaf Waste)

The responsibility to properly separate materials by category falls to DSNY customers. Among the benefits of proper material separation, are reducing the cost to taxpayers of long-distance export, an estimated \$420M for Fiscal Year (FY) 2021,⁵ and reducing the environmental damage caused by placing recoverable resources, particularly organic material such as food and yard waste, in landfills. When organic materials are sent to landfills, they release methane into the atmosphere which is 30 times more damaging to the environment than carbon dioxide, a leading contributor to climate change.⁶ Shrinking New York City's waste footprint by diverting organic materials is critical to achieving the goal outlined in *OneNYC 2050* to achieve carbon neutrality in New York City within 30 years.⁷ According to DSNY's most recent 2017 Waste Characterization Study, 68% of the materials New Yorkers currently put out for DSNY collection could be recycled.⁸ An additional 9% of our waste stream, such as e-waste, textiles, and plastic bags, also have the potential to be responsibly recovered.9

NYC Residential Waste Profile in 2017 2017 Composition of Residential Curbside Aggregate Discards



Source: 2017 NYC Residential, School, and NYCHA Waste Characterization Study

In addition to *OneNYC*, <u>Local Law 40 of 2010</u> mandates DSNY set annual recycling diversion goals. The agency's 2020 goal is to divert "33% of DSNY-managed solid waste and 25% of curbside and containerized waste from landfills by July 1, 2020."¹⁰

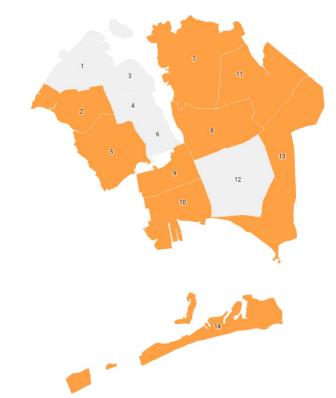
Because DSNY needs customers to first separate materials correctly to achieve these goals, the agency evaluates collection compliance using three metrics: diversion rate, capture rate, and contamination rate:

- Diversion Rate (DR) compares the amount of curbside collection materials separated for recycling (i.e., Paper, MGPC, Organics, E-Waste, Textiles) to the total amount of material set out (including Refuse). Diversion rate does not measure Contamination.¹¹
- Contamination Rate measures the amount of curbside collection materials *incorrectly* placed in recycling bins that should instead be discarded as Refuse. Contamination reduces recyclable materials' commercial value and harms recycling equipment at great cost to the City and recyclers.¹²
- Capture Rate (CR) is the "percentage of all Paper and MGPC properly separated for recycling as opposed to discarded as Refuse. Capture rates identify the latent potential to recycle more."¹³

Queens' FY 2020 Residential Collections Waste Statistics

Queens' population of nearly 2.4 million¹⁴ represents 27% of New York City's 8.6 million residents.¹⁵ The population resides across 14 Community Districts¹⁶ and 14 parallel Sanitation Districts.¹⁷ Based on DSNY's FY20 (July 1, 2019-June 30, 2020) Annual Report, Queens generated a nearly equal proportion (27%) of the City's residential Refuse (2,605 tons per day); approximately 27% of its Paper (273.6 tons per day); 30% of its MGPC (314.9 tons per day); and 39% of its Organics (48 tons per day).¹⁸

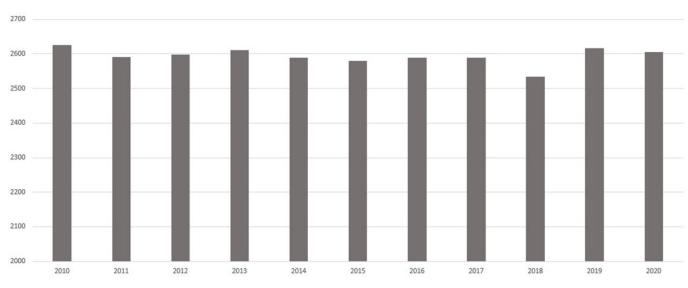
Prior to COVID-19 budget cuts that led to Curbside Organics Collection (COC) being suspended in May 2020, nine of Queens' Community Districts (CDs 2, 5, 7, 8, 9, 10, 11, 13, and 14) had access to the COC pilot with expansion to CDs 1, 3, 4, 6, and 12 being planned.^{19,20} Based on U.S. Census data, COC was accessible to approximately 46% of Queens' households.²¹



Map of Queens Community Districts Participating in **Curbside Organics Collection: FY19** Source: DSNY 2018 NYC Organics Expansion Maps

To understand whether Queens' diversion and capture rates have remained stable or improved over time, we reviewed DSNY data from 2010-2020. We found the amount of Refuse Queens residents sent to landfills remained fairly stable over this period — roughly 2,600 tons per day.²² However, given that the population increased by roughly 170,000 in a decade,²³ this is a positive indicator that Queens' waste generation did not rise in tandem.

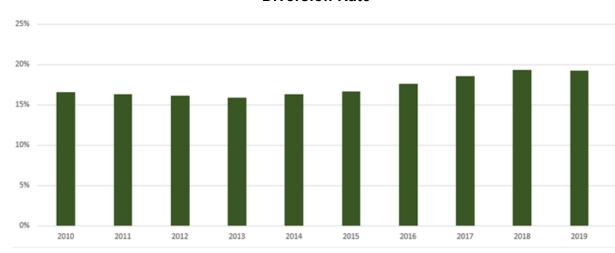




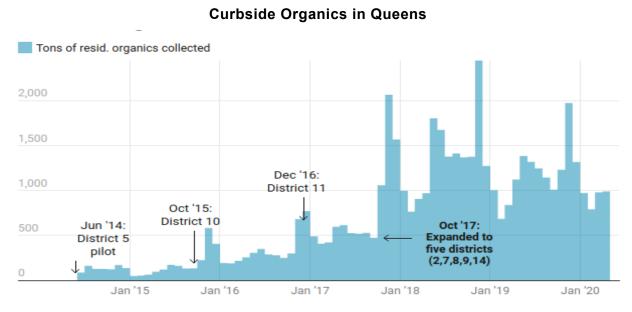
Queens' Annual Residential Refuse Rate: 2010 to 2020 Source: Annual Reports for DSNY Curbside Collections

Queens' annual diversion of recyclable materials remained similarly consistent at close to 16% between 2010-15.²⁴ Between 2016-18 the diversion rate increased approximately 1% annually,²⁵ a possible result of Curbside Organics Collection expanding from three neighborhoods in 2014 to nine in 2019.²⁶ This minor diversion increase, despite a tripling in reach, suggests room for significant improvement, particularly given DSNY's FY20 recycling goal of 25% diversion.





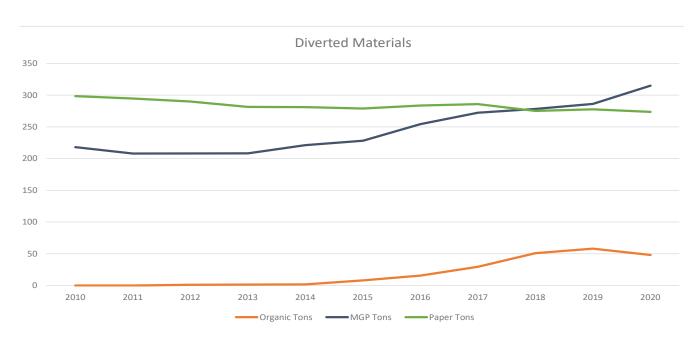
Queens' Total MGPC, Paper, and Organics Diversion Rate: 2010 to 2020 Source: Annual Reports for DSNY Curbside Collections



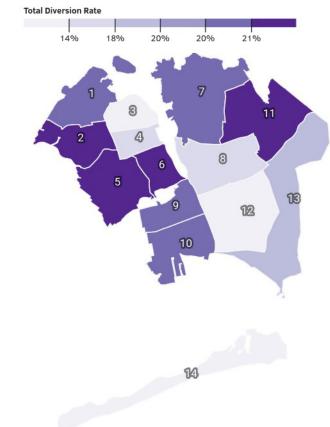
Queens' Monthly / Annual Tons of Curbside Organics Collection: 2015 to 2020 Source: DSNY via NYC Open Data

Comparing Queens Community Districts by Diversion and Capture Rates: 2016-2019

Broken down by category, the chart below shows the average number of tons per day of MGPC diverted in Queens over the decade increased slightly from 218 to 286 tons.²⁷ This could be due to DSNY's 2013 expansion of its recycling program from plastic bottles and jugs to all rigid plastics. Conversely, Paper Diversion decreased modestly during this period from 298 to 278 tons per day.²⁸ The most notable increase was in Organics. Coinciding with Curbside Organics Collection expansion, the volume of organics materials Queens residents diverted rose from 1.8 to 58.1 tons per day.²⁹ Through DSNY's Leaf Collection Program, not included in this chart, Queens residents additionally diverted just over 810 tons of leaves in 2019.







Total Diversion Rate in Queens Source: DSNY Recycling Diversion and Capture Rates, NYC Open Data

Paper Capture Rate in Queens Source: DSNY Recycling Diversion and Capture Rates, NYC Open Data

Queens Waste Statistics by Community District

We next looked at DSNY data from 2016-19 to capture variations in diversion and capture rates based on the Community District in which people lived. Below are the top takeaways. For a complete list of diversion and capture rates by Community District, see Appendix I.

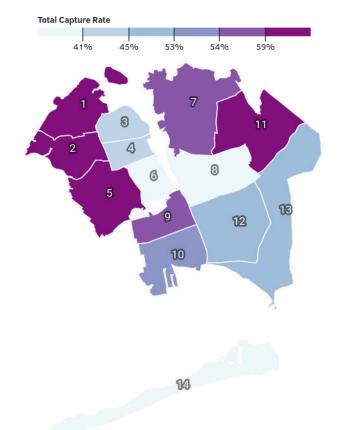
CD11 (Auburndale, Bayside, Douglaston, Hollis Hills, Littleneck, Oakland Gardens) had the highest combined (i.e., average of MGPC and Paper) diversion rate at 24.9%. CD11 also had the highest combined capture rate at 63.9% and the highest Paper capture rate at 54.5%.

CD14 (Arverne, Bayswater, Belle Harbor, Breezy Point, Broad Channel, Edgemere, Far Rockaway, Hammels, Neponsit, Rockaway Park, The Rockaways, Roxbury, Seaside, Somerville) had the lowest combined diversion rate at 12.7% and the lowest combined capture rate at 35.2%. (CD14 also had the lowest MGPC capture rate at 42.3%.)

CD5 (Glendale, Maspeth, Middle Village, Ridgewood) had the highest MGPC capture rate at 86.9%.

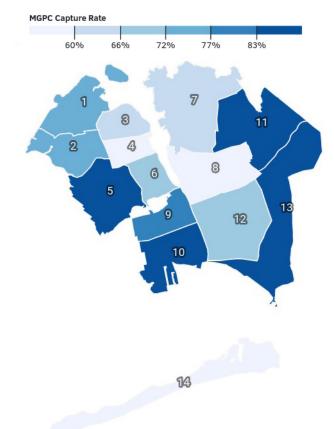
CD8 (Briarwood, Fresh Meadows, Hillcrest, Holliswood, Jamaica, Jamaica Estates, Jamaica Hills, Kew Gardens Hills, Pomonok, Utopia) had the lowest Paper capture rate at 28.9%.³⁰

* The data does not account for materials returned at redemption centers, such as MGPC beverage containers, as defined by the New York State Returnable Container Act, also known as the Bottle Bill.³¹



Total Capture Rate in Queens

Source: DSNY Recycling Diversion and Capture Rates, NYC Open Data

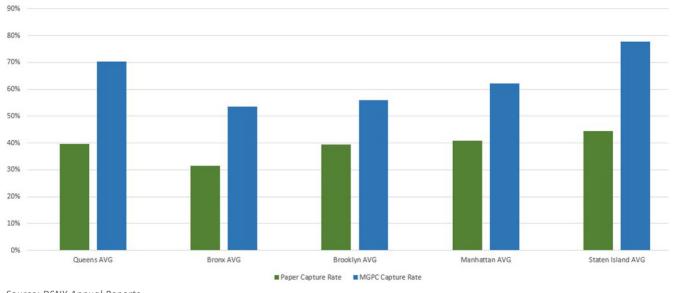


MPG Capture Rate in Queens Source: DSNY Recycling Diversion and Capture Rates, NYC Open Data

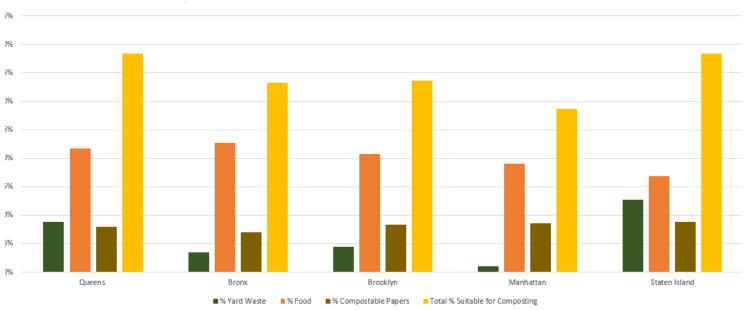
Queens Waste Statistics: Borough Comparison

To understand how Queens ranked relative to other boroughs in resource recovery, we stepped back to perform a crossborough analysis. We found that, among the boroughs, Queens ranked third in removing recyclables from Refuse with an average diversion rate of 18.89% between 2016 and 2019. Diversion increased by 4.65% from 2016 to 2019.³² Queens had the second-highest capture rate, averaging 50.14% from 2016 to 2019. The capture rate increased 4.32% from 2016 to 2019. ³³ Queens' MGPC capture rate of 70.29% placed the borough second-highest while our Paper capture rate was third-highest at 39.53%; the borough with the fourth-highest Paper CR — Brooklyn — was nearly identical at 39.48%.³⁴

Because five of Queens' Community Districts never had access to Organics Curbside Collections, comparing Queens' Organics diversion rate to other boroughs is difficult. Instead, we used publicly available data from DSNY's 2017 Waste Characterization Study, which includes the volume of recoverable organics materials in each borough's waste stream, as an indicator of composting potential. Based on this report, Queens and Staten Island, due to the volume of yard waste, have the highest composting potential. When Curbside Organics Collection restarts — or the NYCC passes Mandatory **Organics Legislation** — Queens could be the borough most contributing to diverting Organics from landfills.



Capture Rates by Borough



Source: DSNY Annual Reports

Borough	% Yard Waste	% Food	% Compostable Papers	Total % Suitable for Composting
Queens	8.80%	21.70%	8.00%	38.40%
Bronx	3.50%	22.70%	7.00%	33.30%
Brooklyn	4.50%	20.70%	8.40%	33.60%
Manhattan	1.00%	19.00%	8.60%	28.70%
Staten Island	12.70%	16.90%	8.80%	38.40%

Queens' Potentially Compostable Materials Compared to Other Borough: 2017³⁵ Source: DSNY 2017 Waste Characterization Study



Borough	Avg. Diversion Rate (DR)	Avg. Capture Rate (CR)	Paper Capture	MGPC Capture
Queens	18.89%	50.14%	39.53%	70.29%
Bronx	13.61%	40.20%	31.55%	53.44%
Brooklyn	16.48%	45.36%	39.48%	56.03%
Manhattan	20.49%	46.33%	40.95%	62.11%
Staten Island	20.41%	55.53%	44.49%	77.65%

Recycling, Diversion, and Capture Rates by Borough Comparison: 2016 to 2019

Source: DSNY Recycling, Diversion, and Capture Rates, NYC Open Data

Potentially Compostable Materials in the Waste Stream 2017

DSNY Non-Residential Waste: New York City Department of Education and New York City Housing Authority

DSNY also manages waste generated in New York City public schools (DOE) and New York City Housing Authority (NYCHA) properties. In the *2017 Waste Characterization Study*, DSNY separated DOE and NYCHA data from residential waste to determine if these locations required different outreach or education strategies to improve diversion and capture rates and reduce contamination.³⁶

New York City Department of Education (DOE)

New York City's public schools generate more than 40,000 tons of waste per year or about 1% of all residential waste annually. Nearly 20% (377) of New York City's 1,866 public schools are in Queens, but DSNY/DOE does not make publicly available a breakdown of waste tonnage by borough or school because the agency generally mixes their material with residential curbside collections.

Citywide, DOE reports low capture rates of 48% for Paper and 11.5% for MGPC, while contamination rates are high: 17% for Paper and 40.6% for MGPC. Until the November 2020 suspension of Organics Collection due to COVID-19, 148 of Queens' 377 DOE schools (39%) serving over 274,000 students received DSNY Organics **Collection**, a service that engages students and staff in separating cafeteria food waste and diverting organic matter from landfills. Organics Collection will resume in DOE schools in September 2021. Forty-seven buildings (48 schools) benefited from Organics Collection before 2019 and 100 schools (72 buildings) were added as part of new routes in Fall 2019.³⁷ For a complete list of Queens DOE schools serviced by Organics Collection, visit the NYC Department of Education's Waste Management Story Map, which shows the schools receiving DSNY Organics Collection service and other opt-in programs including Zero Waste Pledge, Sustainability, Efficiency, and Environmental Dedication (S.E.E.D.) Certification, and Race Against Waste.

Eighteen Queens DOE schools have taken the "Zero Waste Pledge," which requires that they create a recycling culture across all school stakeholders with DOE Sustainability providing material support (recycling bins) and one-on-one outreach to educators to fulfill on the pledge. Thirteen Queens schools are S.E.E.D-Affiliated. S.E.E.D. aims to holistically integrate sustainability into a school's entire culture and operations. Twelve Queens schools participate in Race Against Waste (RAW), in which students complete a service-learning project focused on waste reduction. RAW educators receive professional training and dedicated DOE Sustainability support to guide students toward becoming waste advocacy leaders.³⁸

New York City Housing Authority (NYCHA)

As of January 2020, Queens was home to 21 NYCHA developments representing 15,300 units³⁹ or just over 8.6% of NYCHA's entire portfolio. DSNY collected approximately 142,000 tons of Refuse from dedicated NYCHA waste containers in Queens between June 2016 and July 2017, according to the *2017 Waste Characterization Study*, not including non-dedicated routes in which NYCHA waste was mixed with Residential. **NYCHA's Refuse collections reportedly included 19% recyclable MGPC, 14% Paper, and 32% Organics.**⁴⁰

Your School's DOE Waste Services

Zoom in and navigate the map to locate your building.

Click the **orange** or **gray** circle to find out your DSNY (**Organics** or **Traditional Collection**) service type.

Please note: Organics service is currently suspended and will resume Sept. 2021.

Source: NYC Department of Education: Waste Management Story Map



Source: Queens SWAB Organizing Committee Member



DSNY Partners: GrowNYC and NYC Compost Project Host Sites

For all Queens households, but particularly those who lacked access to Curbside Organics Collection before COVID-19, bringing food scraps to a <u>GrowNYC</u> <u>Food Scrap Drop-Off (FSDO)</u> offers an alternative way to divert food waste from landfills. FSDOs began in 2011 as a precursor to Curbside Organics Collection and are typically located near transit hubs, Greenmarkets, and community gardens.⁴¹ **Prepandemic, GrowNYC managed 13 Queens FSDOs that in FY19 collected over 220,000 lbs. of Organics and engaged over 30,000 residents.** The chart at the right shows participation and collection by site. FSDOs in bold indicate Community Districts not enrolled in Curbside Organics Collection.

FSDO Locations	Community District	Participants	Food Scraps (lbs.) Collected
Astoria- Broadway	1	182	1,128
Astoria Library	1	177	1,236
Ditmars	1	275	1,364
Queens Library- Broadway	1	215	1,509
Socrates Sculpture Park	1	370	2,592
Sunnyside	2	5,234	33,333
Jackson Heights	3	10,889	88,799
Corona	4	590	8,245
Elmhurst	4	253	888
Forest Hills	6	10,989	71,142
Rego Park	6	455	2,304
Briarwood	8	899	4,488
Kew Gardens	9	650	3,596
Total		31,178	220,624

Queens GrowNYC FSDO Sites: 2019 Source: GrowNYC

New York City Compost Project (NYCCP) Host Sites

After Organics are donated at FSDOs, they are taken to one of DSNY's seven New York City Compost Project (NYCCP) host sites for processing. Queens is fortunate to have two NYCCP sites: Big Reuse and Queens Botanical Garden.

Big Reuse (Long Island City) is one of the borough's – and City's – largest organics processors. For 10 years, it has conducted its work at an NYC Parks' site under the Queensboro Bridge. In 2019, Big Reuse processed almost 34% of the food waste collected across NYCCP sites Citywide, more than half of that at their Queensboro site.⁴² That same year, they diverted over 1.7M lbs. of organic material from landfills; distributed 356 cubic yards and over 2,500 bags of locally-made compost to 74 community groups, gardens, schools, and nonprofits; and worked with over 1,038 volunteers on composting and street tree care.⁴³ In FY20 in Queens alone, Big Reuse collected over 405,000 lbs. of Organics; processed over 1,760,000 lbs. of material (including partner drop-off and wood chips); and served over 26,000 households.44

Queens Botanical Garden (QBG) in Flushing is the borough's other NYCCP site. In 2019, QBG diverted over 353,159 lbs. of organic waste from landfills while conducting outreach, hosting volunteers, providing composting technical assistance to community members, and distributing finished compost locally.⁴⁵ In the months preceding COVID-19, QBG worked with 578 volunteers, performed 156 outreach activities, and supported 30 Queens compost sites. On average, they annually process over 4,500 lbs. of food waste generated in the borough.⁴⁶



FSDO at Socrates Sculpture Park, July 2019 Source: Ryan Van Manen

The table below compares Queens FSDOs' 2019 performance to that of other boroughs. It shows that **while Queens had 17% of all sites, it collected only 7% of all food scraps.** In comparison, Manhattan and Brooklyn donated, respectively, 51% and 39% of all materials collected. Although we do not know the reason for Queens' lower collection rate, greater access to backyards could be a contributing factor.

Borough	Sites	Food Scrap Intake (lbs.)	Total Weight Per Site (lbs.)	Population	% of FSDO Sites	% of All Collected Weight	% of NYC Population
Queens	13	220,624	16,971	2,339,280	17%	7%	27%
Bronx	13	59,596	4,584	1,455,846	17%	2%	17%
Brooklyn	17	1,247,748	73,397	2,635,121	22%	39%	31%
Manhattan	31	1,634,268	52,718	1,653,877	41%	51%	19%
Staten Island	2	50,220	25,110	475,948	3%	2%	6%
Total	76	3,212,456	42,269	8,560,072	100%	100%	100%

Queens GrowNYC FSDO Sites Compared to Other Boroughs: 2019 Source: GrowNYC

Textile Recycling

In addition to FSDOs, GrowNYC also helps divert textiles. In the calendar year 2019, across three Queens Greenmarkets (Jackson Heights and Forest Hills: Year-round; Sunnyside: Seasonally from May through December), GrowNYC collected over 111,000 lbs. of textiles from 11,352 donors (an average of 9.8 lbs/donor). Before suspending operations due to COVID-19, they collected over 16,600 lbs. of textiles from 1,704 donors at Jackson Heights and Forest Hills Greenmarkets, averaging 9.8 lbs. per donor (January 1 to March 22, 2020).47

DSNY and the nonprofit Housing Works jointly lead refashionNYC, which fights the dual crises of homelessness and AIDS by providing free and convenient clothing donation and recycling pickup to apartment buildings with 10 or more units, office buildings, commercial businesses, schools, and institutions.⁴⁸ Six hundred and thirty-eight properties in Queens participate in the program representing .15% of Queens' 422,970 buildings with 10 or more units according to PLUTO.⁴⁹ Over the last three fiscal years, refashionNYC has more than doubled collections in Queens from 238.41 to 591.46 tons. DSNY suspended refashionNYC from April to June 2020 due to COVID-19 but have since restarted.

Queens Community District	Buildings Enrolled in refashionNYC	
1	22	
2	44	
3	41	
4	11	
5	0	
6	62	
7	53	
8	197	
9	8	
10	2	
11	25	
12	9	
13	140	
14	24	
Total	638	

Queens 2021 refashionNYC Enrollment Source: DSNY leadership

ecycleNYC

Buildings with 10 units or more can also easily divert e-waste by signing up for DSNY's free program ecycleNYC.⁵⁰ ecycleNYC is a partnership between DSNY and Electronics Recycling International, which recycles electronics following the strictest industry and environmental standards. ecycleNYC accepts:

- TVs
- VCRs, DVRs, and DVD players
- Cable and satellite boxes •
- Video game consoles
- Computers: including small servers; monitors; laptops and their peripherals (such as keyboards, hard drives, mice, etc.)
- Printers/scanners
- Fax machines
- Small electronics: including tablets; mobile phones; MP3 players

DSNY supports buildings by providing training and evaluation to determine how to best implement the program based on the building's size and number of units. Currently, 3,497 of Queens' 422,970 buildings with 10 or more units (.82%) participate in the program.

