Diversion Report III

NYC Organics Collection Pilot

October 2014 – April 2015

Submitted June 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**

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Contents

Introduction

On April 22, 2015, Earth Day, Mayor Bill de Blasio released One New York, a strategic roadmap for a strong, just city grounded in sustainability, resiliency and equity. Integral to One New York is a commitment to achieve Zero Waste to Landfills by 2030. The NYC Organics Collection pilot program, currently being implemented by the Department of Sanitation (DSNY) pursuant to Local Law 77 of 2013, positions the city to develop an informed, pragmatic and aggressive plan to divert organic waste in pursuit of this ambitious agenda.

Local Law 77 requires the Sanitation Commissioner to periodically report to City Council on the amount of organic waste diverted from participating households and schools.

Pursuant to this requirement, DSNY submits *Local Law 77 Diversion Report III*, covering the seven month period from October 2014 through April 2015. *Local Law 77 Diversion Reports I and II* were previously submitted to City Council on June 1, 2014 and January 1, 2015 respectively. These reports are available at www.nyc.gov/sanitation.

Key Findings

- From October 2014 to April 2015, DSNY collected over 6,700 tons of organic material from residents and schools almost doubling the tons diverted since the program's start for a total of more than 13,200 tons.
- Residential pilot areas continue to outperform the citywide average diversion rate with organics collection adding between 3.0 and 6.3 percentage points over traditional recycling.
- Residential contamination rates remain low, with plastic bags being the most prominent contaminant.
- The Department of Education has started to switch all schools from foam trays to compostable trays, removing one of the major contaminants to the school organics stream.
- Dual-bin trucks, piloted in the Bronx, successfully collected organics alongside refuse, with the exception of bulky waste, which required a supplemental truck service.

Schools

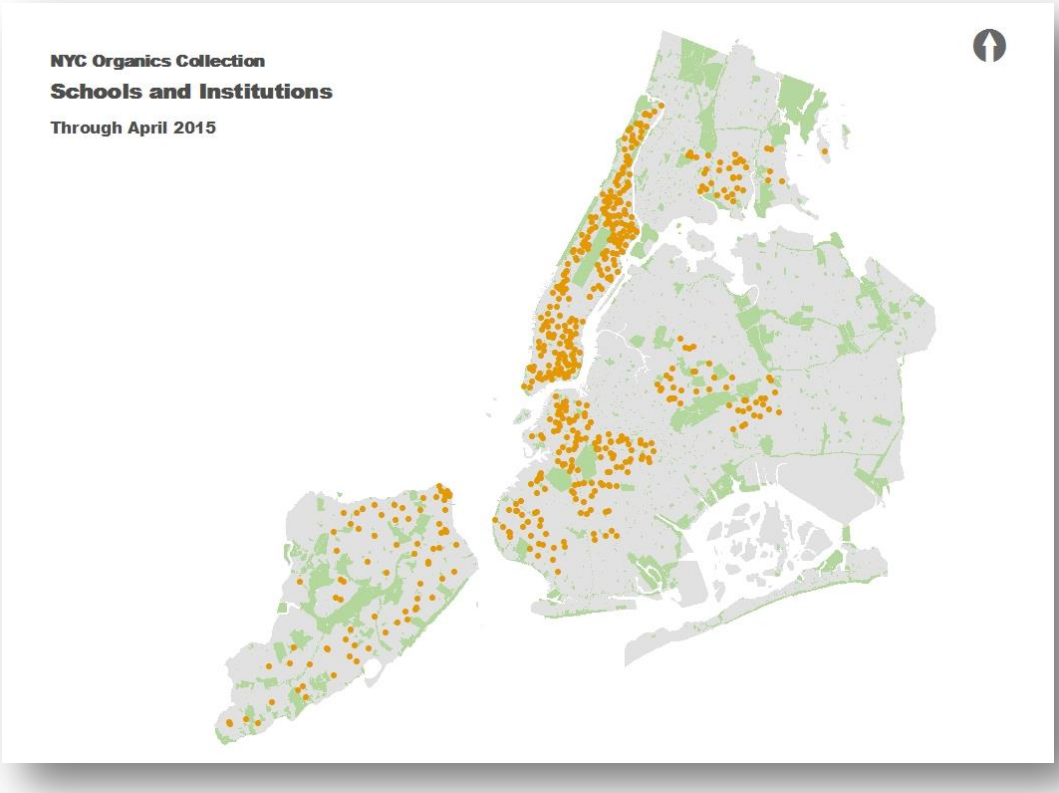
In October 2014, DSNY, in cooperation with the Department of Education (DOE), doubled the school organics collection program to cover forty percent of all public schools. The program now includes all public schools in Staten Island and Manhattan, plus selected schools in the Bronx, Brooklyn, and Queens located in or near the residential organics collection pilot areas.

From October 2014 through April 2015, the period covered in this report, DSNY provided organics collection service on dedicated "school" collection routes to 722 public schools (including 28 charter schools in DOE buildings), and 69 private schools, agencies and institutions.

DOE scheduled the 2014 roll out of the program to new schools to coincide with school staff and sustainability coordinator training, and to allow time for student education. DOE and DSNY facilitated a series of trainings and workshops during fall 2014, and Recycling Champions targeted these new schools for extra outreach designed to engage not only students and teachers but also principals, custodians, and food service workers. For more on the Recycling Champions program, which is funded by DSNY, see Diversion Report II.

Also in October 2014, the participating residential high rise buildings in Manhattan were moved to dedicated routes separate from the school collections. (See Residential Section.)

Figure 1: School facilities, agencies, and institutions serviced by the school organics collection trucks October 2014 through April 2015.



Results

From October 2014 through April 2015, DSNY school organics trucks collected about 3,400 tons of material. Since the program's start in 2012, DSNY school organics trucks have collected over 6,500 tons of material.

Figure 2: Tons organic waste collected on school truck routes, and number of participating sites.

	ALL			MANHATTAN			BROOKLYN			STATEN ISLAND			BRONX			QUEENS		
	# Schools (Facilities)	# Other Sites *	Tons Collected	# Schools (Facilities)	# Other Sites *	Tons Collected	# Schools (Facilities)	# Other Sites *	Tons Collected	# Schools (Facilities)	# Other Sites *	Tons Collected	# Schools (Facilities)	# Other Sites *	Tons Collected	# Schools (Facilities)	# Other Sites *	Tons Collected
2012-13 School Year																		
Sept - Dec 2012	67 (37)	0	145	42 (22)	0	78	25 (15)	0	67	0	0	-	0	0	-	0	0	-
Jan - June 2013	89 (59)	4	310	42 (22)	4	186	25 (15)	0	125	22 (22)	0	19.85**	0	0	-	0	0	-
Summer 2013																		
July - Aug 2013***	89 (59)	4	43	42 (22)	4	35	25 (15)	0	9	22 (22)	0	-	0	0	-	0	0	-
2013-14 School Year																		
Sept - Dec 2013	205 (141)	22	679	107 (57)	9	315	25 (15)	13	76	51 (47)	0	287	0	0	-	0	0	-
Jan - June 2014‡	358 (234)	37	1,574	178 (97)	28	815	107 (68)	9	428	73 (69)	0	332	0	0	-	0	0	-
Summer 2014																		
July - Aug 2014***	358 (234)	38	137	178 (97)	28	103	107 (68)	10	19	73 (69)	0	14	0	0	-	0	0	-
2014-2015 School Year to Date																		
Sept 2014†	358 (234)	38	272	178 (97)	28	148	107 (68)	10	65	73 (69)	0	58	0	0	-	0	0	-
Oct 2014 - April 2015	722 (479)	69	3,403	356 (203)	42	1,261	186 (134)	18	1,034	75 (72)	0	377	48 (25)	9	279	57 (45)	0	453
Total			**6,563**			**2,941**			**1,822**			**1,088**			**279**			**453**

* Other Sites includes private schools, and institutions, and apartment buildings

** In January - 2013, Staten Island schools were added in April, and only collected from kitchens. Fall 2013, Staten Island schools collected from kitchens and cafeterias.

*** During summer season, the school trucks continue to service the non-school sites and the few schools open for summer school.

† All the expansion for fall 2014 occurred in Oct 2014.

‡ No new DOE school sites were added from March 2014 - June 2014. Residential sites within 1-9 unit pilot areas in Brooklyn were moved to the residential route in June.

Diversion

DSNY periodically audits school waste to provide insight into the waste diversion achieved by DSNY-provided recycling services. As shown in Figure 3, school facilities audited in spring 2015 achieved diversion rates as high as 43.7%. Schools that used dumpsters for a portion of their waste management achieved much lower diversion rates than schools where all material was set out curbside, as shown by the lower rates at the Brooklyn schools.

The audits also show there is room for improvement. As much as three-quarters of the school material was either recyclable or suitable for organics collection (the "potential diversion rate" in Figure 3.) For all audited sites, more than half of what is being thrown away as refuse should be recycled.

Figure 3: Actual diversion rate, capture rate, and potential diversion rate as measured by one-week school waste audits conducted in spring 2014, fall 2014, and spring 2015.

Seasonal One-Week School Waste Audits

Actual Diversion Rate, Capture Rate, Potential Diversion Rate

	Spring 2015			Fall 2014			Spring 2014 *		
	Diversion Rate	Capture Rate	Potential Diversion Rate	**Diversion Rate**	Capture Rate	Potential Diversion Rate	**Diversion Rate**	Capture Rate	Potential Diversion Rate
Manhattan Curbside Collections (9 sites)	**43.70%**	54.90%	79.60%	**43.10%**	58.38%	73.90%	**47.00%**	70.12%	67.10%
Staten Island (10 Sites)	**29.90%**	44.56%	67.10%	**30.40%**	47.53%	63.90%	**N/A**	N/A	N/A
Brooklyn Combined Curbside and Dumpster Collections (7 sites)	**15.93%**	26.07%	61.10%	**18.30%**	24.32%	75.27%	**19.28%**	34.05%	56.63%
Average of Borough Audits	**29.84%**	41.84%	69.27%	**30.60%**	43.41%	71.02%	**33.14%**	52.09%	61.87%

* The spring 2014 school audit, presented in Diversion Report I, included Manhattan and Brooklyn schools only. Capture rates and potential diversion rates were transposed in Diversion Report I.

Contamination

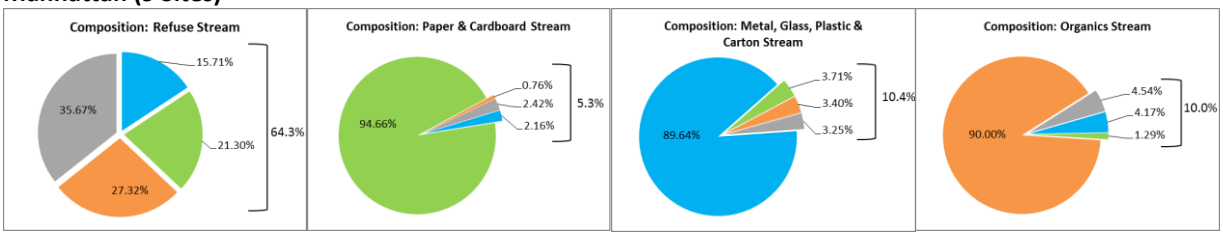
Contamination in school organics, though relatively low by weight, continues to present challenges for DSNY's organics processing vendors and is higher than desired for an optimally functioning program. Contamination is defined as the "wrong" material in a recycling stream, such as a bottle in the paper bin, or a foam tray in the organics bin. The primary contaminants in the organics bins continue to be foam trays, and plastic utensils, containers, baggies, and packaging.

Figure 4: Organic waste sample from the spring 2015 school waste audit after sorting out contamination.

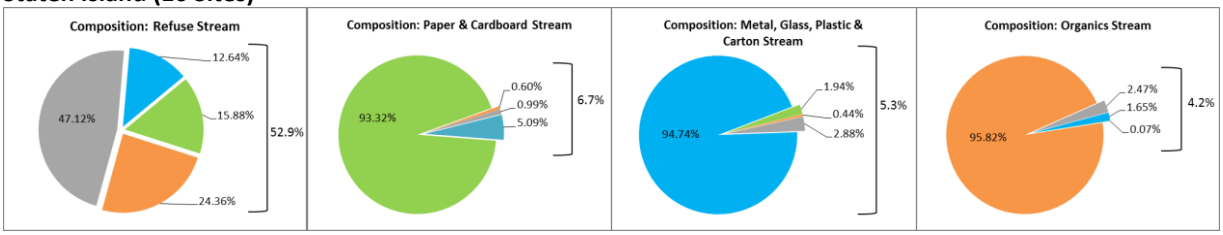
See Figure 5 for the contamination results from the spring 2015 school audit. Compared to the fall 2014 audit, Staten Island organic material showed significant improvement in contamination – down from 14% to 4.2%. The organics contamination rate for audited schools in Manhattan went up from 7% to 10%, and the organics contamination rate for audited schools in Brooklyn nearly doubled from 3.6% to 6.2%.

Figure 5: Composition of refuse, paper recycling, MGP recycling, and organics collection streams. This illustrates contamination rates (the share of material placed in the wrong stream.)

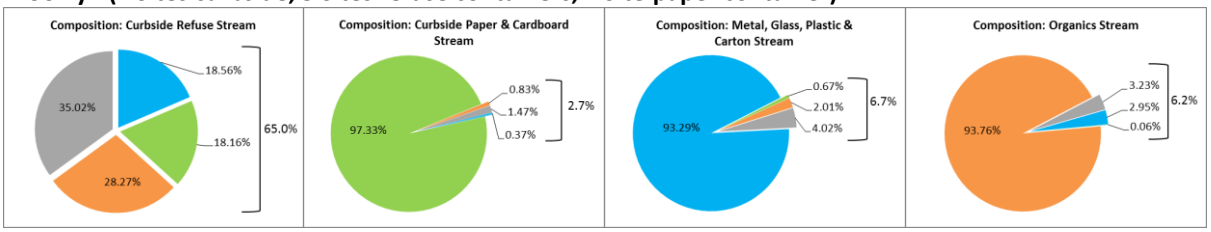
Manhattan (9 Sites)

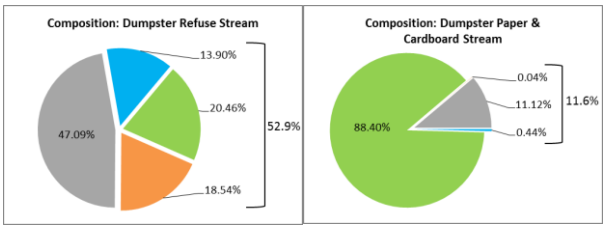


Staten Island (10 Sites)



Brooklyn (7 Sites curbside, 5 Sites refuse containers, 1 Site paper container)





Urban School Food Alliance

New York City is one of the founding members of the Urban School Food Alliance, which was formed to leverage the collective purchasing power of multiple school districts to be able to make more sustainable and environmentally preferred purchasing choices. Along with Miami, Los Angeles, Dallas, Orlando and Chicago, DOE is working to replace the containers and packaging used in school food service with compostable alternatives. The first procurement change has been a switch from foam trays to compostable plates.

