2014 NYC Community Composting Report

Submitted January 2015 by NYC Department of Sanitation Commissioner Kathryn Garcia to:

- Mayor Bill de Blasio
- City Council Speaker Melissa Mark-Viverito
- Chair of the Committee on Sanitation & Solid Waste Management Antonio Reynoso



Acronym Directory

BIC: Business Integrity Commission

BRS: New York City Department of Sanitation Bureau of Recycling and Sustainability

DEC: New York State Department of Environmental Conservation

DSNY: New York City Department of Sanitation

LL77: NYC Local Law 77 of 2013

NCCC: NYC Community Composting Council

NYCCP: NYC Compost Project

NYCHA: New York City Housing Authority

NYRP: New York Restoration Project

OCP: NYC Organics Collection Program

OROE: GrowNYC Office of Recycling Outreach

& Education

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Introduction

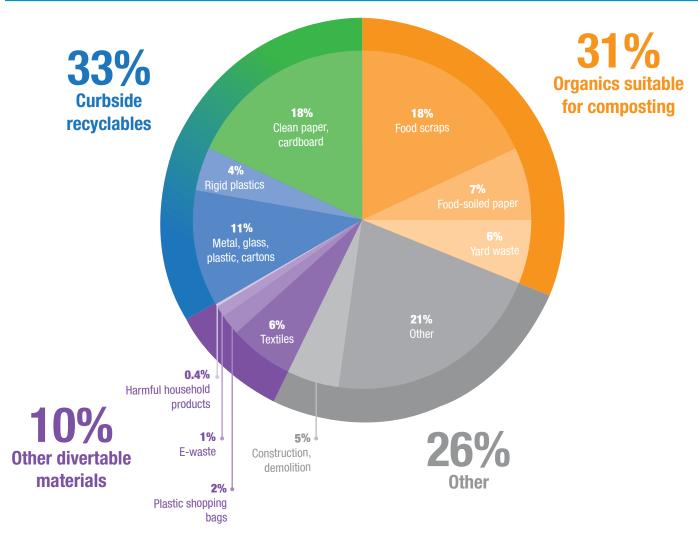
In October 2013, New York City Council passed Local Law 77 (LL77) of 2013 which requires the NYC Department of Sanitation (DSNY) Commissioner to establish a voluntary residential organic waste curbside collection pilot program and a school organic waste collection pilot program.

As part of LL77's provisions, the Commissioner is required to conduct a study on how to improve community composting in NYC and submit the findings of this study to the Mayor and the Council. This report responds to LL77's inquiry.

Organic Waste

Organic waste—food scraps, food-soiled paper, and yard waste—accounts for nearly a third of New York City's residential waste stream. This organic material, while it might not appear so to the person throwing it out, is a valuable resource and can be put to beneficial

NYC's Residential Waste Stream (2013)



Source: 2013 Waste Characterization Study, NYC Department of Sanitation

use. If managed properly, it can be used to create compost, a vital soil amendment, and to generate renewable energy to fuel homes or vehicles.

DSNY Organic Waste Diversion Strategy

Diverting organic waste from landfills for beneficial use is an important element in DSNY's sustainable waste management plan. DSNY believes that a strong organic waste diversion strategy for NYC will operate at three scales: 1) at a citywide level, 2) in communities and neighborhoods, and 3) in the home. This tiered approach enables the City to divert the

greatest amount of organic waste from landfills; build support for and participation in organic waste recycling; and generate high-quality finished compost in NYC to improve soils and public health. The programs outlined below work to implement DSNY's diversion strategy.

Citywide Level

NYC Organics Collection, DSNY's newest initiative, employs a strategy similar to the current NYC recycling program, which collects recyclable materials from the curb on specific days of the week. This pilot program began in 2012 to evaluate the feasibility of citywide curbside organics collection. The program currently provides organics collection service to over 100,000 households, 700 schools, and a few agencies and institutions across the five boroughs located in pilot areas. If scaled up, the program is designed to divert a large percentage of the organic waste NYC generates each year from landfills to be processed at large regional industrial composting facilities. The feasibility of recycling some of the organic waste into renewable energy is also being tested.

DSNY also operates a yard waste composting program at the **Staten Island Composting Facility**. Once registered with DSNY, any private landscaper or tree service company can drop off yard waste. Finished compost is sold to landscapers in bulk, or donated to local greening projects, like parks, community gardens, and urban farms. This facility also supports storm debris management by chipping and composting fallen trees and tree limbs.

Home and Community Level

The NYC Compost Project (NYCCP) operates at the home and community level. Established in 1993, this DSNY program has provided compost education and technical assistance to New Yorkers for over two decades, encouraging home composting and supporting the City's expanding network of community compost sites.



NYC Organics Collection provides organic waste collection bins to residents in pilot areas. Residents can also set out yard waste in any kind of bin or paper bag for collection.



The Staten Island Composting Facility composts landscaper waste, and fallen trees and tree limbs from major storms.

In 2012, to grow the reach of community composting, DSNY expanded NYCCP by providing funding and management support for three high-performing community compost sites. The organic waste composted at these sites is sourced from "food scrap drop-off sites"—places where NYC residents can drop off their food waste as well as leaf and yard waste. Food scrap drop-off sites are managed by NYCCP and GrowNYC's Office of Recycling & Outreach, and are located at farmers markets, libraries, near public transit stations, and in other high-traffic areas. Finished compost is donated to greening projects in NYC.

Community composting diverts only a small amount of organic waste compared to a scaled up NYC Organics Collection program. However, waste management is only one part of NYCCP's mission. NYCCP and community composters seek to produce high-quality compost to improve soil health in NYC for horticultural projects, such as urban gardening and farming, habitat restoration, and stewarding street trees. Also, NYCCP is an important community outreach and engagement tool with a strong compost education component.

NYCCP and community composting play an important role in supporting citywide organic waste diversion through OCP. They raise awareness about what compost is and its benefits through outreach and education, and by using compost to grow food and care for green spaces in NYC neighborhoods. Making and using compost locally demonstrates firsthand to New Yorkers that apple cores and eggshells are not garbage—they are useful resources.

This report describes how NYCCP supports community composting in further depth: see "NYC Compost Project" on page 33.

Recognizing the rapid growth and changing needs of NYC's network of community compost sites, in 2013 DSNY created the **NYC Composting Council (NCCC)** to increase the impact of NYCCP and to help foster greater communication, sharing, and collaboration among compost site operators, educators, advocates, urban farmers, and environmental stewards. This report describes how NCCC supports community composting in further depth: see "NYC Community Composting Council" on page 37.

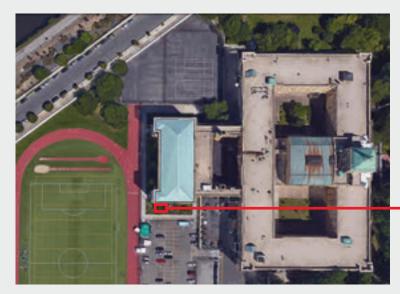
Community Composting

New Yorkers, with support from DSNY and other organizations, have built an expansive network of community sites across NYC. There are hundreds of community compost sites operating in NYC. Presently, 225 of these sites are affiliated with NYCCP.

Because these sites were built from the ground up, they are very diverse: they range in size from 10 square feet (the size of a small shed) to 20,000 square feet (more than four basketball courts); they are located in gardens, parks, schools, urban farms, private properties, churches, rooftops, and other locations; and they employ different composting methods and management models.

This report provides a snapshot of what this network looks like, outlines resources available to community compost sites, and recommends steps to take to improve and expand community composting in NYC.

NYC Community Compost Sites Range in Size from 10 to 20,000 Square Feet



The Clinton Garden at Clinton DeWitt High School



The compost site at The Clinton Garden, located at Clinton DeWitt High School, is approximately 120 square feet. The site composts organic waste in three wooden bins, which is managed entirely by hand using basic garden tools like pitchforks and shovels.



Red Hook Community Farm



The compost site at Red Hook
Community Farm is approximately
20,000 square feet. It uses a mechanized
system that forces air into the middle
of compost piles, which speeds
decomposition.

Compost and Soil Health



Finished compost is dark, brown, and crumbly. It looks like soil, but it's just one component of soil. Pictured here, DSNY-produced compost delivered to La Casita Verde, a new community compost site and garden in Brooklyn.



Community gardeners apply DSNY-produced compost to a garden bed to grow vegetables in McIntosh Community Garden in Queens.



A volunteer adds compost to a street tree bed in Brooklyn.

Compost is decomposed organic waste. Composting (used as a verb) is when humans manage the decomposition process to produce compost. Compost is used by farmers, gardeners, and environmental conservationists to maintain and improve soil health.

Soil health has wide-ranging effects on the environment and public health. It impacts food production, animal and human exposure to toxins, air and water quality, ecological diversity, and more.