Queens Community District	10+ Unit Buildings Enrolled in ecycleNYC
1	185
2	249
3	235
4	145
5	53
6	353
7	493
8	656
9	117
10	119
11	279
12	177
13	317
14	119
Total	3,497

Queens 2021 ecycleNYC Enrollment Source: DSNY leadership

Conclusion

This analysis of waste statistics from DSNY and its partners offers several notable findings for Queens electeds, agencies, and community leaders to consider:

- Between 2010 and 2019, the per capita volume of household waste by Queens residents plateaued or decreased, even while the population increased.
- percentage of properly sorted MGPC and Curbside Organics Collection likely contributing factors.
- Curbside Collection Diversion Goal.
- will be critical to the City reaching zero waste to landfills by 2030.
- of viable properties.



Compost Site at Queens Botanical Garden, March 2021 Source: Queens SWAB Organizing Committee Member

Queens' residential diversion rate increased slightly starting in 2016, with improvement in the weight and

Capture and diversion rates vary widely across Queens Community Districts, with some neighborhoods performing notably better than others. Only one or two CDs, however, come close to meeting DSNY's 25%

As compared to other boroughs, Queens capture and diversion rate for Paper and MGPC is about average. Diverting Queens residents' higher percentage of potentially compostable material from the waste stream

Queens residents' use of free and, in some cases highly accessible, diversion resources (e.g., GrowNYC FSDOs, refashionNYC, ecycleNYC) is less robust than it could be given the borough's density and number

ENDNOTES

- 1 A Summary of Sanitation Rules and Regulations, NYC Department of Sanitation, 1 Jan. 2015, www1.nyc.gov/assets/dsny/downloads/pdf/about/ laws/DSNY_rules_regs_2015.pdf.
- 2 Ibid.
- 3 Ibid.
- 4 "2017 NYC Residential, School, and NYCHA Waste Characterization Study." New York City Department of Sanitation, 2017, https://dsny. cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf. Accessed 28 Jan 2021.
- 5 Seltzer, Jonathan, and Francisco, Crilhien. "Report of the Finance Division on the Fiscal 2021 Preliminary Plan and the Fiscal 2020 Preliminary Mayor's Management Report for the Department of Sanitation." Department of Sanitation, March 4, 2020, https://council. nyc.gov/budget/wp-content/uploads/sites/54/2020/02/827-DSNY.pdf, Accessed 5 April 2021.
- 6 Ibid.
- 7 "The Plan for a Strong and Just City." OneNYC 2050 Building a Strong and Fair City, City of New York, Apr. 2019, onenyc.cityofnewyork.us/.
- 8 "2017 NYC Residential, School, and NYCHA Waste Characterization Study." New York City Department of Sanitation, 2017, https://dsny. cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf. Accessed 28 Jan 2021.
- 9 "2017 NYC Residential, School, and NYCHA Waste Characterization Study." New York City Department of Sanitation, 2017, https://dsny. cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf. Accessed 28 Jan 2021.
- 10 DSNY Recycling Diversion Goals. https://www1.nyc.gov/assets/dsny/site/recycling-diversion-goals. Accessed 6 April 2021.
- 11 "2017 NYC Residential, School, and NYCHA Waste Characterization Study." New York City Department of Sanitation, 2017, https://dsny. cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf. Accessed 28 Jan 2021.

12 Ibid. 13 Ibid.

- 14 "Queens: The World's Borough." NYCEDC, https://edc.nyc/queens#:~:text=The%zero wa20World's%20Borough,people%2C%20including%201.1%20 million%20immigrants. Accessed 6 March 2021.
- 15 "QuickFacts, Queens County (Queens Borough), New York." United States Census Bureau, 2019, https://www.census.gov/quickfacts/fact/table/ queenscountyqueensboroughnewyork,newyorkcitynewyork/PST045219Accesses on 27 Oct, 2020.
- 16 Ibid.
- 17 "DSNY Districts." NYC OpenData, 31 Aug 2020, https://www.arcgis.com/home/item.html?id=01582b48646f415e993fbb39882bc0f3. Accesses 7 Feb 2021.
- 18 "Annual Report: New York City Curbside and Containerized Municipal Refuse and Recycling Statistics." New York City Department of Sanitation, 2020. https://dsny.cityofnewyork.us/wp-content/uploads/2020/08/about_dsny-collections-annual-2020.pdf. Accessed 21 Oct 2020.
- 19 2017 NYC Organics Expansion Map. https://www1.nyc.gov/assets/dsny/docs/nyc-organics-collection-areas.pdf. Accessed 10 April 2021.
- 20 Gannon, Michael. "Organics Recycling Comes to CB13." Queens Chronicle, 1 March. 2018. Accessed 10 April 2021.
- 21 Planning-Population-Census 2010-DCP, New York City Department of Planning, www1.nyc.gov/site/planning/planning-level/nyc-population/ census-2010.page. Accessed 10 April 2021.
- 22 "Annual Reports for DSNY Curbside Collections." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/site/resources/ statistics/annual-reports-for-dsny-curbside-collections. Accessed 21 Oct 2020.
- 23 "QuickFacts Queens County (Queens Borough), New York; New York city, New York." United States Census Bureau, https://www.census.gov/ quickfacts/fact/table/queenscountyqueensboroughnewyork,newyorkcitynewyork/PST045219. Accessed October 19 2020.
- 24 "Annual Reports for DSNY Curbside Collections." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/site/resources/ statistics/annual-reports-for-dsny-curbside-collections. Accessed 21 Oct 2020.
- 25 "Annual Reports for DSNY Curbside Collections." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/site/resources/ statistics/annual-reports-for-dsny-curbside-collections. Accessed 21 Oct 2020.
- 26 "NYC Organics." New York City Department of Sanitation, 4 Sept 2018, http://dsny.cityofnewyork.us/wp-content/uploads/2018/09/2018-09-04-Organics-Expansion-Maps-1.pdf.
- 27 "Annual Reports for DSNY Curbside Collections." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/site/resources/ statistics/annual-reports-for-dsny-curbside-collections. Accessed 21 Oct 2020.

28 Ibid.

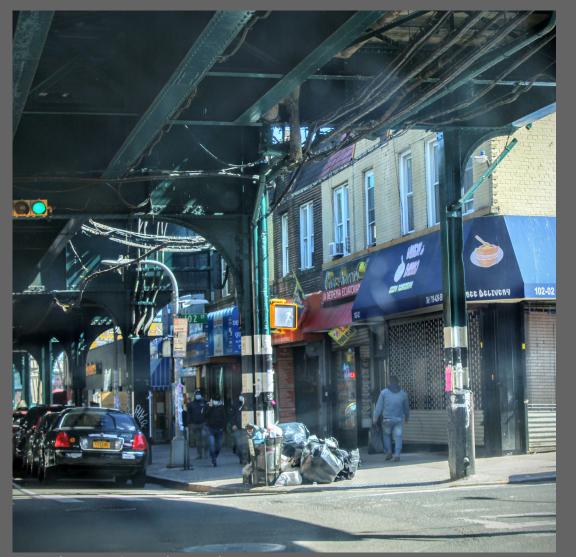
- 29 bid.
- 30 "Recycling Diversion and Capture Rates." NYC OpenData, 7 Feb 2020, https://data.cityofnewyork.us/Environment/Recycling-Diversion-and-Capture-Rates/gag9-z3hz.
- 31 "New York's Bottle Bill." New York State Department of Environmental Conservation, https://www.dec.ny.gov/chemical/8500.html.
- 32 Using linear regression with an R value of 0.2336.
- 33 Using linear regression with an R value of 0.0805.
- 34 "Recycling Diversion and Capture Rates." NYC OpenData, 7 Feb 2020, https://data.cityofnewyork.us/Environment/Recycling-Diversion-and-Capture-Rates/gaq9-z3hz.
- 35 "Main Sort: City and Boroughs." New York City Department of Sanitation, 2017, https://www1.nyc.gov/assets/dsny/site/resources/reports/wastecharacterization. Accessed 19 Nov 2020.
- 36 "2017 NYC Residential, School, and NYCHA Waste Characterization Study." New York City Department of Sanitation, 2017, https://dsny. cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf.
- 37 Wimsatt, Kate. Received by Wylie Goodman, ZWS Clarification, 15 Mar. 2021.
- 38 Ibid.
- 39 "New York City Housing Authority Official Map 2020." New York City Housing Authority Performance Tracking & Analytics Department, Feb 2020, https://www1.nyc.gov/assets/nycha/downloads/pdf/officialmap-2020.pdf. Accessed 28 Oct 2020.
- 40

Ibid.

- 41 "Community Composting." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/site/our-work/composting/communitycomposting Accessed 1 Feb 2021.
- 42 Levy, Julie. "One of New York City's Biggest Processors of Food Waste Is in Danger of Losing Its Home." Bedford + Bowery, 16 Feb. 2021, bedfordandbowery.com/2020/12/one-of-new-york-citys-biggest-processors-of-food-waste-is-in-danger-of-losing-its-home/.
- 43 "2019 Year-in-Review: Compost Metrics." Big Reuse, 31 Dec. 2019, www.bigreuse.org/service/compost-metrics/.
- 44 "Compost Metrics: 2019 Year-in-Review." Big Reuse, https://www.bigreuse.org/service/compost-metrics/. Accessed 10 December 2020.
- 45 https://queensbotanical.org/farmandcompost/.
- 46 Encababian, Chelsea. Received by Wylie Goodman, RE: Big Reuse and QBG Sections, 12 Mar. 2021.
- 47 Hurd, David. Received by Wylie Goodman, "RE: pounds versus tons for borough comparison 2019" 8 March 2021.
- 48 Overview for RefashionNYC, New York City Department of Sanitation, www1.nyc.gov/assets/dsny/site/services/donate-goods/refashionnycoverview. Accessed 10 April 2021.

49 50 Kitchener, Katherine. Received by Wylie Goodman, "RE: ecycleNYC and refashion?" 5 April 2021. "Overview for EcycleNYC." Overview for EcycleNYC, New York City Department of Sanitation, www1.nyc.gov/assets/dsny/site/services/ electronics/overview-electronics-ecycle.

COMMUNITY NEEDS



Roosevelt Avenue Litter Basket, March 2021 *Source: Queens SWAB Organizing Committee Member*

Queens residents can make their needs about waste and resource recovery known to local electeds and agency leaders in many ways.

In this section, we review five publicly available sources offering a broad overview of what Queens residents consider their top waste needs, including:

- 2019 and 2020 311 requests;
- FY20 and FY21 Community District Annual Needs Statements;
- FY2021-22 <u>Citywide Statement of Needs for City</u> <u>Facilities</u>;
- recent <u>Participatory Budgeting</u> (PBNYC) submissions, and,
- FY21 <u>New York City Council discretionary and</u> capital funding.

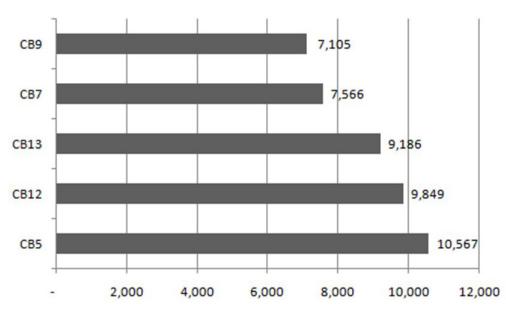
311 Service Requests: 2019 and 2020

<u>New York's 311 system</u> allows people to call, text, or email a central number to quickly and easily access New York City government services and information. Agencies use 311 information to improve service delivery and inform future agency modifications.¹

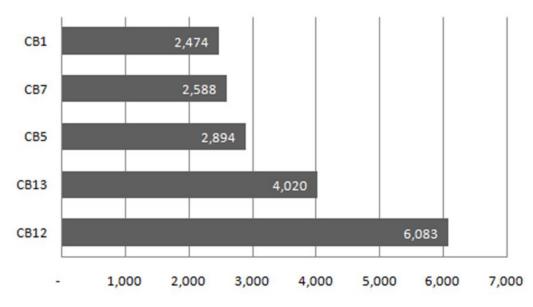
Because 2020 was an unusual year due to COVID-19, we compared 311 requests made by Queens residents in 2019 and 2020 to identify whether the pandemic impacted waste concerns.

Queens' DSNY 311 Requests: CY 2019-2020

In calendar year (CY) 2019, Queens residents submitted over 81,667 DSNY-related requests to 311 as compared to 32,821 in 2020. In 2019, the top five Community Boards (CB) with the most requests included 5, 12, 13, 7, and 9, in order of frequency. In 2020, the five CBs with the highest contacts in order of frequency were 12, 13, 5, 7, and 1.

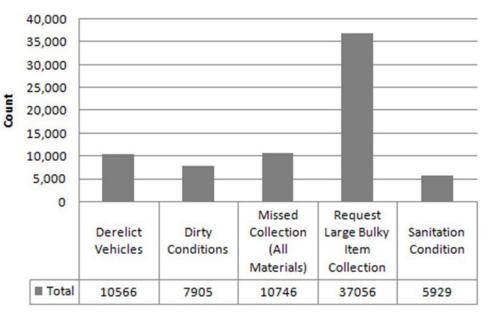


Queens Community Boards with the most DSNY 311 Requests: CY 2019 Source: NYC Open Data

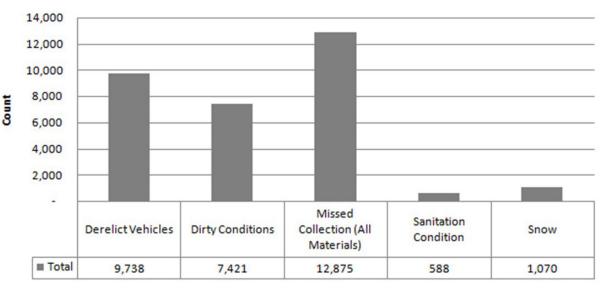


Queens Community Boards with the most DSNY 311 Requests: CY 2020 Source: NYC Open Data

In 2019, the most often made requests were for the removal of large, bulky items followed by missed collections. In 2020, residents' most frequent 311 calls were for missed collections followed by derelict vehicles and dirty conditions. A higher number of missed collections and dirty conditions tracks with anecdotal news reports and reflected in the organizing of neighborhood clean-up groups responding to COVID-19 related DSNY budget cuts.



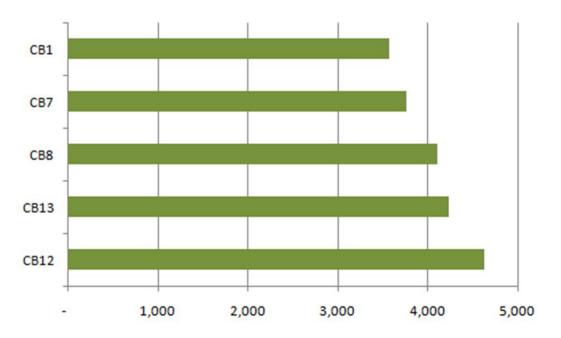
Queens' Most Frequent DSNY 311 Requests: CY 2019 Source: NYC Open Data



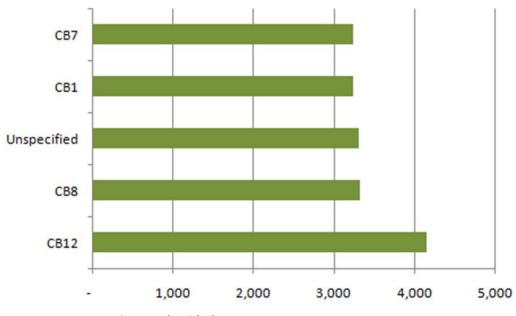
Queens' Most Frequent DSNY 311 Requests: CY 2020 Source: NYC Open Data

Queens DEP 311 Requests: CY 2019-2020

In 2019, Queens residents submitted 42,468 requests to 311 for DEP-related issues. In 2020, those requests declined slightly to 38,278. In both years, the Community Boards with the most DEP requests were 12, 8, 7, and 1.

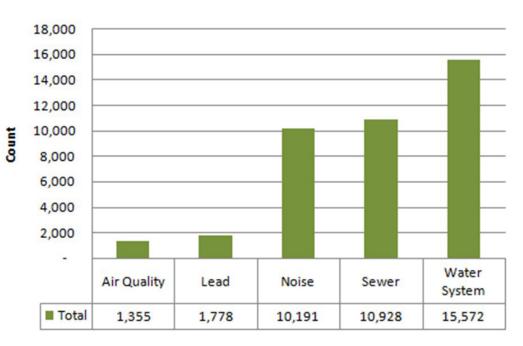


Queens Community Boards with the most DEP 311 Requests: CY 2019 Source: NYC Open Data

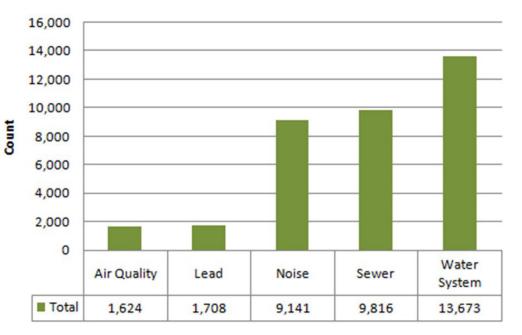


Queens Community Boards with the most DEP 311 Requests: CY 2020 Source: NYC Open Data

In both 2019 and 2020, requests from most- to least-frequent involved water systems, sewer, noise, lead, and air quality.



Queens CBs' Most Frequent DEP 311 Requests: CY 2019 Source: NYC Open Data



Queens CBs' Most Frequent DEP 311 Requests: CY 2020 Source: NYC Open Data

New York City is home to 6,000 miles of sewer pipes and 14 wastewater treatment plants. A comprehensive sewer system is currently underway in Southeast Queens to address chronic flooding and poor street conditions.

Source: The General Contractors Association of New York, Inc. 2019 Annual Report

Water and Sewer Mains



Source: The General Contractors Association of New York, Inc. 2018 Annual Report

The top DSNY and DEP Expense and Capital Requests for FY20 are detailed in the chart below:

Queens Community Board Annual Needs Statements: F20	
DSNY Expense Request	# of Requests
Other cleaning requests	21
More frequent litter basket collection	15
Other enforcement requests	15
DSNY Capital Request	
Provide new or upgrade existing sanitation garages or other sanitation infrastructure	6
Provide new or increase number of sanitation trucks and other equipment	3
DEP Expense Request	
Clean catch basins	12
Inspect storm sewer on specific street segment and service, repair or replace as needed	12
Inspect sanitary sewer on specific street segment and repair or replace as needed (Expense)	12
DEP Capital Request	
Inspect sanitary sewer on specific street segment and repair or replace as needed (Capital)	39
Evaluate a public location or property for green infrastructure, e.g. rain gardens, stormwater greenstreets, green playgrounds	24
Other capital budget request	9
Source: Community Board Annual Needs Statements FY20	

DSNY and DEP Expe Queens Community Board

DSNY Expense Request Other cleaning requests Provide more frequent litter basket collection Other enforcement requests DSNY Capital Request Provide new or upgrade existing sanitation gara infrastructure Provide new or increase number of sanitation to DEP Expense Request Other expense budget request for DEP Clean catch basins Inspect sanitary sewer on specific street segmer needed **DEP Capital Request** Other capital budget request for DEP Evaluate a public location or property for green gardens, stormwater greenstreets, green playg Develop a capital project for specific street segn sanitary sewers

Community Boards

The New York City Charter requires each Community Board to develop and vote each year on up to 40 capital and 25 expense budget requests they want the City to prioritize for funding. Capital requests address physical improvements to infrastructure and public facilities, land acquisition, and major equipment purchases. Expense requests fund programs and staff. Through the Community Board's Service Program, CBs also rank in order of importance 85 programs by 26 agencies most relevant to their neighborhoods. A helpful summary of how CBs participate in the City's budget process can be found here: https://www1.nyc.gov/html/mancb4/html/budget/budget process.shtml.

In FY20, Queens Community Boards submitted 114 requests to the City with DSNY identified as the responsible agency (105 - Expense; 9 - Capital) and 159 with DEP as the responsible agency (63 - Expense; 96 - Capital). In FY21, requests dropped significantly to 50 for DSNY (47 - Expense; 3 - Capital) and 57 for DEP (20 - Expense; 37 - Capital). In FY20, the five Community Boards with the most DSNY- and DEP-related requests were CBs 2, 3, 5, 10, 11, and 14* (*5 and 14 both had 24). In FY21, CBs 1, 2, 3, 10, and 11 were among the top five. For a list of specific locations of concern by Community Board in FY21, see Appendix II.

	# of Requests
	# 01 Requests
	5
	5
ages or other sanitation	
	2
trucks and other equipment	1
	4
	4
ent and repair or replace as	4
	24
n infrastructure, e.g. rain grounds	8
ments currently lacking	0
	3

Citywide Statement of Needs for City Facilities

Each year the City publishes a *Citywide Statement of Needs for City Facilities*, highlighting City-owned buildings requiring capital investment. The only Queens location involving waste infrastructure in the most recent FY22-23 report is a sanitation garage in CD1.² The report described the facility, located in a residential district, as "outdated, undersized, and in poor condition."³ The report called for the garage to be relocated to a more appropriately zoned district that would allow full accommodation for equipment and personnel. The proposal to move the facility was first made in FY17 and is currently in progress.

Participatory Budgeting

Starting in 2011, New Yorkers had a new way to offer input on the City's capital budget: Participatory Budgeting (PBNYC).⁴ PBNYC lets New Yorkers propose and vote on projects in their City Council Districts costing at least \$35,000 and lasting at least five years. Projects receiving the most votes during a nine-day Vote Week are incorporated into the City's budget and implemented by City agencies. In 2021, community members participating in PBNYC will have decision-making power over more than \$35M in taxpayer dollars.⁵

*In the text below, CD refers to City Council Districts

Eight of Queens' 14 Council Districts currently have access to PBNYC through their Council Member:

- CD19 (QNS Community District 7, 11): Paul Vallone
- CD22 (QNS Community District 1): Costa Constantinides
- CD26 (QNS Community District 2): Jimmy Van Bramer
- CD27 (QNS Community Districts 12, 13): I. Daneek Miller
- CD28 (QNS Community District 9, 12, 83): Adrienne E. Adams
- CD29 (QNS Community District 6,9): Karen Koslowitz
- CD31 (QNS Community District 13, 14, 83): Donovan J. Richards
- CD34 (QNS Community District 5): Antonio Reynoso⁶

Between 2015 and 2017, the most recent period for which data was publicly available, Queens residents submitted 13 project ideas related to green infrastructure, most for NYC Parks. In that same period, PBNYC voters proposed only two requests for capital funding for composting infrastructure, neither of which won.⁷

Vote Year	Council District	Description	Address	Votes	Winner	Cost
2015	26	This project will initiate the relocation of the composting facility to a new site 1,000 ft. away that will allow for an expansion of services. Includes better drainage, bioswales, outdoor classroom.	Queensbridge Baby Park, LIC	101	N	\$400,000.00
2015	26	An industrial sifter and industrial bagger are integral for this composting site to keep up with the growing demand for composting in New York City.	Queensbridge Baby Park, LIC	75	N	\$150,000.00

Source: Participatory Budgeting, NYC Open Data



Clogged Catch Basin Source: Ryan Van Manen

In the current 2021 PBNYC cycle, which was recently suspended due to COVID-19,⁸ the projects below are representative of DSNY and DEP-related ideas community members have submitted for consideration:

Water Harvesting Tanks at NYC Public Schools near 23-02 33rd Avenue, 11106 (CD 26, QNS Comm. District

1) "so sewer excess or overflow does not contaminate water or harm wildlife or prevent residents from coming in contact with water. Rainwater can be released to treat plants after a rain event when volumes are lower."

Community Composting Center near 203 Totten Avenue, 11359 (CD 19, QNS Comm. District 7) "so people can drop-off food scraps and reduce the trash

going into landfills."

Street and Park Cleanup of Litter near 32-03 39th Avenue, 11101 (CD 26, QNS Comm. District 1) "so that,

given the increased use of masks, gloves, and outdoor spaces since the COVID-19 pandemic, community members can address the increase in trash on the streets and in parks. Designated clean-up crews in the community would help with this issue."

Trash Barrels for High-Density Dog Walking Areas near 47-31 Center Boulevard, 11109 (CD 26, QNS Comm. District 2) "so people can deposit pet-dog refuse easily and conveniently. This is a high-density dog area that is in front of a pet store."

Catch Basin Cleaning Equipment and Education near 33-02 Skillman Avenue, 11101 (CD 26, QNS Comm.

District 2) "so people can help keep catch basins clear to prevent flooding/erosion and keep streets clean. This would include trash and recycling receptacles near catch basins and pokers/sticks to pick up accumulated litter. Residents would also need signs to educate the public on the importance of doing so and provide instructions on how to use the equipment."