Figure 6: Alternatives to Foam Trays: Compostable Plates and Paper Boats

Selected schools already have started to use the compostable plates, along with paper boats for certain lunch menus. By fall 2015, all DOE public schools will be using compostable plates for all menus, dramatically reducing one of the main contaminants in the organics bins. In the meantime, the program relies on students and staff to properly sort food scraps and food-soiled paper products from recyclables and refuse. Feedback from DOE confirms that the most successful schools use student "green teams" to monitor cafeteria sorting stations.

Some compostable alternatives to bags, packaging and containers require specialized processing, and the Department and its vendors are involved in testing the products being proposed by the Urban School Food Alliance.

Residential

Between October 2014 and April 2015, DSNY continued organics collection service to the residential pilot areas, and recruited additional large apartment buildings with 10 or more units, to participate in organics collection. See Figures 7 and 8.

As of April 2015, residential organics collection service is provided to well over 100,000 households, including the single family homes and small multi-unit buildings in the neighborhood pilot areas, and 148 buildings of 10 or more units in Manhattan and Brooklyn.

Though there were an unusually high number of winter storms requiring DSNY plowing services, the Department continued to provide organics collection service throughout the winter. Participation in organics collection did drop off over the winter months; however February 2015 marked the best overall diversion rate achieved in residential pilot to date, more than 30%.

Figure 7: Pilot Areas by season added to the pilot

Fall 2013: Initial Roll-Out

- BX102: Bronx District 1 Section 2 (Throgs Neck, Country Club)
- BKS071: Brooklyn South District 7 Section 1 (Windsor Terrace)
- SI014: Staten Island District 1 Section 4 (Westerleigh, Mariner's Harbor, Graniteville)
  (Note: approximately service to 3,200 homes in Westerleigh began in May 2013)

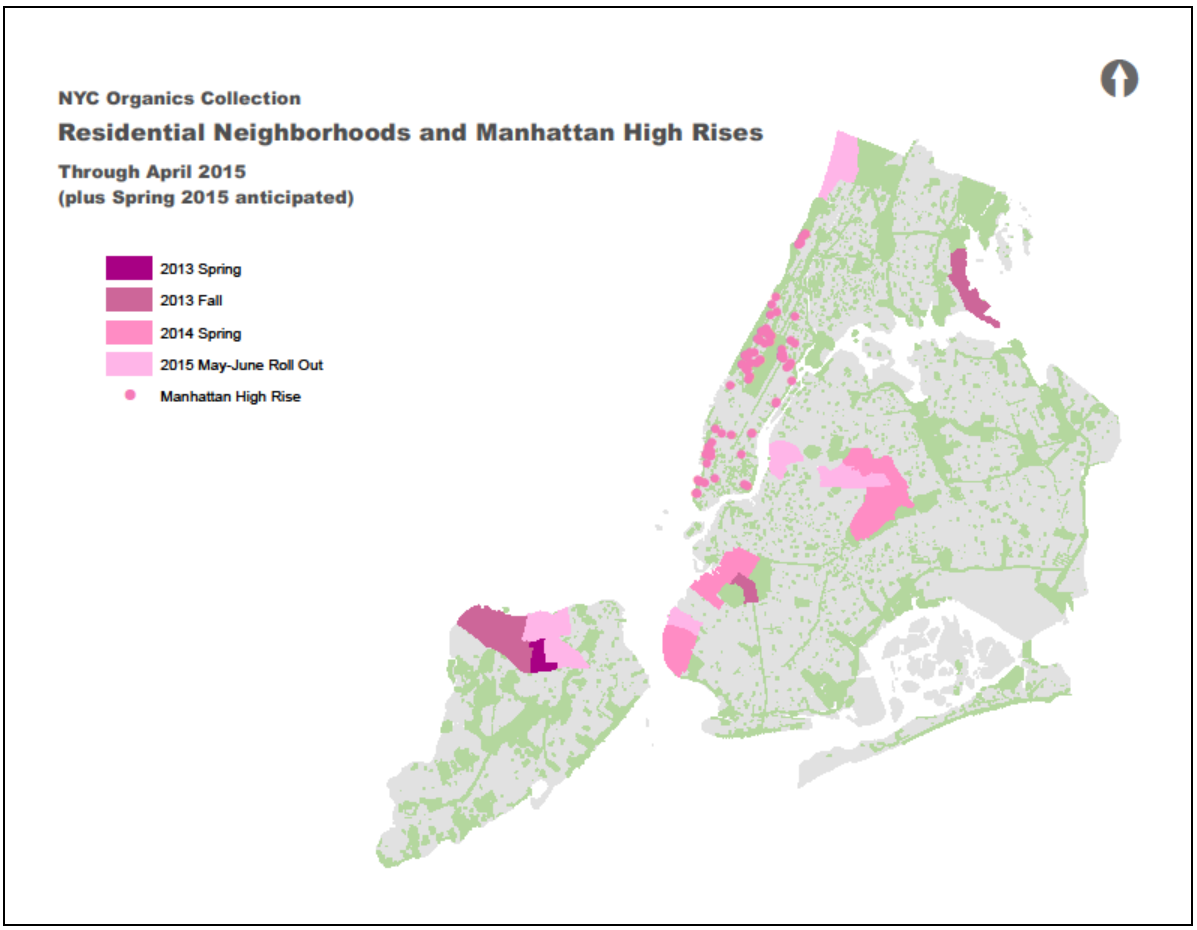
Spring 2014: Expansion

- BKS072: Brooklyn South District 7 Section 2 (Greenwood Heights, Sunset Park)
- BKS064: Brooklyn South District 6 Section 4 (Park Slope, Gowanus)
- BKS065: Brooklyn South District 6 Section 5 (Park Slope, Gowanus)
- BKS102: Brooklyn South District 10 Section 2 (Bay Ridge)
- BKS103: Brooklyn South District 10 Section 3 (Bay Ridge)
- QW054: Queens West District 5 Section 4 (Glendale)
- QW055: Queens West District 5 Section 5 (Middle Village, Maspeth)

Ongoing

- Recruitment of high rise buildings in the pilot neighborhoods and in Manhattan.

Figure 8: Residential Organics Collection service areas through April 2015, plus spring 2015 planned roll-out



Dedicated Collection Routes for Manhattan Apartment Buildings

Apartment buildings in the existing pilot areas are served on the neighborhood organics routes. Starting in October 2014, DSNY switched Manhattan residential buildings from school truck service to a dedicated residential organics collection service three days per week Monday/Wednesday/Friday. These dedicated residential routes allow the Manhattan high rise collections to be more easily tracked and measured.

Results

During the seven months covered by this report, October 2014 through April 2015, DSNY collected 3,358 tons of material on residential organics trucks doubling the total tonnage collected to date in the residential pilot program of 6,716 tons. The diversion rates in the pilot areas rose between 3.0 and 6.3 percentage points (when including organics and traditional recyclable collections).

DSNY conducted a waste audit of residential organics collection in April 2015, which confirmed feedback from the pilot's organics processors that the contamination rate by weight is very low in the residential loads, and plastic bags are the most prominent. The audit estimated an average of 13.3 pounds of organic material set out by participating residents.

Citywide results are summarized below. See the Appendix for more detailed results by pilot area.

Figure 9: Summary of Residential Participants and Tons Organics Collected October 2014 – April 2015

DSNY Section	Tons Collected (Oct '14-Apr '15)	# Weeks in Program (Oct '14-Apr '15)	Average Weekly Tons Collected (Oct '14-Apr '15)	# Total Bins Deployed	Covered House-holds*	Month Joined Pilot
BX102	226	31	7.3	8,111	9,400	Sep 2013
BKS064	329	31	10.6	3,358	8,900	May 2014
BKS065	304	31	9.8	3,996	7,400	May 2014
BKS071	353	31	11.4	5,454	9,500	Oct 2013
BKS072	293	31	9.5	4,345	8,500	May 2014
BKS102	287	31	9.3	5,280	6,800	May 2014
BKS103	231	31	7.5	4,160	5,800	May 2014
QW054	342	31	11	11,252	14,400	Jun 2014
QW055	361	31	11.6	10,744	12,900	Jun 2014
SI014**	375	31	12.1	14,029	14,000	May/Oct 2013
MN	257	Rolling	8.6	576	7,500	Rolling
Citywide	**3,358**	**31**	**10**	**71,305**	**105,100**	--

* Includes 1-9 unit residential buildings in the pilot areas. In the Brooklyn pilot areas, it also includes a small number of 10+ unit apartment buildings that have volunteered to participate. For Manhattan, includes large apartment buildings (with 10 or more units) who volunteer to participate in the program.
** The organics pilot began in a portion of SI014 in May 2013 and was expanded to all of SI014 in October 2013.

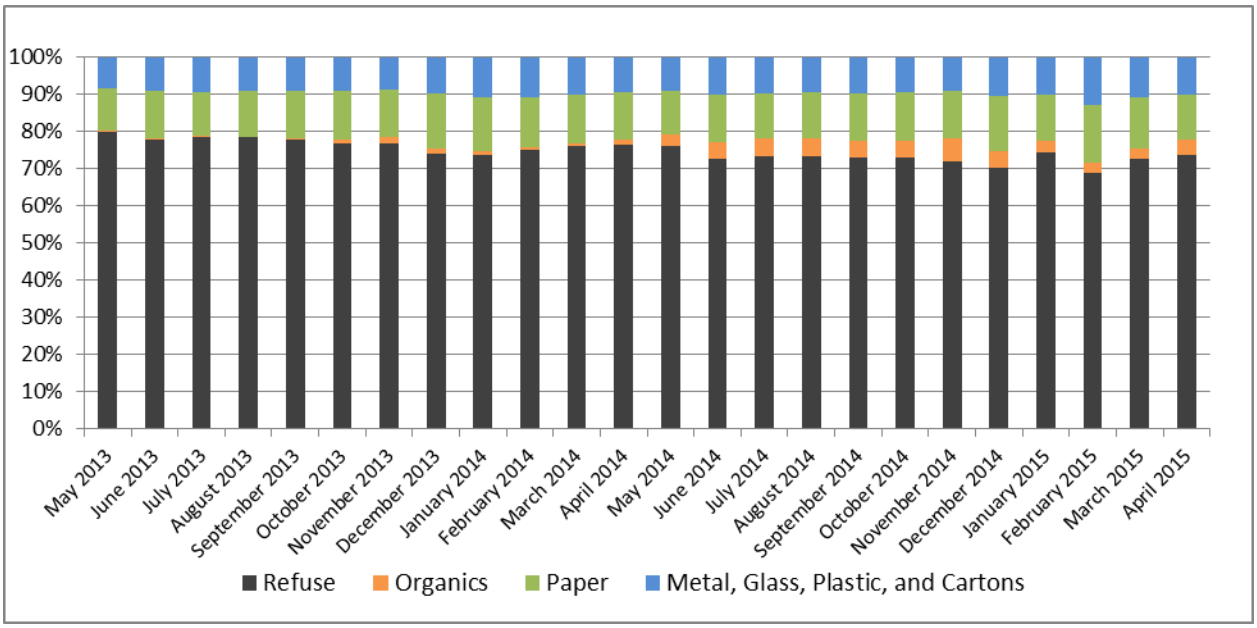
Diversion

NYC Organics Collection contributed to diversion rate increases of between 3.0 and 6.3 percentage points over traditional recycling in pilot areas for the period October 2014 through April 2015 (see Figure 10). The best diversion rate to date across all pilot areas was achieved in February 2015. Figure 11 shows the relative quantity of recyclables and organics that were collected in all pilot areas since the program's start.

Figure 10: Diversion Rates of Pilot Sections, October 2014 – April 2015

DSNY Section	Diversion Rate without Organics Collection	Diversion Rate with Organics Collection	+/- Change with Organics Collection	% Change with Organics Collection
BX102	23.50%	26.80%	3.30%	14.70%
BKS064	31.50%	37.40%	5.80%	18.40%
BKS065	29.20%	35.40%	6.30%	22.30%
BKS071	27.30%	33.00%	5.70%	22.20%
BKS072	19.80%	23.80%	4.00%	21.00%
BKS102	22.90%	27.30%	4.40%	19.70%
BKS103	23.70%	27.00%	3.20%	14.00%
QW054	22.20%	25.60%	3.40%	16.10%
QW055	22.10%	25.70%	3.60%	17.10%
SI014	20.70%	23.80%	3.00%	15.80%

Figure 11: Share of curbside collections by material type in all pilot areas since program start weekly average by month (May 2013 – April 2014)

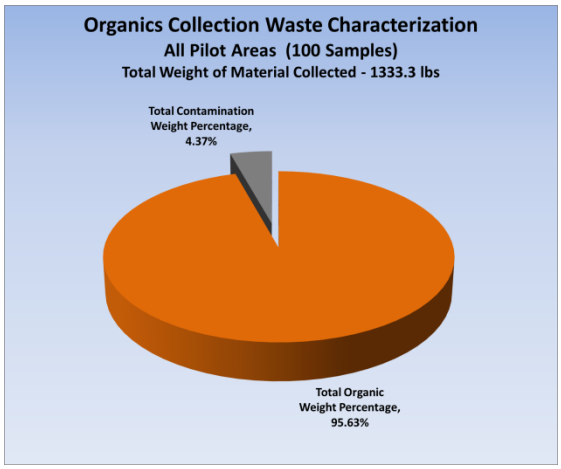


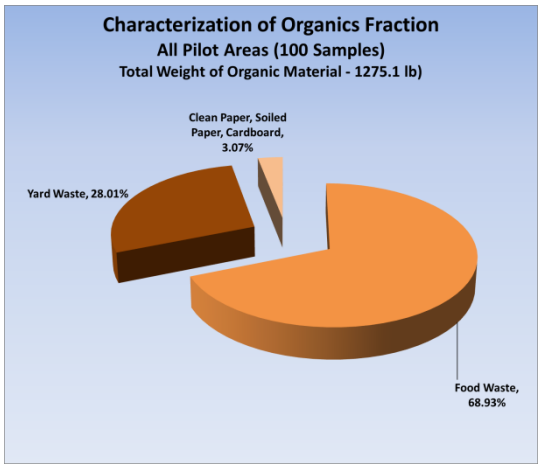
Note: Manhattan multi-unit organics collections are excluded from the diversion statistics above, because organics are collected on different routes than refuse, paper, and metal/glass/plastic.