Compost improves soil health by doing the following:

- **1. Adds vital nutrients into soil.** Nutrient-depleted soils stunt plant growth and metabolic activity, leaving plants prone to pests, disease, and premature death.
- **2. Adds "life" to soil.** Compost supports a soil ecosystem that's full of small organisms, beneficial bacteria, and fungi. The living organisms can form symbiotic relationships with plants—such as fungi that help plants uptake nutrients—and help prevent pests and disease. Synthetic fertilizers do not add living organisms to soil, increasing a need for synthetic herbicides, pesticides, and fungicides to prevent crop failures.
- **3. Improves soil texture.** Compost enables soil to better absorb water for plants to consume. In urban locales, well-textured soil can help manage storm water runoff, as it can effectively absorb and filter storm water. Well-textured soil also lets plant roots grow more easily by creating pore spaces in compacted soil.
- **4. Improves soil structure.** Compost helps soil particles bind together into small, irregularly shaped balls called *aggregates*. Soil particles that are tightly bound within aggregates resist erosion. *Erosion* is when wind and water displace topsoil. It can cause agricultural land to rapidly lose healthy topsoil and pollute bodies of water. Also, erosion makes it difficult to build and maintain infrastructure such as roads and buildings. With compost, a slope along a highway can be rapidly revegetated.
- **5. Neutralizes soil pH level.** Most plants thrive in soils that have a neutral pH level. If a soil becomes too basic or too acidic, plants can suffer from nutrient deficiencies or nutrient toxicities. Additionally, soil with a neutral pH level helps prevent plants from consuming environmental toxins, like lead and other heavy metals.

NYC Compost Site Survey

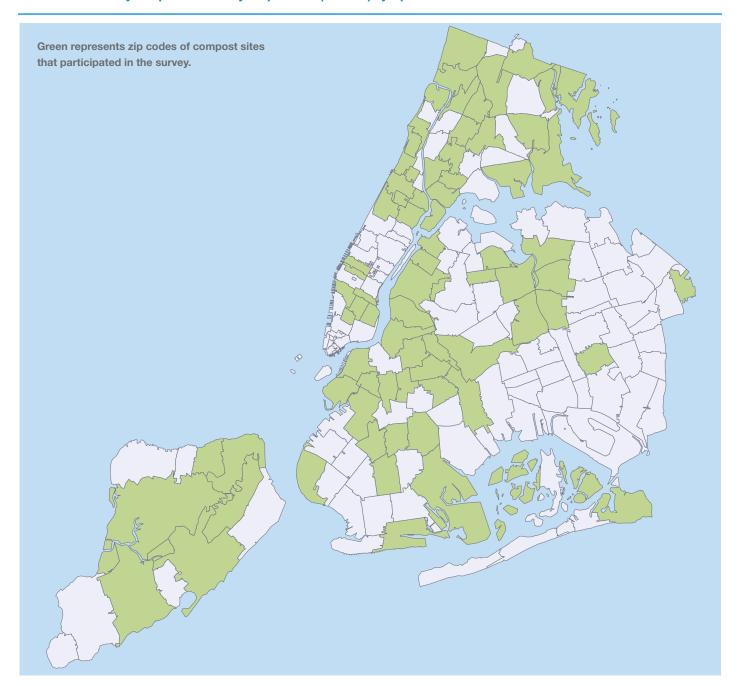
In December 2014, the NYC Department of Sanitation's Bureau of Recycling and Sustainability (BRS) conducted the first citywide survey of community compost sites to better define and describe the state of community composting in NYC.

In total, 147 community compost site managers from all five boroughs completed this comprehensive survey, which included questions about their sites' mission and goals; location and organization type; composting system and organics accepted; use of finished compost; and financial model.* It also asked about challenges that compost site managers experience (see Appendix).

To develop the survey, BRS conducted five focus groups (one in each borough) in October and November 2014. A total of 17 community compost site managers, representing diverse composting models, participated in these meetings.

The results of the focus groups and survey are described in this section.

^{*} BRS received 172 survey responses from 147 unique compost sites. The 25 additional responses were either errors (e.g. a survey respondent may have accidentally submitted a survey before finishing it, ultimately submitting two surveys) or a second submission from a compost site. Where there were multiple responses from the same compost site, responses were collapsed. Additionally, respondents were not required to answer all questions and results are rounded to the nearest percent. Therefore, in some cases, added percentages do not equal 100.



147 community compost site managers from across the five boroughs responded to DSNY's 2014 NYC Community Compost Site Survey.

Mission

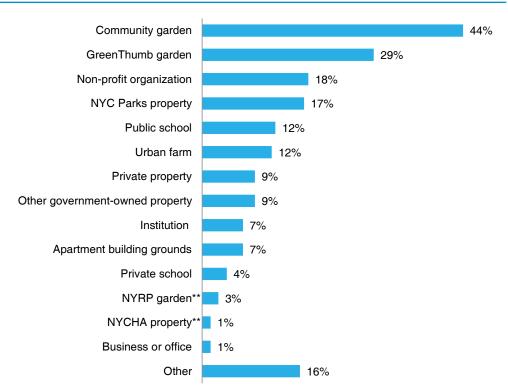
Community compost sites in New York City have a three-fold mission. They strive to:

- 1. Care for public green space. The strongest driver of community composting is a demand for improving nutrient-depleted and sometimes contaminated urban soils: 71 percent of survey respondents compost organic waste to generate a soil amendment they use to care for green spaces, such as street tree beds and community gardens.
- 2. Demonstrate how to compost. Most survey respondents included "sharing knowledge," "engaging the local community," and "education" in their compost site's mission. Sixty-two percent of survey respondents offer tours of their compost site to the general public, and 56 percent offer workshops on how to make or use compost.
- 3. Provide opportunities for their communities to recycle organic waste locally. Community compost sites aim to divert organics from the landfill by creating a space where residents, and occasionally businesses, can bring their organic waste to be composted. Sixty-two percent of survey respondents accept food scraps from residents, and 49 percent accept leaves or yard waste.

Size and Location

NYC's community compost sites range in size from 10 to 20,000 square feet. They are most often located on public property in areas devoted to open space, urban greening, and community development.

Where are NYC community compost sites located?*



*Percentages do not add up to 100 because categories are not mutually exclusive. For example, a compost site can be a community garden, a GreenThumb garden (a garden granted support from NYC Parks), and also on NYC Parks property.

What services do community compost sites provide?

71%

Steward urban green spaces

46%

Produce compost for local greening projects

62%

Provide tours of compost sites for general public

56%

Host workshops on how to make or use compost

62%

Provide food scrap
drop-off opportunities
for residents

49%

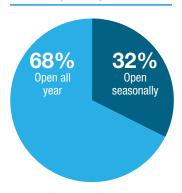
Provide leaf or yard waste drop-off opportunities for residents

^{**}See Acronym Directory on page 2.

According to most survey respondents, accessing land to start a composting site was not a challenge (see Appendix). However, 23 percent indicated that accessing land to *expand* the capacity of a compost site is "very challenging," and 41 percent said that working with space constraints within their site is "somewhat challenging." This is likely because compost sites are embedded in multi-use spaces, such as community gardens, urban farms, or other horticultural operations, where expanding the composting system would mean replacing another activity, such as food production or shared meeting space.

Additionally, the resources available to a compost site can depend on the type of property on which it's located. For example, sites located on City-owned property can receive various kinds of support from GreenThumb, a program managed by the NYC Parks Department that provides assistance to community gardens, but sites located on private property are not eligible for GreenThumb services.

What percentage of community compost sites are open all year?



Open Seasons

Most of NYC's community compost sites are open all year. Unlike community gardens and other horticulture endeavors that operate only during warm seasons, the majority (68 percent) of community composting sites, even those located at community gardens, are open in all seasons.

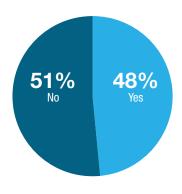
While organic waste generated by gardening, farming, and landscaping activities is minimal in the winter and early spring, residential food waste is generated consistently throughout the year. Most community compost sites meet this year-round demand for food waste composting by remaining open during inclement weather.

Organic Waste

Most community compost sites in NYC primarily compost plant-based organics such as leaves, plant trimmings, and fruit and vegetable scraps. While a wide range of organics are suitable for composting and, if managed properly, can compost in any size compost system, many community compost sites will not accept meat, fish, dairy, or compostable bags and serviceware.

As previously discussed, one of the major drivers of community composting is to produce compost to amend urban soils, steward local green spaces, and to grow food. Although very high quality compost can be produced from any of the materials listed on the chart on the following page, a simple way to ensure that a site is producing the highest quality compost and minimize contamination (given constraints typical of community composting, such as proximity to neighbors, space for pre-processing of materials, and funding for composting systems and equipment) is to implement strict organics acceptance protocol.

Can NYC's community composters provide an estimate of the quantity of organic waste composted at their site?

