

NYC ORGANICS COLLECTION PILOT AND REUSE INITIATIVES

Deputy Commissioner Bridget Anderson Deputy Director Katherine Kitchener

Bureau of Recycling and Sustainability

Game-Changing Initiatives for Solid Waste
The Cooper Union
June 10, 2015

ORGANICS MANAGEMENT

NYC ORGANICS MANAGEMENT

- Guiding Policies
- Organics in NYC's waste
- History of Organics Management in NYC
- Local Law 77 NYC Organics Collection
- Results, Opportunities and Challenges



GUIDING POLICIES

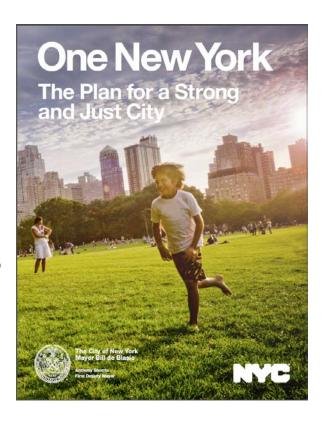
Diversion Mandates

- DSNY – 25% by 2020

One New York

Vision 3 "Our Sustainable City"

- New York City will send zero waste to landfills by 2030
- Expand the NYC Organics program to serve all New Yorkers by the end of 2018
- Reduce commercial waste disposal by 90 percent by 2030
- Require all food service establishments to source-separate food waste



WHY ORGANICS RECYCLING?

Methane

- Second most prevalent greenhouse gas in the US emitted from human activities.
- Landfills are the third largest source of methane emissions.

Topsoil

 Lost at an accelerated rate leading to soil erosion and agricultural challenges.

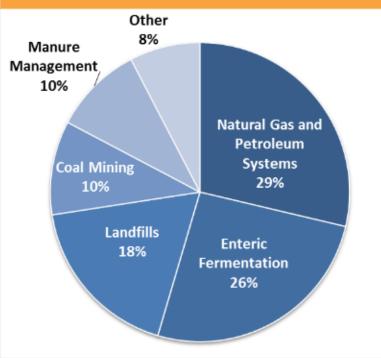
Compost

 Can be made from organic waste, helps to improve soil health, rebuild topsoil, and prevent erosion.

Energy Security

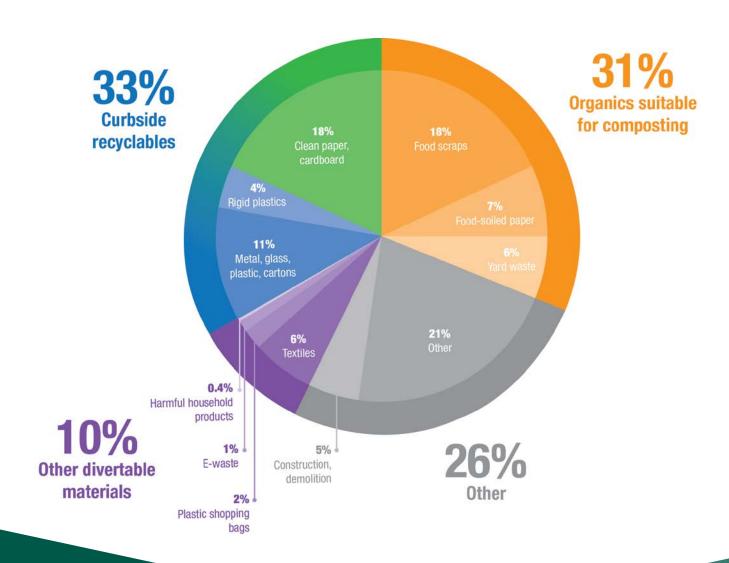
- An important component of building a sustainable, resilient city.
- Methane, created from organic waste, can be a local, stable source.





Note: All emission estimates from the *Inventory of U.S.* Greenhouse Gas Emissions and Sinks: 1990–2013.