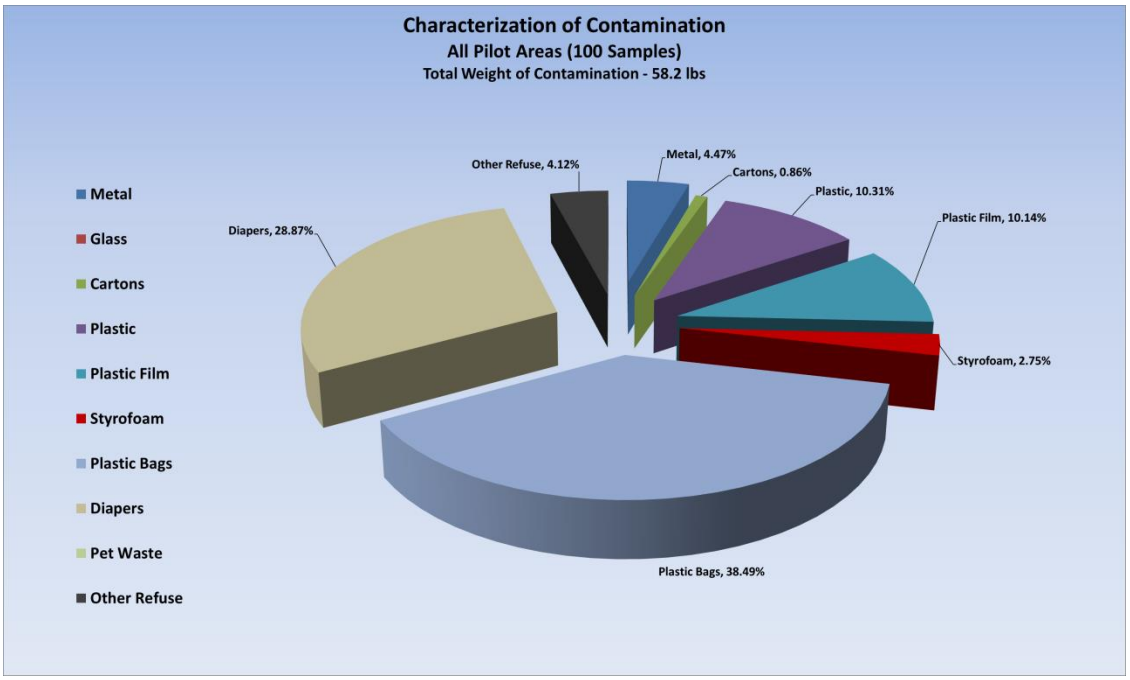
Contamination

In April 2015, DSNY conducted a sample waste audit of organic material set out for collection in the residential pilot areas to evaluate contamination, see Figure 12. Overall contamination was only 4.37% of the audited organic material. The most prevalent contaminant was plastic bags, and other plastic film and containers totaling over 60%. NOTE: Diaper contaminants appear to have come primarily from a sample taken in one pilot area in Brooklyn.

Figure 12: Residential Organic Collections Audit, April 2015







There was zero glass contamination. Feedback from the regional organics processors confirms that plastic bags are a problem as well as diapers, glass and other non-compostable plastic items. They determine contamination, and their ability to process the material, through a visual inspection as opposed to a weight based evaluation.

Figure 13: Example of April 2015 residential organic waste audit sort results

Organics Collection along Commercial Strips in Pilot Areas

Feedback from the pilot areas confirms the Department's observations that residential buildings along commercial strips have little to no storage space for the organics bins. Most buildings along commercial strips are multi-use including businesses on the first floor and residential units above. Improper discards are being placed in these bins by passersby, and the buildings have found managing these bins a challenge. In subsequent expansions of the organics program to new areas, residential buildings along commercial strips will be invited to enroll in the program and receive outreach to determine bin storage options, as opposed to automatically receiving bins.

Figure 14: Example of multi-use building stock along a commercial strip

Dual-Bin Pilot Program

Beginning October 9, 2014, DSNY began testing the use of dual-bin trucks in the Bronx 10, Section 2 (BX102) pilot area to collect organics and refuse in one truck. A dual-bin truck has two compartments that allow for two different material streams to be kept separate while being collected on the same truck, providing operational efficiencies. The two streams are then dumped separately; the organic material goes to an organics processing vendor, and the refuse is sent to disposal.

The purpose of this pilot was to determine how efficient and productive it would be to service residential refuse and residential organic material simultaneously using a dual bin collection truck. The pilot was also conducted to identify any obstacles/benefits of such pilot in the event that it would be scaled up citywide.

Figure 15: Dual-bin trucks comprise about 450 of the trucks in DSNY's fleet.

Results

The potential benefits of using dual-bin trucks for organics / refuse collection include minimizing the number of heavy fleet vehicles servicing the same residential blocks, and reducing the need to add additional rear loaders when organics collection service is rolled out. The limitations of using dual-bin trucks include the availability of dual-bin trucks in the fleet and the lead time needed to procure additional trucks. In addition, dual-bin trucks tend to have more mechanical issues, have a smaller capacity than the standard rear loader trucks, and cannot fit large bulky items. DSNY has had to deploy separate collection trucks to collect bulky waste items found along the routes.

To date, the use of dual-bin truck for organics / refuse collections shows promise, but may only be appropriate for certain districts in which the relatively quantities of organics are high enough and refuse are low enough to make the routes operationally efficient. The mechanical issues and the need to send trucks to handle bulk material will reduce somewhat the operational savings, but still results in an anticipated fleet savings.

Next Steps

To support the goals of One New York, DSNY is developing an aggressive plan to implement organics diversion citywide. Though the Local Law 77 pilot program ends in July 2015, DSNY will continue the collection service as we prepare the final evaluation and report, which will be released October 2015.

Schools

Starting in Fiscal Year 2016, the Department of Education and DSNY will be implementing a Zero Waste Schools plan that seeks significant increases in diversion of traditional recyclables and organic waste. The plan will start by intensively working with 100 schools on two truck routes to dramatically reduce the refuse, maximize diversion, and test waste management strategies that can be applied more broadly to all NYC schools.

Residential

In May and June 2015, DSNY is expanding the residential organics collection program to another five collection areas (see Figure 1). In addition, DSNY is working to add another 40 large buildings in Manhattan to organics collection service by the end of the summer.

Processing

The Department is developing a competitive solicitation to incorporate pre-processing to remove contaminants and maximize beneficial use of organic material collected.

Appendix

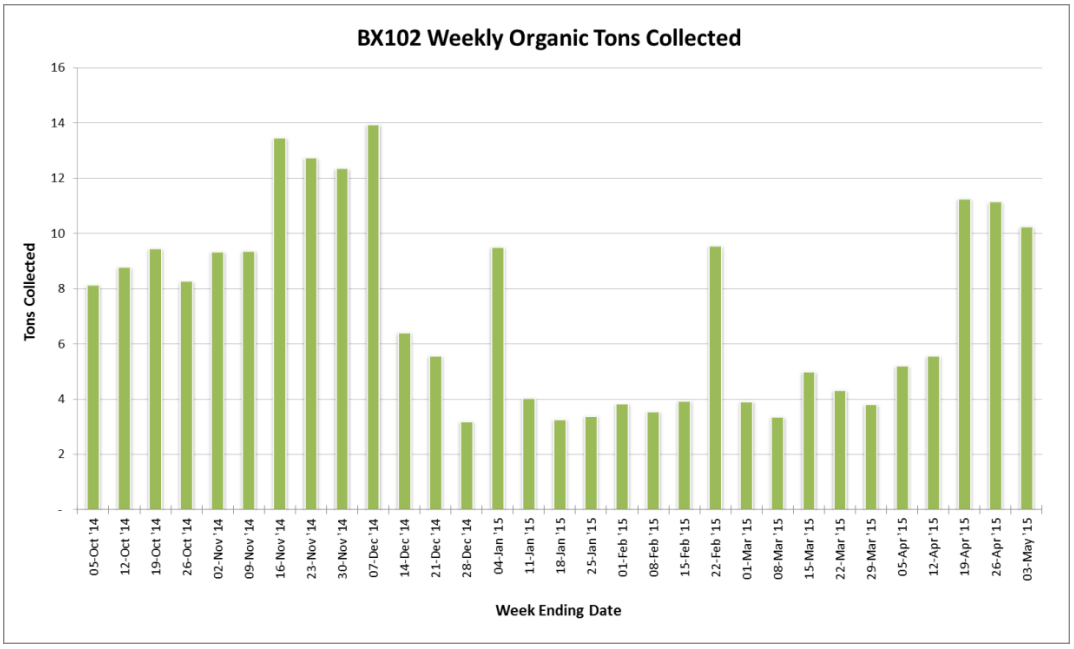
See below for October 2014-April 2015 statistics for each residential pilot area:

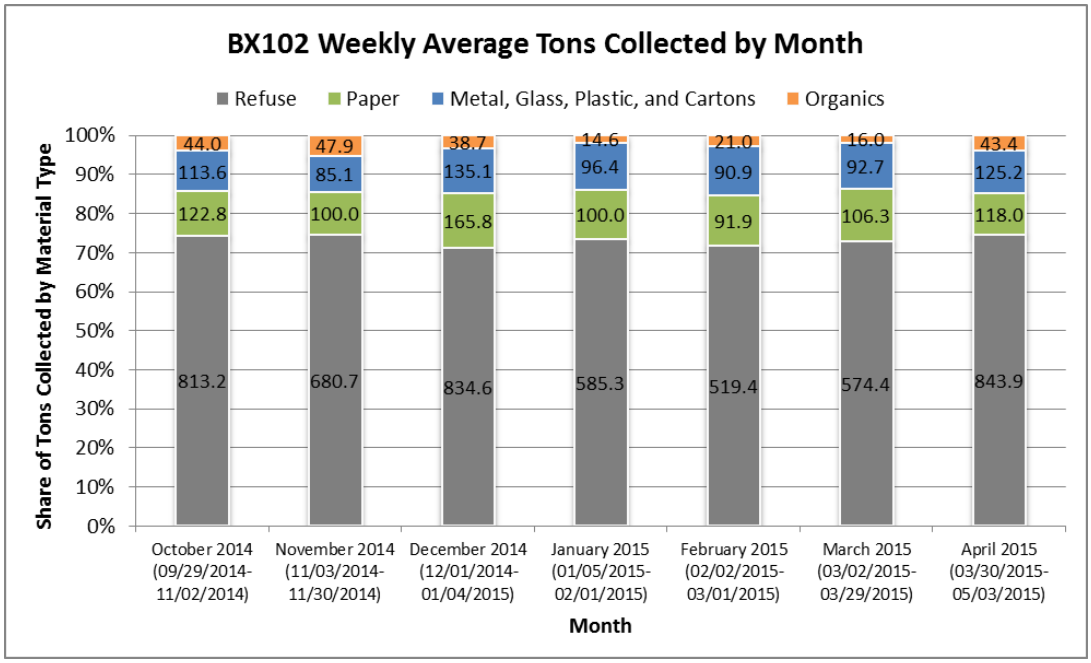
- BX102
- BKS064
- BKS065
- BKS071
- BKS072
- BKS102
- BKS103
- QW054
- QW055
- SI014
- MN

BX102: Bronx District 10 Section 2 (Throgs Neck, Country Club)

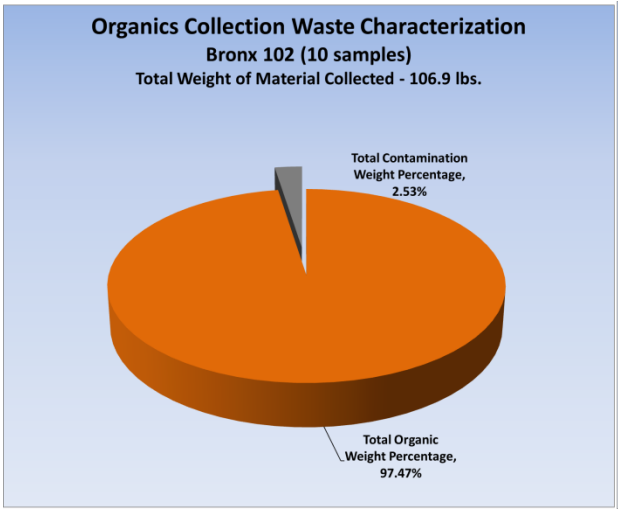
Month joined pilot: September 2013
 # Covered Households: 9,400

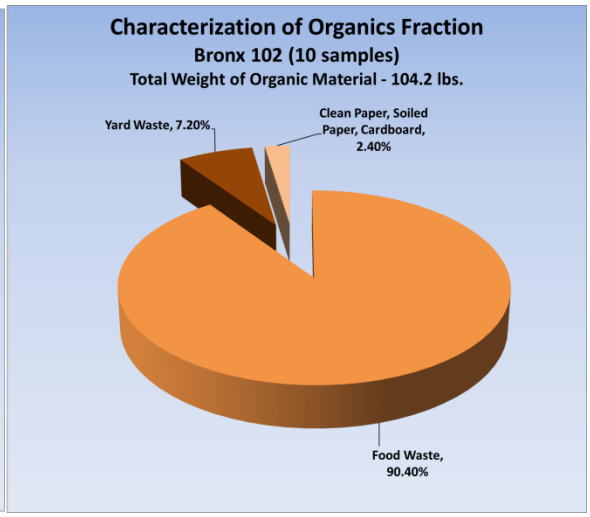
	October 2014 – April 2015
Total Tons Collected	226
Average Weekly Tons Collected	7.3
Diversion Rate without Organics Collection	23.50%
Diversion Rate with Organics Collection	26.80%