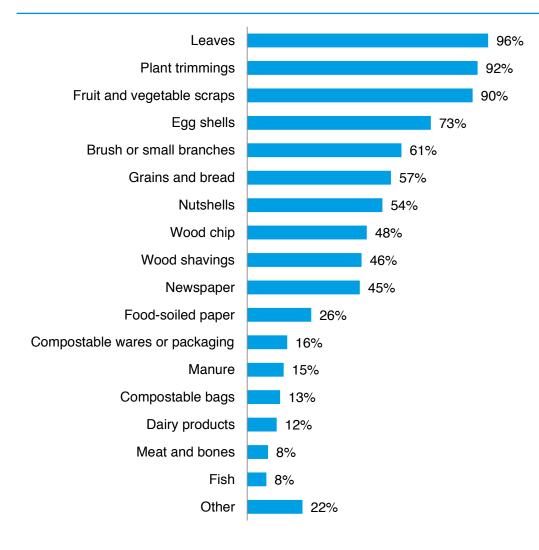


Tracking and accurately documenting amount of organic waste diverted and compost produced is a challenge for NYC's community compost sites. Fifty-one percent of survey respondents indicated that they were unable to provide an estimate of the quantity of organics that they accept and compost at their sites. As most of these sites are volunteer-run, they often do not have the ability to monitor all contributions of organic waste to their composting system. Some sites provide keys to members enrolled in their food waste composting program so that they can deposit materials whenever is most

What types of organic waste do NYC community compost sites accept?

convenient for them. Others allow the general public to drop off food waste whenever their community garden is open to the public. Therefore, while there might be gardeners on-site, available to direct people to the correct compost bin, they are not necessarily involved in tracking and weighing all contributions.

Monitoring the quantity of garden trimmings, leaves, and other yard waste generated and composted on-site can be even more challenging. When gardening, farming, or caring for a green space, organic waste is often shredded and added to the compost pile soon after it is generated (in other words, as soon as weeds are pulled from the ground, they might be added to a compost bin).



While organic waste

diversion statistics may not be vital to the day-to-day operations of a community compost site, a lack of documentation prevents measuring and articulating the impact of these sites, making it more difficult to attract funding and support.

That said, 48 percent of survey respondents were able to estimate the amount of organics they divert each month. Of those, 55 percent were able to provide that quantity in either gallons or pounds. The remaining 45 percent used a proxy measure, such as the number of compost bins they filled. According to this survey, NYC's compost sites individually divert between 10 and 70,000 pounds of organic waste monthly. This highlights the dramatic range in capacity and variety of models among sites.

Based on comments provided in the survey, it is clear that only a small percentage of sites have sophisticated systems for documenting the amount of organic waste they accept. Some volunteer-run sites, however, are diligent about collecting these metrics. Greene Acres Community Garden, for example, requires each site member to participate in an orientation before he or she can drop off food scraps. During this orientation, they are taught how to weigh and record the weight of their organic waste.

Sites with paid staff that are exclusively focused on composting are generally required to maintain site participation records.

Categories of Organic Waste

There are two basic categories of organic waste: *nitrogen-rich* materials, which are typically moist materials like food waste, and carbon-rich materials, which are typically dry materials like leaves and wood. Both are necessary components of a composting system. In NYC, nitrogen-rich materials are easy to come by. A steady supply of carbon-rich materials is often more difficult to find: 49 percent of community composters find sourcing leaves, woodchips, wood shavings, and similar materials "somewhat challenging" or "very challenging."

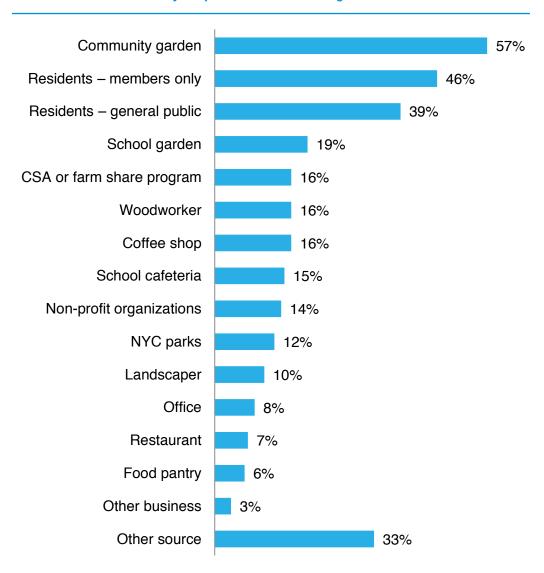
The largest sources of organic waste accepted by NYC community compost sites are generated by gardens and residents.

Forty-six percent of sites only accept organic waste from residents who are registered members of the site, and 39 percent of sites welcome the general public to drop off organic waste.

Site managers have developed diverse models for accepting residential organic waste, which range from charging a participation fee (similar to a community garden membership fee) and mandating an orientation, to requiring residents to freeze their food scraps (to prevent odor) before bringing them to the site during specific drop-off hours. These models, combined with the fact that participants actively seek out community composting opportunities, encourage proper source separation and minimize contamination (i.e., discarding inorganic materials like plastics into compost bins).

Some sites accept organic waste from businesses. Sixteen percent of compost sites accept organic waste from coffee shops and woodworkers. This is likely because the organic waste generated by these businesses—coffee grounds and woodshavings—can be valuable materials for composting.

From where do NYC community compost sites source their organic waste?

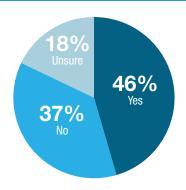


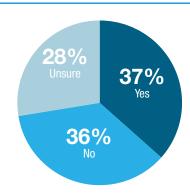
Capacity

Many of NYC's community compost sites want to compost more material. Forty-six percent of survey respondents say their compost sites currently have the capacity to accept more organic waste, and 37 percent are planning to increase the size or capacity of their compost system.*

Do NYC's community compost sites currently have capacity to accept more organic waste?



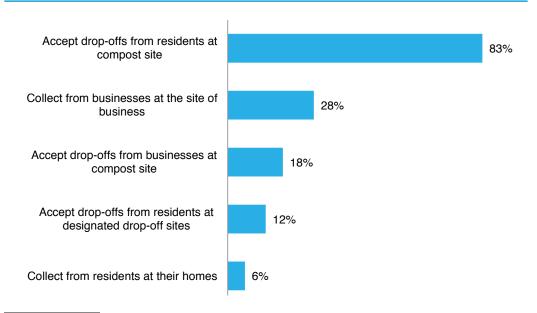




Collection vs. Drop-Off

Eighty-nine (61 percent) of the 147 survey respondents accept organic waste generated off-site by residents or businesses for composting. Of these respondents, a significant number accept drop-offs, requiring the generator to transport their organic waste to a specific location, often during specific times. Eighty-three percent and 18 percent accept drop-offs of organic waste from residents and businesses, respectively. Twelve percent run drop-off locations away from their compost sites, generally at more convenient, high-trafficked areas, and transport the material to their site for composting.

How do NYC community compost sites receive organic waste from residents and businesses?



^{*}See Appendix for a list of potential barriers to growth and to what extent they are considered challenges by the surveyed compost sites.

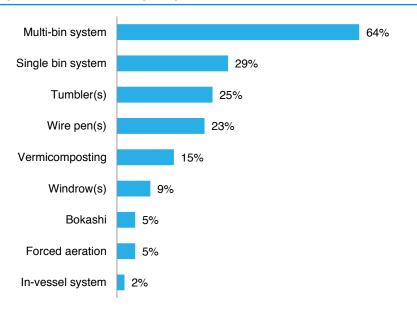
A smaller percentage of community compost sites provide collection services.

Twenty-eight percent of sites collect organic waste from businesses at the site of business and 6 percent collect from residents at their homes.

Composting System

Most compost sites use a multi-bin system. Increasingly, however, community compost sites are experimenting with new systems and technologies in order to be able to accept a larger amount and wider variety of organic waste. Several sites have installed aerated static pile systems, which blow air into compost piles to replenish oxygen and minimize the labor needed to maintain piles. Others are exploring using food waste fermentation (Bokashi) to be able to safely accept meat, fish, and dairy.

What kind compost systems do NYC community composters use?





Solar-powered aerated static pile composting system built by the NYC Compost Project hosted by Build It Green!NYC at Brooklyn Grange's rooftop farm in Long Island City, Queens.

TYPES OF COMPOSTING SYSTEMS

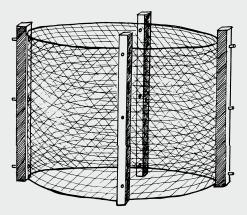
Here is a sampling of different types of composting systems used by community composters. These systems are some of the most common used in NYC, though there are many more types of systems not displayed here.

A composting system can be as simple as a single wire bin, or as complex as an intentionally shaped pile of organic waste that uses a mechanized system of pipes and fans to blow oxygen into the compost pile to speed decomposition. Some systems require much time and manual labor to

maintain, while some mechanized systems do not need much manual maintainence.