2013 NYC RESIDENTIAL WASTE STUDY



HISTORY ORGANICS MANAGEMENT IN NYC

NYC Compost Project

- Community gardens and backyard composting
- Community drop-offs and local organics processing

Green Market Drop-Offs

- Started at Union Square
- Now in all five Boroughs

Seasonal

- Christmas tree collection and mulching
- Leaf and yard waste collection

Prior Pilots

- Organics Collection Pilots (1992)
- Backyard, On-Site, Decentralized Composting (1999)
- Mixed Waste Composting (2004)









LOCAL LAW 77 – NYC ORGANICS COLLECTION

Objective

- Curbside collection of
- Source-separated organic waste

Reach

 At least 100,000 households and 350 schools

Timeframe

- October 2013 - July 2015

Reporting

Every 6 months
 (final report – October 2015)



ACCEPTED MATERIALS

Food Scraps



Food-soiled Paper



Yard Waste





MATERIALS MANAGEMENT

- Emphasis on Education
 - Don't line bin
 - If lining bin, use paper or BPI-USCC certified compostable bags
 - No shopping bags
- Working with retailers to carry compostable bags
- Plastic liners allowed since 2014 to encourage participation
- Processing facilities monitor bag usage and other contamination issues







STARTER KITS

Schools



Residents





SOME HAPPY CUSTOMERS

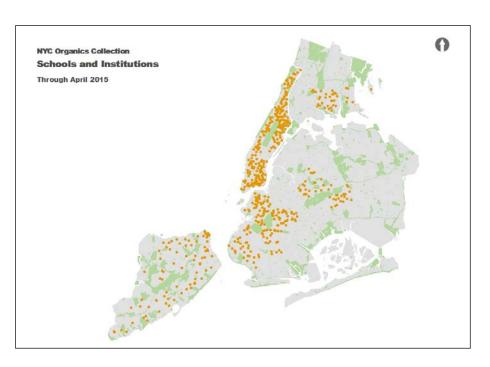


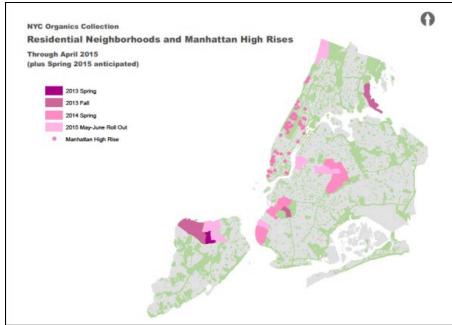
PARTICIPANTS THROUGH APRIL 2015

Customers	Schedule	#		
Houses and small apartment buildings	- 1x / week "on recycling day" - 2x / week "on trash day"	~105,100 households *		
High-rise apartment buildings	- 2x / week in Brooklyn - 3x / week in Manhattan	148 buildings		
NYC public schools	Every weekday, with recyclables	~ 722 schools		
Agencies, non-profits, and private schools	Variable, depending on location	various		

^{*} Adding ~ 33,000 in May-June 2015

PILOT LOCATIONS





ORGANICS PROCESSING

Composting

- DSNY-managed facilities
- Regional facilities



Anaerobic digestion

- Newtown Creek Wastewater Treatment facility (NYC Department of Environmental Protection)
- 1 year pilot



EVALUATION

Final Report: October 2015

- Tonnages collected
- Participation behavior (including contamination)
- Operations
- Processing
- Recommendations







PRELIMINARY RESULTS: RESIDENTIAL

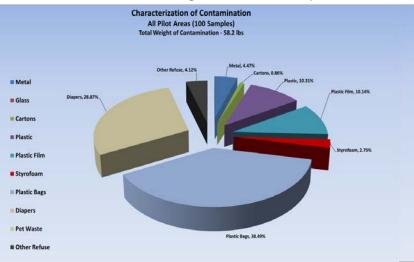
- Total tons collected (through April 2015): 6,716 tons

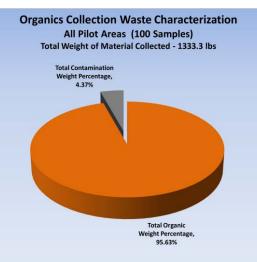
Average contamination rate (by weight): < 5%

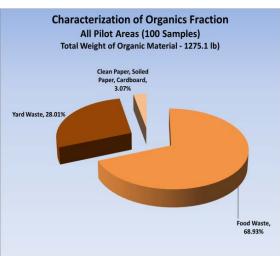
Average diversion rate in pilot areas: 23.8% to 37.4%