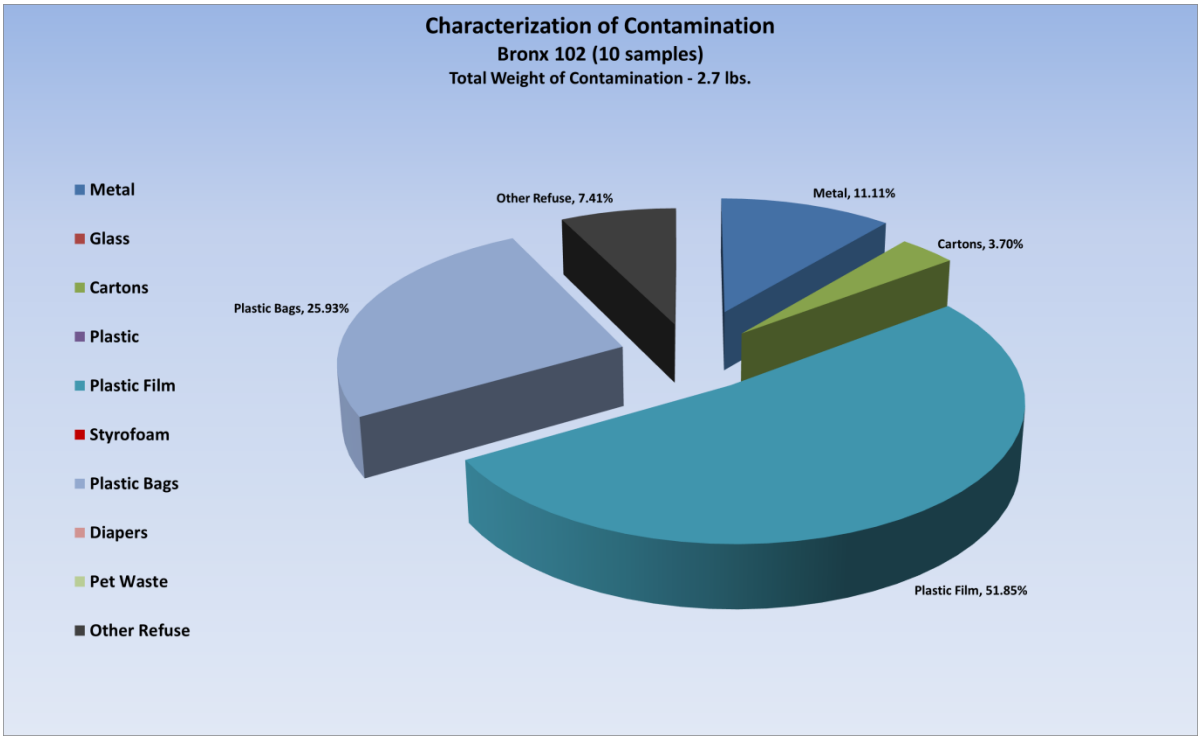




April 2015 Waste Audit Results



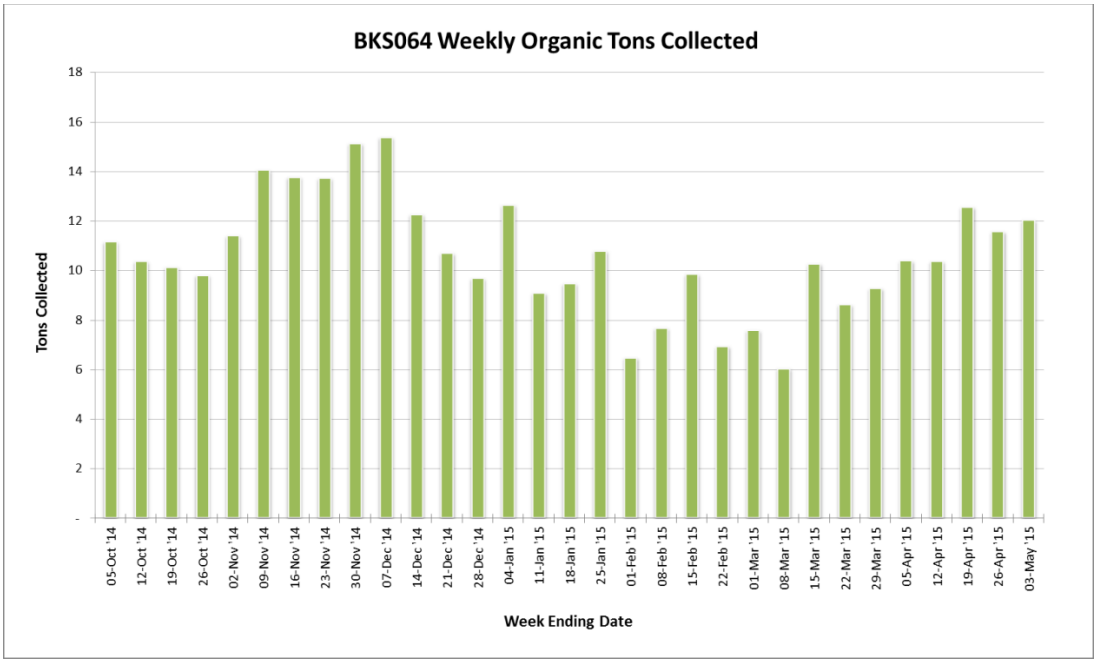


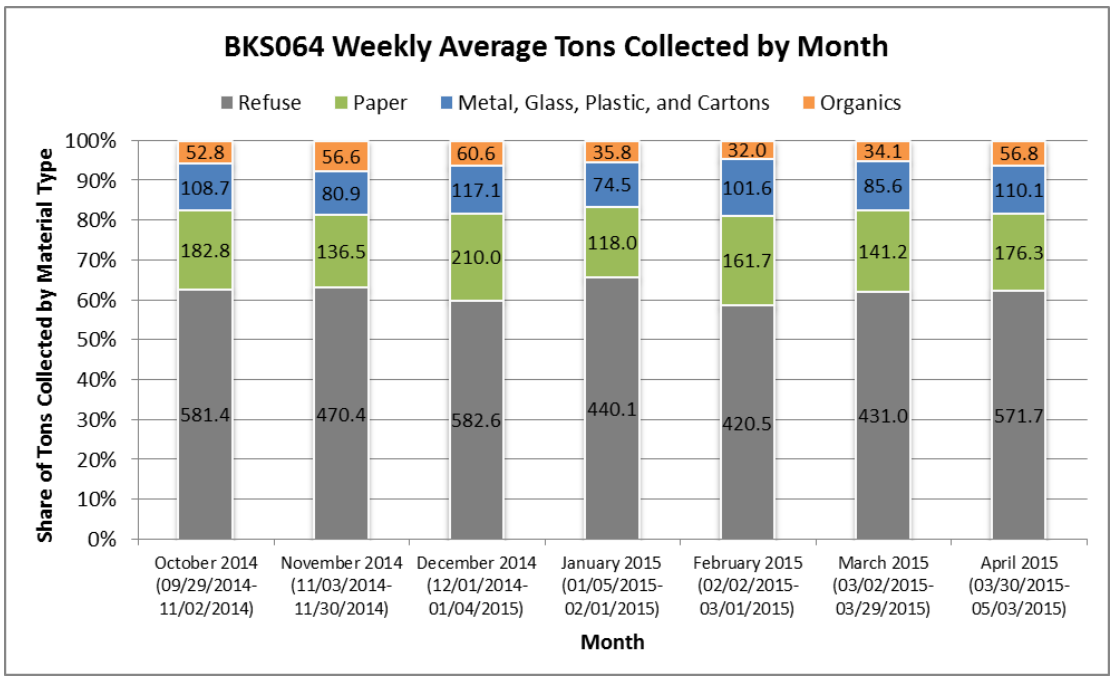


BKS064: Brooklyn South District 6 Section 4 (Park Slope, Gowanus)

Month joined pilot: May 2014
 # Covered Households: 8,900

	October 2014 – April 2015
Total Tons Collected	329
Average Weekly Tons Collected	10.6
Diversion Rate without Organics Collection	31.50%
Diversion Rate with Organics Collection	37.40%





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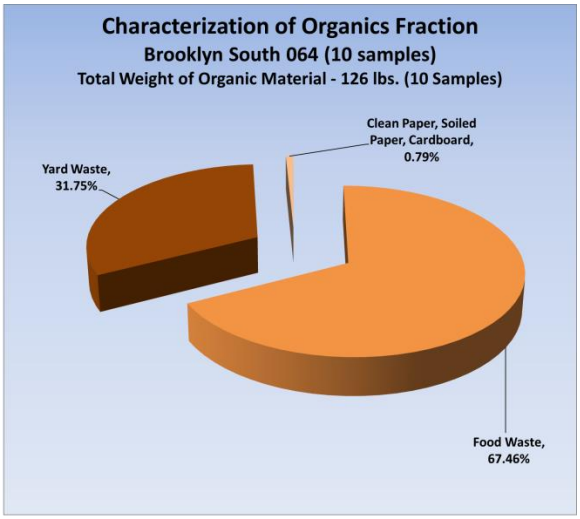
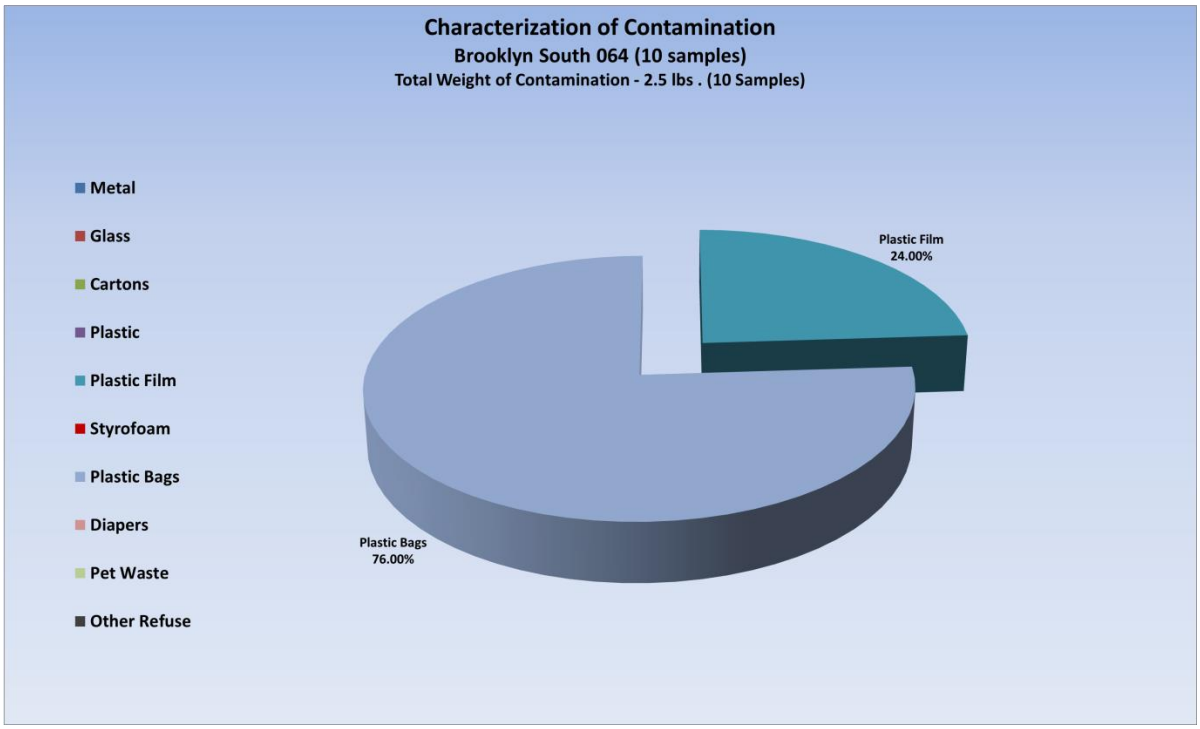
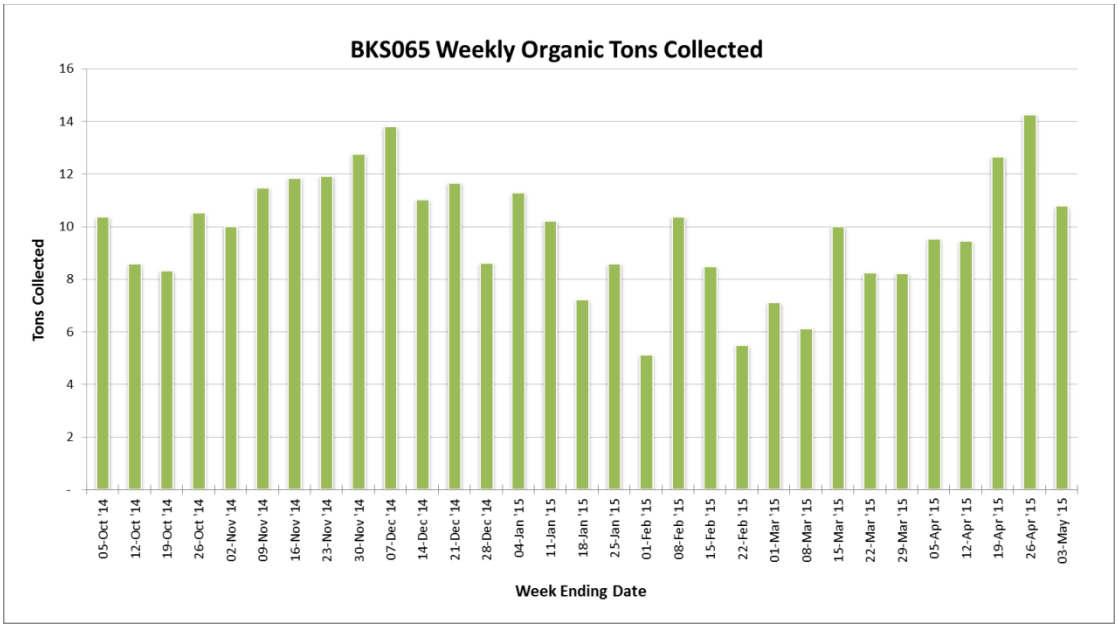