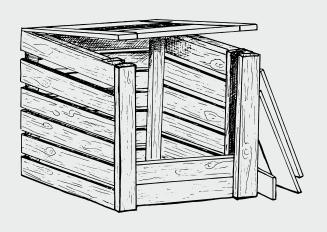
Compost site managers choose a system based on several factors, such as how much compost they aim to produce, how much time and labor it takes to manage a system, costs associated with building and maintaining the system, level of compost knowledge and skills required to build the system, and the physical limitations of their site. Many sites use a variety of systems.

WIRE BIN



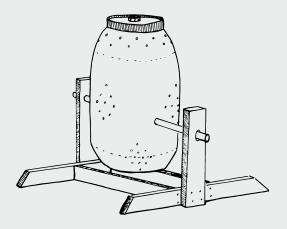
Wire bins are one of the most basic kinds of composting systems. Community composters mainly use wire bin systems to compost leaves and yard waste.

WOOD BIN



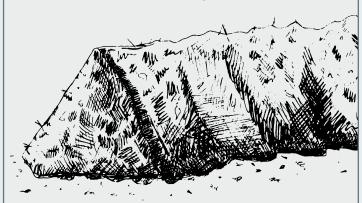
Wood bins are commonly used in NYC. They are sturdy, attractive, and are well-suited for processing food waste.

TUMBLER



Some community composters purchase or make *tumblers*, which are off the ground, fully enclosed bins that can be flipped. Because of this, little time or labor is required to prevent pests and odor.

WINDROW



Windrows are long piles of layered organic waste. Windrows can be a more efficient way to process larger amounts of organic waste. Because they require more maintenance and labor, windrows tend to be used at sites with paid staff.

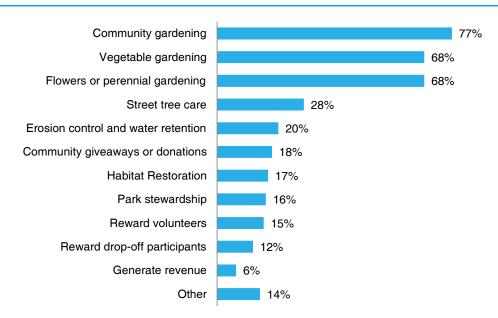
Pests and Odors

Most NYC community compost site managers are confident in their ability to manage healthy composting systems. Sixty-three percent, 55 percent, and 51 percent of survey respondents respectively rated managing odors, managing pests, and troubleshooting problems as "not challenging" (see Appendix). During the focus groups conducted prior to administering the survey, many participants noted that as soon as any problems arise, they immediately call the NYC Compost Project (see "NYC Compost Project" on page 33) for troubleshooting assistance.

Use of Finished Compost

Most finished compost is used to rebuild soil in urban green spaces. Urban green spaces include community gardens, urban farms, street trees, and parks. A smaller percentage of sites also use compost to reward volunteers and drop-off participants to incentivize community participation.

How is compost produced by NYC community compost sites used?



Most of NYC's community compost sites use the compost that they produce on-site. Seventy-two percent of survey respondents use the compost produced at their site exclusively on-site, while 25 percent use finished compost on-site and off-site, and only 3 percent produce compost solely for off-site use.

Given that the vast majority of compost produced by NYC's community compost sites is used on or near the site where it's produced, it is premature to conduct an assessment of markets for finished compost within the City. However, some of the highest performing community compost sites do sell compost and use the revenue generated to cover a small percentage of their operating costs.

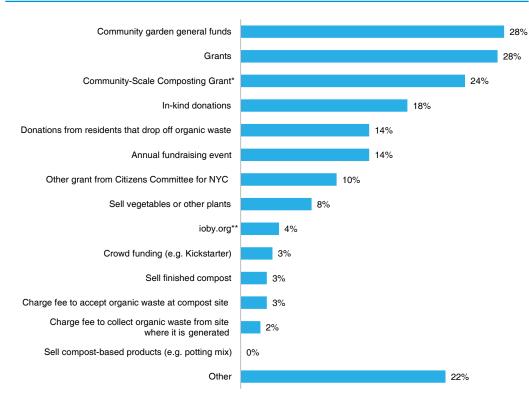


NYC's largest community compost sites Lower East Side Ecology Center (LESEC) in Manhattan and Build It Green!NYC (BIG!NYC) in Queens sell finished compost to the general public. LESEC (pictured above) is able to cover a small percentage of their operating costs through sales. BIG!NYC recently started selling compost.

Funding Models

Many of NYC's community compost sites are funded by community garden membership fees or small grant-making programs. Twenty-eight percent of survey respondents use their community garden's general funds to purchase composting equipment. Twenty-eight percent of respondents were awarded grants for their composting system; 24 percent of which received a Community-Scale Compost Grant (see "Other Programs" on page 40). Other common fundraising strategies include hosting annual fundraising events, soliciting donations from drop-off program participants, and requesting in-kind donations.

How are NYC community compost sites funded?



"So far this has been a labor of love, with space and tools provided by the garden, and scraps provided by the community. I have funded any purchases (which have been kept to an absolute minimum). I would like the program to expand, and to do that, some funding would have to be a part of the picture. I would welcome support, but would like the actual distribution of finished compost or any other services be donationbased [to make compost accessible to all1."

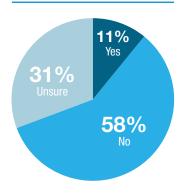
-Brooklyn community composter

Some NYC community compost sites are interested in generating revenue.

Currently, however, only 3 percent of survey respondents described their operations as businesses. One respondent manages a for-profit organic waste collection and composting service. For the majority of these respondents, however, the compost operation does not directly generate revenue and is instead embedded in a larger operation. For example, one of these sites is a for-profit urban farm, which uses their finished compost to grow produce that they sell.

Four sites sell finished compost. Of those, three are nonprofit organizations that have paid staff who fully focus on composting. These sites aim to sell compost to generate revenue so they can grow their composting operation and reduce their dependence on grants and government funding. One respondent is a volunteer-run urban farming operation that similarly is exploring diverse ways to offset operating costs.

Do NYC's community compost sites plan to include revenue generation as part of their model?



^{*}Sponsored by the Manhattan Solid Waste Advisory Board, Manhattan Borough President Gale Brewer, and Citizens Committee for NYC.

^{**}ioby.org is a crown-resourcing platform for citizen-led, neighbor-funded projects.

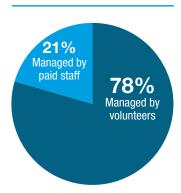
Five respondents indicated they charge fees to either accept organic waste on-site (e.g. charging a fee for a restaurant to drop off food scraps at compost site) or to collect organic waste from the site where it is generated (e.g. picking up coffee grounds from a coffee shop).*

Of the sites that do not presently include revenue generation through sales or fees for services in their financial models, the majority (58 percent) do not intend to do in the future and 31 percent are unsure whether they will do so. Eleven percent, however, would like to include revenue generation as part of their financial model.

Volunteers vs. Paid Staff

The majority of NYC's community compost sites are volunteer-run community groups. Fifty-three percent of survey respondents indicated they are community groups. These are generally groups of neighbors or members of community spaces who work together to maintain a community compost site.

What percentage of community compost sites are volunteer-run?



A growing number of sites (21 percent) are managed by paid staff. Funding to pay staff often comes from a variety of sources, such as grants (11 sites), compost sales (2 sites), fees charged to accept and compost organic waste (2 sites), and general operating funds (6 sites).

At many of these sites, paid staff have other responsibilities beyond the composting operation—for example, a school teacher who manages the compost site in the school garden.

Whether managed by paid staff or volunteers, many survey respondents indicated that one person primarily manages their compost operation and that volunteer recruitment is one of the most significant challenges confronted by compost sites (see Appendix).

Forty-three percent and 28 percent of respondents rated recruiting new volunteers as "somewhat challenging" and "very challenging," respectively. The majority of survey respondents also identified "securing adequate labor to manage their composting system" as a challenge.

^{*}It is possible that this number is higher than reported because several compost site managers have voiced concern about the regulatory requirements associated with hauling waste in NYC. Currently, entities that operate commercial waste removal businesses are required to secure a license with the Business Integrity Commission (BIC).

Profiles of NYC Community Compost Sites

While NYC community compost sites strive to achieve similar missions (see "Mission" on page 7), each individual compost site developed from the ground up, responding to unique community needs and circumstances. This section highlights five different community compost sites in NYC to demonstrate the diversity of community composting models.

The Clinton Garden at DeWitt Clinton High School

Mission. The Clinton Garden (TCG) at DeWitt Clinton High School educates students about sustainable practices that include composting, recycling, and food awareness. Its goal is to transform as much food waste and garden trimmings as necessary to meet the expanding need to nourish and grow The Clinton Garden.

Site. Located at a public school in Norwood, Bronx, the site devotes 120 square feet to its composting operations.

Management. The site is managed by a teacher who is a certified NYC Master Composter. Teachers and students also volunteer their time to maintaining the site, which is open year-round.