Significant potential to increase participation

Source: June 2015 Organics Pilot Report



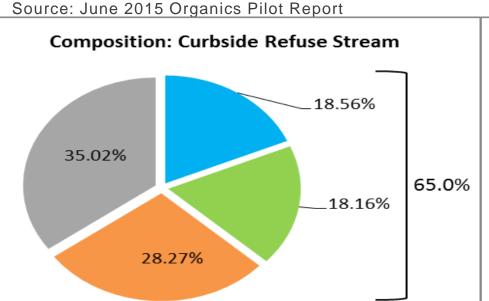


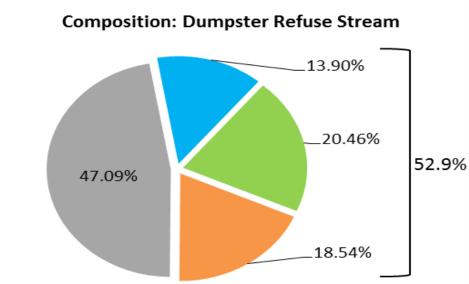


PRELIMINARY RESULTS: SCHOOLS

- Total tons collected (through April 2015): 6,563 tons
- Average contamination rate (by weight): between 4% and 10%
- Diversion rate in audited schools: 29.8% to 43.7%
- Significant potential to improve

Brooklyn School Audit: Recyclables and Organics Still in Refuse





CHALLENGES

Schools

Contamination and full participation

- Compostable trays by fall 2015
- Working on compostable utensils and other

Residential

Plastic bags and full participation

- Convenient access to compostable bags
- Education, communications and incentives







REUSE INITIATIVES

REDUCE REUSE RECYCLE

A hierarchy of priorities outlining the ideal way of achieving a zero waste goal

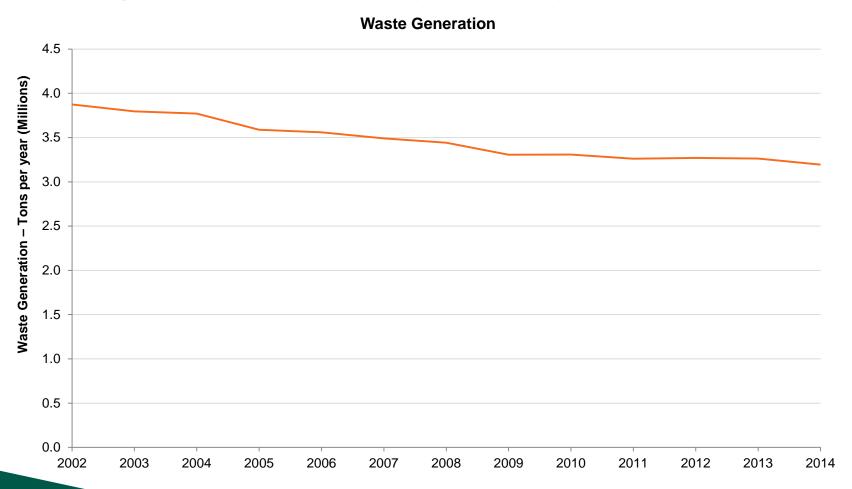
Reuse

- Reduces the amount of waste going to landfills
- Signifies economic savings for New Yorkers
- Funds the diverse missions of many nonprofit organizations



WHERE WE ARE TODAY

Waste generation in New York City has steadily declined since 2002.



NYC CENTER FOR MATERIALS REUSE



NYC CMR works to support, coordinate, and research the materials reuse and donations community of NYC.

REUSE INITIATIVES

Residents

- NYC Stuff Exchange

Businesses and Nonprofits

- NYC WasteMatch
- ReuseNYC

Schools and City Agencies

Materials for the Arts

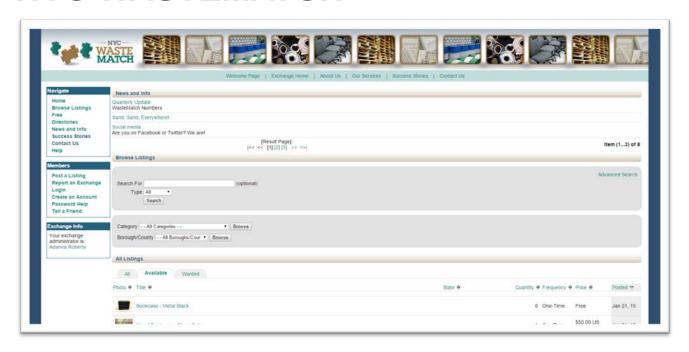


NYC STUFF EXCHANGE

- Website and app to find where to donate, buy, or sell gently used goods in NYC
- More than 600 listings of donation organizations and outlets
- Search by zip code, borough, or citywide
- Calendar for donation drives, swap meets, rummage sales