Capital and Discretionary Funding by Electeds to Queens: FY21

In response to community members communicating to electeds and agencies their DSNY- and DEP-related capital and expense requests, electeds, in turn, provide funding through New York City Council Discretionary and Capital Funding budget lines.⁹ In FY21, Queens Council Members, the Queens Delegation, the Queens Borough President, Council Speaker Johnson, and NYCC Members from other boroughs jointly allocated over \$3.77M through discretionary funding to address waste issues in Queens. Of those funds, \$2.89M came from the NYC Clean Up initiative and \$316K from A Greener NYC.¹⁰ The only Capital Funds allocated in FY21 indirectly related to resource recovery were \$50K from Council Member Koo to the Queens County Farm Museum for a new education center. As an example of the money required to help Queens improve local compost processing capacity, Manhattan Council Member Kallos recently awarded \$90K to a Roosevelt Island organization to purchase a commercial-grade composting system with an auto-loader able to handle over one ton of food scraps per week.¹¹ For details on Queens' FY21 Discretionary Funding by elected and Program Name, see Appendix IV.

Discretionary Funding Category	Amount Funded
Cleaning/ Cleanup	\$2,129,500.00
Extra Basket Pick up / Support	\$748,000.00
Greener NYC	\$316,169.00
Anti-Graffiti / Graffiti Removal	\$212,500.00
Community Programs	\$209,500.00
Beautification	\$103,500.00
Gardens	\$50,000.00
E-Waste Collection	\$10,000.00
Total	\$3,779,169.00

Source: NYC Open Data



Queens County Farm Museum Compost Processing Source: Queens County Farm Museum

Conclusion

Keeping streets clean, maintaining regular waste pick-ups, and ensuring sanitation infrastructure, including sewers and storm drains, are in working order are basic needs residents have come to expect in a functioning city. Amid COVID-19, and due to Citywide budget cuts, the City cut many DSNY services, as evidenced by an increase in 311 complaints about Missed Collections and Dirty Conditions, even as the overall number of calls from Queens residents in 2020 declined. Based on the data examined in this section, we find that:

- making calls to 311 for DSNY and DEP issues.
- Needs Statements.
- submissions for waste-related projects, with none yet funded.
- Queens processor to handle one ton of organic material per week.

• Residents in Queens Community Boards 5, 12, and 13 have been the most active in the last two calendar years in

Representatives of Community Boards 2, 3, 10, and 11 have been most consistent in the last two fiscal years in submitting discretionary and capital funding requests for DSNY and DEP unmet needs to the City in their Annual

Council District 26, which includes Queens Community Districts 1 and 2, have had the most Participatory Budgeting

• The NYCC has allocated over \$3M in FY21 discretionary funding to keep streets clean and pick-up litter from public baskets but far less for gardens and beautification (\$153K). Assuming even one-quarter of material disposed in public litter baskets or on streets includes food waste (less than the 34% in residential streams), the comparative cost to divert these materials locally into compost, rather than paying for cleaning, deserves further examination. Based on a comparative analysis of Citywide FY21 capital funding, a minor investment of \$90-100K would allow a local

ENDNOTES

- 1 "NYC 311." Welcome to the State of New York, www.ny.gov/agencies/nyc-311. Accessed 8 April 2021.
- 2 Citywide Statement of Needs for City Facilities FY 22-23 https://www1.nyc.gov/assets/planning/download/pdf/about/publications/son_22_23.pdf Accessed 16 March 2021.
- 3 Ibid.
- 4 Participatory Budgeting NYC FY22 http://ideas.pbnyc.org/page/about Accessed 16 March 2021.
- 5 Ibid.
- 6 Ibid.
 7 "Participatory Budgeting Projects: NYC Open Data." Participatory Budgeting Projects | NYC Open Data, NYC Open Data, 12 May 2017, data.
- cityofnewyork.us/City-Government/Participatory-Budgeting-Projects/wwhr-5ven.
- 8 Ibid.
- 9 New York City Council Expense Funding FY21, 2021, www.nyc.gov/html/citycouncil/html/budget/expense_funding.shtml.
- 10 Ibid.
- 11 New York City Council Capital Funding FY21, 2021, http://www.nyc.gov/html/citycouncil/html/budget/capital_funding.shtml.

COMMUNITY ASSETS



Directional Signage at Queens Botanical Garden Source: Queens SWAB Organizing Committee member

In this section, we highlight a sample of representative organizations, institutions, nonprofits, community groups, and businesses working to increase awareness about reduce, reuse, and recycling practices. Some of these entities work exclusively in the service of their local communities, while others are accessible borough-wide and available to the general public. The list of Queens' resources compiled here is far from exhaustive but — along with a master list posted on our website— we hope it helps communities identify assets they already have so that they can make full use of them, while also noting resources and services which are lacking and can be advocated for.

* Nonprofits, community groups, academic institutions, and businesses not included in this report or on our website reflect time or space limitations of the QSWAB Organizing Committee. We welcome submissions of additional community assets that may have been overlooked and look forward to adding these to our master list.

Overview

The QSWAB Organizing Committee identified at least 191 community assets, not including libraries and schools, GrowNYC community gardens, and civic organizations, directly or indirectly supporting sustainability and zero-waste efforts. The top 10 categories of assets identified include:

Asset	Count
Community Fridge	22
Thrift Shop	16
Buy-Nothing Group	15
Greenmarket	15
Mutual Aid - Donation + Resources	15
CSA	15
Food Scrap Drop- Off/Composting	14
Stewardship	13
Responsible Shopping	11
Education	10
Total	146

Source: Queens SWAB Organizing Committee

These assets are located across the borough, but predominate in certain neighborhoods (the below neighborhoods being the top 10 asset hosts):

Neighborhood	Count
Astoria	25
Queens (serving the entire borough)	19
Long Island City	19
Ridgewood	12
Flushing	11
Jamaica	10
Corona	8
Sunnyside	8
Jackson Heights	7
Forest Hills	7
Total	126

Source: Queens SWAB Organizing Committee

DSNY New York City Compost Project Host Sites

Big Reuse (Long Island City) was founded as Build it Green with a mission to reduce the environmental burden of construction and demolition waste sent to landfills. The nonprofit opened a resale warehouse in Astoria in 2005. When their landlord doubled their rent in 2017, they had to close the location and take the business — and green jobs — to Gowanus, Brooklyn. In 2011, Big Reuse diversified its work to focus on organic waste. Ten years later, they are a leading player in a Citywide community-led network that works to rebuild soil by providing New Yorkers with the knowledge, skills, and opportunities to produce and use compost locally.¹ This past year, The NYC Compost Project Hosted by Big Reuse received the U.S. Composting Council Small Scale Composter of the Year award for its work.² Today, however, Big Reuse is again in danger of losing its Queens space, this time so NYC Parks can create a vehicle storage lot. After public outcry about this development, in late 2020, NYC Parks agreed to extend the nonprofit's lease until June 2021. Although NYC Parks Commissioner Silver agreed to find a new home on a "non-NYC Parks site" for Big Reuse, so far they have made no progress to secure them a new location.³

Queens Botanical Garden (Flushing) is an urban oasis that celebrates people, plants, and cultures through inspiring gardens, innovative educational programs, and demonstrations of environmental stewardship. Its operations and programming reinforce its commitment to the City's OneNYC goals. QBG hosts a Farm & Compost Site that demonstrates the closed-loop of organics recycling as applied to agriculture, horticulture, and green infrastructure. In 2019, the Farm & Compost Site harvested 7,442 lbs. of produce, half of which they donated to food pantries. In typical years, QBG also offers a Master Composter certification course as a part of the NYCCP. Modeled after programs nationwide and modified for the realities of composting in New York City, the program:

- teaches participants how composting fits with the City's waste management plan;
- provides a deeper understanding of the composting process;
- offers information on how participants can use finished compost through hands-on experiences and;
- grants participants the experience of interfacing with the public around the topics of organic waste and composting.⁴

Colleges and Universities

St. John's University (Jamaica) works to create a more <u>sustainable campus</u> while engaging the school's facilities team and student body. Annually, St. John's participates in the nationwide RecycleMania competition, which engages 400+ schools in competition, (achieving a 50% diversion rate in 2017). Following the EPA's Food Recovery Hierarchy, St. John's recovers more than 6,000 lbs. of food annually for donation and composts 100 tons of food per year utilizing a pulper and aerated static compost pile (ASP). St. John's also collects unwanted food and clothing from students upon moveout. The school works with student Sustainability Coordinators to make this work possible.⁵

York College (Jamaica) provides students with learning experiences that support their personal growth and encourage passionate service to improve the lives of community residents. Through several academic



Source: Queens Botanical Garden Since it started in 2000, QBG has trained and certified 323 Queens Master Composters and exposed many more to hands-on composting experiences. Many graduates have gone on to run or volunteer in Queens compost sites.⁷ For a continually updated list of food-scrap drop-off sites across New York City, visit this link.

programs, students participate in research to contribute to the health and well-being of people and the environment. <u>The Environmental Health Science (EHS)</u> <u>Program</u> addresses man-made environmental pollution. EHS students are trained to think critically about real-world problems by visiting off-campus sites and engaging in field investigations that provide experiential learning that expand classroom instruction. The EHS 426 class conducts solid-waste management surveys in the local community, exploring ways to enhance waste processing and recycling and improving operations at waste transfer stations. Students have also conducted air-quality monitoring in Jamaica Center and contiguous neighborhoods to assess potential health risks caused by particulate matter and gaseous pollutants.⁶

Nonprofits

The nonprofits below are some of the more prominent organizations in the borough working to provide innovative waste education and resource recovery services.

Cafeteria Culture (New York City) is part of the Partner Project Program of The Fund for the City of New York. The organization started in 2009 as Styrofoam Out of Schools and was instrumental in bringing about legislation that eliminated Styrofoam trays from all New York City public schools. CafCu works creatively with youth using interdisciplinary educational methods. Their programming focuses on encouraging youth-led solutions to achieve zero waste in schools and create plastic-free and climate-smart communities. CafCu has shared its program with 10 Queens public schools and is currently building a relationship with the Queens Public Library in Long Island City.⁸ For a list of schools, see Appendix V.

Eastern Queens Alliance (Southeast Queens) is a federation of civic associations established a little over 30 years ago to advocate for a sustainable Southeast Queens. The organization uses its collective voice to identify common challenges and develops and executes strategies that maintain or restore balance in their communities. Their initiatives address: Education, Health and the Environment; Parks and Open Space; Community Development, Economic Management, and Safety. EQA is also a steward of the Idlewild Park Preserve, a 225-acre Forever Wild site located north of JFK Airport. Since 2003, EQA has worked toward the preservation and restoration of the Preserve, which in earlier times served as a dumping ground for City agencies. In 2021, the EQA will host the grand opening of the Idlewild Park Salt Marsh Environmental Science Learning Center. Along with a new planned hiking trail, the center will serve as an environmental education complex that will offer hands-on workshops, field trips, recreational activities, and nature center offerings.⁹

Guardians of Flushing Bay (Flushing) is a nonprofit coalition of boaters, park users, and local residents advocating for a healthy and equitably accessible Flushing Bay and Creek. Flushing Waterways are overburdened by more than 2 billion gallons of raw sewage and contaminated stormwater runoff every year. To raise awareness around this issue, the organization has hosted waterfront programming, community cleanups, and grassroots advocacy to promote a healthy ecosystem and equitable waterfront land use practices. They successfully advocated to remove a toxic, foam-leaking abandoned barge from Flushing Bay. In 2020, they hosted a 'Watershed Justice Film Series,' screening movies about single use plastic reduction in collaboration with the Queens SWAB Organizing Committee. They advocated for robust implementation of the Flushing Bay and Creek Combined Sewer Overflow Long-Term Control Plans from the Department of Environmental Protection and collaborated with Billion Oyster Project to bring more water-filtering oysters to Flushing Waterways.¹⁰

Materials for the Arts (Long Island City) is part of the New York City Department of Cultural Affairs, and distributes thousands of pounds of reused materials that would otherwise end up in the waste stream to artists, schools, community centers and the public. Giving these materials a second life showcases how art can be an inspiring part of sustainability. In a typical year, MFTA's educational programs reach over 5,000 teachers and 15,000 students. In 2019, the organization diverted 900 tons of material from landfills valued at \$14,318,516. During COVID-19, to safely serve their partner institutions, MFTA pivoted to online instruction and curbside-pickup at their Long Island City warehouse.¹¹



Materials for the Arts Source: Materials for the Arts

Queens Climate Project has a mission to "engage in advocacy, education, and climate-related initiatives that promote clean energy and sustainability." Although the group's 2021 Policy Platform is primarily focused on clean and green energy, the group also promotes Citywide composting and expansion of collections for electronics, textiles, and hazardous waste, while calling for the reduction of single-use plastics. The QCP also touts a Compost Task Force, which has conducted education and outreach around compost, while assisting in the expansion of compost neighborhood initiatives.¹²

Queens County Farm Museum (Floral Park/Glen Oaks) is one of the longest continually farmed sites in New York State (c.1697) and the largest tract of farmland in NYC. The 47-acre farm provides a healthy ecosystem through pollination, seed disbursement, nutrient recycling, and climate regulation. Its growing fields, farm animals, compost site, apiary, and regenerative farming methods make it a leader in the ecological well-being of New York City, a model for teaching and research, and an important source of locally grown food to an urban community. Queens County Farm welcomes over 400,000 visitors per year. The farm has been composting on-site since 2008 and accepts community food scraps daily. To date, Queens Farm has diverted over 325,000 lbs. of food scraps and organic material from landfills.¹³

Rescuing Leftover Cuisine and Restaurant Partners

Rescuing Leftover Cuisine is a national nonprofit that uses volunteer labor to collect excess, unused food from businesses and restaurants and donate it to local service agencies. The nonprofit's Executive Director, Robert Lee, grew up and still lives in Queens. In 2019, the nonprofit rescued 1,638,328 lbs. of food, providing 1,365,275 meals to those in need. The organization engages restaurants, food banks, and volunteers to coordinate its efforts. Currently, there is only one Queens location, Levain Bakery's commercial kitchen, that weekly donates excess food. RLC's prior Queens restaurant donors include:14

- Indie LIC
- Griddle Cafe & Deli
- Java Day Cafe
- Queens Comfort
- Salt & Bone Smokehouse
- Tortillería Nixtamal
- Treat House



Queens County Farm Museum Source: Queens County Farm Museum



(Far Rockaway) was established in 2005 to provide "civic engagement and youth development programs that advance social equity and the physical well being of our vibrant, coastal community." The group began by reforming an illegal dumping site into a waterfront park, and now leads educational programs and workshops, including many focused on marine debris and coastal stewardship efforts including cleanups. The group has served over 40,000 people over its tenure, and hosts 110 local school, business, community partners and other collaborators per year.¹⁵



Queens Together Distributing Donations from Rescuing Leftover Cuisine Source: Rescuing Leftover Cuisine

Smiling Hogshead Ranch (Long Island City) Founded as a guerrilla garden in Spring 2011, the Ranch is a collectively run urban farm with no fences and no individual plots. Members participate in various committees to carry out the functions of the Ranch's mission, which is to create a culture that empowers and connects our communities through ecology, education, and collaboration. The Ranch hosts an unstaffed food scrap drop-off from sunrise to sunset daily. The grounds consist of sitting areas, annual row crops, a food forest, bees, and pollinator plants. The Ranch demonstrates several different types of composting including aerated static piles, three bin, bokashi, leaf mold, mushroom compost, and windows.¹⁶

Potential Compost Collection and Processing Sites

Community gardens, farmers markets, community-supported agriculture distribution sites, and vacant Cityowned lots are all potential compost collection and processing sites that are currently underutilized assets.

In Queens these include: Forty-one community gardens, about half overseen by NYC Parks' GreenThumb; seven administered by the Brooklyn Queens Land Trust; four by the New York Restoration Project; and the rest by NYCDOT, DOE, MTA, or a private entity. ³⁰

Approximately 20 farmers markets, onethird of which operate on weekdays and the rest on the weekends. Four are run year-round (three of these are GrowNYC markets and the other is run by Edgemere Farm, a half-acre urban farm in Far Rockaway). All but three of Queens' farmers' markets accept Electronic Benefit Transfer (EBT). 31

Fifteen CSA distribution sites, four in Astoria with others distributed across Long Island City, Jackson Heights, Sunnyside, and Forest Hills/Kew Gardens.³³

Seven vacant City-owned lots, all located in Queens Council District 31 (near QNS Comm. District 83 -JFK and Comm. District 13), representing a little over an acre of land that, under Local Law 46 of 2018, was deemed suitable for farming. 33

45TH STREET COMPOSTERS

The story behind a compost site in Sunnyside, Queens illustrates the importance of engaged community members and the benefits of community-supported partnerships.

After the suspension of Curbside Organics Collections, a group of guerrilla gardeners called the 45th Street Composters took over a privately-owned lot in Sunnyside for a composting site and community garden.

Although initially skeptical, the property owner and group worked with a local nonprofit to allow the 45th Street Composters to use the lot to collect food scraps and create compost for a year. The person behind the partnership was Michael Otterman, the property owner's nephew, who worked for the company that managed the lot.

While the property owner was not familiar with composting, Michael was and sympathized with the group's goal. He encouraged his uncle to work with them and eventually struck a deal.

Today, an unused private lot serves as a community asset through a private-nonprofit partnership that benefits everyone.¹⁷



45th Street Composters Source: Sunnyside Post

Volunteer Initiatives: Cleanup Groups

Additional cleanup groups are discussed in the COVID-Impacts section of this report.

Operation Clean Up (Laurelton) is a community and volunteer-driven sanitation and maintenance project for the improvement of Laurelton. Founded in 2017 by residents and business owners, Operation Clean Up's mission is to keep the community clean and free of garbage, debris, and overgrown weeds from May to September. Since its inception, the project has organized an average of 30 monthly volunteers throughout the season. In 2019, they resurrected the Laurelton Mall Beautification Contest, awarding cash prizes for the best-kept, most improved, and most beautiful green medians in the neighborhood. The project is spearheaded by Melva M. Miller and documented by Clarisa James, both Laurelton residents.¹⁸



Operation Clean Up Source: Operation Clean Up

Sustainable Businesses

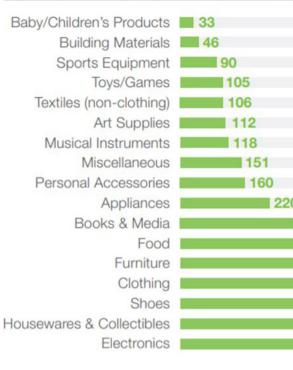
Given the many businesses in Queens striving to adopt zero waste practices, this report cannot begin to name them all. In the future, informed by DSNY's Reuse Sector Report, Queens Chamber of Commerce, and Business Improvement Districts, the QSWAB Organizing Committee hopes to use its website as a platform to showcase more enterprises and entrepreneurs contributing to a sustainable borough. For now, we acknowledge the contribution of Queens resident Brittany Cattaruzza, creator of the 2020 Sustainability Map Project. Established as a one-stop website to find local resources for leading a more eco-conscious life, her platform includes information not in this report, such as stores that recycle plastic bags; pharmaceutical and hazardous material diversion opportunities; and clothing and electronics donation sites.¹⁹

Below are examples of sustainable and zero-waste focused Queens businesses:

- 4th Bin (Long Island City) offers sustainable e-waste recycling and secure data destruction to businesses.²⁰
- Cup Zero (Ridgewood) provides reusable, branded cups for events and offers talks about sustainability to industry partners.²¹
- Earth & Me (Astoria) bills itself as "Queens' first zero-waste store" providing "eco-friendly items that are good for makers and the planet."22
- Habitat for Humanity ReStore (Woodside) sells donated overstock and used items such as appliances, furniture and more with proceeds supporting Habitat for Humanity.²³
- Jars of Delight (Jamaica) is a sustainable catering company that uses reusable glass serving containers and donates food waste for local composting.²⁴
- The Junkluggers & Remix Market (Astoria/Long Island City) seeks to serve as a sustainable disposal business for homes and offices, finding new homes for removed items and providing tax-deductible receipts to customers. Junkluggers is a sister company to Remix Market NYC (Long Island City), which donates and resells furniture, art, and appliances at competitive prices to eliminate waste and make basic necessities accessible to New Yorkers at all income levels.^{25, 26}
- Loops Recycling and Recovery (Queens Village) provides zero-waste, recycling, and sustainability consulting to businesses and other entities in Queens and Citywide.²⁷
- Queens Night Market (Flushing Meadows Corona Park) is a themed food fair which has piloted bokashi composting and compost education stations and hosted research and design studies on waste diversion initiatives. The market sells reusable eating utensils, has banned plastic bags for its vendors, and launched a creative Halloween costume swap station for families.²⁸
- Zero Waste NYC Workshop (Astoria) hosts a workshop series to highlight strategies for reducing personal waste from compost to fashion and beyond.²⁹

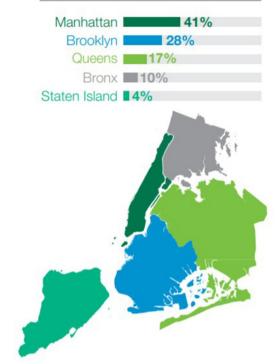
* Not included above, but deserving of recognition, are larger businesses that have been ground-breakers in reducing waste in their industries, among them CitiField, JetBlue, and SilverCup Studios.

Figure 1 Breakdown of Reuse Entities in NYC Based on Products Handled



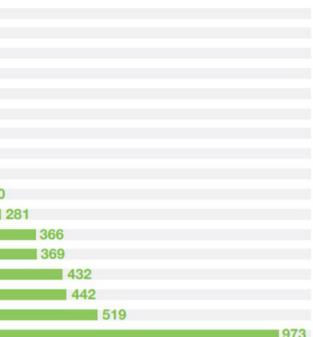
Source: DSNY 2019 NYC Reuse Sector Report

Reuse Outlets by Borough



Source: DSNY 2019 NYC Reuse Sector Report







Astoria Park Shoreline Cleanup, March 2021 Source: Queens SWAB Organizing Committee Member

Conclusion

Because communities are our greatest asset, any effort to reach a zero-waste future must include equipping Queens' public institutions, nonprofits, businesses, and community groups with the knowledge, tools, and resources they need to catalyze change. The City's previous GreeNYC program confirmed the importance of tapping into that potential, concluding in its 2017 Small Steps, Big Strides report that residents are essential to the success of any large-scale sustainability solution.³⁰

In this brief overview of sustainability and zero-waste-related assets in Queens, it is clear that the array of efforts underway in the borough, if given more support, could become even more powerful advocates for New York City's zerowaste future. Our research found:

- Queens is rich with close to 200 sustainability and zero-waste assets, with more needing documentation;
- community educators around zero waste and sustainability practices;
- (Astoria, Long Island City, Ridgewood, Flushing, Jamaica, Corona, Sunnyside, Jackson Heights, Forest Hills);
- thousands of food-insecure Queens residents.