Funding. TCG secured several grants to fund its work, including grants from the Citizens Committee for NYC and ioby.org. It also received funding through DSNY's Golden Apple Awards, which rewards school sustainability, recycling, and composting projects. Additionally, it raised funds through donations generated by crowd funding, and it sells vegetables and/or other plants grown in the garden.

Composting System. TCG uses a variety of composting systems, including single- and multi-bin systems, tumblers, and worm bins.

"We have started a culture of composting, however small. I think we can help promote [NYC Organics Collection] and in this way contribute to its impact."

TCG recently purchased equipment to expand its operations with a community composting grant from Citizens Committee. The new equipment has been used

for monthly Garden to Cafe events, and will soon be used for collecting waste from the high school's salad bar and coffee grounds from several offices.

Organic Waste. TCG composts leaves, garden trimmings, fruit and vegetable scraps, grains and bread, nutshells, egg shells, and newspaper. This waste is sourced on-site from the garden and school cafeteria, as well as

off-site from nearby residents, who are members of the site and drop off organic waste during open hours. Additionally, the TCG registered with the NYC Compost Project to receive leaves from residents.

Each month, TCG composts approximately 15 gallons of garden trimmings; 10 gallons of food scraps; and five gallons of leaves, wood chips, or wood shavings. TCG has a need for producing a larger quantity of compost for its garden and campus.

"Since it is a school site and I currently have three sustainability classes, many of the issues of recruitment and staffing are not presently problematic. We are developing hands-on, project-based curriculum, and 'problems' have become opportunities."

Finished compost is used onsite for growing vegetables, flowers, and/or perennials. It's also used for ecological habitat restoration.

Community Services.

TCG stewards green spaces and provides free finished compost for local greening or gardening projects. It

helps educate community members about composting by teaching workshops on how to make and use compost, and offers tours of its compost site. Finally, it offers leaf and yard waste drop-off opportunities for NYC residents.

*Quotes attributed to site member and certified NYC Master Composter Ray Pultinas.

"I'd like to see DSNY acquire a more visible presence in our school. Wouldn't it be great if the people in uniform in our school were not just security officers, but sustainability patrols? I feel sustainability should be at the foundation of educational programming and curriculum development in every school."



Dewitt Clinton High School uses a variety of composting systems to process organic waste, including wood and wire bins, tumblers, and worm bins.



Finished compost is used in the school garden.



A student participating in The Clinton Garden Summer Internship sifts compost.

PROFILE #2: COMMUNITY GARDEN COMPOST SITE IN QUEENS

SunnyCompost

Mission. SunnyCompost is a local food scrap drop-off site for the neighborhood of Sunnyside and parts of Woodside in Queens. It collects food scraps to turn into compost, and distributes the finished compost to surrounding communities. The site also teaches its neighbors about why composting is important.

Site. SunnyCompost is a GreenThumb-registered community garden in Sunnyside, Queens.

Management. SunnyCompost is a volunteer-run community group with fiscal sponsorship. It's led by a certified NYC Master Composter and is open all year.

Funding. This site is funded by a Community-Scale Compost Grant from the Citizens Committee for NYC.

Composting System. The site composts using tumblers and a multi-bin system.

Organic Waste. SunnyCompost processes leaves, plant trimmings, fruit and vegetable scraps, grains and bread, nutshells, egg shells, and newspaper. Local residents are welcome to bring their food scraps during open hours (currently three hours per week).

Each month, the site composts approximately one tumbler of yard waste or garden trimmings; two to three tumblers

"Sunny Compost aims to educate more people in the community about composting so that when DSNY rolls out [NYC Organics Collection in this neighborhood] people will be more informed on what to do. It won't be so foreign to the community."

of leaves, wood chip, or wood shavings; and four to five tumblers of food scraps. Finished compost is used on- and off-site for gardening, park stewardship, and street tree care. SunnyCompost also rewards volunteers and community members who drop off their food waste with finished compost. Twice a year, the site hosts an open house where it

donates compost to community gardeners and anyone who needs it for community greening projects.

Community Services. Beyond providing free finished compost for local greening or gardening projects, SunnyCompost educates its community about how to make and use compost and provides tours of its site. It also provides weekly food scrap and leaf/yard waste drop-off opportunities to local residents.

*Quotes attributed to SunnyCompost site managers Ruth Groebner and Madelene Deleon.

"We fill a real need in our neighborhood, particularly in the winter when the NYC Compost Project food scrap drop-off site at Sunnyside Greenmarket is closed. We are the only composting site in our area open all year round."



SunnyCompost's goal is to educate their community about the importance of composting, along with providing organic waste drop-off opportunities.



SunnyCompost uses tumblers made from re-purposed pickle barrels (left) and a wooden multi-bin system (right) to compost.



SunnyCompost volunteers sift finished compost, which is distributed to neighborhood trees, public green spaces, and schools.

PROFILE #3: "COMPOST FIRST" SITE IN BROOKLYN

Compost for Brooklyn

Mission. Compost for Brooklyn (CFB) empowers city residents to sustainably reduce waste and cultivate healthy urban ecosystems. It does this by offering free community composting, planting urban gardens, and teaching workshops in local schools and organizations

Site. CFB is located on a private property in Kensington, Brooklyn. With the land owner's permission, an approximately 2,500-square-foot vacant lot was transformed into a "compost first" site, referring to a site primarily focused on composting and/or compost education, unlike a school or some community gardens that have other primary or parallel missions. The site is, secondarily, a native plant garden.

Management. The site is founded and led by certified NYC Master Composters. It's a community group with fiscal sponsorship through the Open Space Institute's Citizen Action Program. It's volunteer-run, and open all year.

Funding. The site is funded by grants, including grants from ioby.org and Citizens Committee for NYC, as well as by in-kind donations and periodic fundraising events such as used book sales and event donations.

Composting System. CFB processes organic waste in tumblers, although the management team is discussing increasing the site's ability to become a compost demonstration site—a site that adheres to best composting practices—by installing new compost systems, including

one in which the aeration is powered by solar energy and a bench compost bin.

Organic Waste. CFB composts leaves, garden trimmings, fruit and vegetable scraps, grains and bread, egg shells, newspaper, food-soiled paper, wood shavings,

"People who have participated in community composting will already be prepared to compost and will understand why it's important."

and wood chips. The general public is invited to drop off food scraps during specified open hours. Organic waste is also generated on-site from leaves and garden trimmings.

The site composts 230 lbs.

of food waste each month. Finished compost is used onsite and off-site for community gardening, street tree care, and to reward volunteers and drop-off participants.

Community Services. In addition to providing compost education and drop-off opportunities to the general public, over the past year CFB has worked with a group of young adults with disabilities from a local program—Yachad—who visit the garden regularly and participate in various garden and compost activities.

*Quote attributed to CFB site member Natalia Sucre.



Compost for Brooklyn currently processes organic waste using a four-bin tumbler composting system. It's considering alternative composting systems to expand its capacity.



Compost for Brooklyn organizes work days to care for street trees.



A volunteer applies nutrient-rich compost to depleted soil around a street tree.

Christ Church New Brighton

Mission. Christ Church New Brighton (CCNB) collects and composts vegetable scraps from its members, as well as members of Staten Island CSA (community-supported agriculture).

Site. The church located in New Brighton, Staten Island devotes 30 square feet to composting.

Management. Compost operations are entirely volunteerrun. The site is open all seasons except winter.

Composting System. The site uses a three-bin composting system.

Organic Waste. CCNB composts leaves, plant trimmings, small branches, fruit and vegetable scraps, grains and bread, nutshells, egg shells, compostable foodservice ware or packaging, compostable bags, newspaper, food-soiled paper, wood shavings, and wood chips. (A site manager notes they get almost no compostable bags or packaging, but they won't turn it away.)

As previously mentioned, this waste is sourced from members of CCNB and from members of the Staten Island CSA who bring their organic waste to the site.

Finished compost is given to site members and also used in the church's community garden.

At most, the site produces one cubic yard per year of finished compost. This is largely because of a lack of participation/organic waste intake. This makes compost giveaway difficult because demand outweighs supply by an order of magnitude.

Community Services. In addition to accepting and processing members' organic waste and rewarding members with finished compost, CCNB hosts workshops on how to make or use compost.

*Quote attributed to CCNB compost site member Andrew Blancero.

"For me, a 'good food community' doesn't only support local farmers, it also makes sure food doesn't go to waste."



Staten Island CSA members drop off food scraps before picking up their CSA share.



A volunteer helps add wood chips to cover food scraps. Carbon-rich materials like wood chips are a necessary ingredient for composting.



Christ Church uses a three-bin composting system built by the NYC Compost Project.

Sherman Creek Compost Project

Mission. Sherman Creek Compost Project (SCCP) reduces waste and educates its local community about sustainability and urban ecology while producing compost to use in New York Restoration Project (NYRP)-managed spaces.

Site. The 1,500 square foot compost site is located at an NYC Park in Inwood, Manhattan.