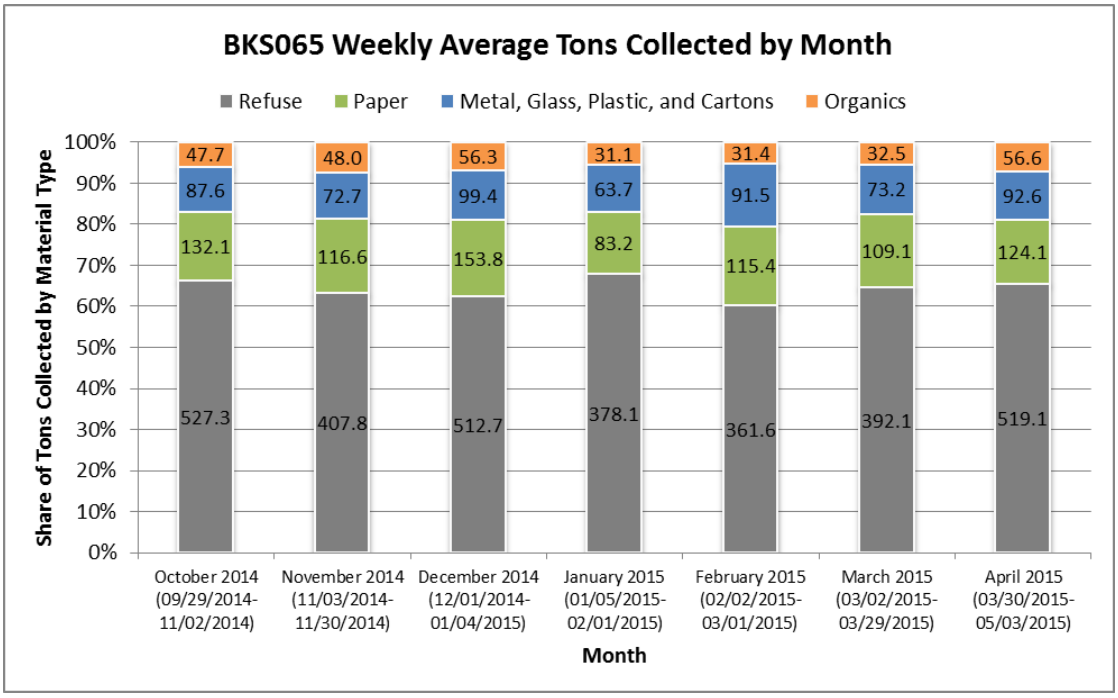


BKS065: Brooklyn South District 6 Section 5 (Park Slope, Gowanus)

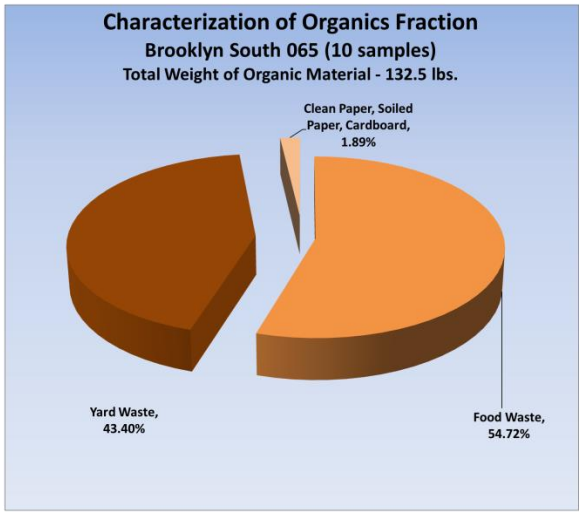
Month joined pilot: May 2014
 # Covered Households: 7,400

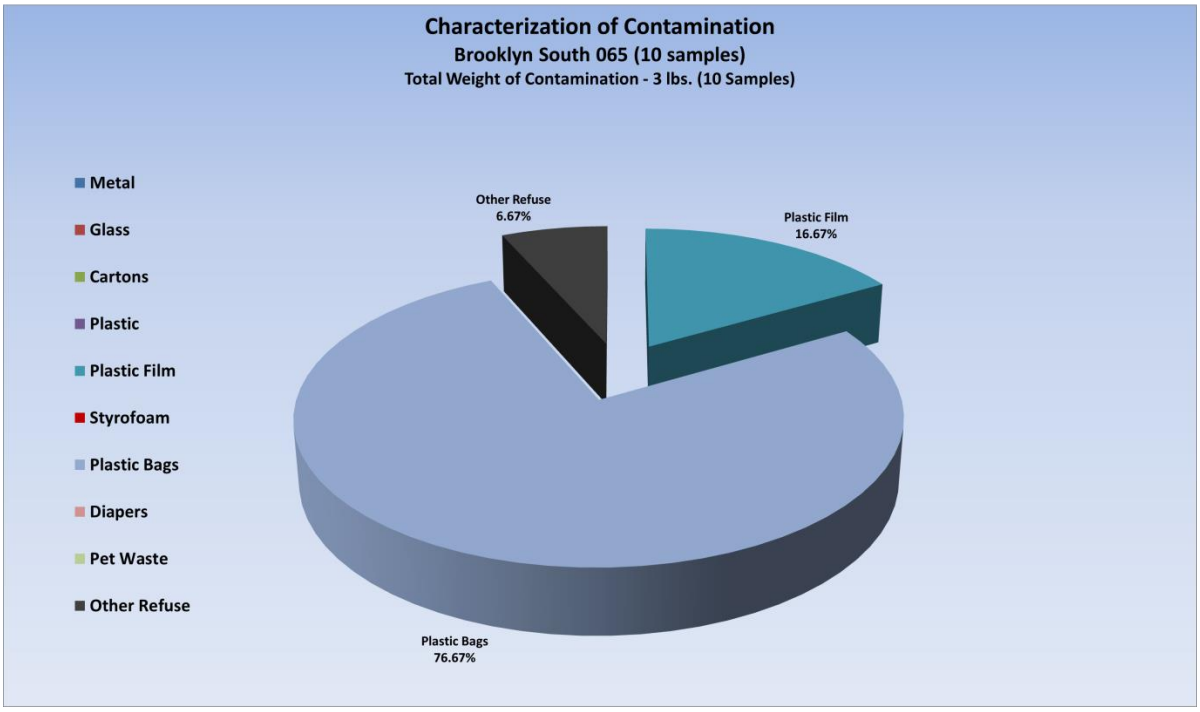
	October 2014 – April 2015
Total Tons Collected	304
Average Weekly Tons Collected	9.8
Diversion Rate without Organics Collection	29.20%
Diversion Rate with Organics Collection	35.40%





April 2015 Waste Audit Results

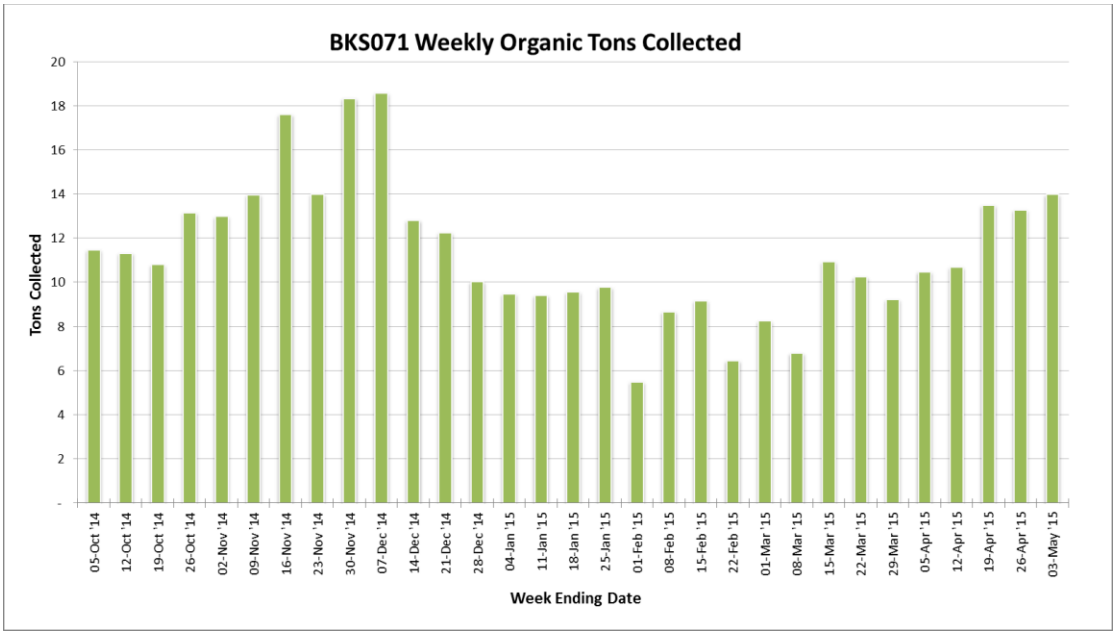


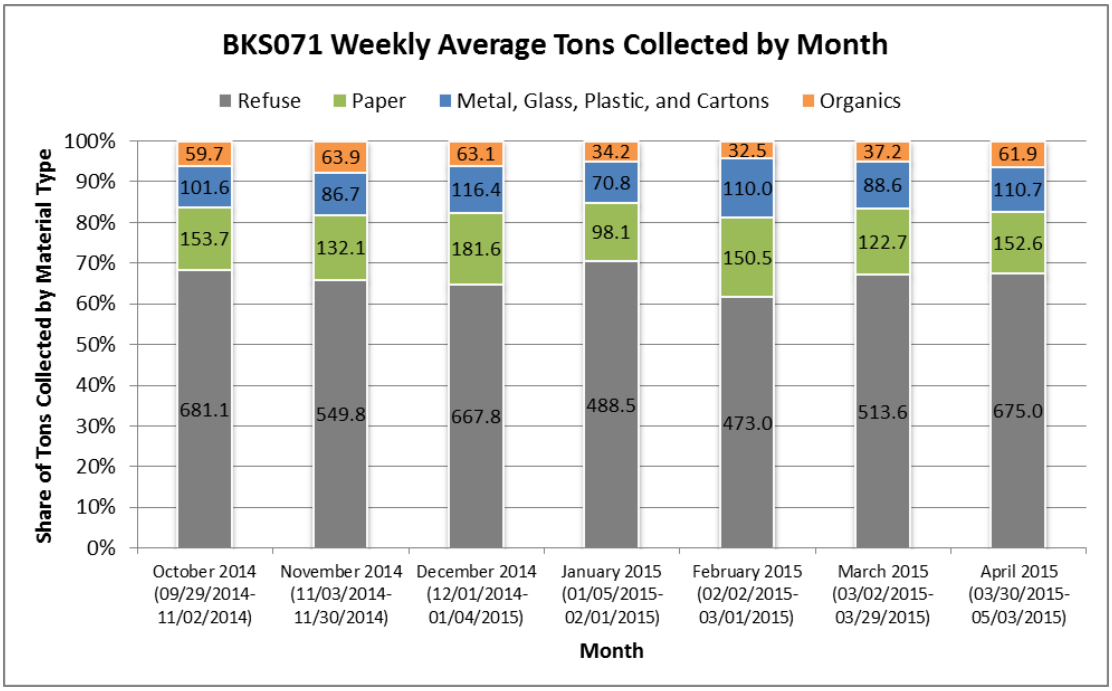


BKS071: Brooklyn South District 7 Section 1 (Windsor Terrace, Greenwood Heights, Park Slope)

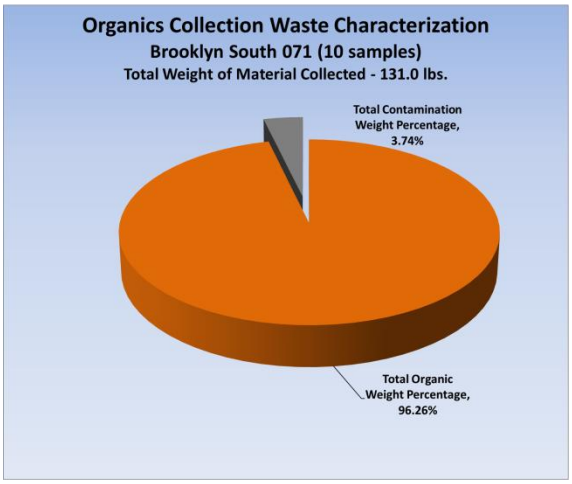
Month joined pilot: October 2013
 # Covered Households: 9,500

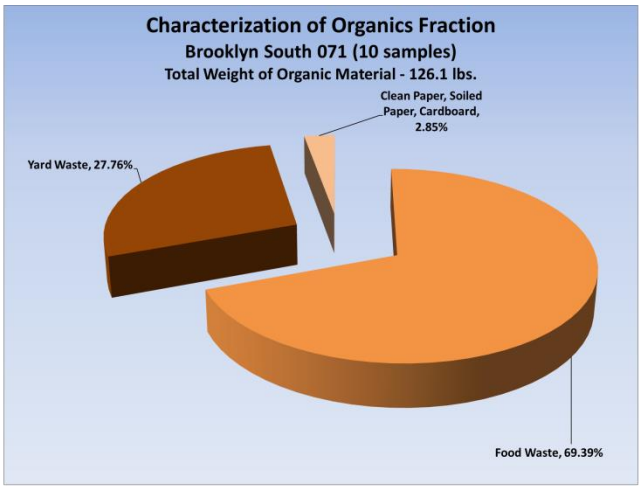
	October 2014 – April 2015
Total Tons Collected	353
Average Weekly Tons Collected	11.4
Diversion Rate without Organics Collection	27.30%
Diversion Rate with Organics Collection	33.00%