NYC WASTEMATCH



- 4,500 registered users
- Saves users over \$1.4 million in disposal and purchasing costs
- 750 tons of waste diverted annually
- Over 900 metric tons of CO2 Equivalents/1.2 billion BTUs of energy savings

HURRICANE SANDY RESPONSE

- Coordinated over 725,000 large-scale donors of unsolicited donated supplies
- Lead NYC's donations coordination team



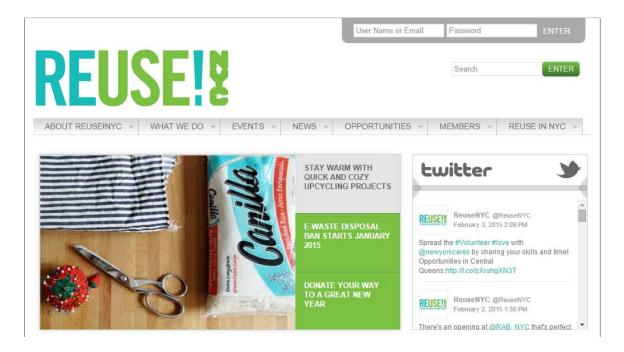
MATERIALS FOR THE ARTS (MFTA)

MFTA is New York's premiere reuse center, providing a way for companies and individuals to donate unneeded supplies to thousands of nonprofit organizations with arts programming and public schools.





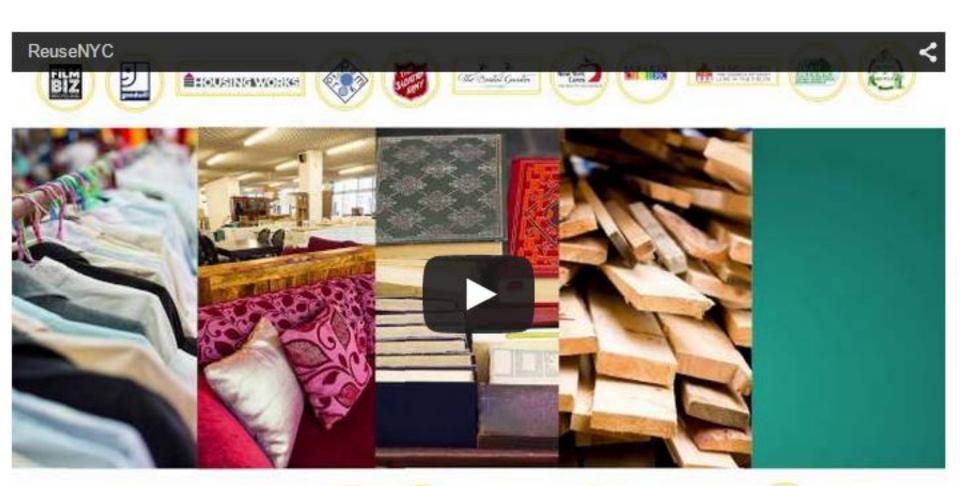
REUSENYC



Network of 30 nonprofit donation-based organizations

- Prevent waste
- Support NYC communities
- Strengthen local nonprofits

REUSENYC























REUSE IMPACT CALCULATOR

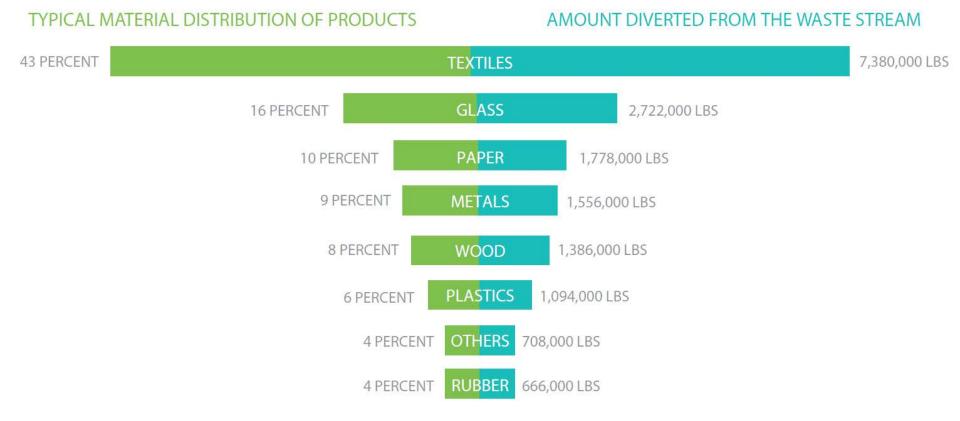


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Aluminum Ingot Asphalt Concrete

GPC Filters

REUSE MATERIAL CLASSIFICATIONS



MATERIAL CLASSIFICATIONS

"Others" includes marble, granite, and ceramic. Materials not classified nor listed above account for 1,582 tons of the overall total.