• The presence of 11 colleges and universities in the borough, not all included in this report, can be leveraged to serve as

• While we found assets in nearly all Queens neighborhoods, over half (55%) were clustered in nine communities

• Although food scrap drop-off and composting are critical to diverting organic materials from landfills, we can do more to prevent food waste before it reaches that stage. Most urgently, almost no Queens restaurants are taking advantage of the opportunity offered by Rescuing Leftover Cuisine to save food from restaurants while still safe and able to feed

ENDNOTES

- Green, Justin. Received by Wylie Goodman, State of Waste in Queens Report Including Big Reuse, 9 Mar. 2021.
- 2 "News USCC Composter of the Year Award." Big Reuse, 25 Jan. 2021, www.bigreuse.org/blogs/news/uscc-composter-of-the-year-award/.
- 3 "NYC PARKS AND DSNY ANNOUNCE A PATH FORWARD FOR BIG REUSE COMPOSTING OPERATIONS." Press Releases: NYC Parks, 18 Dec. 2020, www.nycgovparks.org/news/press-releases?id=21799. Accessed 11 April 2021.
- 4 Encabian, Chelsea. Received by Wylie Goodman, RE: Big Reuse and QBG sections. 12 March 2021.
- 5 St. John's University, Sustainability, www.stjohns.edu/about/campuses-and-locations/sustainability. Accessed 26 April 2021.
- 6 Robert-Semple, Dawn. Received by Wylie Goodman, Re: York College blurb for State of Waste in Queens report, 23 Mar. 2020.
- 7 Encabian, Chelsea. Received by Wylie Goodman, RE: Big Reuse and QBG sections. 12 March 2021.
- 8 Keyser, Rhonda. Received by Wylie Goodman, Re: Queens Schools, 15 Mar. 2020.
- 9 Charles, Gloria and Brown, Barbara. Received by Wylie Goodman, Re: Eastern Queens Alliance section in SOW report. 17 March 2021.
- 10 Pryor, Rebecca. Received by Wylie Goodman, Re: Did you see the QSWAB request email? 23 March 2021.
- 11 Kaiser, Jon. Received by Wylie Goodman, Re: Ensure Your Organization is Included in the State of Waste in Queens report! 18 March 2021.
- 12 "Queens Climate Project." Queens Climate Project, https://www.queensclimateproject.org/initiatives. Accessed 26 April 2021.
- 13 Weprin, Jennifer Waldren. "Information and data about Queens County Farm." Received by Wylie Goodman, 5 April 2021.
- 14 "Rescuing Leftover Cuisine." Rescuing Leftover Cuisine, www.rescuingleftovercuisine.org/. Accessed 26 April 2021.
- 15 "RWA Is Now RISE!" RISE, www.riserockaway.org/rise/. Accessed 26 April 2021.
- Lopez, Gil. "Send us a blurb about Smiling Hogshead?" Received by Wylie Goodman. 3 March 2021.
- 17
 Griffin, Allie. "Sunnyside Residents and Property Owner Come Together to Turn Empty Lot into Composting Site." licpost, 21 Oct 2020, https://

 17
 licpost.com/sunnyside-residents-and-property-owner-come-together-to-turn-empty-lot-into-composting-site. Accessed 12 Nov 2020.
- 18 Lawrence, Mac. Received by Wylie Goodman, Re: Community Assets: Operation Cleanup. 23 March 2021.
- 19 "The Sustainability Map Project." The Green Spectrum, http://www.thegreenspectrum.net/sustainability-map/. Accessed 1 Nov 2020.
- 20 Certified & Secure e-Recycling Solutions , 4th BIN, www.4thbin.com/. Accessed 26 April 2021.
- 21 "Cup Zero." Cup Zero, www.cupzero.com/. Accessed 13 Apr. 2021.
- 22 "Eco-Friendly Essentials." Earth & Me, www.earthandme.co/. Accessed 13 Apr. 2021.
- 23 Habitat for Humanity Restore New York City, Habitat for Humanity, 15 Mar. 2021, habitatnyc.org/restore/. Accessed 26 April 2021.
- 24 "Jars of Delight." Jars of Delight, www.jarsofdelight.com/. Accessed 13 Apr. 2021.
- 25 "How It Works." The Junkluggers National Hub Site, www.junkluggers.com/about-us/why-us/how-it-works.html. Accessed 13 Apr. 2021.
- 26 "About Us." Remix Market NYC, remix-market-nyc.shoplightspeed.com/service/about/. Accessed 13 Apr. 2021.
- 27 "LOOPS RECYCLING + RECOVERY, LLC." LOOPS RECYCLING + RECOVERY, LLC., www.loopsrr.com/. Accessed 13 Apr. 2021.
- 28 "Queens Night Market." Queens Night Market, queensnightmarket.com/. Accessed 13 Apr. 2021.
- 29 "Zero Waste NYC Workshop." Zero Waste NYC Workshop, https://www.zerowastenyc.info/. Accessed 26 Apr. 2021.
- 30 "Small Steps, Big Strides Insights from GreeNYC:The City of New York's Behavior Change Program." New York City Mayor's Office of Sustainability, 2017. www1.nyc.gov/assets/sustainability/downloads/pdf/publications/greenyc_lessons_2017_online_final.pdf. Accessed 30 Oct 2020.
- 30 NYC Department of Parks and Recreation. "GreenThumb Garden Info" NYC Open Data, data.cityofnewyork.us/dataset/GreenThumb-Garden-Info/ p78i-pat6. Accessed 13 Apr. 2021.
- 31 NYC Department of Health and Mental Hygiene. "DOHMH Farmers Markets" NYC Open Data, data.cityofnewyork.us/dataset/DOHMH-Farmers-Markets/8vwk-6iz2. Accessed 13 Apr. 2021.
- 32 "Value Chain Map." Just Food, www.justfood.org/value-chain-map. Accessed 13 Apr. 2021.
- 33 NYC Department of Parks and Recreation. "City-Owned Sites That Are Available and Potentially Suitable for Urban Agriculture (Local Law 46 of 2018)" NYC Open Data, data.cityofnewyork.us/Environment/City-owned-sites-that-are-available-and-potential/qchy-end3. Accessed 13 Apr. 2021.

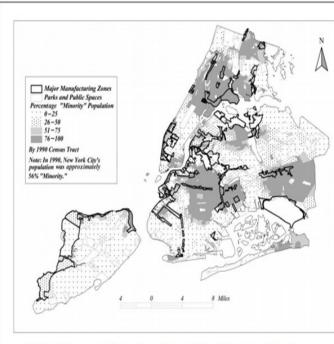
WASTE IMPACTS



Source: Queens SWAB Member

The negative impacts of industry — including waste management — on communities informed the country's earliest zoning laws.¹ More recently, experts have confirmed that large-scale waste-handling, transfer, and processing, when conducted near residential communities, is not only a nuisance as defined by land use law but a source of public health and environmental harm.² Such facilities have historically been placed and continue to operate in Black and Brown (BIPOC) communities. This pattern of waste inequity and environmental racism has increasingly become a rallying cry about the burdens of waste on a select few and an appeal to the general public to consider the end result of their personal waste output.

In this section, we explore how waste affects Queens residents. We start by discussing the results of a waste impact survey developed by the QSWAB Organizing Committee and administered to 460 respondents across the borough. We next review a second, in-person survey, examining how waste affects a narrower group: Queens residents who live or work near three distinct types of waste facilities. Finally, we delve into the history of two separate but related waste equity fights waged for decades in the borough, one in CD5 related to waste-by-rail, the other in CD12 focused on waste transfer stations.



Source. Based on data from the New York City Department of City Planning (1993) and the US Census Bureau (1990).

FIGURE 1-Major manufacturing zones and percentage minority population, New York City.

1034 American Journal of Public Health

July 2001, Vol. 91, No. 7

Source: American Journal of Public Health



Waste Impact Surveys

State of Waste in Queens Community Survey

To understand how Queens residents view waste's impact on their lives, the **QSWAB Organizing Committee** created a 12-item online survey shared via email, newsletter, and social media (10/9/20-10/24/20). The survey was completed by people from all 14 Queens Community Districts. Because Queens is linguistically diverse, the survey was made available in English, Spanish, and Mandarin. In the final days before the survey closed, we received an influx of responses from Astoria after a neighborhood FSDO shared a link on social media. To ensure results were not skewed by these last-minute entries, we controlled for that in our analyses. Below are key findings from representative questions.

- Respondents were asked to rate on a scale of 1
 (least) to 4 (most) the changes they most wanted
 made to waste management in their neighborhoods
 to make it more convenient. By a wide margin,
 respondents wanted more trash cans and recycling
 bins in busy areas (e.g. street corners, plazas,
 parks, restaurants as drop-off sites, etc.) (74%),
 followed by more organic (food scrap, yard waste)
 drop-off sites closer to where they lived (65%).
 Less urgently, people felt their neighborhoods
 would benefit from more bulk waste drop-off sites
 or places to dispose of large items like couches and
 mattresses (46%).
- Among the waste issues respondents felt most negatively impacted them were litter at street corners or in public spaces (83%), litter outside buildings (63%), and lack of conveniently located organic drop-off sites (64%). The concerns they felt Queens most urgently needed to resolve mirrored the responses above (i.e., public litter: 68%; inconvenient location or lack of organic waste collection sites: 46%). Many also felt more public

education about recycling, waste disposal, and composting would be beneficial (44%).

- Over half of respondents said they Disagreed (44%) or Strongly Disagreed (18%) with the statement that there were enough places to dispose of waste on their block. The question did not query about block density or typology, (i.e. primarily residential or commercial).
- Of nearly 300 individuals who answered a question about knowledge of local waste-related resources, 64% were aware of a community-based organization (CBO) while 4% were aware of a Waste-Related School Program. Only 18% were aware of two resources (i.e., CBO and Local Business: 14%; CBO and Waste-Related School Program: 4%). Five respondents (1%) were aware of all three resources (CBO, Local Business, Waste-Related School Program). Six percent did not know of any waste-related resources.
- When asked to identify waste-related resources by name, the ones most frequently cited included Astoria Pug, Big Reuse, Smiling Hogshead Ranch, Jackson Heights Beautification Group and Greenmarket, Ozone Park Civic Association, Proud Astorian, Queens Botanical Garden, Queens County Farm, Socrates Sculpture Park, and Woodside/Sunnyside Composting.

Queens Waste Facilities' Impact Survey

The second survey administered by the QSWAB Organizing Committee was done in-person with a smaller group of Queens residents who live or work near three of the borough's waste-collection facilities:

- Salvation Army Donation Center: 34-02 Steinway Street, Astoria, NY 11101
- American Recycling Management and Regal Recycling (solid waste transfer stations): 172-33 Douglas Avenue, Jamaica, NY 11433
- DSNY Non-Permitted Waste Transfer Site near 19525 69th Avenue, Fresh Meadows, NY 11365

Given the small participation rate, we consider these responses anecdotal until more data can be collected. Respondents were asked the same questions at each location. Respondent demographics and detailed survey responses are available on the QSWAB Organizing Committee website.



Source: Queens SWAB Organizing Committee member

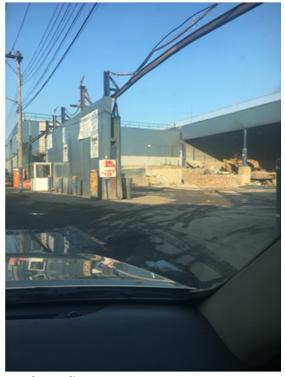
In the future, the QSWAB Organizing Committee hopes to survey Queens residents living near the following additional waste collection facilities:

- Rockaway Community Park at Conch Pl. &, Edgemere Park Rd, Far Rockaway, NY 11691
- Community Beverage Redemption Center (bottle bill redemption center) at 53-01 80th Street, Elmhurst, NY, 11373
- Durante Brothers NYC (construction debris processing) at 31-40 123rd Street, Queens, NY, 11354.

Salvation Army Donation Center — 16 Respondents

The Salvation Army Donation Center accepts textiles, home goods, and books that would typically go to landfills or be re-sold. Because the center lacks a dedicated outdoor donation bin, bags are often left on the curb, regardless of weather. It is not uncommon to see people searching through bags to find items they want.

Half of respondents felt the donation center was wellplaced in the community, with 63% stating they visited it at least once a year. Eighty-one percent described the center as somewhat or definitely clean. Sixty-three percent said traffic around the facility did not negatively impact them. **Sixty-nine percent said the facility was somewhat beneficial to the community.** Concerns about the facility included lack of outdoor donation bins, items left outdoors when the store is closed, and lack of clear directions about donation procedures. Overall, respondents had positive views about the Salvation Army Donation Center.



Regal Recycling Source: Queens SWAB Organizing Committee Member

American Recycling Management and Regal Recycling Solid Waste Transfer Stations – 11 Respondents

Residents, many of them living within a five-block radius of the American Recycling Management and Regal Recycling solid waste transfer stations in Jamaica, held a decidedly more negative view of these facilities. Eighty-two percent described them as unclean, with the same percent stating traffic around the facilities negatively impacted them. More than half (55%) said the facilities provided no community benefits. Many felt the waste transfer stations did not belong in a residential neighborhood and should be enclosed. Complaints about the facilities included noise that disrupts sleep, noxious smells, and dust that irritates eyes and causes difficulty breathing attributed to waste-hauling trucks traveling on unpaved roads.



American Recycling Source: Queens SWAB Organizing Committee Member

DSNY Non-Permitted Waste Dump Site — 4 Respondents

The site is located behind the parking lot of a supermarket and laundromat. The site sits adjacent to a large residential housing complex.

Despite a low response rate at this location, all participants agreed that the site was ill-placed and dirty. **Seventy-five** percent said traffic around the site negatively impacted them and that the site provided no community benefits. Resoundingly, residents felt the site should not be located near a residential area.



Source: Queens SWAB Organizing Committee member

Waste Impact Case Studies

The case studies below look more closely at waste impacts on two Queens Community Districts where waste challenges have been long-standing: CD5 and CD12. These case studies were prepared by community advocates who have deep histories in these respective communities and who have been personally affected by the conditions described.

A Win for Waste Equity but the War is not Over

After Fresh Kills Landfill — New York City's final remaining landfill — closed in 2001, the City lacked a comprehensive plan to handle how waste would be transferred from collection sites to landfills across New York State and around the country. In response, the Department of Land Use and City Planning, along with the Department of Environmental Conservation, permitted the siting of waste transfer stations (WTS) near homes, parks, and schools in predominantly BIPOC communities where waste could be sorted prior to export, with waste arriving by truck and being later exported through a combination of larger trucks, trains, and barges. Today over 75% of the City's solid waste is processed in three of these communities: the South Bronx, North Brooklyn, and Southeast Queens, primarily Jamaica.³

For residents of Southeast Queens (CD12), this has meant living beside private WTS that handle not only municipal waste but also commercial waste from the City's hotels, offices, and restaurants. Each day, these WTS service thousands of diesel trucks operated by small haulers. As of 2019, they accepted an average of 1,700 tons of waste per day, 660 fewer tons than the 2,240 for which they are permitted, but still a large amount when co-located near residences.⁴

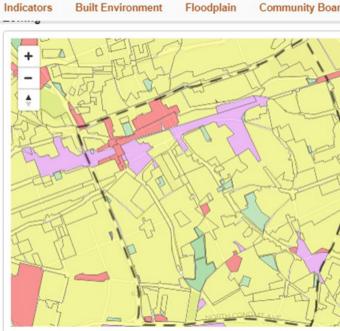
Because waste transfer stations are considered a 'heavy industrial' use, they are required by zoning law to be located in M3 Manufacturing Zones.⁵ **The WTS in CD12, however, are in an M1 'light manufacturing' zone next to residential properties, having been "grandfathered in" decades earlier**. As a result, people who live near the facilities are exposed to high levels of particulate matter, dust, emissions, exhaust, and litter. Pollution harms quality-of-life in any community, but even more so in low-income neighborhoods where residents may lack the means or resources to improve their physical surroundings. Particulate matter from WTS, combined with incoming diesel truck exhaust and gas emissions, creates air pollution that is correlated with respiratory diseases, including asthma.⁶ Most recently, pre-existing respiratory conditions were found to be a contributing factor to more severe COVID-19 reactions and higher mortality rates in neighborhoods such as Jamaica.⁷

In response to the impacts of WTS on their communities, civic and faith leaders in Southeast Queens worked for decades with their counterparts in the South Bronx and North Brooklyn to persuade the New York City Council to enact waste equity legislation to reduce the allowed capacity of waste at these WTS.⁸ Residents' testimonies included community data that quantified environmental burdens, including 80 trucks per hour and air-quality monitoring information showing particulate levels three times higher than the City average.⁹ **Despite strenuous industry push back and multiple court battles, the Waste Equity Law passed in 2018 has since been upheld**.¹⁰

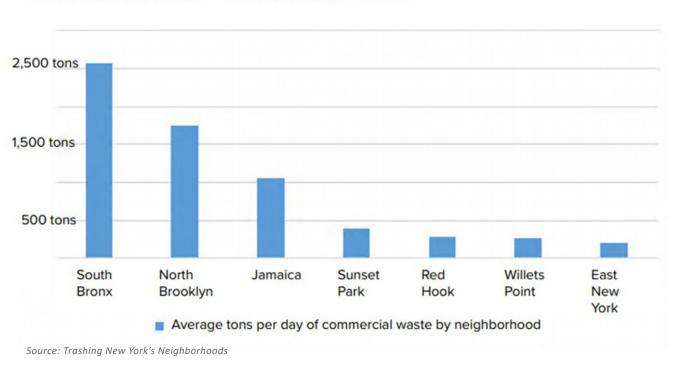
A year later, the NYCC took a further step to reduce negative harms from WTS by introducing a Commercial Waste Zone (CWZ) bill. CWZs divide the City into geographic areas and use a competitive bidding process to limit the number of private carters that can service each one. The law aims to "create a safe and efficient collection system that provides high-quality service and reduces the harmful environmental impacts of the trade waste industry in New York City."¹¹

Neither the Waste Equity Law nor CWZs, however, mandate enhanced standards at existing WTS nor enforcement of ongoing adverse community impacts. Currently, for example, CD12 remains the only Community District with unenclosed construction, demolition, and scrap metal transfer stations in an M1 zone¹² in New York City and residents continue to fight to have their concerns not only heard but addressed.

Queens Community District 12







Residence 84.93% Manufacturing 8.88% Commercial 4.12% Park 4.30% Learn more about zoning and land use in C ZoLa	d	Projects	Resources
			Manufacturing 6.68% Commercial 4.12% Park 4.30%

TRANSFORM DON'T TRASH NYC REPORT - TRASHING NEW YORK'S NEIGHBORHOODS

Civic Group Raises the Red Flag About Waste-by-Rail Impacts

The closing of Fresh Kills Landfill in 2001 — and transition to some local waste being exported on trains and barges from NYC to distant landfills instead of exported by trucks – was supposed to reduce negative health and environmental impacts on New York City's residents. But as New Yorkers discovered, exporting waste by rail and barge was not the panacea they had been promised.

For decades, in fact, residents in Queens Community Districts 2, 5, 9, 12, and 13 — supported since 2009 by the nonprofit <u>Civics United for Community Railroad</u> <u>Environmental Solutions (C.U.R.E.S.)</u> — have raised the red flag about noise, toxic emissions, debris, waste blow-off, leachate, and odors caused by the New York & Atlantic Railway's high-polluting 1970's diesel locomotives hauling residential and construction and demolition waste on tracks and in rail yards owned by the Metropolitan Transit Authority-Long Island Rail Road (MTA-LIRR).

These problems were predicted and preventable.

In 1997, in advance of Fresh Kills' closing, and with the knowledge that waste-by-rail was on the horizon, Queens Borough President Claire Shulman negotiated a contract with the MTA-LIRR and New York and Atlantic, requiring them to ensure waste rail cars traveling through Queens would be properly sealed and move without delay.¹³ When the NYC Corporation Counsel ruled that Shulman lacked authority to broker a contract, however, the agreement was nullified. Once permits were approved, the environmental problems Shulman predicted came to pass. Resolving waste-by-rail's externalities is complex, a byproduct of legal loopholes, multiple jurisdictions, oversight, and long-standing legal maneuvers that have given the rail industry the upper hand when it comes to regulations. The Federal government's 1963 Clean Air Act, for example, allowed 1970's locomotives to be excluded, resulting in ongoing excessive pollution from these locomotives. Also, railroads are allowed to decide for themselves what the containment standards will be for waste hauling. For New York State residents who live near freight rail lines, this has meant enduring public health and environmental harms to this day.

Multiple, overlapping jurisdictions have resulted in lack of uniform standards for waste-by-rail, even as it proliferates. For example, in DEC Region 2 (New York City), DSNY's contracted hauler, Waste Management, uses sealed rail containers to carry municipal solid waste and replaced a 1970s locomotive with one that has near-zero emissions to mitigate environmental harm.¹⁴ Meanwhile, in DEC Region 1 (Nassau and Suffolk County), companies continue using 1970's locomotives and open rail cars to ship construction and demolition waste across the two regions.¹⁵

In another example, Tunnel Hill Partners, which owns a rail transfer station in DEC Region 1's jurisdiction (Farmingdale Yard in Suffolk County) ships construction and demolition waste in open rail cars, while its "transload" facility in DEC Region 2 (Oak Point Yard in the Bronx) ships in sealed rail containers under a DSNY permit. DEC Region 1 also continues permitting new waste transfer stations as applications from private companies are submitted, without regard to their cumulative impacts on the freight rail capacity of Fresh Pond Yard in CD5 or the health and well-being of residents, including those in Environmental Justice communities who live up and down the rail line. In addition to DEC's proliferation of WTCs, NYC's Waste Equity Law LL 152 offers a tonnage increase for direct rail export.

As the only remaining freight rail hub where intercounty rail cars can be "switched" and "classified" (i.e., arranged prior to long-haul pick-up), the Fresh Pond rail vard plays a critical role in long-haul waste export, with all waste-by-rail arriving from Kings, Queens, Nassau, and Suffolk counties passing through this 10-acre bottleneck. The New York Metropolitan Transportation Council's Regional Transportation Plan, scheduled for release in June 2021, includes a "supply chain" section that addresses waste movement and includes recommendations linked to long-term forecasts that assume even more waste traveling through the region in coming decades.¹⁶ According to public health experts who have studied communities like those in Queens that exist in the shadow of freight rail, locomotives would need to reach zero emissions, as Waste Management's locomotive does, to protect public welfare.17



Tunnel Hill Partners Rail Gondolas Source: QSWAB Organizing Committee Member

New York City's far-flung trash

The Big Apple ships much of its residential, commercial and construction waste to out-of-state dumps, some as far away as Ohio and South Carolina



Source: New York Department of Environmental Conservation

Source: Politico, 1/5/2020, NY Department of Environmental Conservation

In 2015, Waste Management used a U.S. EPA grant initiated by DSNY and the New York City Economic Development Corporation to purchase a near-zero emissions locomotive, considered an industry standard. The locomotive uses 40% less fuel and yields a 99% (19.4 tons) annual reduction in nitrogen oxide (NO) — a known by-product of diesel engines linked to respiratory illnesses — and a 99% (.48 tons) reduction in particulate matter linked to cardiovascular and respiratory illness. C.U.R.E.S. advocated for that grant and for another \$27M in NYS appropriations — \$3M in funding every year since 2013 — that can be used to repower wastecarting locomotives to Tier 4 standards to ensure cleaner air.¹⁸ C.U.R.E.S. also helped get containment legislation passed in the NYS Senate and U.S. House of Representatives.¹⁹

Despite these efforts, the adverse impacts QBP Shulman tried to prevent in 1997 have only increased in the intervening decades, as agencies continue issuing new WTS permits and the tonnage of waste exported continues growing without sufficient planning, public protections, or oversight.

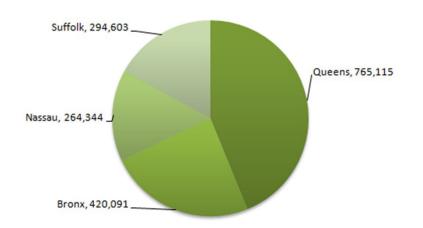


Fresh Pond Rail Yard Source: Google Earth



Source: Zhi Keng He and C.U.R.E.S.

The map above shows today's regional waste-by-rail landscape, highlighting the current configuration of freight rail lines and also existing and proposed waste transfer stations (WTS) that could soon open to handle the massive amount of new waste Queens could see after the Brookhaven Landfill on Long Island closes in 2024.²⁰ The yellow zone represents neighborhoods within one kilometer of the line, those most impacted by pollution. This area includes over 750,000 Queens residents and another one million in Bronx, Nassau, and Suffolk counties. Waste-by-rail currently comprises a third of Long Island's annual freight activity and is likely to grow exponentially in coming years.²¹



Regional Population Impacted by C&D Waste-by-Rail

Source: ArcGIS analysis with population based on American Community Survey 2014-18 data. Impact estimate based on 2014 research by Andrea Hricko conducted in similar communities in California.22

Conclusion

Negative waste impacts happen from the moment Refuse, MGPC, Paper, or Organics are tossed on streets or put in bins. These impacts continue throughout waste being transported, sorted, processed, landfilled, or incinerated.

For decades, community activists have raised awareness about the burdens of managing New York City's now 3.2M-plus tons of annual waste on environmental justice communities. In the case of waste-by-rail, some have taken legal action against the City and its export affiliates to stop these harmful impacts.²³ Yet so long as jurisdictional oversight remains siloed and source reduction efforts stop at city rather than regional or inter-state boundaries, New York City's waste will continue causing harm well beyond our five boroughs.²⁴

Through broad and focused surveys, Queens residents told us how waste impacts them:

- school programs like Zero Waste Pledge or Race Against Waste that involve younger people.
- dust, and run-off, their presence in residential neighborhoods is understandably unwelcome.
- overall, they simply move impacts from one neighborhood to another.

• Residents are most negatively affected by litter on their streets and want opportunities to divert organic materials through more food scrap drop-off sites. They also want clearer directions about how to recycle and divert.