Management. SCCP is an NYRP New York State registered charity and IRS tax-exempt organization. It's manged by paid staff and is open all year, seven days a week.

Funding. The site is funded by park and garden general operation funds, community garden general funds, individual and corporate donors, grants, and an annual fundraising event.

Composting System. SCCP uses a variety of composting systems, including a multi-bin system, windrows, and vermicomposting.

Organic Waste. The site composts leaves, garden trimmings, fruit and vegetable scraps, nutshells, egg shells, wood shavings, and wood chips. This material is sourced from a community garden, nonprofit organizations, NYC Parks, NYCHA property grounds, school grounds, woodworkers, and the general public. NYC residents and businesses can drop off organic waste at the site. Residents can also bring their organic waste to designated off-site drop-off sites.

Because the site is focused on building local relationships, they partner with other organizations and community groups. For example, the site composts leaves from Columbia University's Bakers Athletic Complex, organic waste from Inwood Greenmarket (approx. 50 tons per year), landscaping debris from NYRP's network of community gardens and 85 acres of public park land (approx. 100 tons per year), and waste from a Christmas tree company.

Each month, SCCP composts approximately 2,000 lbs. of yard waste and garden trimmings; 2,000 lbs. of leaves, wood chips, and wood shavings; and 7,500 lbs. of food scraps.

SCCP would like to grow so that it could roughly double its capacity for all categories of organic material. This will require investment in new equipment, training, and registration with the Department of Environmental Conservation (DEC).

Free finished compost is offered to citywide greening and gardening projects. It's used both on- and off-site for community gardening, community giveaways or donations, erosion control and water retention, habitat restoration, park stewardship, and street tree care.

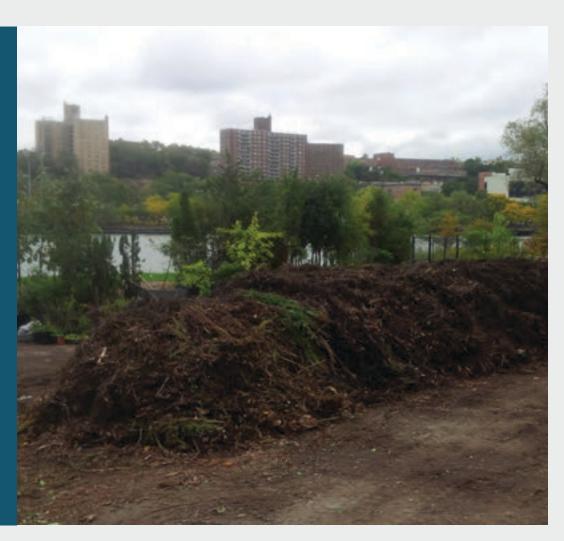
The site maintains different compost piles for different end uses. For example, it will create compost in one pile to use specifically for habitat restoration, and compost in another pile to use for vegetable gardening. It processes leaves independently to make leaf mold, a valuable soil amendment.

The site is limited by requiring those who accept finished compost to sift it, or to use unsifted compost.

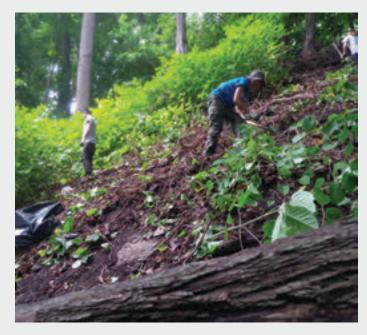
Community Services. In addition to its composting drop-offs and giveaways, SCCP offers workshops on how to make or use compost, provides tours of its site, and delivers "browns" to local compost sites. Site managers are also interested in sharing their expertise with other community compost sites regarding how to use finished compost as part of a sustainable horticulture program.

*Quote attributed to NYRP's Regional Director for Northern Manhattan Jason Smith.

"As we work to adapt the landscape to climate change, we feel composting will become even more critical to sustainable land management. **Healthy soils retain** more carbon, and compost programs reduce methane emissions from landfills. Composting is a powerful way for **NYRP** to share this understanding of ecology with New Yorkers eager to do their part caring for green spaces."



Compost windrow at Sherman Creek Compost Project. Windrows can process large amounts of organic waste.



NYRP Crew and volunteers remove and compost Japanese knotweed from the forests of Highbridge Park.



This peony garden installed and maintained by NYRP on the Harlem River Speedway likes lots of compost.

Resources for NYC Community Compost Sites

There are several programs in NYC that work to support and expand community composting locations in each of the five boroughs. This section describes how the NYC Department of Sanitation has invested in this work for over two decades. It also describes non-DSNY funded programs that have emerged more recently.

DSNY Programs

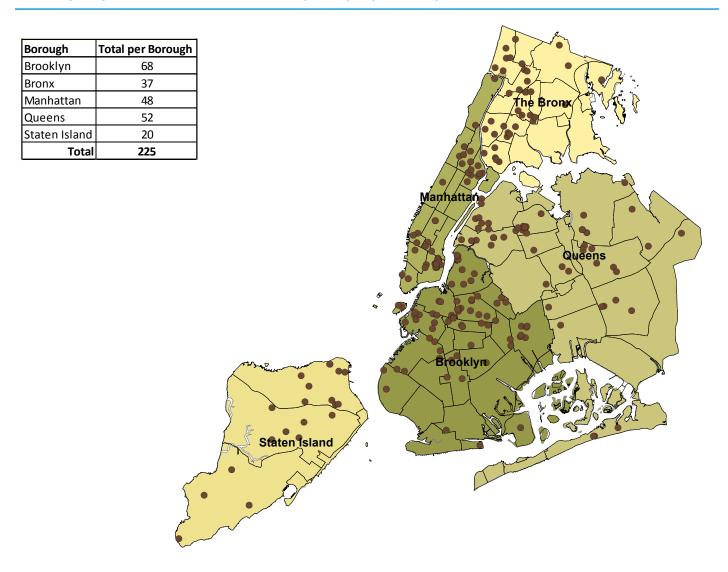
Two DSNY programs—the NYC Compost Project and the NYC Community Composting Council—have a primary mission to support community compost sites. Through these programs, DSNY works with over 225 affiliated compost sites.

NYC Compost Project

Since it was established over 20 years ago, the NYC Compost Project (NYCCP) has focused on building public support for and participation in composting from the ground up through education and outreach. It leveraged partnerships with cultural institutions and nonprofit organizations to develop close relationships to community groups, residents, institutions, and businesses.

Initially, DSNY partnered with the NYC Department of Cultural Affairs to host DSNY-funded staff to implement NYCCP activities at the city's four botanic gardens: Snug Harbor Cultural Center & Botanical Garden on Staten Island; Queens Botanical Garden in Queens; The New York Botanical Garden in the Bronx; and Brooklyn Botanic Garden in Brooklyn. Later, in 2006, a host site in Manhattan was established at the Lower East Side Ecology Center.

Community Compost Sites Affiliated with the NYC Compost Project (Brown Dots) in Fiscal Year 2014



Its cornerstone educational initiative was, and remains today, the NYC Master Composter Certificate Program. This advanced composting course trains a select group of interested New Yorkers every year to develop, maintain, and revitalize community composting projects across the five boroughs. Over the years, DSNY watched graduates of this program go on to run highly sophisticated community compost sites that met a real demand in their local communities for organic waste recycling and neighborhood greening projects.

DSNY observed that, by making and using compost in community gardens, street tree beds, parks, and other shared public spaces, these Master Composters and other urban composters were changing the way New Yorkers saw their apple cores and eggshells—instead of waste, they began to see a valuable resource. To build on the success of these mostly volunteer-led initiatives and to expand the capacity of NYC's highest performing community composting sites, in 2012 DSNY expanded the NYCCP's mission beyond education and outreach to host community-based composting operations. As part of this expansion, DSNY added two additional NYCCP host sites: Build It Green!NYC and Earth Matter NY.

Today, NYCCP focuses on these six program areas:

1. Local organics recovery. NYCCP operates food scrap drop-off sites in all five boroughs. The organic waste accepted at these and some GrowNYC Greenmarket drop-off sites is composted locally at sites managed by community partners and NYCCP (see "Community Compost Sites Funded by DSNY" on page 38). Drop-off sites are located at farmers markets, subway stations, public libraries, and other popular locations. In FY14, NYCCP accepted and composted 1,784,012 pounds (892 tons) of residential organic waste at 17 drop-off sites. The number of drop-off sites will increase in March 2015.

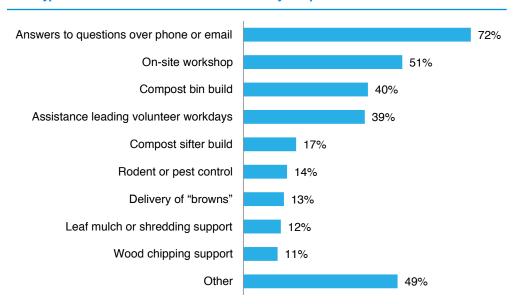


Queens residents drop off organic waste at an NYC Compost Project food scrap drop-off site at the Forest Hills Greenmarket.