ENVIRONMENTAL IMPACT OF REUSE

ENVIRONMENTAL IMPACTS OF REUSE

In 2014, ReuseNYC members¹ distributed approximately **20,454,000 pounds** of material goods. The second-hand products distributed by members contributed to a reduction in greenhouse gas emissions of **32,100 metric tons of CO₂ equivalents** and energy savings of **355 billion BTU**². This emissions reduction is equivalent to³:



KEEPING 6,758 PASSENGER VEHICLES OFF THE ROAD EACH YEAR



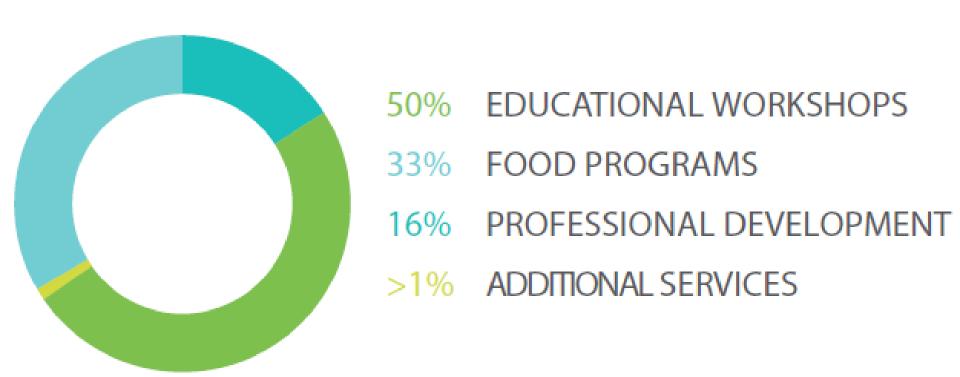
PREVENTING 34,479,055 LBS. OF COAL FROM BEING BURNED



THE AMOUNT OF CARBON SEQUESTERED EACH YEAR BY 26,311 ACRES OF FOREST

SOCIAL IMPACT OF REUSE

DISTRIBUTION OF SOCIAL SERVICES OFFERED



ADDITIONAL SERVICES Includes Family, Housing, Sheltering, Health Care, and Supportive Services

IMPACT OF REUSE



SAVED NEW YORKERS \$2,000,000



BUILD IT GREEN!NYC REUSENYC INFO/BUILDITGREENINYC

Build It Green!NYC (BIG!NYC) is a nonprofit social enterprise operating retail outlets for used building materials. Every year BIG!NYC diverts over four million pounds of lumber, cabinets, appliances, furniture, lights, plumbing fixtures, doors, and more from the landfill. The materials come from buildings being demolished or remodeled, as well as from film sets and building suppliers. BIG!NYC operates reuse centers in Astoria, Queens and in Gowanus, Brooklyn.







28+ ANIMALS



CAREERGEAR

CAREER GEAR REUSENYC.INFO/CAREERGEAR

Career Gear supports men in need who are looking to enter the workforce by providing them with professional attire, individual support, and the opportunity to participate in professional development workshops and an innovative mentoring program. Career Gear receives referrals from a diverse network of partner organizations and provides clients with services that help build their confidence and prepare them to become strong contributors to their families and communities.



CANCER Care

REUSENYC INFO/CANCERCARE

CANCER CARE THRIFT SHOP







Cancer Care provides free counseling, resources, and financial assistance to anyone affected by cancer. The Cancer Care Thrift Shop on the Upper East Side raises funds by offering a wide selection of designer clothing, iewelry, and other items for the home. All proceeds from sales in the thrift shop benefit Cancer Care's free professional services for people with cancer and their loved ones.







CAUZ FOR PAWZ REUSENYC.INFO/CAUZFORPAWZ



Cauz for Pawz is a nonprofit thrift store that promotes the health and well-being of all animals. The Kips Bay thrift store raises funds for animal welfare organizations, rescue groups, and no-kill shelters. The thrift shop also hosts pet adoptions and a community pet food pantry for animals in need. In the coming year, they will work toward providing low-cost neuter/spay clinics.



THANK YOU

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