Due to active community engagement following COVID-19 DSNY budget cuts, Queens residents know about local resources that support their diversion goals, but fewer are familiar with zero-waste and sustainable businesses or

When waste facilities provide a community benefit, such as a place to donate goods, Queens residents appreciate these facilities. When facilities handle noxious materials, and if proper covering is not provided to control odors,

Waste Equity and Community Waste Zone legislation were aimed at reducing community harms from waste management. But while these laws address local truck traffic in some communities, if not properly monitored

ENDNOTES

- 1 "Zoning, Equity, and Public Health." Juliana Maantay, PhD, MUP. American Journal of Public Health. July 2001, Vol. 91, No. 7. https://ajph. aphapublications.org/doi/pdf/10.2105/AJPH.91.7.1033.
- 2 Ibid.
- Gannon, Michael. "Jamaica march backs trash zone legislation." Queens Chronicle. Accessed 12 September 2019.
- https://www.qchron.com/editions/eastern/jamaica-march-backs-trash-zone-legislation/article_d104b88a-900c-5ca6-88eb-69126a6c9da8.html.
 "Waste Equity Law." DSNY https://www1.nyc.gov/assets/dsny/site/resources/reports/waste-equity-law. Accessed 5 April 2021.
- 5 "Manufacturing Districts." NYC Planning. https://www1.nyc.gov/site/planning/zoning/districts-tools/m3.page. Accessed 6 March 2021.

6 "Health and Environmental Effects of Particulate Matter (PM)." EPA, Environmental Protection Agency, 13 Apr. 2020, www.epa.gov/pm-pollution/ health-and-environmental-effects-particulate-matter-pm. Accessed 12 April 2021.

- 7 "New York City Covid Map and Case Count." The New York Times, 09 May 2020. https://www.nytimes.com/interactive/2020/nyregion/new-yorkcity-coronavirus-cases.html. Accessed Nov 2020.
- 8 "A 'People-Powered Initiative': The History of Waste Equity Policy in New York." New York Lawyers for the Public Interest, 1 Aug. 2019, www. nylpi.org/a-people-powered-initiative-the-history-of-waste-equity-policy-in-new-york/. Accessed 12 April 2021.
- 9 Scarborough, Andrea. New York City Council, Committee on Sanitation and Solid Waste Management. Hearing on Commercial Waste Zones, Hearing, p. 91-92, 27 Jun 2019. New York City: City Council, 2019.
- https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=3963901&GUID=6D5F166D-1834-4EDD-BF64-DA5D1DD88C61&Options=&Search=.
- 10
 Sandoval, Gabriel. "Trash Transfer Station Slimdown for Overwhelmed Neighborhoods Get Appeals Court OK." The City, 17 December 2020. https://www.thecity.nyc/environment/2020/12/17/22188128/trash-transfer-station-slimdown-get-appeals-court-ok. Accessed 6 March 2021.
- 11
 New York City Council, Committee on Sanitation and Solid Waste Management. Text Int. No. 1574-A, https://legistar.council.nyc.gov/

 LegislationDetail.aspx?ID=3963901&GUID=6D5F166D-1834-4EDD-BF64-DA5D1DD88C61&Options=&Search=.
- 12 "Manufacturing Districts: M1." Zoning: Districts Guide -Manufacturing Districts M1 DCP, NYC Department of City Planning, 21 Apr. 2021, www1.nyc.gov/site/planning/zoning/districts-tools/m1.page.
- 13 Bertrand, Donald. "Deal KOs Waste Transfers." New York Daily News, 11 Mar 1997.
- 14 Winslow, Olivia. "LI Planning council attendees agree solid waste disposal a 'looming crisis." Newsday, 27 Feb 2020, https://www.newsday.com/ long-island/environment/brookhaven-landfill-1.42276278. Accessed 10 Nov 2020.
- 15 Waszynski, Randall, "Winters Bros. wants to move waste by rail." The Long Island Advance, 12 Nov 2020, https://www.longislandadvance. net/stories/winters-bros-wants-to-move-waste-by-rail,86966?fbclid=IwAR0LyeOCorx29GNtRQuLsdNbyWgVmD9PkJpJHmUwbx3to4rCeWMw633y 7UQ#.X7CEuIvpPPE.facebook. Accessed 16 Nov 2020.
- 16 California Air Resources Board, "CARB Petitions U.S. EPA to Strengthen Locomotive Emission Standards." 13 Apr 2017, https://ww2.arb.ca.gov/ sites/default/files/2020-07/final_locomotive_petition_and_cover_letter_4_3_17.pdf.
- 17 Ibid.
- 18 "New York City Locomotive Repowers: Collaborative Efforts to Improve Air Quality." United States Environmental Protection Agency Ports Initiative, https://www.epa.gov/ports-initiative/new-york-city-locomotive-repowers-collaborative-efforts-improve-air-quality. Accessed 10 Nov 2020.
- 19 NYS DEC Region 1 includes Nassau and Suffolk counties Long Island.
- 20 New York Metropolitan Transport Council https://www.nymtc.org/Required-Planning-Products/Regional-Transportation-Plan-RTP. Accessed 24 March 2021.
- 21 "Hevesi and Environmental Coalition Secure \$3 Million to Overhaul Freight Locomotives." New York State Assembly, 7 Apr 2015, https:// nyassembly.gov/mem/Andrew-Hevesi/story/63346. Accessed 11 Nov 2020.
- 22 "Meng Legislation to require covers on trains -- including those negatively impacting communities in Queens -- passed by House as part of key transportation and infrastructure bill." Congresswoman Grace Meng, 1 July 2020, https://meng.house.gov/media-center/press-releases/meng-legislation-to-require-covers-on-trains-including-those-negatively. Press Release. Accessed 11 Nov 2020.
- 23 Crunden, E.A. "Waste Management Expected to Pay \$2.3M in New York Landfill Settlement." Waste Dive, 21 July 2020, www.wastedive.com/ news/waste-management-settlement-2-million-high-acres-landfill-ny/581781/
- 24 Steve Orr. "New York City should take responsibility for community impact of its trash, lawsuit asserts." Democrat and Chronicle, 20 Dec 2018. https://www.democratandchronicle.com/story/news/2018/12/20/new-york-city-named-defendant-suit-over-high-acres-landfillodors/2374190002/.

COVID IMPACTS ON WASTE



Source: Queens SWAB Organizing Committee member

Prior to COVID-19, New York City looked to be on the brink of a dramatic waste shift. Innovative wastemitigation legislation instituting Commercial Waste Zones and a Plastic Bag Ban would soon take effect and envelope-pushing policies — Clean Streets and Mandatory Composting — were being introduced. Even the general public seemed on the verge of a zero waste tipping point, with behaviors like bringing refillable mugs to coffee shops gaining traction.

COVID-19 halted nearly all of it.

In this section, we explore how the pandemic changed our City and borough, affecting issues ranging from waste policy to community activism. We also honor the countless individuals and organizations that worked hard, despite a devastating pandemic, to foster a more sustainable borough.

Waste Policy

The pandemic catalyzed changes to the City's waste policies, delaying by months legislation that had been poised to go into effect.

New York State Bag Waste Reduction Law

(Environmental Conservation Law ECL Article 27, Title 28) aimed to reduce New Yorkers' reliance on plastic bags — 23 billion per year. The ban required patrons to bring their own bags to stores or pay a five-cent fee for paper bags (with some exceptions and exemptions); shops found breaking the law could be fined \$500. COVID-19 and a lawsuit brought by plastic bag manufacturers delayed implementation, scheduled for March 1, 2020. The Bodega and Small Business Association also sued, and with courts short-staffed due to the pandemic, enforcement was pushed back again. The New York State Supreme Court ultimately struck down the lawsuit. Enforcement began in mid-October 2020, seven months later than expected.¹

<u>Commercial Waste Zones</u> (Local law LL199 of 2019) Passed in November 2019, CWZs were a first step toward overhauling New York City's commercial waste collection system. The seeks to increase safety and efficiency, while aligning private hauling with the City's Green New Deal and zero waste goals.² Due to COVID-19 changes in commercial waste tonnage and uncertainty about DSNY's FY21 budget, the release of Requests for Proposals for bidders to service zones was postponed from late Spring 2020 to December.³ In mid-March 2021, after a public comment period, DSNY finally published proposed rules regarding public safety requirements. The Business Integrity Commission, which licenses private carters, released its proposed rules and safety requirements in parallel.⁴

As late as March 12, 2020, New York City Council Speaker Corey Johnson proposed making Curbside Organics Collection available to all New Yorkers and eventually mandatory to reduce waste and stimulate a circular economy.⁵ His **Expanded Curbside Organics Collection** proposal included opportunities for textile recycling, putting construction and demolition material to good use, and using a trash wheel to clean waterways, as well. After COVID-19, his proposal was sidelined and he has been silent ever since about his interest in reviving the plan.⁶ *Despite this setback, a local law (L.L. Int. 1162-2013) requiring 8,500 additional food-related businesses to separate Organics went into effect on July 31, 2020.*

NYC Department of Sanitation (DSNY)

With nearly all commercial businesses closed or operating at reduced capacity, and with much of New York City's workforce at home, COVID-19 saw a significant increase in DSNY's 2020 residential waste burden. In CY20, Queens' residential Refuse rate rose by 9.4%, Paper collections by 5.7%, and MGPC by 21.1%. The May 2020 suspension of Curbside Organics Collection further contributed to an increase in Municipal Solid Waste, as people once again mixed Organics with Refuse. Fall Curbside Leaf Collection took place as normal in October 2020, but was cut in November and December. Instead, residents were urged to compost leaves at home or take them to a community leaf drop-off.⁸

	Refuse	Paper	MGPC	Res Organics	Leaves	Xmas Trees
2019	699596.6	77903.7	89279.1	14278.9	813.6	381.3
2020	765563.7	82316.6	108114.2	3811.9	12	509.9
Difference	+65967.1	+4412.9	+18835.1	-10467	-801.6	+128.6
% Change	+9.43%	+5.66%	+21.10%	-73.30%	-98.53%	+33.73%

Comparing Queens' Residential Collections in Tons: CY 2019 to 2020

Source: : NYC Open Data, DSNY Monthly Tonnage



Recyclables Ready for Pickup Source: QSWAB Organizing Committee Member

Staffing

Lauded as essential before the pandemic, DSNY workers faced greater challenges once COVID emerged. As early as March 27, 2020, 61 positive COVID cases were reported among DSNY staff and 20 garages were closed temporarily.⁹ As the situation intensified, DSNY made plans to keep staff safe by regularly cleaning surfaces, distributing PPE, limiting the number of staff in a garage at the same time, and starting shifts at 5 a.m. to reduce public contact.¹⁰ In July 2020, the agency slashed its FY21 operating budget by \$106M, which led to the loss of 400 positions Citywide,¹¹ among them Job Training Participant (JTP) and Alternate Sentence Workers (ASW), resulting in 285 fewer in Queens each week. By September, DSNY Commissioner Garcia had resigned, calling agency cuts "unconscionable" and remarking that NYC's Zero Waste by 2030 goal was "slipping away from us very quickly." Shortly thereafter, Mayor DeBlasio appointed Ridgewood's Edward Grayson to take the helm of the agency, first as Acting Commissioner and then, on December 31, 2020, as the newly appointed DSNY Commissioner.¹²

[On March 3, 2021, the online paper The City reported that a total of 1,800 DSNY sanitation workers had contracted the virus and eight had died.]¹³

Street Cleaning

As part of operating budget cuts, DSNY's public litter basket collection budget was slashed by 63% (49% in Queens), limiting collection to weekdays and holidays and halting Sunday collections entirely.¹⁴ Complaints of missed trash pick-ups escalated, confirmed by a September 2020 audit by NYS Comptroller DiNapoli highlighting poor conditions on City streets and sidewalks. That same month, Mayor DeBlasio committed to increasing litter basket trucks by 24% and restarting the CleaNYC initiative, while Governor Cuomo threatened to send in the National Guard to address the City's waste woes.¹⁵ Increased litter basket service and CleaNYC sidewalk and street sweeping was finally restored to 20+ neighborhoods Citywide most impacted by COVID, among them Corona.¹⁶ Additional cuts to cleaning initiatives and services included eliminating the Syringe Litter Patrol unit, reassigning five personnel from DSNY's Illegal Dumping Task Force, reducing by 30% vacant lot cleaning, and eliminating the highway ramp sweeping detail.¹⁷

Programs and Services

In March 2020, the City canceled SAFE (Solvents, Automotive, Flammables, and Electronics) collection events and halted curbside electronics recycling and textile pick-ups. **By May, DSNY announced Curbside Organics Collection and SAFE events would be suspended through June 30, 2021.** Residents were instructed to throw Organics with Refuse and told to keep E-Waste or discard items using private means; the <u>NYS Electronic Equipment</u> <u>Recycling and Reuse Act</u> makes it

Recycling and Reuse Act makes it illegal to discard electronics along with trash due to the presence of heavy metals and chemicals.¹⁹

Some programs returned. By the end of 2020, ecycleNYC was restored, with pick-up appointments available for buildings already enrolled and applications available for new building sign-ups.²⁰ reFashionNYC was also revived.²¹

On March 30, 2021, Mayor DeBlasio unveiled three initiatives to restore lost services: increased dedicated litter basket service (more than 100 trucks per week) and restored funding for Sunday service; a new Precision Cleaning Initiative involving borough-based teams conducting targeted cleaning of litter conditions, illegal dumping, and overflowing litter baskets; and a redesigned Community Cleanup Van in partnership with the Sanitation Foundation and NYC Service to provide additional tools and resources for community groups and to support neighborhood cleanups during a Citywide Spring Cleanup effort.¹⁸

On April 22, 2021 (Earth Day), Mayor Bill DeBlasio announced that Curbside Organics Collection would resume starting in October 2021 for neighborhoods previously enrolled in the program with households and buildings signing-up for the "opt-in" program beginning in August.

In addition to Curbside Organics Collection, a plan is also in place to double neighborhood FSDOs and return Organics Collection to ~1000 schools Citywide.

Special Waste drop-off sites are slated to reopen in July 2021 and SAFE events will resume in fall.

Many activists and advocates in the SaveOurCompost Coalition remain skeptical about the success of Curbside Organics Collection restarting without more community input and a plan to ensure the hard work residents do to divert organic materials will be matched by compost processing capacity.⁷⁵

DSNY Partnerships

After halting Curbside Organics Collection starting May 4, 2020,²² plans were in place to eliminate an additional \$3.5M from the NYC Compost Project and \$2.9M from GrowNYC's Zero Waste programs as a part of drastic cuts to DSNY's FY21 budget. After community pressure, \$2.9M was restored at the last minute to the NYC Compost Project.²³ Starting in September 2020 food scrap drop-offs and compost processing restarted, albeit at a lower capacity, with Curbside Organics Collection still on-hold into 2021.

After partial restoration of funds, **Big Reuse** restarted compost collections at four Queens locations, (Astoria Pug hosting three sites, and Socrates Sculpture Park hosting the fourth) and provided technical assistance, browns, and pick-up services to Queens FSDO sites that were at overflow.²⁴ As of April 2021, Big Reuse remains in danger of losing its compost processing site on NYC Parks' land due to agency claims that largescale composting on City-owned land is impermissible. Big Reuse and its supporters strongly dispute that contention.²⁵

In December 2020, **Queens Botanical Garden** restarted processing material at four locations (Queens Botanical Garden, The Compost Collective, Kehilat Sephardim Synagogue, and Garden of Resilience) and offering technical assistance, distributing browns, and hosting volunteer events.²⁶ QBG has since worked to expand FSDOs in Central and Eastern Queens while providing technical assistance to those in Western Queens. Nonetheless, QBG has struggled to have its NYCCP collections return to pre-pandemic levels. Their Farm Site was eliminated in the City's FY21 budget, while compost program full-time staff downsized from five to two. Budget cuts suspended QBG's Master Composter course, distribution of reduced-priced compost bins, and educational workshops. All the while, Queens residents continued requesting compost classes, materials, and toolkits, especially as they were spending more time at home.²⁷

Cuts to **GrowNYC's** budget forced layoffs of over 80 fulland part-time staff.²⁸ According to GrowNYC's website, the loss encompassed "all of GrowNYC's zero waste programs, including Zero Waste Schools, composting, Stop 'N' Swap,[®] and general recycling outreach & education."²⁹ In September 2020, the partial restoration of compost funding allowed for an early October reopening of the Jackson Heights Greenmarket FSDO in partnership with hauler and processor QBG. Currently fewer than half of GrowNYC's drop-off sites Citywide are open, with Jackson Heights Greenmarket the only one of 10 open in Queens.³⁰

City Agencies

NYC Department of Education (DOE)

Dramatic cuts to DOE's waste initiatives caused the suspension of DSNY Organic Collections from November 2020 until the end of the 2020-2021 school year; the agency encouraged schools to create composting opportunities in school yards as an alternative.³¹ Also cut in the FY21 budget was support for the Zero Waste Pledge program.³² Despite this, five Queens schools that took the Zero Waste Pledge in 2019 and nine of 12 schools participating in Race Against Waste continued into 2020 without full funding.³³

NYC Parks

COVID-19's forced isolation spurred many to seek refuge in local parks. Yet even as demand increased, **NYC Parks saw an over \$84M reduction in its FY20-21 operating budget, one-seventh of its usual funding.**³⁴ Maintenance and seasonal staff lost jobs (1,700),³⁵ and by the end of August, complaints about trash rose 120% with 517 in Queens alone.³⁶ In response, NYC Parks created over 100 new and highly visible trash corrals at picnic areas in their most crowded parks and encouraged local groups to organize volunteer cleanups with support from electeds and Partnerships for Parks.³⁷ NYC Parks also launched a "Toss Your Trash" campaign featuring signage and public service announcements in prominent locations urging New Yorkers to take responsibility for their garbage. Christmas tree collections and NYC Parks' Mulchfest events continued as normal to divert organic materials.



Jackson Heights Food Scrap Drop-Off, March 2021 Source: QSWAB Organizing Committee Member



"Carry in,

mm

Show your park some love, New York. Put trash in a bag or can or take it with you.

	School Organics
2019	1,762.20
2020	777.6
Change in Tons	-984.6
% Change	-55.87%

Change in Organics Collection at Queens Public Schools: CY 2019 to 2020 Source: NYC Open Data, DSNY Monthly Tonnage Data



"Carry in, Carry out" sign with overflowing waste basket in Astoria Park, August 2020 Source: QSWAB Organizing Committee Member

New York City Council & Electeds

In April 2020, Mayor DeBlasio released his proposed FY21 budget, which included the aforementioned \$3.5M cut linked to temporary suspension of community composting. Brooklyn/Queens CM Reynoso, Chair of the NYCC Sanitation Committee, supported by CMs (including Queens' Van Bramer)³⁸ and hundreds of grassroots advocates, fought to preserve the funds through testimony and town halls. In the end, the approved FY2021 budget reinstated \$2.9M,³⁹ allowing some NYCCP and GrowNYC staff to be rehired and some FSDO and compost processing sites reopened.

CM Reynoso and Manhattan CM Keith Powers also joined forces to propose what they titled the <u>Community Organics and Recycling Empowerment</u> (<u>CORE</u>) Act, two bills that would preserve or create 177 drop-off sites Citywide for organic and inorganic material — three per Community District — by June 2021. Several Queens CMs co-sponsored the bill, and it gained support from a grassroots coalition organized under the name <u>#SaveOurCompost.</u>⁴¹ But as of April 2021, the CORE Act remains stalled due to the Administration's budget concerns.

Electeds also helped with volunteer efforts, with some hosting neighborhood events. In summer 2020, CM Adams worked with South Queens Women's March, South East Queens Cleanup Initiative (SEQCLEANUP), Phi Beta Sigma Fraternity Inc., and Hood Love to clean up trash in Ozone Park, Richmond Hill, and Jamaica.⁴² In August, New York State Senator Joseph Addabbo coordinated with a DSNY garage to remove bags of garbage collected by Howard Beach residents that had accumulated for over a month. CM Moya led a November cleanup in Corona.⁴³ And in November, Senator Addabbo, along with Assembly member Miller and CM Holden, hosted an E-Waste collection event in Forest Park with the Lower East Side Ecology Center that over 400 community members attended.⁴⁴

Nonprofits

The pandemic created budget shortfalls and operational challenges for waste-focused nonprofits, too.

Food-rescue nonprofit **Rescuing Leftover Cuisine** noted in an Instagram Live conversation with **ThinkZero LLC** that they were initially deluged with requests from partner restaurants and establishments to rescue and donate food. However, once some of these establishments closed, RLC had to pivot to engage "larger grocery stores and food manufacturers" to find food for those in need. Despite this, RLC was able to rescue and donate more than 1.6M lbs. of food in 2020, more than in any previous year.⁴⁵

<u>City Harvest</u>, New York's largest food rescue organization, reported a similar influx of donations at the start of the pandemic. But by mid-April, many community recipient partners had shuttered due to health, safety, and logistical issues. The nonprofit shifted to work with local organizations to open Emergency Food Distribution Sites in hard-hit neighborhoods (30 in all) and kept mobile markets (including two in western Queens) active by following health and safety guidelines and distributing masks and gloves so organizations could operate safely. In August 2020, the organization reported having "rescued and delivered 56M pounds of food during the pandemic, a 79% increase over the same period [in 2019]."⁴⁶

Community Groups

CleanUp Initiatives

DSNY supports a range of volunteer-led programs such as <u>Community Cleanup Tool Loan</u> and <u>"Adopt-a-Basket"</u> <u>Programs</u> that anyone wanting to give back to their neighborhoods can freely access.⁴⁷ Due to reductions in litter basket collections and street cleaning linked to COVID-19 budget cuts, Queens residents used these programs to lead 33 cleanups in 2020, nearly double (19) the number they had in 2019.⁴⁸

Community groups also helped clean NYC Parks during events like <u>Partnerships for Parks' It's My Park Day</u>. In 2020, nine Queens NYC Parks "friends-of" groups



Abuela Neighborhood Maintenance Source: Angela Miskis via Instagram

participated in IMPD cleanup and beautification activities, among them Friends of Alley Pond Park (Oakland Gardens), Crocheron Park and John Golden Park (Bayside); Herman A. McNeil Park (College Point); and Juniper Valley Park (Middle Village).⁴⁹

New neighborhood groups also formed to address the increase in street litter.

Abuela Neighborhood Maintenance (Southeast Queens) started an art and cleanup project connecting neighbors around the common goal of maintaining communities, litter-free. Through text, crafts, photography, and design, the group brought attention to their volunteer effort and inspired on-lookers to join. Angela Miskis, who founded the group in April 2020, reported that by March 2021 they had collected over 1,200 lbs. of trash and organized four cleanups that drew an average of 15 volunteers per event.⁵⁰

Proud Astorian (Astoria) started in June 2020 after Kate Peterson saw the impact of the City's 60% cut to public litter basket collections on 30th Avenue, a bustling commercial corridor near her home. The group she organized now meets each Sunday and has expanded to include Broadway and Ditmars Boulevards. CM Constantinides commended the group's work and U.S. Representative Carolyn Maloney volunteered at a cleanup at Rainey Park. The group has led 70+ cleanup events since its founding.⁵¹

SEQCleanup (Jamaica) was the brainchild of Karen Irby-Lawson (known as DJ Nett) who wanted to address the rise in unsanitary conditions in the neighborhood linked to sanitation budget cuts and encourage fitness and movement outdoors during the pandemic.⁵² The group began activities in July 2020 and has since held dozens of cleanups, often accompanied by hip hop music by local DJs. SEQCleanup has also participated in mural painting and beautification projects.⁵³ The group received a grant from Partnerships for Parks to support its work. There are 18 to 19 private carting companies in Queens licensed by the Business Integrity Commission (BIC) to collect putrescible and/ or recyclable waste from approximately 107,800 commercial customers in New York City (i.e., office buildings, retail establishments, restaurants, hotels, factories, distribution centers). Of these, about 12 are small companies that own one or two trucks.

Citywide data from the Business Integrity Commission (BIC) showed a Q2 2020 decrease of 660 tons per day in commercial waste tonnage in New York City in 2020 as compared to the same period in 2019.¹ This translates to a \$1.54M monthly revenue loss for the City's transfer stations and \$3.5M monthly revenue loss for private haulers, respectively.² Citywide, by September 2020, some haulers were reporting drops of 70 to 90% in their collected volumes.³ One Queens hauler reported a 38% drop in tonnage from their Manhattan routes and a 14% drop in Queens routes.⁴ The impact has been hardest for locally-owned companies, which have seen much of their business taken up by larger companies like Waste Management, a nationallyowned and publicly traded company.

The shift from commercial to residential waste also meant nearly half of the private waste hauling employees lost their jobs by October 2020, with those remaining seeing a sharp decline in hours. Queens-based Royal Waste at one point let go of 60 to 70 employees, only some of whom have since been re-hired.⁵ More seriously, being classified as "essential" required these employees to work at the height of the pandemic, with hundreds contracting COVID-19 according to union officials. In some cases, according to one, "entire shops were wiped out."⁶

1."Waste Equity Law." New York City Department of Sanitation, https:// www1.nyc.gov/assets/dsny/site/resources/reports/waste-equity-law. Accessed 10 December 2020.