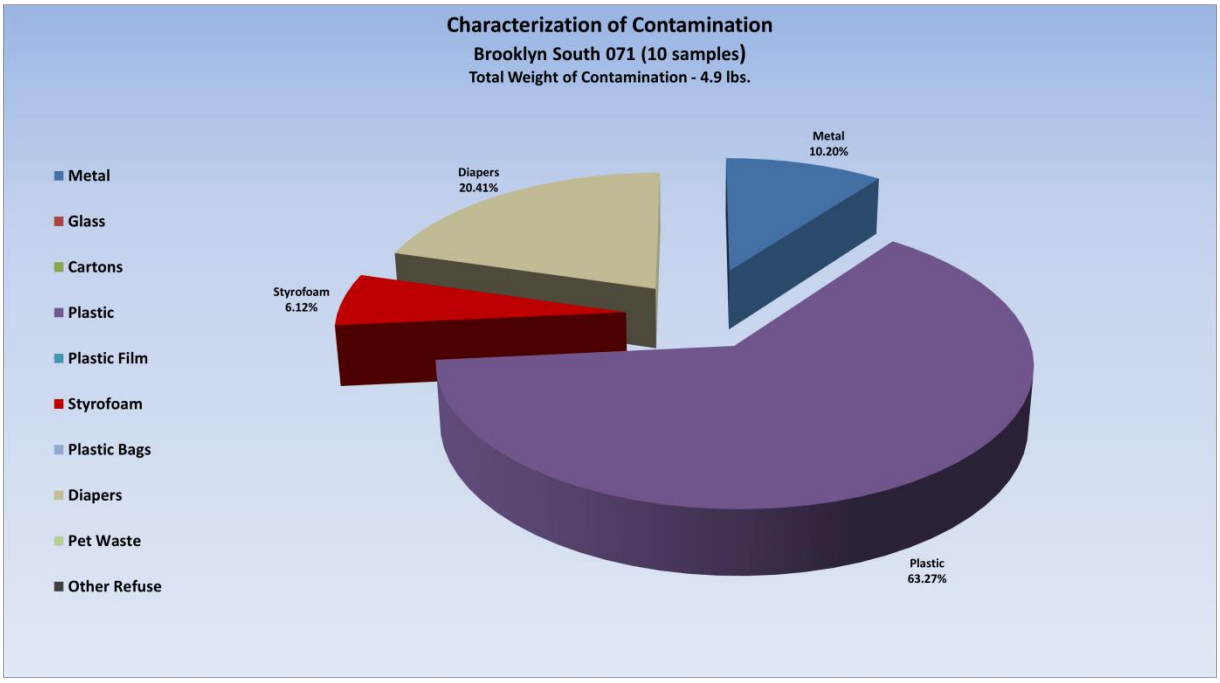




April 2015 Waste Audit Results



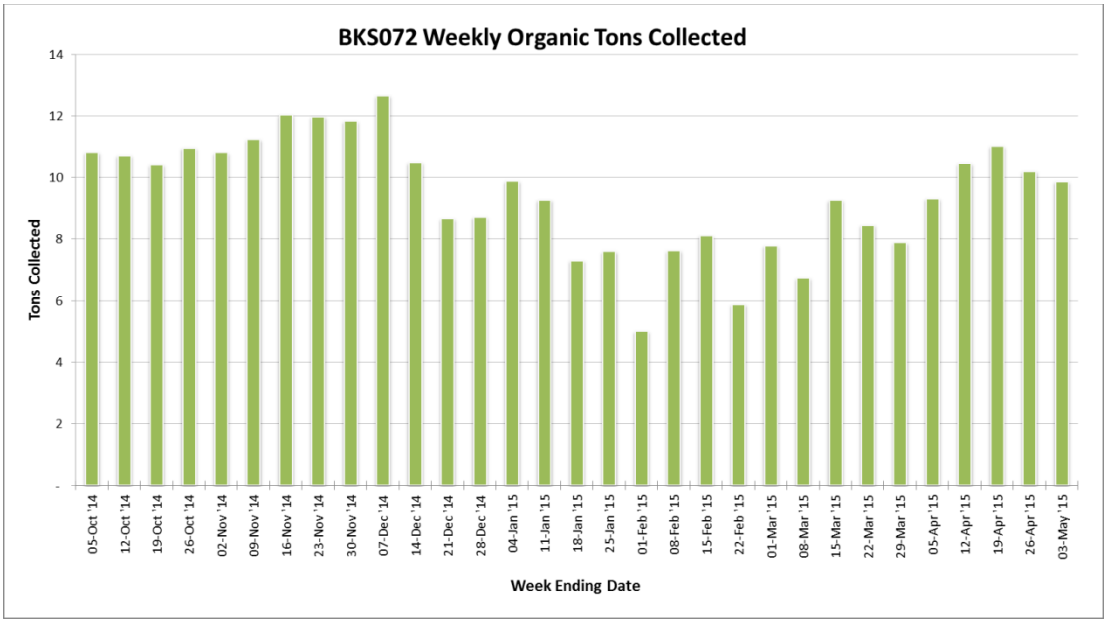


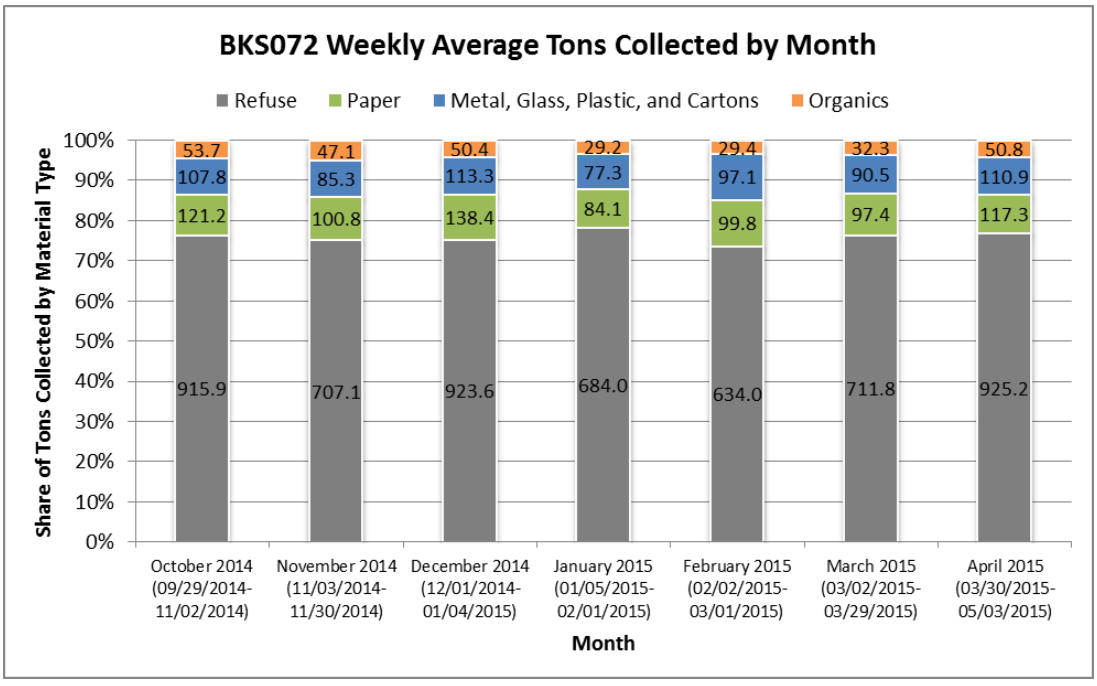


BKS072: Brooklyn South District 7 Section 2 (Greenwood Heights, Sunset Park)

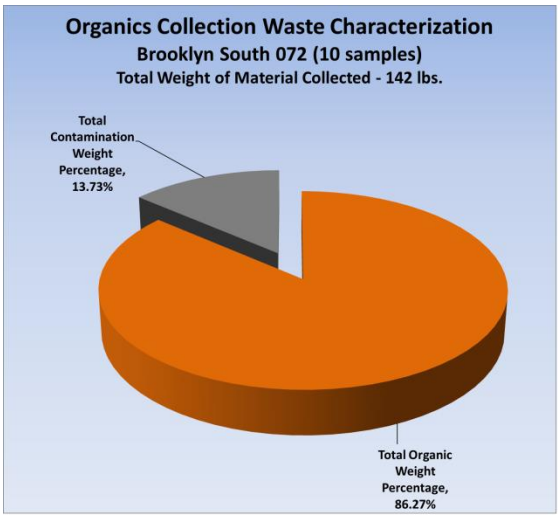
Month joined pilot: May 2014
 # Covered Households: 8,500

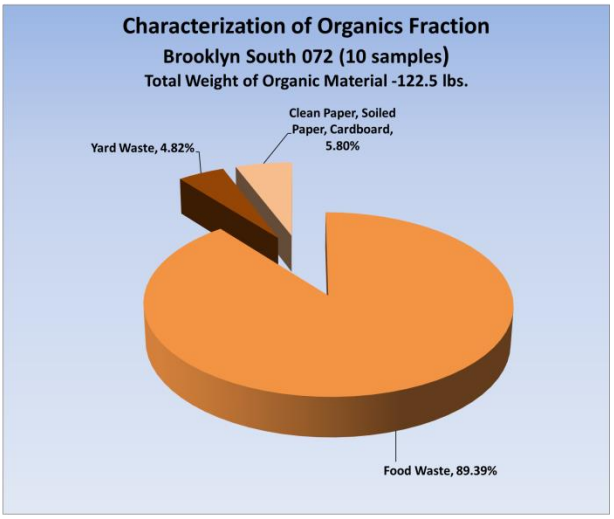
	October 2014 – April 2015
Total Tons Collected	293
Average Weekly Tons Collected	9.5
Diversion Rate without Organics Collection	19.80%
Diversion Rate with Organics Collection	23.80%

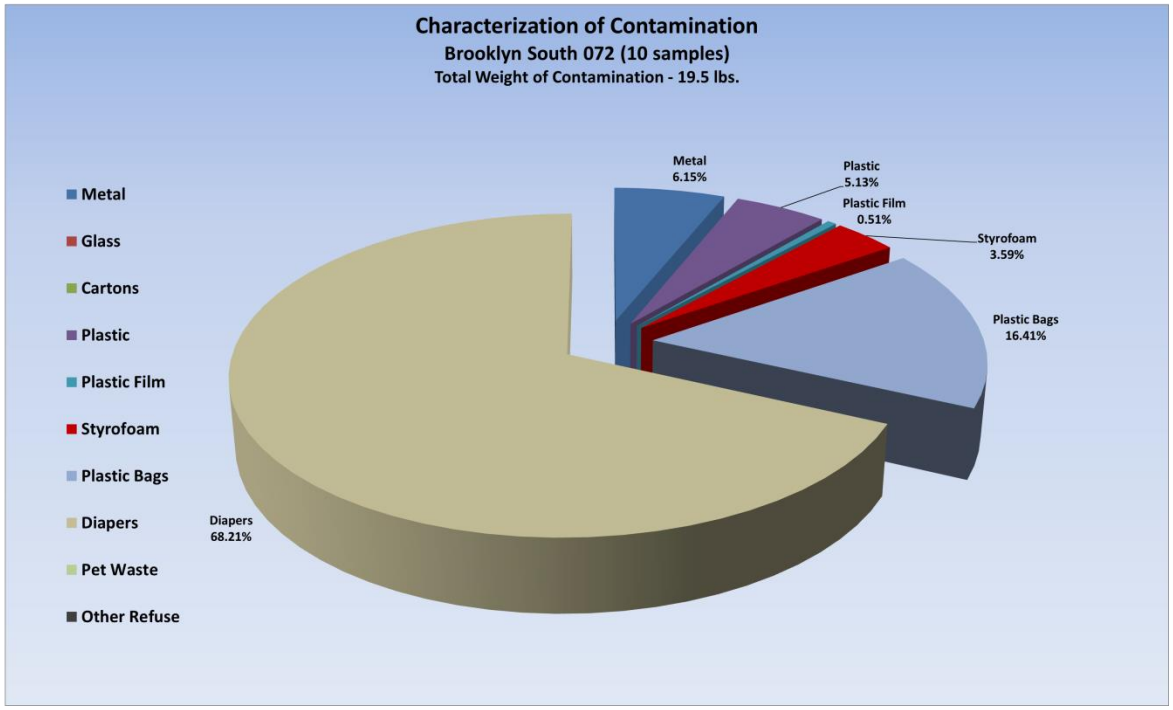




April 2015 Waste Audit Results



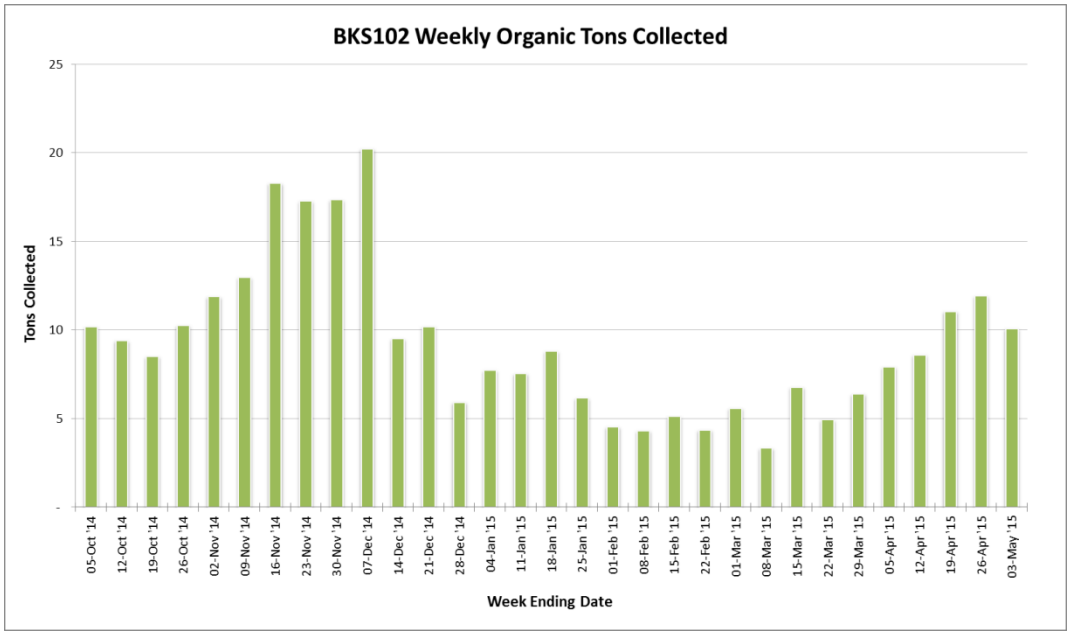


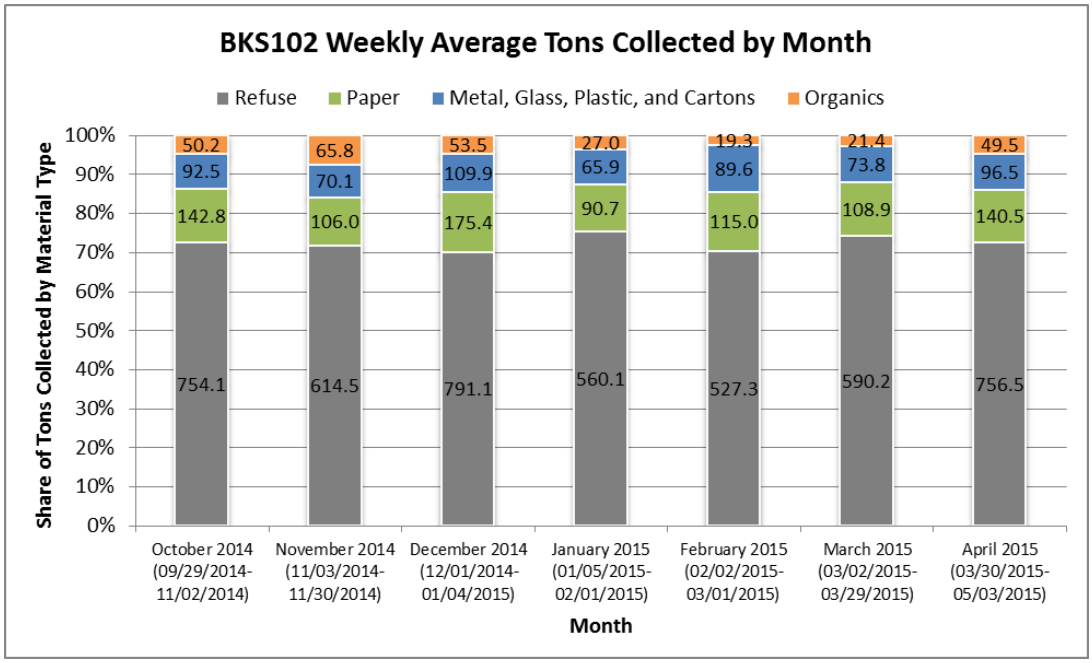


BKS102: Brooklyn South District 10 Section 2 (Bay Ridge)