NYCCP also helps divert organic waste generated at large public events such as the Five Boro Bike Tour, the NYC Century Tour, and MillionTreesNYC volunteer planting events (in collaboration with the NYC Parks Department). It works with event organizers to place collection bins in convenient locations, monitors bins to ensure event participants are sorting their waste correctly, and transports and composts the organic waste at nearby sites.

2. Technical assistance. NYCCP provides technical assistance to community composters, which includes guidance on constructing composting systems, managing volunteers, preventing and resolving neighborhood conflicts, sourcing and managing organic waste materials, and more. NYCCP teams also sell low-cost composting equipment and manage a Compost Help Line to answer questions and to troubleshoot problems over the phone or by email. In FY14, NYCCP conducted 155 technical assistance activities, guiding 1,109 community composters on constructing composting systems, managing volunteers, preventing and resolving neighborhood conflicts, sourcing and managing materials, and more. NYCCP also organized 37 compost workdays, attended by 512 volunteers, to support community compost sites.

What types of technical assistance have community compost sites received from NYCCP?



78%

of survey respondents indicated they had received technical assistance from the NYC Compost Project.

3. Education and training. NYCCP provides compost education and training for New Yorkers of all ages. In FY14, NYCCP provided 139 workshops for 2,470 New Yorkers, including youth and adults, at venues across the five boroughs.

NYCCP also offers an advanced Master Composter Certificate Program that trains a select group of interested New Yorkers every year to develop, maintain, and revitalize community composting projects across all five boroughs. The Master Composter Course is offered annually in each of the five boroughs. In addition to passing the six to seven week long course, students are required to complete 30 compost-related service hours to gain certification. Since its founding, NYCCP has trained 482 Master Composters. To meet demands for more advance training, in 2015 NYCCP is publishing a new educational manual to accompany the course that heavily emphasizes effective urban compost site design and management.

- 4. Public engagement. NYCCP provides composting information and interacts with tens of thousands of New Yorkers each year. NYCCP teams host information tables, give public presentations, lead tours of compost sites, and offer a range of opportunities for New Yorkers to get involved at all stages of the composting process—from accepting food scraps, to processing food waste, to using finished compost. In FY14, NYCCP conducted nearly 300 outreach activities reaching approximately 13,800 people, and engaged 4,300 volunteers.
- **5. Compost and mulch distribution.** NYCCP distributes locally-produced compost and mulch to support community gardens and other neighborhood greening projects. In FY14, NYCCP supported DSNY in distributing over two million pounds of DSNY-produced compost, mulch, and potting mix.
- 6. Urban farming. NYCCP's newest program area aims to increase support for composting by showing New Yorkers firsthand how compost is vital for food production.



The NYC Compost Project provides compost to greening projects.

NYC Community Composting Council

As community compost sites grew in number and in size, DSNY saw a great need for knowledge sharing among site operators since many encounter similar challenges. In fall 2013, DSNY established the NYC Community Composting Council (NCCC). Facilitated by DSNY, the NCCC invites community compost site managers, compost educators, urban farmers, and advocates to periodic events aimed at 1) cultivating relationships between these groups; 2) identifying, articulating, and sharing best compost site management practices; and 3) creating a forum for dialogue with policy makers and regulatory bodies such as the Department of Environmental Conservation (DEC) and the Business Integrity Commission (BIC), which respectively regulate solid waste facilities and hauling trade waste.

Many site managers have developed innovative management models that address the unique challenges of urban composting. By bringing these managers and educators together to share their experiences and expertise, the NCCC lets them learn from one another. The NCCC also enables DSNY to regularly receive feedback about the challenges site managers face and the solutions they have devised so that DSNY (through the NYCCP) can develop better resources to support the larger citywide network of compost sites.

Since its first assembly in fall 2013, the NCCC has connected with approximately 100 site managers, educators, urban farmers, and advocates.



Small group discussions at the first NYC Community Composting Council meeting in November 2013.

"Through focused discussions with other community composters, I have learned so much and already have new ideas for tackling challenges at my site. When you are working on your own project, you don't have a sense that others are encountering the same problems. I hope we can work with the NYC Compost Project and the NYC Community Composting Council to do more of this."

—Focus group participant

COMMUNITY COMPOST SITES FUNDED BY DSNY

The four sites profiled here are wholly or partially funded by DSNY and managed through the NYC Compost Project (NYCCP). All sites are registered with the Department of Environmental Conservation (DEC). While all sites focus on composting residential organic waste—accepted at food scrap drop-off sites operated by NYCCP and GrowNYC's Office of Recycling Outreach & Education (OROE)—each use different management models and composting systems.

All of these sites started as small, volunteer-led initiatives. They have grown to become leaders in NYC's network of community compost sites, and in doing so have shaped the national conversation about implementing successful models of community composting in urban locales.



Queensbridge Park Compost Site

The NYC Compost Project hosted by Build It Green!NYC operates NYC's largest community-based composting operation and manages a network of residential food-scrap drop-off sites in western Queens and northern Brooklyn. They accept approximately one million pounds of organic waste annually, all of which is composted using a covered aerated static pile system designed by Sustainable Generation (pictured above). This team developed and piloted the first "Commuter Composting" drop-off site in NYC to make composting more convenient by locating food scrap drop-off sites near entrances to public transportation stations. The material they accept is composted locally and finished compost is donated to community gardens, to steward street trees, and to support public beautification projects.



Compost Learning Center on Governors Island

The NYC Compost Project hosted by Earth Matter NY operates a composting program on Governor's Island through which all of the island's organic waste is collected and processed, as part of DSNY's Zero Waste Island initiative. At their Compost Learning Center they train apprentices and showcase a variety of composting devices and methods to demonstrate how New Yorkers can process organic waste in their own yards. They also show how chickens can be used to help aerate compost piles, and how chickens, rabbits, and goats provide nutrient-dense droppings to make high-quality compost. This team accepts and composts approximately 500,000 pounds of organic waste annually.



East River Park Compost Yard

The Lower East Side Ecology Center is NYC's oldest community composting operation of its scale. It hosts five food scrap drop-off sites, four of which are located near public transportation stations (known as "Commuter Composting"), and composts the accepted food scraps in East River Park using a combination of in-vessel composting and vermicomposting systems. This work is partially funded through the NYC Compost Project.



Red Hook Community Farm

The NYCCP-funded operation at Red Hook Community Farm is the largest entirely hand-turned, solar-powered community composting operation in NYC. Approximately 300,000 pounds of organics are composted at this site annually. These organics primarily come from GrowNYC's Greenmarket composting program, an on-site residential drop-off program, and the Red Hook Community Farm itself. Most of the finished compost produced at the site is used to amend soils on the farm and grow food.

Golden Shovel Award

As part of its Golden Apple Awards program, which provides prizes to incentivize school sustainability projects, in 2007 DSNY introduced the "Golden Shovel Awards." Each year, this program awards five public schools (one in each borough) that demonstrate an exemplary on-site composting project a \$1,000 prize.

Other Programs

Many organizations provide funding and resources for a broad variety of community projects, ranging from youth employment initiatives to building new community gardens. These resources, which include participatory budgeting, matching-fund opportunities with crowd-funding platforms like ioby.org, and small grant programs, support the growth of community composting.

Beyond these organizations, programs have emerged within the past three years that have a core mission to support NYC community composters. Two of these programs are profiled below, though others might exist.

Community-Scale Compost Grants, sponsored by the Manhattan Solid Waste Advisory Board, Manhattan Borough President Gale Brewer, and Citizens Committee for NYC

The Manhattan Solid Waste Advisory Board, founder of the Community-Scale Composting Grants, partnered with the Citizens Committee for New York City and Manhattan Borough President Gale Brewer to award grants to start, expand, and grow composting programs in all five boroughs.

To date, it has awarded 115 grants of up to \$750 (totaling \$71,457) to community groups working on neighborhood composting programs. Groups eligible for funding include community associations, community gardens, Friends of Park groups, housing development groups, nonprofits, schools, colleges and universities, hospitals, and private businesses. Grants can be used to purchase materials to start or expand a composting program.

Twenty-four percent of community compost sites surveyed received a Community-Scale Compost Grant.

The Five Borough Farm Data Collection Toolkit and Farming Concrete Website

As part of their Five Borough Farm project, the Design Trust co-developed a data collection toolkit with farmers and gardeners to fill the need for urban agriculture data nationwide. The toolkit includes a total of sixteen protocols organized into five categories: Food Production Data, Environmental Data, Social Data, Health Data, and Economic Data.

The Design Trust established a collaboration with Farming Concrete to develop its online data platform at www.farmingconcrete.org/barn to track other meaningful contributions farms and gardens make to residents, communities, and the city at large. Using the website, farmers and gardeners can generate custom reports to support their goals.