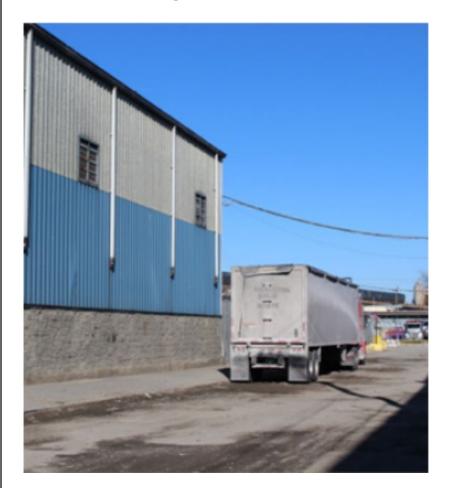
2 Mitchell, Adam. Received by Wylie Goodman, Re: Names and / or number of WTS in Queens, 17 March 2021.

3 Rosengren, Cole. New York Sanitation Commissioner Warns against 'Devastating' Budget Cuts Ahead of Resignation, Waste Dive, 14 Sept. 2020, www.wastedive.com/news/new-york-sanitation-commissionergarcia-resign-mayor/585011/.

4 Ibid.

5 Velasquez, Joesfa. "Private Garbage Haulers: 'Essential Workers' Widely Unemployed as Businesses Shut Down and Cut Back." The City, 6 October 2020, https://www.thecity.nyc/work/2020/10/6/21505101/ private-garbage-haulers-essential-workers-unemployed. 6 Ibid.

Private Commercial Waste Hauling



Commercial Waste Hauling Vehicle in CD12 Source: Queens SWAB Organizing Committee member



Paradise Community Garden Source: Sonia Ferraro

Volunteer Community Composting and Food Scrap Drop-Off Sites

The temporary suspension of Curbside Organics Collection and budget cuts to FSDOs and compost processing led some Queens residents to creatively fill the gaps.

Astoria Pug (Western Queens) creators Caren Tedesco Cardoso and Lou E. Reyes, along with now-local celebrity dog Rocky the Pug, identified community gardens and farms that would accept organic waste and — with help from volunteers — used these locations to set up boot-strapped FSDOS.⁵⁴ By October 2020, the group had 916 subscribers to its weekly newsletter, which teaches neighbors how to compost, offers tips on sustainable living, promotes local sustainable groups and businesses, and lets subscribers know where and when FSDOs are open. Their now 80+ person volunteer team supports four FSDOs visited by over 200 Queens residents every weekend. New sites and once-a-week FSDO pick-up services continue growing.

Paradise Community Garden (Jamaica) founded by Sonia Ferraro became the first public FSDO site in District 28 in Southeast Queens to provide a needed outlet for community composting. Before COVID-19 and the City's budget cuts, the community never received Curbside Organics Collections. Now Paradise Garden is

helping the neighborhood divert food scraps and yard waste and turn it into an environmental resource. The garden Sonia and her members run not only "nourishes the soil and soul" but also produces food and a thriving, peaceful, and beautiful community space for the neighborhood.⁵⁵

Garden Of Resilience (Springfield Gardens, Rosedale, and Laurelton) is the first community garden serving these Southeast Queens communities. An abandoned lot served as the catalyst to empower local youth to organize and encourage residents to sign a petition to have the lot transferred to NYC Parks. Students from P.S. 156, The Linden SDA School, and P.S. 132 collected signatures near the Laurelton LIRR station while cleaning and beautifying the space. The garden signed a contract with GreenThumb in February 2020, but when COVID-19 hit the build-out stopped. Residents cleaned the lot and collectively decided to use the space to grow vegetables for free to address food insecurity. The group plans to highlight the importance of Green Civics by developing an interactive curriculum accessible through QR codes. They recently became the first community garden in District 31 to serve as a food scrap drop-off site.⁵⁶

Woodside Sunnyside Composting (Woodside, Sunnyside Plus+) serves as an FSDO every Sunday from 2 to 5 p.m. Since the onset of COVID-19, the group has received five to six times the amount of organic matter for processing than they did previously. The group has expanded to include growing produce for mutual aid pantries, with 450 lbs. donated as of mid-November 2020.⁵⁷



Rocky the Pug of Astoria Pug Source: Queens SWAB Organizing Committee member

Online Resources

To meet the new waste and sustainability challenges posed by COVID-19, some Queens community members turned their talents toward creating online tools and resources.

We Radiate began tracking self-reported compost collection impacts across New York State in late 2020. The site tallies compost collection by county and estimates the greenhouse gas emissions saved through the compost process. The site reported that between December 9, 2020 and January 28, 2021, three Queens sites (Astoria Pug, Queens Botanical Garden, and Smiling Hogshead Ranch) together collected/processed 114,972 lbs. of compost, removing 39.7 tons of greenhouse gas emissions from the environment and saving the City \$24,776 in export costs.⁵⁸

Queens resident Belinda Chiu, creator of the website <u>A</u> <u>Healthy Blueprint</u>, saw a need to help people quickly find and track volunteer-run FSDOs. Her website and blog provides FSDO locations and schedules, food scraps accepted, and additional ways people can support these volunteer organizations. As of March 2021, her site listed 24 active FSDOs in Queens.⁵⁹ Another site, the <u>Food Scrap Drop-Off Map</u> by Yvonne Chow and Griffin Boyd, shows an even wider array of private and nonprofit food scrap options across New York City.⁶⁰

Buy Nothing Groups have been around since 2013 but now boast 13 affiliates in Queens.⁶¹ The BNG mission involves "local groups form[ing] gift economies that are complementary and parallel to local cash economies."⁶² The founders explain that "whether people join because they'd like to quickly get rid of things that are cluttering their lives, or simply to save money by getting things for free, they quickly discover that our groups are not just another free recycling platform." Users post "gifts," such as household items large (furniture) and small (unused nail polish) available for sharing. While data on their impact is anecdotal, the benefits of reusing rather than purchasing suggest these new groups will outlast the pandemic.⁶³ **Community Fridges** that keep food from being wasted became critical this past year for people newly struggling with food insecurity. A <u>map</u> by NYCFridge.com shows 22 listed in Queens. Community Fridges represent another spontaneous community-generated response to COVID. The NYC Community Fridge map is developing an app to help drivers and fridge keeper volunteers coordinate pickups and deliveries.

Mutual Aid Groups became another community response to COVID-19 with 17 in Queens listed on the Mutual Aid NYC website. Although not specifically waste focused, these groups — many run exclusively through online platforms — facilitate food, clothing, furniture, diaper, and other donations to keep items out of landfills while giving them directly to those in need.

Finally, **"Stooping" Instagram Accounts** became a trend last year adopted by groups like <u>@stoopinginqueens</u> and <u>@curbalertqueens</u>. Visitors capture free "stoop-worthy" goods found on the street while others reveal the nowclaimed objects proudly displayed in their homes.



Jamaica Community Fridge Source: Queens SWAB Organizing Committee member

Single-Use Versus Reusables

The pandemic initially generated tension and confusion about the burgeoning reusable, low- and zero-waste movement. Although the Centers for Disease Control and Prevention reported early in the pandemic that no evidence existed linking virus transmission to food or surface contact, health and contamination fears lingered. Over 125 scientists from 18 countries later signed a letter reaffirming the safety of reusables and confirming that single-use items were no better at virus prevention than standard cutlery and dishes.⁶⁴ Despite this, major brands such as Starbucks and Dunkin' Donuts banned customers from bringing their own mugs, with smaller establishments following suit.⁶⁵ The U.S. plastics lobbying group, PLASTICS, called on the U.S. Department of Health and Human Services to roll back plastic bag bans for health purposes without success.66

Unfortunately, single-use plastics have once again become the norm, due in part to businesses' nervousness about allowing reusables, as well as the logistical realities of take-out and delivery. But with an economic slowdown and travel reduced, there is another reason: the pandemic cut demand for — and thus the price of — oil, the material from which plastics are derived. This has resulted in recycled plastic bottles costing 83% to 93% more to produce than bottles made from virgin plastic.⁶⁷ This is happening at a time in which the first-ever microplastic particles were found in human placenta,⁶⁸ and plastic pollution is projected to increase by 40% over the next decade.⁶⁹

Fortunately, local efforts have taken shape in Queens to encourage reusables. Examples include stores such as newly opened Earth & Me in Astoria, which promotes "sustainable swaps" of beeswax wraps and refillable detergent containers;⁷⁰ local food establishments like those listed in **Zero Waste Workshop's** tracker



Source: Queens SWAB Organizing Committee member

of establishments that accept reusable mugs; and Ridgewood-based Cup Zero, which is on a mission to eliminate waste one cup at a time by providing zerowaste beverage service to large scale, high-volume events. In early 2021 Cup Zero launched a swap-and-go reusable cup app for coffee shops and juice bars.⁷¹

* Greenmarkets, community-supported agriculture, bulk stores, and reusable bags and containers are still some of the best ways to reduce food-shopping packaging and single-use plastic waste. A list of sites is on the QSWAB Organizing Committee website.

COVID, Waste, and Public Health

Ana Isabel Baptista and Adrienne Perovich, writing for the New School's Center for New York City Affairs, cite a Harvard study that finds "a relatively small increase in particulate matter commonly part of airborne pollution is associated with a 15% increase in the COVID-19 death rate." The authors note that a higher incidence of COVID deaths among Black and Latinx communities may result from the greater likelihood of their subjection to compromised air quality.⁷² Waste incineration is a leading source of air pollution, with 80% of incinerators located within three miles or less of low-income communities. New York City is unique in that virtually all its garbage is transported outside City limits.⁷³ Nearly a guarter of New York City's waste is sent to such wasteto-energy facilities around New York State and to towns around the country where it directly impacts the health of low-income residents.⁷⁴ Here in New York City, poor air quality from waste transfer stations and waste-byrail create similar environmental dynamics in BIPOC neighborhoods.

Group Type	# of Volunteer Entities
Advocacy	1
Cleanup Groups	6
Community Fridge	22
Food Scrap Drop-Off Sites	1
Food Scrap Drop- Off/Composting Sites	10
Mutual Aid - Donation + Resources	15
Responsible Shopping	3
Total	58

Queens Community Efforts Started During COVID-19 by Type Source: Queens SWAB Organizing Committee

Queens Community District	# of COVID Community Efforts
1	17
2	3
3	2
4	5
5	5
6	1
7	1
8	1
10	1
12	6
13	2
14	3
81	1
Multiple	10
Grand Total	58

Queens Community Efforts Started During COVID-19 by Community District Source: Queens SWAB Organizing Committee

Conclusion

A recent editorial in Crain's NY Business (4/19/21) argued that, as the City seeks to rebuild post-pandemic, making "our streets less filthy" should be among the City, State, and local businesses' top priority. Over the past year, the QSWAB Organizing Committee cataloged countless efforts to do just that, some undertaken by a challenged DSNY workforce, others spearheaded by volunteer groups who took up tools and mustered goodwill to lead clean-up efforts, start foodscrap drop-offs, and inspire beautification projects in response to DSNY's \$106M operational budget cut. In summary, COVID's impact on Queens' waste landscape was swift, serious, and will have ripple effects that will last well beyond 2020.

- waste landscape.
- to feeding millions of newly food-insecure New Yorkers.
- Board, as summarized in the charts at left.

• While electeds and agencies were fearful of moving forward or enforcing waste legislation previously passed (i.e., Plastic Bag Ban, Commercial Waste Zone RFP), in the end their fears overblown. Instead, delays in reducing waste sent to landfills and waste burdens on BIPOC communities worsened what would soon become an unsustainable

• Cuts to an essential agency like DSNY at a time of crisis, especially one in which more of the City's waste hauling shifted from the private sector to municipal workers, undermined public faith in New York as a well-functioning city. Even with a dramatic decrease in revenue and an increase in costs related to COVID, maintaining cleanliness during a health crisis is one of the clearest signs to the public, along with safety, that the City can protect the public welfare.

• The services provided by waste-related nonprofits, especially those working to save and distribute food, were critical

• Community volunteers were quick to action in pitching in to provide essential services after the City suspended them. We identified nearly 60 entities that formed in the wake of COVID-19 in nearly every Queens Community

ENDNOTES

- Kim, Juliana. "What to Know About N.Y.'s Plastic Bag Ban." The New York Times, 20 October 2020, https://www.nytimes.com/2020/10/20/ nyregion/what-to-know-new-york-state-ban-plastic-bags.html. Mayor De Blasio Signs Landmark Legislation to Reform Commercial Waste Collection Industry, The Official Website of the City of New York, 19 Nov. 2019, www1.nyc.gov/office-of-the-mayor/news/556-19/mayor-de-blasio-signs-landmark-legislationreform-commercial-waste-collection-industry. Rosengren, Cole. "New York, among nation's hardest hit markets, delays commercial waste zone RFP due to pandemic." WasteDive, 4 May 2020, https://www.wastedive.com/news/new-york-coronavirus-commercial-waste-zone-delay/577215/. DSNY Commercial Waste Zones, https://www1.nyc.gov/assets/dsny/site/resources/reports/commercial-waste-zones-plan. Accessed 17 March 2021. New York City Council. "Speaker Corey Johnson Issues Sustainability Report on Concrete Steps the City can Take to Adapt to and Mitigate Climate Change." New York City Council, 2020, https://council.nyc.gov/press/2020/03/12/1874/. Accessed 10 December 2020. Ibid. "Food Scrap Recycling Requirements for Additional Food-Related Businesses Start Today with One-Year Warning Period." New York City Department of Sanitation, 31 July 2020. https://www1.nyc.gov/assets/dsny/site/resources/press-releases/food-scrap-recyclingrequirements-for-additional-food-related-businesses-start-today-with-one-year-warning-period. Accessed 10 December 2020. New York City Department of Sanitation. "Leaf and Yard Waste." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/ site/services/food-scraps-and-yard-waste-page/leaf-and-yard-waste. Accessed 10 12 2020. Barkan, Ross. "If Sanitation Workers Don't Work, Nothing Works." The Nation, 27 March 2020, https://www.thenation.com/article/society/nycsanitation-covid/ 10 Redling, Adam. "DSNY commissioner discusses how NYC's sanitation department has adapted to COVID-19." Waste Today, 29 June 2020, https:// www.wastetodaymagazine.com/article/swanapalooza-keynote-kathryn-garcia/. Bhat, Suhail. "Complaints of Missed Trash Pickups Surge as Garbage Piles Up at Home." THE CITY, 27 September 2020, https://www.thecity. 11 nyc/2020/9/27/21458755/nyc-missed-trash-pickups-garbage-piles-sanitation. 12 Rosengren, Cole. New York sanitation commissioner warns against 'devastating' budget cuts ahead of resignation, 14 September 2020, https:// www.wastedive.com/news/new-york-sanitation-commissioner-garcia-resign-mayor/585011/. Smith, Greg B., and Reuven Blau. "COVID Clusters Hit City Workplaces as Frontline Employees Wait for Vaccines." The City, 4 Mar. 2021, www. 13 thecity.nyc/2021/3/4/22314313/covid-clusters-new-york-city-workplaces-wait-for-vaccines. Kitchener, Katherine. Received by Wylie Goodman, RE: COVID Waste Impacts-Data Request, 25 Feb. 2021. 14 15 Hallum, Mark. "Trash talk: Cuomo rails against NYC crime rate, garbage woes and 'negative synergy." AMNY, 29 September 2020, https://www. amny.com/news/trash-talk-cuomo-rails-against-nyc-crime-rate-garbage-woes-and-negative-synergy/. Pereira, Sydney. "Facing Criticism Over Pile-Ups, De Blasio Will Restore Some Garbage Collection Services." Gothamist, 16 September 2020, 16 https://gothamist.com/news/facing-criticism-over-pile-ups-de-blasio-will-restore-some-garbage-collection-services. 17 Kitchener, Katherine. Received by Wylie Goodman, RE: COVID Waste Impacts-Data Request, 25 Feb. 2021. 18 "A Recovery for All of Us: Mayor De Blasio, New York City Department of Sanitation Announce New Initi." The Official Website of the City of New York, The Official Website of the City of New York , 30 Mar. 2021, www1.nyc.gov/office-of-the-mayor/news/230-21/recovery-all-usmayor-de-blasio-new-york-city-department-sanitation-new. 19 Pozarycki, Robert. "COVID-19 budget cuts force suspensions of NYC compost, e-waste collection programs." QNS, 19 April 2020, https://gns. com/2020/04/covid-19-budget-cuts-force-suspensions-of-nyc-compost-e-waste-collection-programs/. New York City Department of Sanitation. "Overview for ecycleNYC." New York City Department of Sanitation, https://www1.nyc.gov/assets/dsny/ 20 site/electronics/overview-electronics-ecycle. Accessed 10 12 2020. 21 https://www1.nyc.gov/assets/dsny/site/services/donate-goods/refashionnyc-overview. NYC Sanitation Announces Service Changes Related to COVID-19 Budget Cuts. Press Release. 17 April 2020. New York City Department of 22 Sanitation, https://www1.nyc.gov/assets/dsny/site/resources/press-releases/nyc-sanitation-announces-service-changes-related-tocovid-19-budget-cuts#:~:text=Curbside%20Composting%3A,receptacles%20with%20tightly%20fitting%20lids. 23 Crunden, E.A. "New York follows through with sanitation cuts, preserves some organics funding." Waste Dive, 21 May 2020, https://www. wastedive.com/news/new-york-organics-suspension-compost-coronavirus-pushback-lawmakers/578036/. 24 Green, Justin. Received by Wylie Goodman, Re: Request As Sites Reopen / Increased Communication, 29 Sept. 2020. 25 Carleton, Audrey. "NYC's Ambitious Composting Initiative Has Decomposed." Gothamist, 12 January 2021, https://gothamist.com/food/nycsambitious-composting-initiative-has-decomposed. 26 Encababian, Chelsea. Received by Wylie Goodman, RE: Big Reuse and QBG Sections, 12 Mar. 2021. 27 Ibid. Crunden, E.A. "New York follows through with sanitation cuts, preserves some organics funding." Waste Dive, 21 May 2020, https://www. 28 wastedive.com/news/new-york-organics-suspension-compost-coronavirus-pushback-lawmakers/578036/. 29 GrowNYC. "Important Notice on the Suspension of GrowNYC's Recycling Programs." GrowNYC, 2020, https://www.grownyc.org/files/upload/ recyclingprogramnotice_0.pdf. Accessed 10 December 2020. 30 GrowNYC. "Compost Food Scraps." GrowNYC, 2020, https://www.grownyc.org/compost. Accessed 10 12 2020. New York City Department of Sanitation. "NYC Sanitation Announces Service Changes Related to COVID-19 Budget Cuts." New York City 31 Department of Sanitation, 9 November 2020, https://dsny.cityofnewyork.us/wp-content/uploads/2020/11/11.9.20-NYC-Schools-Organics.pdf. Accessed 10 December 2020. 32 GrowNYC. "Important Notice on the Suspension of GrowNYC's Recycling Programs." GrowNYC, 2020, https://www.grownyc.org/files/upload/ recyclingprogramnotice_0.pdf. Accessed 10 December 2020. Corradi, Kathleen. Received by Wylie Goodman, RE: DSNY Suspending Organics Collection Programs in DOE Schools, 13 Nov. 2020. 33 Kim, Juliana. "Why Trash Is Piling Up at N.Y.C. Parks." The New York Times, 28 August 2020, https://www.nytimes.com/2020/08/28/nyregion/nyc-34 parks-trash.html#:~:text=Increased%20park%20use%20and%20budget,keep%20the%20green%20spaces%20clean 35 Troutman, Matt. "NYC Parks Trash Complaints Pile Up Amid Budget Cuts, Pandemic." Patch, 11 September 2020, https://patch.com/new-york/ new-york-city/nyc-parks-trash-complaints-pile-amid-budget-cuts-pandemic. 36 Cruz, David. "Parks This Summer, City Launches Campaign To Tackle Garbage Uptick." Gothamist, 29 August 2020, https://gothamist.com/news/ trash-complaints-120-parks-summer-city-launches-campaign-tackle-garbage-uptick. NYC Parks. "PRESS RELEASE: TOSS YOUR TRASH: NYC PARKS LAUNCHES CAMPAIGN URGING NEW YORKERS TO SHOW THEIR PARKS SOME 37 LOVE." NYC Parks, 28 August 2020, https://www.nycgovparks.org/news/press-releases?id=21768#:~:text=TOSS%20YOUR%20 TRASH%3A%20NYC%20PARKS,SHOW%20THEIR%20PARKS%20SOME%20LOVE&text=NYC%20Parks%20announced%20it%20 started,park%20some%20love%2C%20New%20York. Accessed 10 December 2020.
- Crunden, E.A. "New York follows through with sanitation cuts, preserves some organics funding." Waste Dive, 21 May 2020, https://www. wastedive.com/news/new-york-organics-suspension-compost-coronavirus-pushback-lawmakers/578036/. "New York City Council Members Keith Powers and Antonio Reynoso Introduce the "Community Organics and Recycling Empowerment (CORE)" Act." New York City Council, 13 May 2020, https://council.nyc.gov/keith-powers/news/new-york-city-council-members-keith-powersand-antonio-reynoso-introduce-the-community-organics-and-recycling-empowerment-core-act/. Accessed 10 March 2021. "Int 1942-2020: Organic waste drop off sites." New York City Council, 13 May 2020, https://legistar.council.nyc.gov/LegislationDetail. aspx?ID=4523549&GUID=FBBCDD56-82C1-4109-9EA6-417EACF0EE88&Options=&Search=. Accessed 10 March 2021. Mohamed, Carlotta. "Queens councilwoman leads community cleanup effort in Richmond Hill, South Ozone Park and Jamaica." QNS, 25 August 2020, https://gns.com/2020/08/gueens-councilwoman-leads-community-cleanup-effort-in-richmond-hill-south-ozone-park-and-jamaica/. Parrott, Max. "South Queens rises to the trials of 2020." Queens Chronicle, 7 January 2021, https://www.gchron.com/editions/south/southqueens-rises-to-the-trials-of-2020/article_cb8aba1d-bff2-50e7-afdd-3f438ad2755e.html. Addabbo, Joseph P. Jr. "E-waste event is major success as over 400 cars recycle their electronics." The New York State Senate, 23 November 2020, https://www.nysenate.gov/newsroom/press-releases/joseph-p-addabbo-jr/e-waste-event-major-success-over-400-cars-recycletheir. Accessed 10 December 2020. @thinkzerollc. "Conversation with Rescuing Leftover Cuisine." Instagram, 2021, https://www.instagram.com/p/CKzF399hzq7/. Accessed 2 February 2021. City Harvest. https://issuu.com/cityharvest/docs/6_months_of_covid__2_/1?ff&hideShareButton=true. City Harvest, 2020. City Harvest, https:// issuu.com/cityharvest/docs/6_months_of_covid__2_/1?ff&hideShareButton=true. New York City Department of Sanitation. "Adopt-a-Basket Program." New York City Department of Sanitation, https://www1.nyc.gov/assets/ dsny/site/contact/get-involved/adopt-a-basket-program. Accessed 10 December 2020. Kitchener, Katherine. "Re: COVID Waste Impacts-Data Request." Message to Wylie Goodman. Gannon, Devin. "You can help beautify dozens of NYC parks this weekend." 6sq Feet, 16 October 2020, https://www.6sqft.com/you-can-helpbeautify-dozens-of-nyc-parks-this-weekend/. Lawrence, Mac. Received by Wylie Goodman. Re: Community Asset: Abuela Neighborhood Maintenance, 24 March 2021. Ojeda, Rommel. "They're glad to pick up where the city left off." Queens Chronicle, 29 October 2020, https://www.qchron.com/editions/central/ they-re-glad-to-pick-up-where-the-city-left-off/article_59857256-0f9c-5c2d-9586-f461f94d05c0.html. Mohamed, Carlotta. "Jamaica community organizers host cleanup and tree lighting ceremony." QNS, 16 December 2020, https://qns. com/2020/12/jamaica-community-organizers-host-cleanup-and-tree-lighting-ceremony/. James, Clarisa. "SEQ Clean Up Initiative Builds Community & Beautification In Southeast Queens." Laurelton.NYC, 15 September 2020, http:// www.laurelton.nyc/2020/09/15/seq-clean-initiative-builds-community-beautification-southeast-queens/. Accessed March 30 2021. Chiu, Belinda. "How One Pug is Fighting Food Waste in NYC, One Household at a Time." A Healthy Blueprint, https://ahealthyblueprint. com/2020/05/30/astoria-pug-composting-nyc/. Accessed 25 Oct 2020. Lawrence, Mac. Received by Wylie Goodman. Re: Community Asset: Paradise Community Garden, 27 March 2021. Lawrence, Mac. Received by Wylie Goodman. Community Asset: Garden of Resilience Submission, 24 March 2021. Woodside Sunnyside Composting crew (WSCc or WSC), https://www.woodsidesunnysidecomposting.org/home. Accessed 11 March 2021. We Radiate Compost Data. https://sites.google.com/weradiate.com/compost-data-map/data?authuser=0. Accessed 6 March 2021. A Healthy BluePrint Compost Tracker. bit.ly/NYCdropofftracker. Accessed 6 March 2021. Interactive Compost Map of New York City. https://www.google.com/maps/d/u/0/viewer?mid=1fotc771L1pEzP8khFlw0hP-hawZnyn1s&s. Clark, Liesel, and Rebecca Rockefeller. "Find Your Group." Buynothingproject.org, 14 Sept. 2015, buynothingproject.org/find-a-group/. Ibid. "Buy Nothing Astoria (Ditmars-Steinway), Queens, NY." Facebook, https://www.facebook.com/groups/865178910954140. Accessed 10 December 2020. "Over 125 health experts defend safety of reusables during COVID-19 pandemic." Greenpeace, 22 June 2020, https://www.greenpeace.org/ international/press-release/43730/reusables-safety-covid-19-health-experts-statement/. Accessed 10 December 2020. Newburger, Emma, and Amelia Lucas. "Plastic waste surges as coronavirus prompts restaurants to use more disposable packaging." CNBC, 28 June 2020, https://www.cnbc.com/2020/06/28/coronavirus-plastic-waste-surges-as-restaurants-use-more-disposable-packaging.html. Brock, Joe. "The Plastic Pandemic." Reuters, 5 October 2020, https://www.reuters.com/investigates/special-report/health-coronavirus-plasticrecycling/. Ibid. "Microplastics revealed in the placentas of unborn babies." The Guardian, 22 December 2020, https://www.theguardian.com/ environment/2020/dec/22/microplastics-revealed-in-placentas-unborn-babies. Newburger, Emma, and Amelia Lucas. "Plastic waste surges as coronavirus prompts restaurants to use more disposable packaging." CNBC, 28 June 2020, https://www.cnbc.com/2020/06/28/coronavirus-plastic-waste-surges-as-restaurants-use-more-disposable-packaging.html. Kaufman, Maya. "In Wake of A Coronavirus Layoff, Astorian Launches Dream Business." Patch, 1 October 2020, https://patch.com/new-york/ astoria-long-island-city/laid-pandemic-astoria-woman-starts-her-own-venture. Cyr, Michael. "Linkedin Profile Michael Cyr." LinkedIn Profile: Michael Cyr, LinkedIn, 17 Apr. 2021, www.linkedin.com/in/mcyr308/. Baptista, Ana I., and Adrienne Perovich. "Covid-19 Exposes the Health Dangers of Burning Trash." The New School Center for New York City Affairs: Urban Matters, 27 May 2020, http://www.centernyc.org/urban-matters-2/2020/5/27/covid-19-exposes-the-health-dangers-ofburning-trash. Ibid. Kilgannon, Corey. "Talking Trash in New York, and Taking Photos of It." The New York Times, 13 August 2019, https://www.nytimes. com/2019/08/13/nyregion/newyorktoday/nyc-news-trash.html#:~:text=The%20city%27s%20trash%20is%20largely,Pennsylvania%2C%20 Virginia%20and%20South%20Carolina. Rosengren, Cole. "New York to revive curbside organics service amid criticism of lagging zero waste progress." Waste Dive, 22 April 2021, https:// www.wastedive.com/news/new-york-zero-waste-2030-de-blasio-reynoso-garcia/598853/.