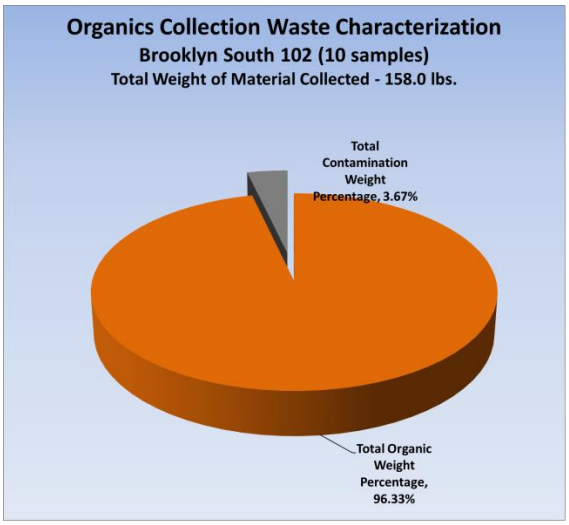
Month joined pilot: April 2014
 # Covered Households: 6,800

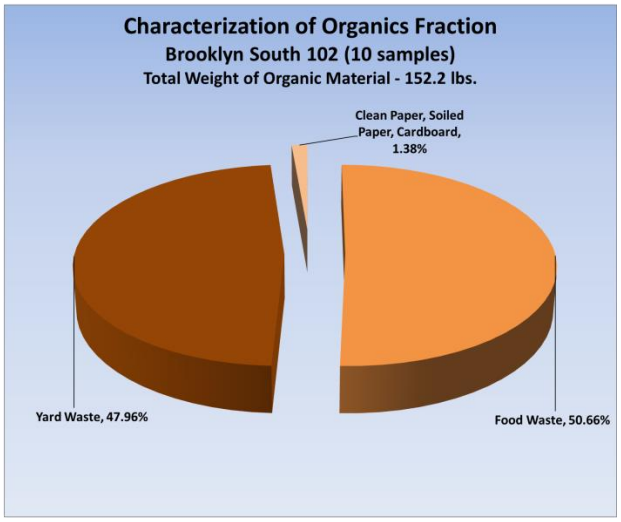
	October 2014 – April 2015
Total Tons Collected	287
Average Weekly Tons Collected	9.3
Diversion Rate without Organics Collection	22.90%
Diversion Rate with Organics Collection	27.30%

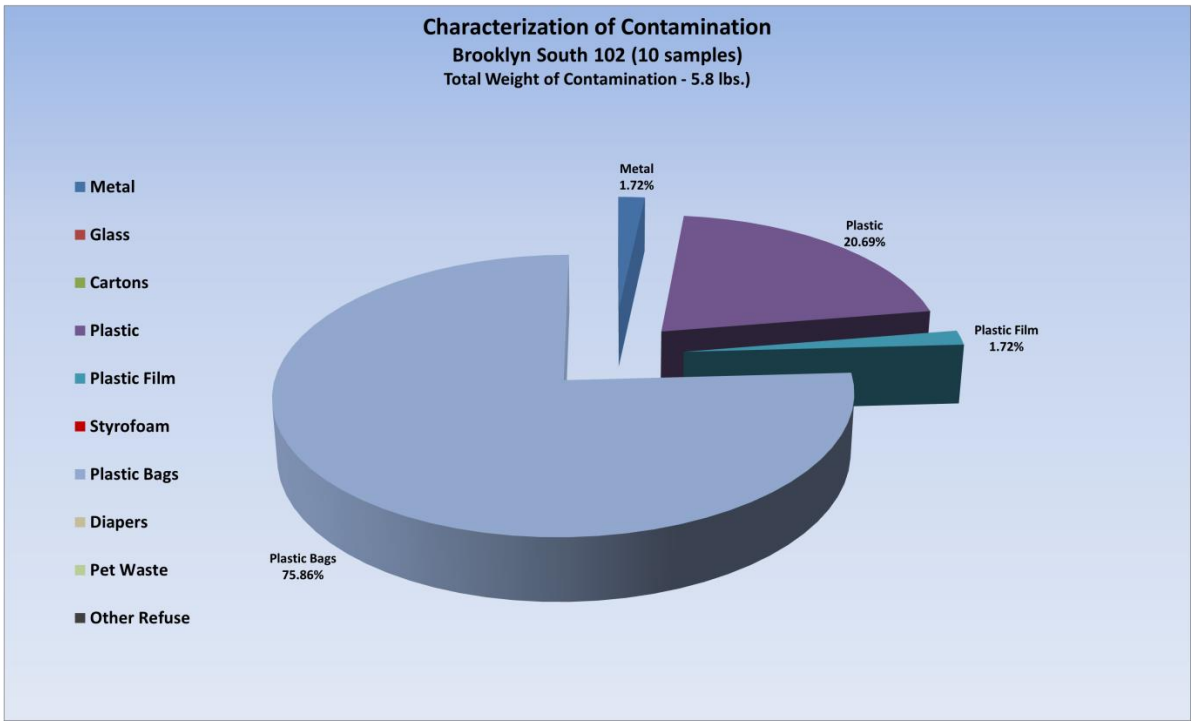




April 2015 Waste Audit Results



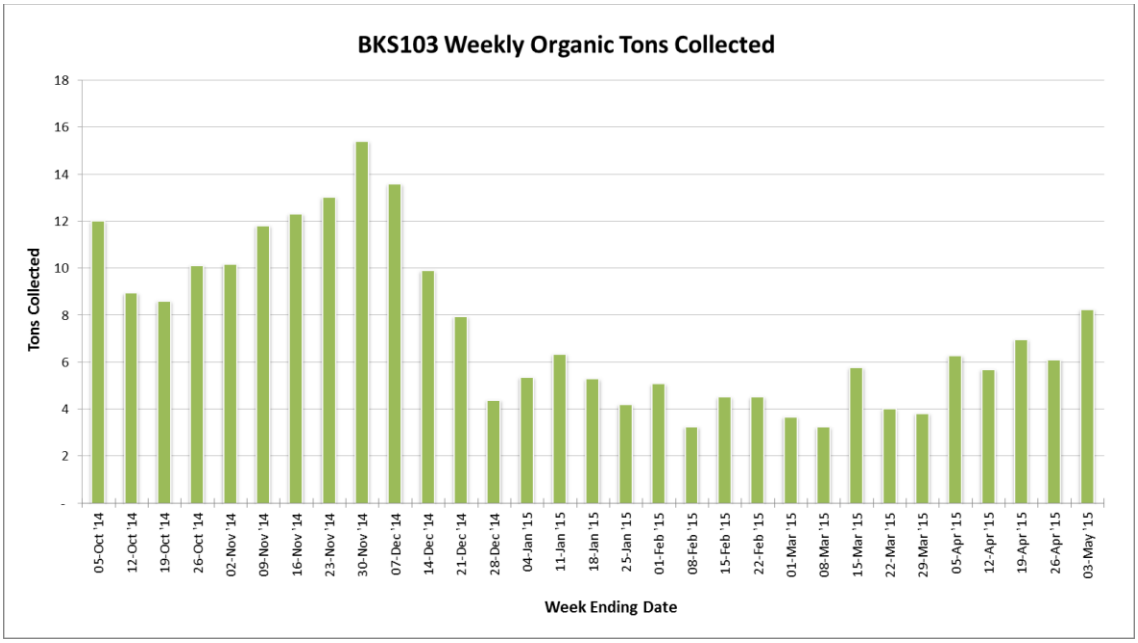


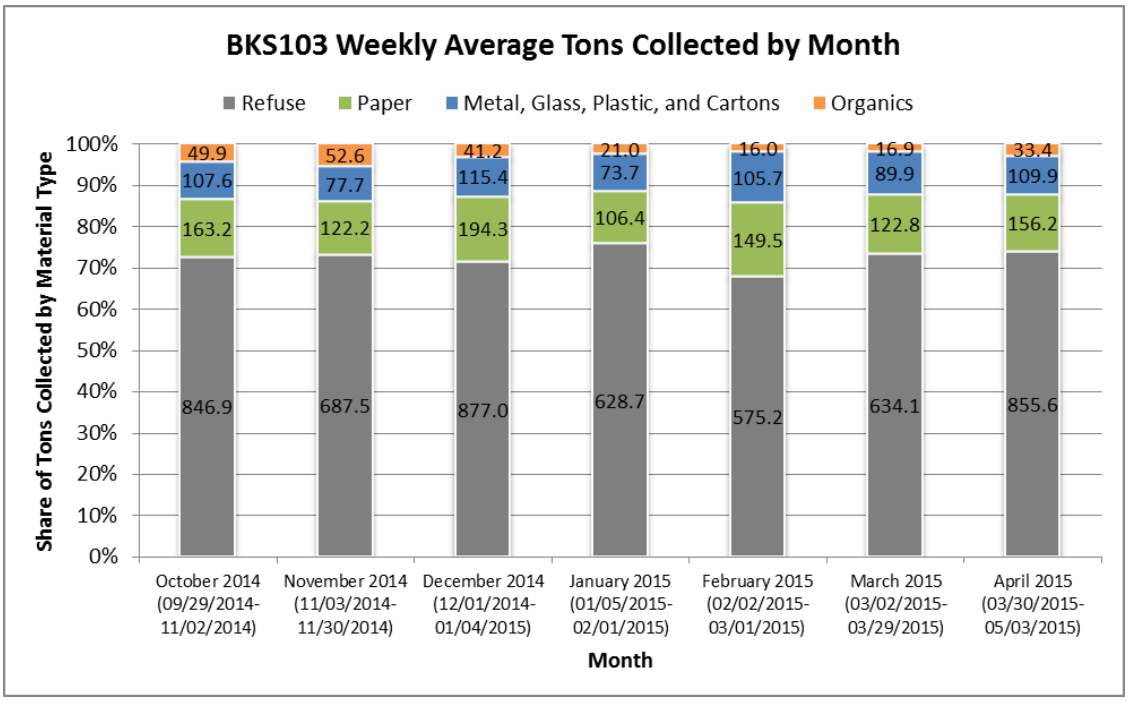


BKS103: Brooklyn South District 10 Section 3 (Bay Ridge)

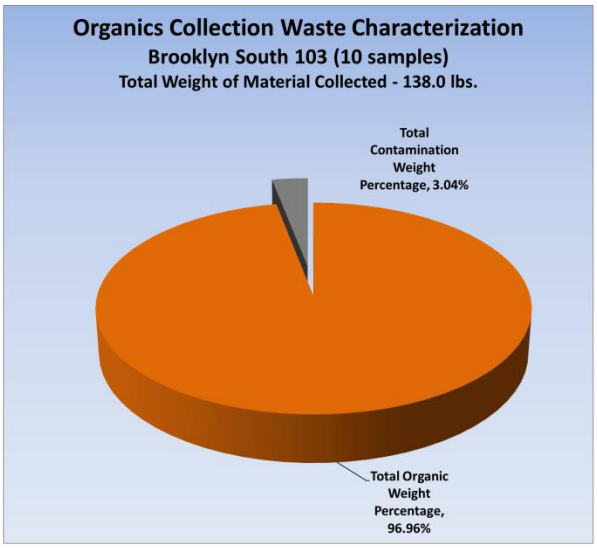
Month joined pilot: April 2014
 # Covered Households: 5,800

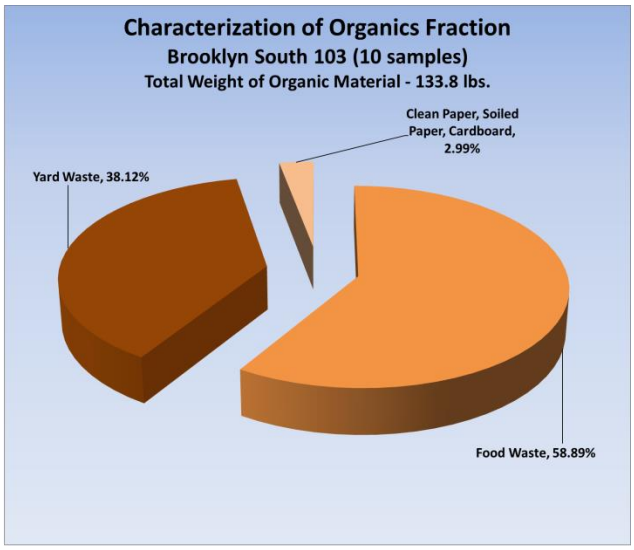
	October 2014 – April 2015
Total Tons Collected	231
Average Weekly Tons Collected	7.5
Diversion Rate without Organics Collection	23.70%
Diversion Rate with Organics Collection	27.00%