The Design Trust and Farming Concrete's collaboration also lead to a new public portal to access the data at www.farmingconcrete.org/mill. Here, researchers, policy makers, and funders can download unidentified raw data and view visualizations of the available data that has been aggregated by options such as type of garden and geography.

Recommendations

This section outlines recommendations for how the City can expand community composting locations in each of the five boroughs and optimize the use of existing community composting locations and resources.

DSNY Strategies in Progress

Through the focus groups and survey conducted for this report, as well as at NYC Community Composting Council meetings in 2014 (see page 37), NYC community compost site managers have articulated several challenges that limit their capacity to pursue their three-fold mission to 1) Care for public green space; 2) Demonstrate how to compost, and 3) Provide opportunities for their communities to recycle organic waste locally.

The most commonly expressed challenges include:

- Recruiting and managing volunteers
- Promoting compost site services to the public
- Securing funding
- Securing a steady supply of carbon-rich materials (e.g. leaves, sawdust, wood), and chipping/shredding these materials
- Sharing knowledge (e.g. management models) and resources (e.g. garden tools) among sites
- Accessing advanced training on compost site management and organizational management
- Understanding City and State regulations related to compost sites and land use

The NYC Compost Project (NYCCP) continues to address the evolving needs of community compost sites in NYC. In 2014, NYCCP implemented major program changes and updates to prioritize technical assistance to community compost sites; expand the number of organic waste drop-off sites across NYC; and re-focus its Master Composter Certificate Program (see page 35) and a compost site recognition program to emphasize and recognize best practices for managing urban compost sites.

Additionally, a major new focus of the NYCCP is to ensure that community compost sites understand and are in compliance with City and State regulations. In 2014 DSNY began facilitating informational meetings between regulating bodies and community composters to build greater understanding of NYC and NYS regulations pertaining to waste removal and processing activities among community composters, and build greater understanding of NYC community composting among regulators.

Recommendations

The following recommendations outline how the City could further optimize the use of existing compost sites and resources as well as expand community composting locations in each of the five boroughs.

1. Fund more of NYC's existing community compost sites.

By providing funds to community compost sites, the City can optimize community-based capacity to produce high quality compost and rebuild NYC's soil and green spaces. Strategies for doing this include:

- Fund high-performing community compost sites through NYCCP. Over the past two years, DSNY has successfully demonstrated that by funding and managing the highest performing community compost sites through the NYCCP, such as those managed by Build It Green!NYC, Red Hook Community Farm, Earth Matter NY, and the Lower East Side Ecology Center, the City can dramatically amplify the impact of community composting. Currently, there are several community composting sites that are prepared to expand if funding for staffing were made available.
- Increase small grant-making programs for community compost sites. Small
 grant-making programs—like the Community-Scale Compost Grants sponsored by the
 Manhattan Solid Waste Advisory Board, Manhattan Borough President Gale Brewer,
 and Citizens Committee for NYC—can help sites purchase necessary equipment and
 maintain composting systems.

2. Offer more advanced training and resources through NYCCP.

By offering more advanced training, the City can provide community compost site managers with the expertise and confidence they need to manage and grow their compost sites. Strategies for doing this include:

- Offer the Master Composter Certificate Program multiple times a year in each borough. Currently, the Master Composter Certificate Program is offered once a year in each borough, and the NYCCP is only able to accept approximately 40% of program applicants. Offering the course multiple times a year will expand community composting in NYC not only because more New Yorkers can be trained, but also because this program follows a "train-the-trainer" model that equips Master Composters to teach others about composting in their local communities.
- Create toolkits for community compost site managers that directly address specific challenges identified in the survey. Toolkit topics might include: step-by-step guide to scaling up a compost site; volunteer recruitment and management; measuring impact; securing funding; and/or becoming a nonprofit organization.

3. Increase knowledge- and resource-sharing among NYC's network of community composters.

By increasing knowledge- and resource-sharing among compost sites, the City can build a more independent network of community compost sites that draw on one another's experience and expertise. A strategy for doing this is to: • Host an annual conference open to all community compost site managers, educators, advocates, and urban gardeners and farmers through the NYC Community Composting Council (NCCC). With more than 225 compost sites, hundreds of certified Master Composters, and a growing number of people employed in compost-related positions, NYC is home to a thriving network of composting advocates and professionals. Yet, there are currently few citywide opportunities for these groups to connect and work together to advance community composting in NYC. A conference would also create an opportunity for the City to accomplish other recommendations, such as measuring impact by surveying conference attendees; leveraging support for City diversion programs by sharing information and updates with conference attendees; offering advanced training to compost site managers from across NYC at once; and publicly recognizing the highest performing sites.

4. Regularly measure and share impact.

By regularly measuring and documenting the work of NYC's community compost site network, the City can ensure that the resources it provides, such as the NYCCP and NCCC, have the greatest impact. Additionally, sites that can generate accurate data and prove that their work has had a measurable impact are better positioned to seek and receive resources and grants beyond those described in this report (see "Resources" on page 32). A strategy for doing this is to:

• Conduct a bi-annual survey of community compost sites administered by the City, with a focus on documenting growth and changing needs of NYC's community compost site network. To enhance the information yielded through such a survey, the NYCCP should encourage better record-keeping and standardize data collection at community compost sites by leveraging support and existing methodologies offered by organizations, such as Farming Concrete and the Design Trust for Public Space. DSNY could then compile data from community compost sites and make available in aggregate to community composters, the public, regulators, and other stakeholders.

5. Leverage partnerships with community compost sites to support NYC diversion programs.

By equipping community compost site managers with the knowledge and appropriate materials to conduct outreach and education about NYC diversion programs, the City can build stronger support for these programs from the ground up. In both the survey and presurvey focus groups, a significant number of community compost site managers indicated their sites could be used for outreach on NYC diversion programs, and in particular, NYC Organics Collection. A strategy for doing this is to:

 Create NYC Organics Collection "demonstration kits" that include a brown organics bin and participation information that can be used for outreach at partner community compost sites in and near pilot areas.

Appendix

Rating of Community Composting Challenges

Management Task	Not challenging	Somewhat challenging	Very challenging	Not applicable	Rating Count
Accessing land to start compost site	53.9% (76)	20.6% (29)	7.8% (11)	17.7% (25)	141
Accessing land to expand compost site	34.5% (48)	18.7% (26)	23.0% (32)	23.7% (33)	139
Working with space constraints at your site	30.1% (43)	41.3% (59)	16.1% (23)	12.6% (18)	143
Choosing the right composting system for your site	48.3% (69)	35.7% (51)	7.0% (10)	9.1% (13)	143
Recruiting new volunteers	14.5% (21)	43.4% (63)	27.6% (40)	14.5% (21)	145
Coordinating and managing volunteers	25.9% (37)	44.1% (63)	16.8% (24)	13.3% (19)	143
Securing adequate staffing or labor to manage your composting system	20.1% (29)	44.4% (64)	26.4% (38)	9.0% (13)	144
Managing odors	62.9% (90)	25.9% (37)	2.1% (3)	9.1% (13)	143
Managing pests	55.2% (79)	30.8% (44)	4.9% (7)	9.1% (13)	143
Troubleshooting and solving problems	52.1% (74)	40.1% (57)	4.2% (6)	3.5% (5)	142
Accessing best management practices for urban community-based composting	53.9% (76)	29.8% (42)	6.4% (9)	9.9% (14)	141
Managing relations with neighbors or other project stakeholders	54.2% (77)	28.9% (41)	4.2% (6)	12.7% (18)	142

Management Task	Not challenging	Somewhat challenging	Very challenging	Not applicable	Rating Count
Tracking participation	34.0% (48)	31.9% (45)	10.6% (15)	23.4% (33)	141
Measuring your program's impact	27.5% (39)	40.1% (57)	13.4% (19)	19.0% (27)	142
Sourcing 'browns' such as leaves, wood chips, wood shavings	47.2% (68)	38.2% (55)	10.4% (15)	4.2% (6)	144
Chipping or shredding leaves and woody debris	27.5% (39)	29.6% (42)	33.8% (48)	9.2% (13)	142
Adequately managing the amount of organic waste that your site currently receives for composting	45.8% (65)	42.3% (60)	7.7% (11)	4.2% (6)	142
Sifting or screening finished compost	29.8% (42)	40.4% (57)	14.9% (21)	14.9% (21)	141
Meeting demand for finished compost	32.4% (45)	32.4% (45)	15.1% (21)	20.1% (28)	139
Distributing finished compost	54.3% (76)	18.6% (26)	5.0% (7)	22.1% (31)	140
Fundraising	17.9% (25)	35.7% (50)	24.3% (34)	22.1% (31)	140
Grant writing	16.4% (23)	40.0% (56)	20.7% (29)	22.9% (32)	140
Covering costs of equipment and/or compost system	29.5% (41)	38.1% (53)	21.6% (30)	10.8% (15)	139
Securing fiscal sponsorship or non-profit status	22.8% (31)	15.4% (21)	20.6% (28)	41.2% (56)	136