- Minutes of the Committee on Finance Jointly with the Committee on Public Safety, Committee on Aging, Committee on Sanitation and Solid Waste Management. 14 May 2020. City Council, City of New York, https://legistar.council.nyc.gov/
- $\label{eq:loss} LegislationDetail.aspx?ID=4429900\&GUID=99F493D9-E2E7-4EE1-AD34-5D7CC6334204\&Options=\&Search=.$

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

RECOMMENDATIONS

STATE OF WASTE IN QUEENS: NEXT STEPS

We conclude this report by offering a focused set of recommendations, based on the previous sections' findings and our review of goals articulated in related public reports, such as *OneNYC*, DSNY's previous Waste Characterization Studies, NYCHA's *Sustainability Plan*, and, most importantly, the City's now 15-year old *Solid Waste Master Plan* (SWMP).

The last SWMP, drafted in 2006 and meant to guide policy into 2025, is nearly its end. And although it presented a path for New York to achieve a Zero Waste future, implementation has proven elusive with diversion rates stagnant, enforcement declining year over year for the last five years, and laws passed in piecemeal fashion, driven by politics rather than policy. For this reason, all SWABs must be allowed to participate in the formulation of the next SWMP, and the process itself should be as inclusive and transparent as possible. Fortunately, with a new QSWAB in place and guided by these recommendations, Queens' ability to play a leading role in setting policy on waste management for the next 25 years around is assured.

Waste Statistics

Recommendation	QSWAB's Role	Step 1 (Short-Term)	Step 2 (Long-Term)	Who Is Involved
Increase Queens' Paper, MGPC, and Organics diversion and captures rates to at least 20% (DSNV's annual goal is 25%) emphasizing mprovement in CDs with ower than average rates. Reduce contamination rates to below 10%.	Work with Community Boards, neighborhood civics, and environmental nonprofits to increase awareness about removing recoverable materials from the waste stream as an environmental justice and climate change issue. Prioritize outreach and education in CDs with lower than average diversion and capture rates.	Recruit new QSWAB members from Community Districts with lower than average diversion and capture rates to better understand the knowledge and/or resource gaps that may be contributing to reduced community buy-in/participation.	Work with the QBP's office to create a CD diversion, capture, and/or contamination challenge with a reward that incentivizes improvement. See MBP's Paper Challenge as an example. (http: //manhattanpaperchallenge. com/). Propose to the QBP a competition for Queens grade, middle, high school and colleges to design a marketing campaign tailored to CDs with lower than average diversion and capture rates.	QBP, Community Board leaders, Queens civics and environmental nonprofits, Queens DOE Schools TBI QSWAB Members
Increase access to Organics Collection opportunities in all 14 Queens' Community Districts, particularly Environmental Justice communities and CDs not covered by Curbside Organics Collection.	Examine maps of current Curbside Organic Collection and FSDOs, supported by DSNY and volunteer-run, and identify new locations where collection could be piloted (e.g., at curbside, near transit centers, Greenmarkets, community gardens, large food distribution centers, food banks, CSA distribution sites, City-owned sites suitable for agriculture, churches). Work with trusted neighborhood partners such as Community Boards, civic groups, nonprofit, and faith- based organizations to increase local buy-in/participation.	Engage trusted neighborhood partners who can help locations that could become sites for food scrap drop-off and/or local small-scale community compost processing. Address community members' concerns and misconceptions about organics collection. Work with trusted neighborhood partners to devise linguistically and culturally appropriate outreach to encourage resident sign-up for Curbside Organics Collection in August 2021 especially in Environmental Justice communities and communities that lacked COC prior to its suspension. Invite MWBE entrepreneurs (BK Rot, Common Ground Compost, Vokashi) to speak to Queens Community Board leaders and local civics and environmental groups, particularly in Environmental Justice communities, to provide guidance on starting microhauling businesses in Queens.	Work with the City's other borough-based SWABs to co-lead the Envisioning Organics Project to reimagine reaching zero waste to landfils by 2030 with an emphasis on mandatory organics diversion and local community composting. Identify trusted neighborhood partners interested in advocating for Mandatory Organics and passage of the C.O.R.E. Act	DSNY, Community Groups TBD, City other Borough-Based SWABs, QSWA Members
Increase participation in refashionNYC, ecycleNYC, and Organics Collections in Queens' buildings of 10 or more units.	Identify at least five new buildings in each CD that could be introduced to refashionNYC and ecycleNYC.	Gather marketing materials from Manhattan SWAB to learn about strategies to engage management and supers in larger 10+ unit buildings.	Pilot refashionNYC and ecycleNYC in at least three new buildings in each CD and document experiences on QSWAB website.	MSWAB, Building Management and Supers TBD, QSWAB Members
Improve diversion, capture, and contamination rates at NYCHA buildings and increase access to Paper, MGPC, and organics diversion for NYCHA residents.	Continue QSWAB engagement with the MSWAB / NYCHA working group by assigning a new person to that committee.	Recruit a NYCHA resident/tenant or super to serve on the QSWAB in a board or liaison role. Work with DSNY and tenants as needed to collect and publish CD/borough-specific data on DSNY collections at the largest five NYCHA properties in Queens.	Connect with NYCHA Tenant Representatives and/or Supers in partnership with the QBP's Office and hold a future QSWAB meeting at QueensBridge Houses or another large NYCHA property.	QBP's Office, DSNY, NYCHA resident and supers TBD, MSWAB Members TBD, QSWAB Members
Improve diversion, capture, and contamination rates at Queens DOE Schools.	Identify at least five Queens DOE Schools in each CD that could be enrolled in DOE Zero Waste Programs outside of Organics Collection.	Connect teachers/administrators in at least five Queens DOE Schools with mentor teachers from Queens schools that have successfully completed Zero Waste Programs to offer guidance.	Invite teachers/administrators from Queens DOE Schools that have completed Zero Waste Programs to speak at QSWAB meetings to share best practices.	DOE Teachers/Administrators TBD QSWAB Members
Make publicly available commercial waste data, including tonnage of C & D materials generated at City and City-funded capital projects and where/how materials are handled.	Initiate conversation about C & D waste with DSNY, HPD, Business Integrity Commission, The General Contractors Association of New York, Private Carters Serving Handling C & D, and WTS.	Convene individual and/or joint meetings to better understand the C & D sector.	Work with City agencies and the NYCC to set C & D diversion benchmarks and annual reporting guidelines for City and City-funded capital projects. Begin to more closely monitor Active Major Construction Data to identify larger construction firms and projects working in Queens. (https://www1.nyc. gov/assets/buildings/html/nyc- active-major-construction.html)	DSNY, HPD, Business Integrity Commission, The General Contracto Association of New York, Private Carters Handling C & D, WTS Owner
Pass, following further refinement, S. 1185B and the federal Break Free From Plastics Act.	Work with Queens State Senators, such as co-sponsors Joseph Addabo, Jr., Leroy Comrie, and Jessica Ramos to recommend changes to S. 1185B to make it more effective.	Form a Legislative or Policy Committee within the newly formed QSWAB tasked with overseeing legislative initiatives and building relationships with electeds.	Work with the other SWABs to draft testimony and joint policy recommendations to be delivered to State Senators and engage broader coalitions around supporting the Break Free from Plastics Act	Queens' City, State, and Federal Electeds, Citywide SWABs, QSWAB Members
Evaluate data and reporting as part of the next Citywide Solid Waste Management Plan and consider measurement and reporting on additional categories (e.g. bulk and commercial waste).	Participate in SWMP development.	Publish an annual update on key statistics found in this report.	Engage with stakeholders on the value of data and reporting and make reporting a requirement of the CWZ contracts, including data on diversion (Paper, MGPC, Organics, and recoverable industrial byproducts).	QBP, NYCC Members, Mayor's Offic DEC, DSNY, QSWAB Members
Perform CD spot audits on capture and	Collaborate with Community Board leaders to participate.	Establish schedule to reach all QNS CDs.	Set and achieve targets to increase on both metrics in all QNS CDs.	Queens Community Boards, DSNY, Queens Residents, QSWAB Membe

Community Needs

Recommendation	QSWAB's Role	Step 1 (Short- Term)	Step 2 (Long-Term)	Partners
Investigate the nature and location of DSNY and DEP 311 calls in Community Districts 7, 12, and 13 and determine potential prevention and intervention responses.	Arrange a presentation of the State of Waste in Queens report to the leadership of Community Boards 7, 12, and 13 and their Sanitation Committees.		Conduct quarterly check-ins with CBs 7, 12, and 13 to ensure sanitation concerns are being addressed jointly with the QSWAB.	Community Board leaders in Community Districts 7, 12, and 13, Sanitation Committee leaders in Community Districts 7, 12, and 13, Representative Volunteer Groups TBD
Secure funding to address repeatedly unmet DSNY and DEP needs in Community Districts 2, 3, 10, and 11.	Reach out to Community Board leaders and Sanitation Committee members who sit on CBs 2, 3, 10, and 11 to foster productive collaboration with the QSWAB around sanitation needs.	Work with CB 2, 3, 10, and 11 leaders and Sanitation Committee leaders to ensure Annual Needs Assessment concerns are brought to Council Members' and DSNY attention.	Hold accountable through annual or bi-annual reporting the status of unmet DSNY and DEP needs in CBs 2, 3, 10, and 11.	Community Board leaders in Community Districts 2, 3, 10, and 11, Sanitation Committee leaders in Community Districts 2, 3, 10, and 11. Council Members representing Community Districts 2, 3, 10, and 11
Examine the NYCC Expense Budgets for Cleaning, Litter Basket Collection, and Enforcement and determine whether a percent could be redirected to installing Big Belly Solar Bins in busy commercial locations where litter issues are endemic.	Explore NYC Open Data to determine number and location of Big Belly Solar bins in Queens and how these correlate to 311 calls regarding Cleaning, Litter Basket Collection, and Enforcement and relation to Council Member funding for each category.	Identify Community Boards that may want to advocate for re- direction of Expense Funding for Solar Bins as an alternative to Litter Basket Collection in a few pilot locations.	Evaluate performance of Solar Bins in Community Districts where they currently exist or in new Community Districts where they are piloted to make the case for their expansion.	DSNY, BetaNYC, Community Boards TBD
Expand Participatory Budgeting to all Queens Community Districts and better engage community members who want to submit waste diversion projects to shape successful submissions.	Encourage QSWAB members who live in Community Districts without Participatory Budgeting to advocate for its expansion with a petition campaign.	Work with QSWAB members who live in Community Districts that have Participatory Budgeting and encourage them to submit waste diversion projects for consideration.	Evaluate status of submitted Participatory Budgeting waste diversion projects to determine if they won or lost and what can be done to ensure projects speak to community members' needs.	Council Members representing Community Districts without Participatory Budgeting, QSWAB Members, Community Members TBD

Community Assets

Recommendation	QSWAB's Role	Step 1 (Short-Term)	Step 2 (Long-Term)	Who is Involved
Ensure the long-term security of Big Reuse as a critical Community Asset and restore support for DSNY nonprofit partners Queens Botanical Garden and GrowNYC to be able to expand and increase their outreach and programming (e.g., FSDOs, Master Composter program).	Work with Big Reuse to advocate for their ability to extend their lease and continue compost processing on NYC Parks space where the by-product of their work is most beneficial.	Explore other opportunities to expand Big Reuse's local community composting to other vacant and under-utilized City- owned sites.	Work with environmental lawyers and the NYC Department of City Planning to create legal and zoning protections to ensure that small to mid-size community-led composting on City-owned land is an allowable use with community approval.	Big Reuse, Department of City Planning, Pro Bono Legal Consult TBD, QSWAB Members
Encourage and increase collaboration among Queens' colleges and university around sustainability education and waste- diversion.	Arrange a meeting for sustainability representatives of Queens institutions of higher learning to encourage collaboration and sharing of best practices that can be adapted to the particularities of each campus.	Organize annual presentations by Queens colleges and universities to report on progress in achieving sustainability and waste diversion goals at scale.	Create a grant fund, similar to that of the MSWAB, that would support Queens students working to pilot innovative waste diversion projects and solutions.	Queens College and University Sustainability Leaders, QSWAB Members
Expand Cafeteria Culture's reach to 12 Queens DOE primary schools.	Introduce Cafeteria Culture to Principals of Queens DOE primary schools, particularly ones in underserved communities with low diversion rates and/or where Curbside Organics Collection had not yet been introduced.	Work with Cafeteria Culture to understand their capacity to expand and help them target Queens schools most in need of their services (i.e., Title 1 Schools).	Evaluate and document at the end of each school year Cafeteria Culture's expansion to Queens DOE Schools and make plans in advance for the following year's target schools.	Cafeteria Culture, Queens DOE Schools TBD, QSWAB Members
Recruit at least 25 Queens restaurants to partner with Rescuing Leftover Cuisine.	Work with the QBP's Office to introduce Rescuing Leftover Cuisine to at least 25 Queens restaurants with a high-volume food output and/or in communities with high levels of food insecurity.	Ask QSWAB members to pledge to volunteer with Rescuing Leftover Cuisine at least 1x per year and recruit one friend or colleague to do the same.	Document and report the tonnage of food waste diverted from landfills in Queens through RLC restaurant partnerships and redistributed to food-insecure communities.	Rescuing Leftover Cuisine, QBP's Office, Queens Restaurateurs TBD, QSWAB Members
Encourage the creation of at least one volunteer clean-up group in each Community District and connect groups with one another to share resources, challenges, and learning.	Identify community groups in Community Districts that have reported higher than average cleaning concerns and connect them with volunteer groups in other Community Districts that have organized successful cleanups.	Invite DSNY's Bureau of Community Affairs to present to the QSWAB about the process of leading DSNY-supported cleanups.	Document and report the impact of volunteer community groups' work annually or bi-annually in updated State of Waste reports.	DSNY Bureau of Community Affairs Volunteer Community Groups TBD QSWAB Members
Identify new potential FSDO and local community composting sites in Queens that could be created by building on existing assets and City- owned land suitable for agriculture.	Outreach to community gardens, farmer's markets, CSA distribution sites, and City agency representatives to explore interest in setting up FSDO or compost processing at these locations.	Connect currently existing FSDO representatives with community members seeking to start FSDOs or processing organics locally to understand challenges, protocols, and best practices to ensure success.	Document and report community group's annual organics diversion to confirm groups' impact and use data to advocate for funding to expand their reach.	NYC Department of City Planning, Existing Volunteer FSDO and Composting Volunteer Groups, Community Members TBD, QSWA Members
Increase the number of Queens- based businesses providing reuse opportunities.	Request a list of Queens-based businesses providing reuse opportunities from DSNY's 2019 Reuse Sector Report.	Confirm the status of Queens- based reuse businesses post- COVID.	Map the locations of Queens-based reuse businesses and share on the QSWAB website. Identify geographic gaps and outreach to BIDS to suggest they recruit businesses providing this service. Encourage the City to provide tax incentives to waste diversion/reuse businesses.	DSNY, Queens BIDs, Queens Chamber of Commerce, NYC Law Department, New York City Counci Members, Business Owners TBD, QSWAB Members
Create Right to Repair workshops in Queens DOE middle and high Schools.	Introduce the Right to Repair concept to 10 Queens DOE middle and high schools.	Research implementation and outcomes from repair workshops in other schools (e.g., Ethical Culture Fieldston) and share with Queens DOE leadership to encourage adoption.	Pilot a repair workshop in a DOE middle- or high school that expresses Interest and document impact.	NYC DOE Queens Leaders, Right to Repair Consultants and Nonprofit Advocates, DOE Teachers, QSWAB Members
Make new and existing assets accessible to Queens residents so they can be utilized to their full extent. Increase awareness of resources and the benefits of using them.	Create an interactive asset map on the QSWAB website and update quarterly in collaboration with partners.	Encourage community members to send us information about new assets to ensure maps are up-to- date.	Annually document change in asset number and location to help community members more quickly identify asset gaps.	Queens businesses and nonprofits and community groups TBD, QSWAB Members
Provide more recognition for Queens DOE Zero Waste School Award Winners	Invite Queens DOE Zero Waste School Award Winner representatives to present to the QSWAB to learn more about their success strategies.	Recommend to the QBP that Zero Waste Award Winners receive additional recognition from their office to increase public awareness.	Help promote Zero Waste School award winners on social media and to local Queens press and identify opportunities to connect these schools with their peers.	DOE Zero Waste School Award Winners, DSNY, QBP, QSWAB Members

Waste Impacts

COVID Impacts

Recommendation	QSWAB's Role	Step 1 (Short-Term)	Step 2 (Long-Term)	Who is Involved
Pilot the T.O.S.S. Model in partnership with Queens BIDS to reduce overflow commercial trash where pedestrians use sidewalk space.	Introduce the T.O.S.S. concept to new QSWAB members, Queens Community Board leaders, and Queens BIDS.	Send to NYCDOT and DSNY a letter from the QSWAB supporting the QSWAB concept.	Identify five business improvement districts in Queens open to piloting the T.O.S.S. model.	Queens BIDs, T.O.S.S. leaders, Queens Chamber of Commerce: QSWAB Members
Zero-Waste 2030: Divert quantified amounts of Queens' organics and recyclable materials from landfills.	Identify in partnership with others the adverse community impacts from waste export (e.g., CD 12 transfer stations, CD 5 waste-by-rail export) as well as local opportunities to divert waste that reduce harmful health and environmental impacts both in the borough and on communities farther away.	Direct targeted education and outreach to NYC households that better connects individual household practices to adverse community impacts from waste export. For example, show how greatly increasing Organics and recycling diversion of household MSW handled by Waste Management's Review Avenue and Varick Ave. transfer stations means fewer rail cars of exported waste in CDs2 and 5 and less problematic Organic waste at Upstate landfills that have led to lawsuits against the City.	Evaluate and document diversion rate of organics and recycling materials from the waste export stream, including positive and negative consequences to communities.	Queens Borough President, City Council Members, DSNY, Community Boards, Big Reuse, Targeted households, QSWAB Members
Zero Waste 2030: Divert quantified amounts of C&D waste processed in and transported through Queens' waste from landfills.	Identify adverse community impacts in Queens from C&D export (e.g., CB 12 transfer stations, CB 5 waste-by-rail export), Quantify tonnage processed and hauled annually in Queens, and provide education and outreach to NYS DEC, NYC Council Members, DSNY, and others identified by QSWAB members through a presentation by, for example, Building Products Ecosystems under the auspices of the Queens Borough President.	Set date and time and send out invitations to a webinar that demonstrates the feasibility of increasing C&D diversion and the need for state legislation that makes it illegal to landfill gypsum wallboard with in-person participation for select invitees, if possible, and public access and rebroadcast for others.	Evaluate and document participation, participant feedback, next steps.	Queens Borough President, City Council Members, DSNY
Require Queens transfer stations covered under Waste Equity Local Law 152 and Commercial Waste Zone Local Law 199 to comply with state law, city law, and consent decrees.	Work with the community to identify performance standards according to state law, city law, and consent orders for Queens Transfer stations in communities identified by NYC as environmental justice communities pursuant to Local Laws 60 and 64. Identify the extent of compliance and enforcement, and opportunities to achieve measurable long-term improvements in community health, environment, and quality of life. Report findings to the Borough President annually, and on an ad hoc basis as needed.	Work with the community in CD 12 Jamaica on a pilot report on transfer stations' performance for the Queens Borough President.	Conduct quarterly reporting to QSWAB on progress in CD 12 Jamaica. Hold transfer stations accountable through their quarterly reports to the community and their giving the community access for inspections.	Queens Borough President, CUNY Center for Urban Environmental Reform, NYC Environmenta Justice Alliance (NYC-EJA), The Transdisciplinary Center on Early Environmental Exposures Icahn School of Medicine at Mt. Sinai, York College CUNY Department of Earth and Physical Sciences DSNY, NYCEDC, NYCIDA, NYSERDA, Civic Associations, QSWAB Members
Require MTA-LIRR to issue an RFP to repower MP-15 locomotives to US EPA Tier 4 Switch Duty Cycle emissions standards using NYS appropriations in Comptroller's Contract #DR36644. LIRR has been given \$27 million in appropriations since 2013, enough to complete the repower the New York & Atlantic Railway's fleet (@ \$2 million per locomotive), which is used for waste- by-rail.	Support the Borough President in MTA-LIRR's completion of this funded locomotive repowering project, which will remove at least 95% of this freight locomotive pollution from community air in Queens, including in neighborhoods identified by NYC as environmental justice communities pursuant to Local Laws 60 and 64.	Provide draft public comment for the Borough President on the waste supply chain analysis that will be included in NYMTC's Regional Transportation Plan/Freight Plan update, scheduled for release and public comment in June 2021. The public comment will support mitigation of Queens burdens from waste export by supporting MTA-LIRR's repowering of the New York & Atlantic Railway's high-polluting 1970's Switch Duty Cycle locomotive fleet and the use of rail cars that seal waste inside the rail car/waste container. Repowering locomotive fleets to Tier 4 or cleaner emissions standards and the use of covered rail cars for waste are official NYMTC Goals that were included in NYMTC's Plan 2018- 2045.	Approach NYMTC's current voting members about harms from 1970's locomotives, including Patrick Foye - MTA CEO and Chairman, Henry Gutman - NYC DOT Commissioner, and Marisa Lago - NYC Department of Planning Director, and Steve Bellone - Suffolk County Executive (the open rail cars of C&D come into Queens from Suffolk County, where waste-by-rail transfer stations and community impacts from the old locomotives are proliferating). Quarterly reports to the Queens Borough President on MTA's procurement progress.	Civic Associations, Queens Borough President, NYC Council Members, New York Metropolitan Transportation Council, Strategic Programs Office of the Regional Administrators US-EPA Region II, *CUNY Center for Urban Environmental Reform, *NYC Environmental Justice Alliance (NYC-EJA), *The Transdisciplinary Center on Early Environmental Exposures Icahn School of Medicine at Mt. Sinai, *York College CUNY Department of Earth and Physical Sciences: *these organizations involved If current plans fo waste-by-rail in CD12 go forward.
Support Hon. Grace Meng's Federal initiatives to completely contain waste, blowoff, leachate, and odors in rail cars/containers.	Work with communities where high-polluting, unregulated 1970's freight locomotives haul open rail cars of construction and demolition debris that emit waste blowoff, leachate, and odors (cads 5, 9, 12, and 13, including in communities identified by NYC as environmental justice communities pursuant to Local Laws 60 and 64) and provide current information to the Borough President.	Provide quarterly reports to the Borough President on the progress of Hon. Grace Meng's federal initiatives, including the most recent:"Not later than 1 year after the date of enactment of this Act, the Administrator of the Federal Railroad Administration shall initiate a public process to seek input on addressing spills, emissions, and odors and other public nuisances associated with top loading rail cars, open-top hoppers, and gondolas, including evaluating the feasibility of a requirement that such railcars be covered while in transit, including while being held, delayed, or transferred."	Provide draft testimony and public comment for the Borough President, if the FRA study is included in pending federal legislation.	Civic Associations, Community Boards, Queens Borough President, NYC Council Members, DSNY Hon, Grace Meng, Federal Railroad Administration.
Pass NYS Assembly Bill A3269 that would require containment of landfill- bound solid waste in rail cars and containers as part of transfer station and transload operations. Hon. Joseph P. Addabbo sponsored S2490, which twice passed in the NYS Senate but A3269 has not made it out of the NYS Assembly's Environmental Conservation Committee.	Work with the Queens Borough President and the Manhattan, Bronx, and Brooklyn SWABS on the sponsorship required to pass a bill in both chambers that requires the use of covered rail cars/containers that do not emit spills, waste blowoff, leachate, or odors, and that gets signed into law.	Provide a quarterly progress report on this legislation to the Queens Borough President.	When the bill has the sponsorship it needs, provide educational information and outreach that may help support its passage to communities in Community Districts 5, 9, 12, and 13.	Queens Borough President, NYC Council Members, Hon. Senator Joseph P. Addabbo, Jr., Community Districts 5, 9, 12, and 13, Civic associations, NYC SWABs

Recommendation	QSWAB's Role	Step 1 (Short-Term)	Step 2 (Long-Term)	Who is Involved
Pass Intro. 1942 and 1943, the Community trganics and Recycling Empowerment (CORE) Act, to support equity in Organics and e-Waste collection opportunities in all NYC Community Districts. Strengthen the legislation by ensuring funding for outreach, education, and local composting processing and distribution.	Outreach to Queens NYC Council Members and Queens Community Board leaders to educate them about the CORE Act and ask for their support.	Ensure that the CORE Act is taken up in the next NYCC FY and work with the City's other borough- based SWABs and Queens partners (e.g., Big Reuse, Queens Botanical Garden) to advocate for its passage.	Track progress on CORE Act passage and improve its potential impact by ensuring sufficient coverage in Environmental Justice communities that struggle with storm water runoff. Advocate for use of locally made compost in these communities to enhance soil conditions in tree beds and rain gardens.	Queens New York City Council Members, Queens Community Boards, Queen Compost-Focused Nonprofits, QSWAB Members
Ensure DSNY has at the ready a long-term resiliency plan that includes scenarios in which Municipal Solid Waste increases as it did during COVID. Ensure future DSNY budgets include a Rainy Day Fund" to cover the predicted increased xpenses that we saw during COVID due to waste eneration moving from commercial to residential generators.	Research how other U.S. and international cities handled the increase in MSW during COVID to identify alternative approaches.	Work with the City's other borough-based SWABS to advocate for the drafting and/or sharing of a DSNY Resiliency Contingency Plan that takes into account lessons learned from COVID-19.	With the City's other borough- based SWABs, request from DSNY to host a post-mortem dialogue on COVID to assure the agency can communicate to community members lessons learned and changes the agency foresees making to its policies or practices if post-COVID MSW rates continue to remain higher than anticipated due to a decrease in commercial activity.	DSNY, Citywide SWABs
Provide more support for communities post- COVID to initiate and lead public clean-ups. icrease public education about costs to taxpayers when public baskets are used to dispose of residential waste.	Provide a dedicated page and calendar on the QSWAB website for communities to sign-up to lead cleanup events and help promote them.	Invite Juan Saldana from DSNY's Bureau of Community Affairs and volunteers from successful volunteer cleanup groups to speak at a QSWAB meeting about the process of leading successful community cleanups.	Track # and impact of volunteer- led community clean-ups and survey participants to gather feedback about the factors that contribute to these being meaningful experiences. Convene a meeting of Queens volunteer cleanup groups to support the creation of a How-To Guide for communities that currently lack a similar effort. Offer to host the How-to Guide on the QSWAB's website.	DSNY, Volunteer Communit Groups, QSWAB Members
Consider more innovative approaches to public litter baskets such as strategies used in Amsterdam to surround bins with greenery https: //www.theguardian. com/world/2020/jun/12/amsterdam-plants-mini- gardens-around-bins-in-drive-to-cut-littering or underground storage to reduce vermin https: //www.core77.com/posts/102208/Amsterdams- Smart-System-of-Underground-Garbage-Bins.	Use the State of Waste in Queens report to identify neighborhoods where public litter baskets were most cut during COVID and 311 calls about litter were highest.	Introduce innovative approaches to public litter (e.g., Amsterdam models, T.O.S.S. pilot) to Queens Community Boards as a first step toward securing public buy-in for local pilots.	Invite a speaker from a City that has piloted innovative public litter technology to present to the QSWAB and the City's other borough-based SWABs to share process and outcomes.	DSNY, Queens Community Boards, Citywide SWABs, National/International Experts TBD,, QSWAB Members
ncrease discretionary funding for community-led compost and food scrap drop-off groups with funds distributed through a nonprofit fiscal ponsor. Explore possibility of forming a dedicated 01c3 cooperative to allow Queens composters to better leverage their efforts to raise funds.	Invite people who have started community compost sites to present at a future QSWAB meeting to share the process with residents in other communities.	Invite a volunteer community composting group such as Astoria Pug to present at an upcoming QSWAB meeting.	Convene a meeting of Queens volunteer FSD0 site hosts and community composters to support the creation of a How-To Guide for communities that currently lack these opportunities. Offer to host the How-to Guide on the QSWAB's website.	Community Composters, Community Members, QSWAB Members
Formally honor and recognize Queens-based volunteer cleanup and FSDO groups started in response to COVID-19.	Recommend a formal proclamation from the Queens Borough President's Office honoring volunteer Queens community groups who helped keep neighborhoods clean and diverted organic waste from landfills during the pandemic.	Identify communities with low MGPC and Organics Diversion Rates and high numbers of 311 Litter calls to help identify key community members who may wish to spearhead a volunteer cleanup group or FSDO effort with QSWAB support.	Help document Queens' volunteer groups' impact in future updates to a State of Waste in Queens report. Explore ways to make it easy for groups to report data to ensure annual accuracy. See Farming Concrete Data Toolkit as an example: (https://farmingconcrete. org/barn/static/resources/DataColl ectionToolkit.pdf).	Queens Borough President' Office, Volunteer Communi Groups, New Groups TBD, QSWAB Members
Raise awareness around established, new, and emerging Queens sustainable and zero waste businesses and identify opportunities to promote them.	Recommend to the NYCC a special designation and incentives to certify Zero Waste businesses similar to the MWBE certification to increase vendor purchasing opportunities for these businesses.	Convene a meeting with NYCEDC to explore ways in which City purchasing could be enhanced through awarding contracts to zero waste vendors.	sustainable and zero waste businesses in Queens. IN partnership with the Queens Chamber of Commerce or a similar entity, survey new businesses to better understand the nature of these business, gross and net annual sales, location, target audiences and business needs and challenges to ensure their long- term success. Encourage the QBP to create a borough-specific Zero Waste Challenge and invite local businesses to participate (https: //www1.nyc. gov/site/sustainability/initiatives/z ero-waste-challenge.page).	New York City Council, NYCEDC, Queens Chamber o Commerce, Business Owners, QSWAB Member:
Identify ways to incentivize, promote, and/or reward larger Queens restaurateurs (e.g., gross sales over \$250K/yr) forgoing single-use plastics.	Work with the Queens Chamber of Commerce and the City's licensing entities as needed to identify the borough's largest restaurateurs.	Convene a conversation with 10-20 large restaurateurs to understand the cost of doing business to purchase and dispose of throwaway plastic versus using reusable tableware.	Highlight on the QSWAB website businesses that agree to forgo single-use plastic as the City emerges post-COVID. Look into the possibility of creating a coupon book of zero waste and sustainable restaurants to encourage more	Queens Chamber of Commerce, Licensing Entiti TBD, Restaurateurs, QSWA Members

APPENDICES

Community District	Paper Capture	MGPC Capture	Total Capture	Total Diversion
1	49.00%	76.00%	58.80%	20.00%
2	50.70%	73.10%	58.80%	20.70%
3	31.70%	61.80%	42.70%	14.50%
4	34.10%	60.00%	43.60%	14.80%
5	47.60%	86.90%	62.00%	24.50%
6	30.50%	71.20%	40.60%	21.20%
7	47.80%	64.60%	53.90%	19.50%
8	28.90%	52.00%	35.50%	16.90%
9	41.00%	76.90%	54.00%	20.50%
10	37.70%	83.00%	52.80%	20.50%
11	54.50%	82.70%	63.90%	24.90%
12	34.30%	66.70%	48.20%	14.40%
13	34.70%	86.60%	52.00%	19.30%
14	31.20%	42.30%	35.20%	12.70%

Appendix I: Queen Community District Diversion and Capture Rates: 2016 to 2019

Source: DSNY Recycling Diversion and Capture Rates, NYC Open Data

QNS CB Annual Needs Statements: FY20						
Queens Community Board	# of DSNY Expense Requests	# of DSNY Capital Requests	# of DEP Expense Requests	# of DEP Capital Requests	Total	
1	6	3	6	3	18	
2	3		9	24	36	
3	12		6	9	27	
4	12			6	18	
5	9		6	9	24	
6	3		3	3	9	
7	6		6	3	15	
8	6	3	3		12	
9	3				3	
10	24		3	6	33	
11	3	3	15	15	36	
12	3		3	6	12	
13	6				6	
14	9		3	12	24	
Total	105	9	63	96	273	

	QNS CB Annual Needs Statements: FY21						
Community Board	DSNY Expense Requests	DSNY Capital Requests	DEP Expense Requests	DEP Capital Requests	Total		
1	5	1	3	1	10		
2			4	6	10		
3	5		2	3	10		
4	4			3	7		
5	3		2	3	8		
6	1		1	1	3		
7	2		2	1	5		
8	4	1	1	2	8		
9	8				8		
10	8		1	2	11		
11	1	1	2	8	12		
12	1		1	2	4		
13	2				2		
14	3		1	5	9		
Total	47	3	20	37	107		

Appendix II: Queens Community Board Annual Needs Statement DSNY and DEP Request

Community Board	Request Category and Location
1	Increase or Expand Enforcement
	36th Avenue
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer
	32nd Street off Ditmars Boulevard to dead end of 32nd Street
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer
	58th Street to 69th Street, Tyler Avenue to Maurice Avenue to Laurel Hill Boulevard and
	Queens Boulevard
2	61st Street from 39th Avenue to 37th Avenue
2	Borden Avenue between Van Dam Street and 30th Street, 30th Place, 31st Street, and 31st
	Place between Borden Avenue
	Newtown Creek to 44th Drive, East River west to Jackson Avenue
	Woodside Avenue between 56th Street and 58th Street
	Increase or Expand Garbage or Litter Basket Collection / Recycling Request
	37th Ave, Junction Boulevard, Roosevelt Avenue, Northern Boulevard, 103rd Street, 74th
	Street, Astoria Boulevard, 73rd and 72nd Streets
3	Roosevelt Avenue from 69th to 114th Streets
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer
	103rd and Northern Boulevard, 25th Avenue and 81st Street, 77th Street and 30th Avenue,
	25th Avenue and 77th Street, 25th Avenue and 76th Street
	Increase or Expand Cleaning
	Diversity Plaza, 104th Street from Roosevelt to Corona Avenue, 108th Street from Roosevelt to
	Corona Avenue, 111th Street and the Roosevelt Station, William F. Moore Park
4	Increase or Expand Enforcement
	Queens Boulevard, Roosevelt Avenue, Junction Boulevard, Broadway, and National Street near
	Corona Plaza
	Roosevelt Avenue from 72nd Street to 114th Street
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer
5	77th Avenue and 78th Avenue from 76th Street to 88th Street
	Cooper Avenue between 74th Street and 78th Street and along 77 Avenue and 78 Avenue
	(between 80th Street and 88th Street)

Appendix III: Queens Community Board Annual Needs Statements Locations of Concern: FY21

	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
6	138th Street from cross section at 31st Road to 29th Road, 137th Street from 31st Road at cross section to 32nd Street along the Whitestone Expressway Service Road going north between Linden Place and 141st Street	
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
7	138th Street from cross section at 31st Road to 29th Road, 137th Street from 31st Road at cross section to 32nd Street along the Whitestone Expressway Service Road going north between Linden Place and 141st Street	
	Increase or Expand Garbage or Litter Basket Collection	
8	Hillside Avenue (Francis Lewis Boulevard to Queens Boulevard), Queens Boulevard (Hillside Avenue to Main Street), and Main Street.	
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
10	160th Avenue and 102nd Street, 160th Avenue and 102nd Street, East and West of 102nd Street between Russell Street and 160th Avenue	
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
	223 Street between 37 Avenue and 41 Avenue	
11	34th Avenue between 211th Street and 213th Street	
	Marathon Parkway, Commonwealth Boulevard, and 64th Avenue	
	Increase or Expand Cleaning	
12	Jamaica by Archer Avenue, Parsons Boulevard, Sutphin Boulevard, and Archer Avenue	
12	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
	150th Street between Liberty Avenue and Archer Avenue	
13	Increase or Expand Garbage or Litter Basket Collection	
	Jamaica Avenue	
	Increase or Expand Cleaning	
	Cross Bay Boulevard median in Broad Channel	
	Increase or Expand Garbage or Litter Basket Collection / Recycling Request	
	Both sides of Rockaway Point Boulevard, South side Beach 169-193 Streets, North side Beach	
14	184-201 Streets	
	Inspect, Clean, or Repair/Replace Sanitary or Storm Sewer	
	Beach 84th Street from Beach Channel Drive North to the dead end at the Bay	
	Wheatley Street and Augustina Avenue, Beach 9th Street and Central Avenue, Brunswick	
	Avenue, Virginia Street, Beach 12th Street	

Appendix IV: Discretionary Funding for Queens Projects by

Program Name / Elected Funder	Amount Funded	Percent of Funding	
Anti-Graffiti / Graffiti Removal	\$212,500	5.62%	
Constantinides	\$47,500		
Grodenchik	\$15,000		
Holden	\$20,000		
Коо	\$86,000		
Koslowitz	\$9,000		
Reynoso	\$5,000		
Ulrich	\$30,000		
Beautification	\$103,500	2.74%	
Adams	\$10,000		
CD24	\$2,000		
Dromm	\$13,000		
Grodenchik	\$35,000		
Richards	\$5,000		
Ulrich	\$38,500		
Cleaning / Cleanup	\$2,129,500	56.35%	
Adams	\$110,000		
Ampry-Samuel	\$40,000		
Chin	\$35,000		
Constantinides	\$150,000		
Cornegy	\$60,000		
Cumbo	\$75,000		
Dromm	\$3,500		
Gibson	\$20,000		
Grodenchik	\$110,000		
Holden	\$211,000		
Johnson	\$150,000		
Коо	\$31,000		
Koslowitz	\$160,000		
Lander	\$80,000		
Levine	\$100,000		
Menchaca	\$130,000		
Miller	\$30,000		
Perkins	\$20,000		
Reynoso	\$110,000		
Richards	\$90,000		
Rivera	\$50,000		
Ulrich	\$40,000		
Vallone	\$89,000		
Van Bramer	\$160,000		
Yeger	\$75,000		

Community Programs	\$209,500	5.54%
Adams	\$11,000	
Constantinides	\$5,000	
Dromm	\$9,500	
Grodenchik	\$18,000	
Коо	\$26,000	
Miller	\$65,000	
Ulrich	\$25,000	
(blank)	\$50,000	
E-Waste Collection	\$10,000	0.26%
Dromm	\$5,000	
Коо	\$5,000	
Extra Basket Pick up / Support	\$748,000	19.79%
Adams	\$65,000	
Constantinides	\$10,000	
Dromm	\$190,000	
Holden	\$46,000	
Коо	\$80,000	
Koslowitz	\$6,000	
Miller	\$65,000	
Моуа	\$80,000	
Reynoso	\$20,000	
Richards	\$70,000	
Ulrich	\$45,000	
Vallone	\$71,000	
Gardens	\$50,000	1.32%
Queens Delegation	\$50,000	
Greener NYC	\$316,169	8.37%
Adams	\$30,000	
Constantinides	\$10,000	
Dromm	\$26,169	
Grodenchik	\$40,000	
Holden	\$30,000	
Коо	\$40,000	
Miller	\$30,000	
Моуа	\$15,000	
Richards	\$20,000	
Ulrich	\$25,000	
Vallone	\$40,000	
Van Bramer	\$10,000	

Appendix V: Cafteteria-Culture Affiliated Queens DOE Schools

School	Neighborhood	Queens Community District	Zip Code
Bard High School Early College	Long Island City	2	11101
Growing Up Green Middle School	Long Island City	1	11101
Growing Up Green Charter School	Long Island City	1	11101
IS 59	Springfield Gardens	12	11413
New Visions Charter High School	Rockaway	14	11694
PS 11	Sunnyside Gardens	2	11377
PS 17Q	Astoria	1	11102
PS/IS 87Q	Middle Village	5	11379
PS 149	Corona/Jackson Heights	3	11372
PS/IS 499	Flushing	8	11367
Queens School of Inquiry	Fresh Meadows	8	11366

Commercial Trade Waste Hauler	Neighborhood	Queens Community District
AMERICAN RECYCLING MANAGEMENT, LLC	Jamaica	12
ASTORIA RUBBISH REMOVAL CO., INC.	Astoria	1
BESTWAY CARTING INC.	Little Neck	11
BORO-WIDE RECYCLING CORP.	Maspeth	2
CITY WASTE SERVICES INC.	Jamaica	13
D & N SERVICES, INC.	Astoria	1
EVEREST REMOVAL INC.	Flushing	7
GREEN BAY SANITATION CORP.	Little Neck	11
HERMES WASTE SERVICES CORP.	Long Island City	1
IMVROS WASTE INC	College Point	7
KINGS COUNTY CARTING CORP.	Middle Village	5
LIBERTY ASHES INC.	Jamaica	12
MR. T CARTING CORP.	Glendale	5
REGENCY RECYCLING CORP.	Rosedale	13
RELIABLE WASTE INC.	Middle Village	5
ROYAL WASTE SERVICES INC.	Hollis	12
TULLY ENVIRONMENTAL INC.	Flushing	7
UNITED SANITATION INC.	Jamaica	12
ZEUS WASTE MANAGEMENT INC.	Malba	7

Appendix VI: Queens Private Commercial Waste Haulers 2020

GLOSSARY

Capture Rate – Measurement used by DSNY to document the percentage of MGPC or Paper properly separated for recycling as opposed to discarded as Refuse. Capture rates identify the latent potential to recycle more.

Commercial Waste – Waste materials, including recycled material, generated in New York City by business establishments and construction activity and collected by private carters that are respectively defined in the DSNY Rules as Putrescible Waste and Non-Putrescible Waste.

Community Board (CB) – The official municipal body representing the City's 59 Community Districts. Community Boards are appointed by New York City's Borough Presidents in consultation with New York City Council Members. Community Boards advise elected officials and government agencies on land use and zoning, the City budget, municipal services, and other public welfare issues. Each Community Board is comprised of 50 nonsalaried members who must reside, work, or possess a specific interest in the Community District they represent. Community Board members serve in a voluntary capacity for two-year staggered terms.

Community District (CD) – An official New York City designation that divides the City into 59 geographic areas, each represented by a Community Board. Community Districts range in size from less than 900 acres to almost 15,000 acres. CD populations can be as little as 50,000 residents to more than 200,000.

Contamination Rate – Measurement used by DSNY to document unwanted or incorrect materials placed in curbside recycling. Paper placed in an MGPC bin is an example of contamination.

Diversion Rate – compares the amount of curbside collection materials separated for recycling (i.e., Paper, MGPC, Organics, E-Waste, Textiles) to the total amount of material set out (including Refuse). Diversion rate does not measure Contamination.

DSNY – Acronym for New York City's Department of Sanitation.

MGP or MGPC — Acronym for materials made from Metal, Glass, Plastic or recyclable Cartons. One of three streams of recyclable materials (the other two are Organics and Paper) collected from residences by DSNY. Recoverable MGPC includes plastic bottles and jugs, glass bottles and jars, metal cans, aluminum foil, trays, and cans, and table-top beverage cartons. In New York City, MGPC items are placed in blue recycling bins.

MSW — Acronym for Municipal Solid Waste. MSW encompasses all material – recyclable and nonrecyclable — collected by DSNY. MSW does not include collection from private businesses which are required to pay private haulers for waste collection services.

NYCHA — Acronym for the New York City Housing Authority. NYCHA was the first agency in the United States to provide housing for low- and moderate-income residents throughout New York City. The New York City Housing Authority's mission is to increase opportunities for low- and moderate-income New Yorkers by providing safe, affordable housing and facilitating access to social and community services. NYCHA provides housing to 555,498 New Yorkers in public housing and Section 8 programs and 166,389 families (365,806 residents) in public housing, including Section 8 residents living in former State- and City-funded developments.

NYS DEC – Acronym for the New York State Department of Environmental Conservation.

Non-Putrescible Commercial Waste – Stable (i.e., inert) waste coming from commercial and residential demolition and new construction and renovation projects comprised of inorganic materials, not all of which are recyclable. The non-recycled fraction is processed by the City's Non-Putrescible Transfer Stations for shipment to disposal facilities. This waste is also referred to as construction and demolition (C&D) debris to distinguish it from Fill Material, which is a subset of Non-Putrescible Waste comprised of materials such as excavated fill, stone rubble and road millings that are graded into materials such as sand and aggregate and stockpiled at Fill Material Transfer Stations in the City and reused in other building projects.

Organics – Second of three recyclable material streams collected by DSNY. Recoverable organic materials suitable for composting or anaerobic digestion in DSNY's Curbside Organics Collection program include food scraps, food-soiled paper, leaves, grass clippings, yard prunings and trimmings, house plants, and yard debris. Inclusion of animal and human waste is not permitted as part of Organics recycling. In New York City, organic

materials are placed in brown recycling bins.

Paper – Last of three streams of recyclable materials collected by DSNY. Recoverable paper materials include newspapers, magazines, catalogues, junk mail, white office paper, mixed paper, and gray and corrugated cardboard/paperboard. In New York City, these items are placed in green recycling bins.

PET – Acronym for polyethylene terephthalate, a plastic denoted by #1 inside the "chasing arrows" recycling symbol.

Plastics – Broad term that includes rigid, expanded, or film plastic. The only types of plastics that are truly recyclable according to some experts are plastics labeled No. 1, No. 2 or No. 5 on the bottom of the container.

PPE – Acronym for Personal Protective Equipment.

Putrescible Commercial Waste – Material generated by business establishments and collected by private carters that may be delivered to putrescible transfer stations or recycled, which may contain organic matter.

Recycling – The act of recovering items or materials that might have been discarded as Refuse and sent to landfills or incineration and instead applying them to further uses. Items that are downcycled includes recoverable materials that are of lower quality and functionality than the original. Items that are upcycled are put to creative reuse and transformed into new materials or products perceived to be of greater quality or environmental value.

Refuse – Waste items that are correctly placed in trash bins rather than recycling or organics bins because the materials have been deemed to be non-recyclable.

SMRNY – Acronym for Sims Municipal Recycling of New York LLC. Sims Municipal Recycling (SMR) provides key services for New York City's curbside recycling collections managed by DSNY. SMR is a business of Sims Metal Management that processes and markets more than 200,000 tons of plastic, glass, and metal that New Yorkers put into recycling bins each year.

SWMP – Acronym for the Final Comprehensive Solid Waste Management Plan for the period 2006 through 2025 prepared pursuant to 6 NYCRR Part 360-15.

Waste – All materials placed out for Municipal Solid Waste collection, including both Refuse and Recycling.