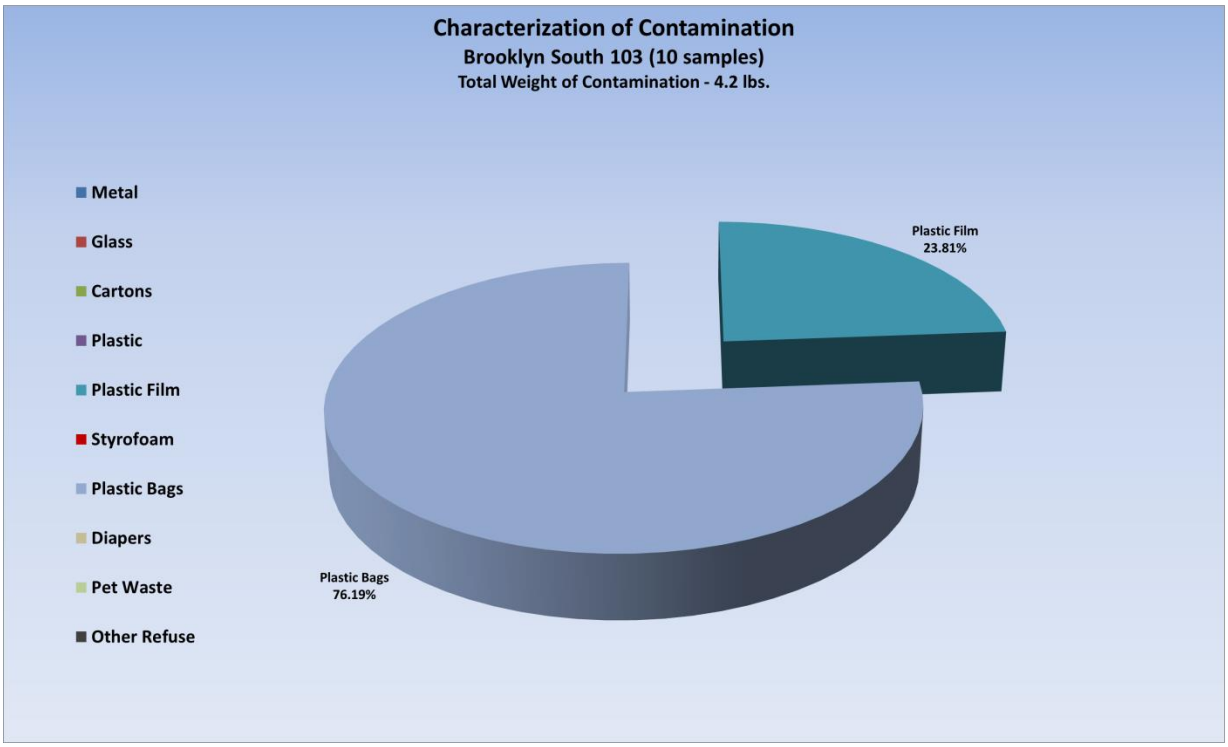




April 2015 Waste Audit Results



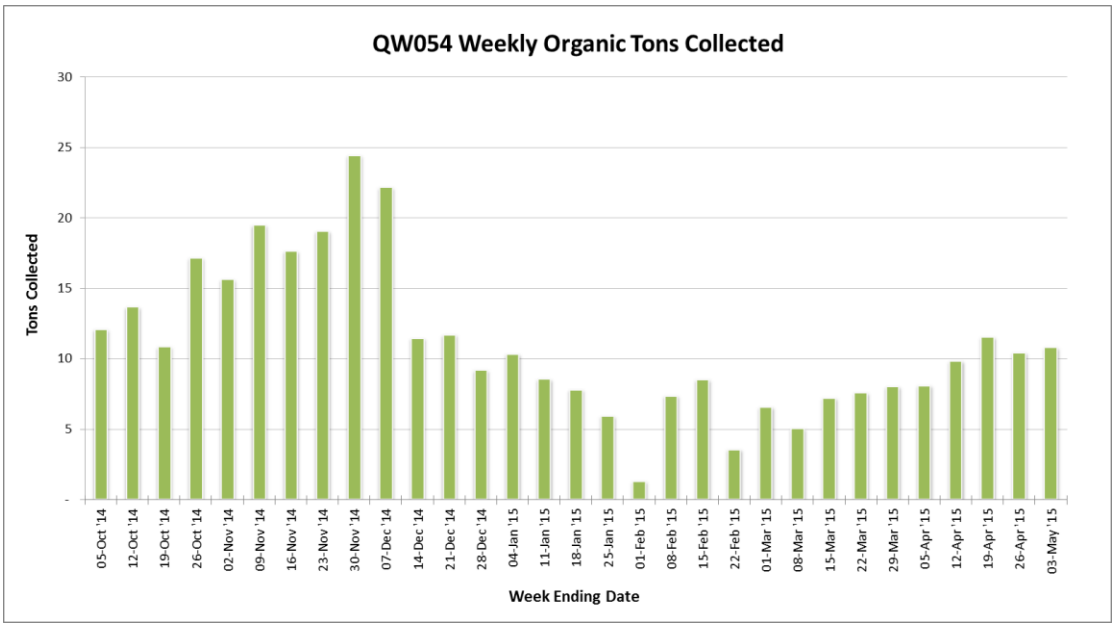


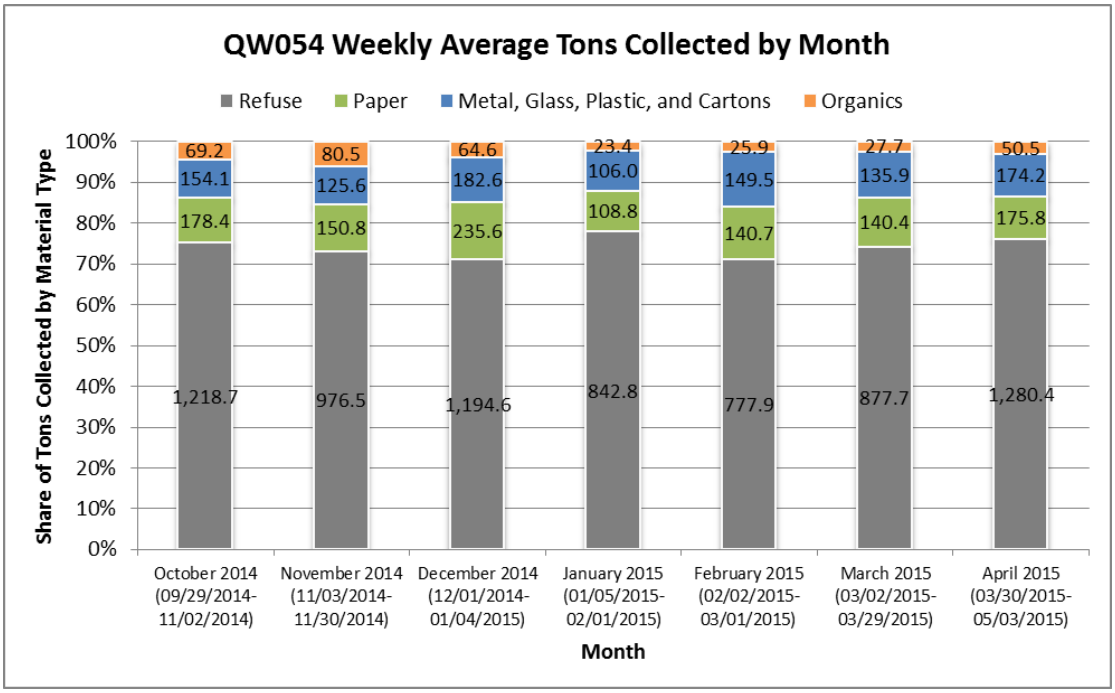


QW054: Queens District 5 Section 4 (Glendale)

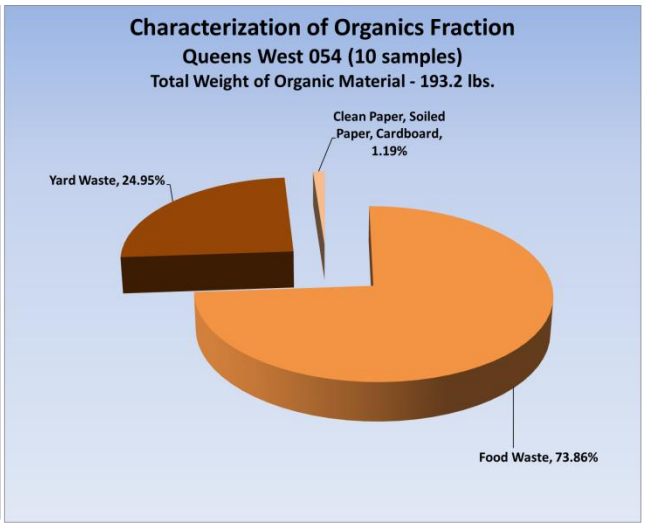
Month joined pilot: June 2014
 # Covered Households: 14,400

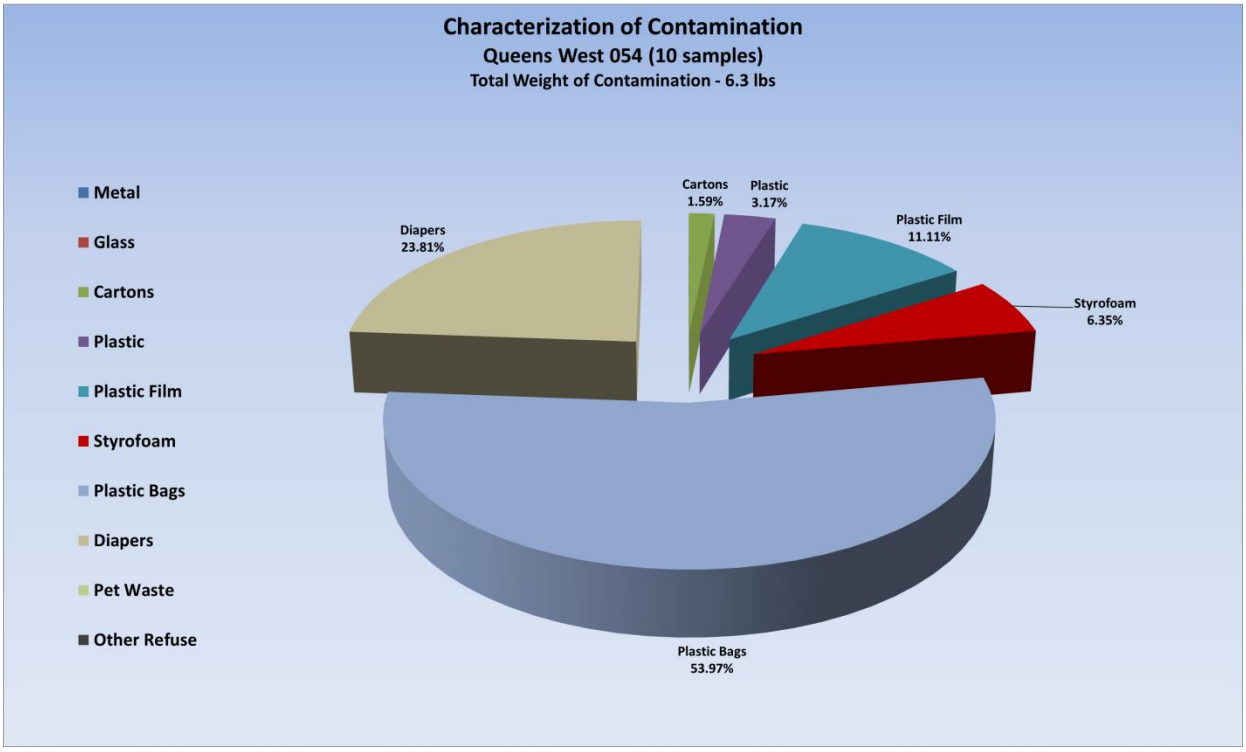
	October 2014 – April 2015
Total Tons Collected	342
Average Weekly Tons Collected	11.0
Diversion Rate without Organics Collection	22.20%
Diversion Rate with Organics Collection	25.60%





April 2015 Waste Audit Results

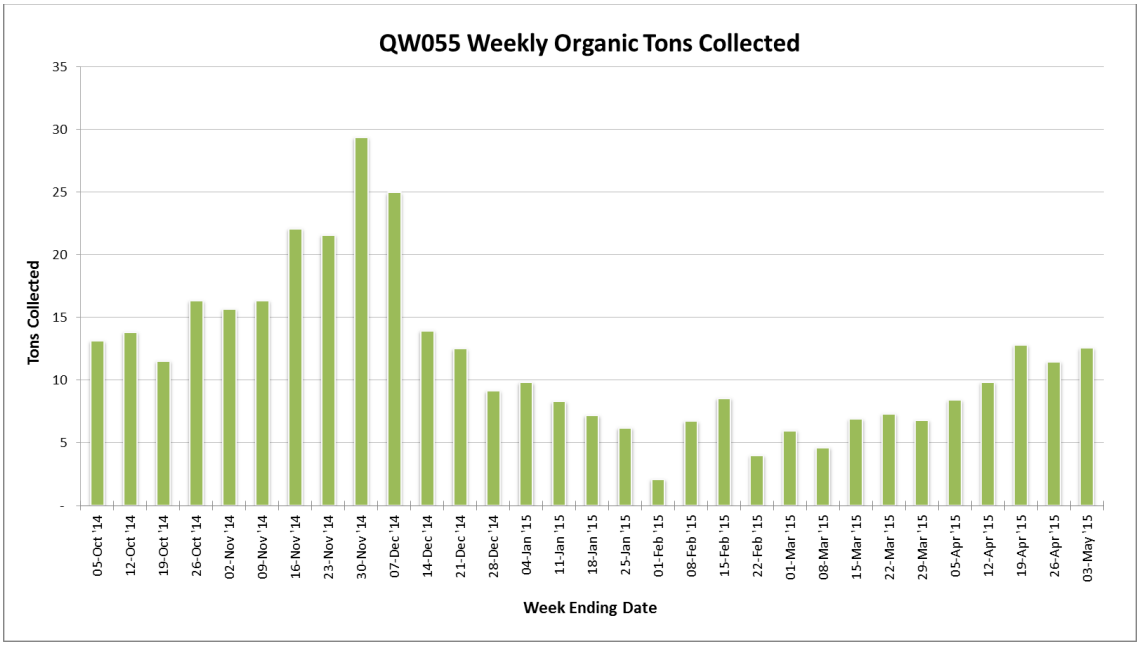


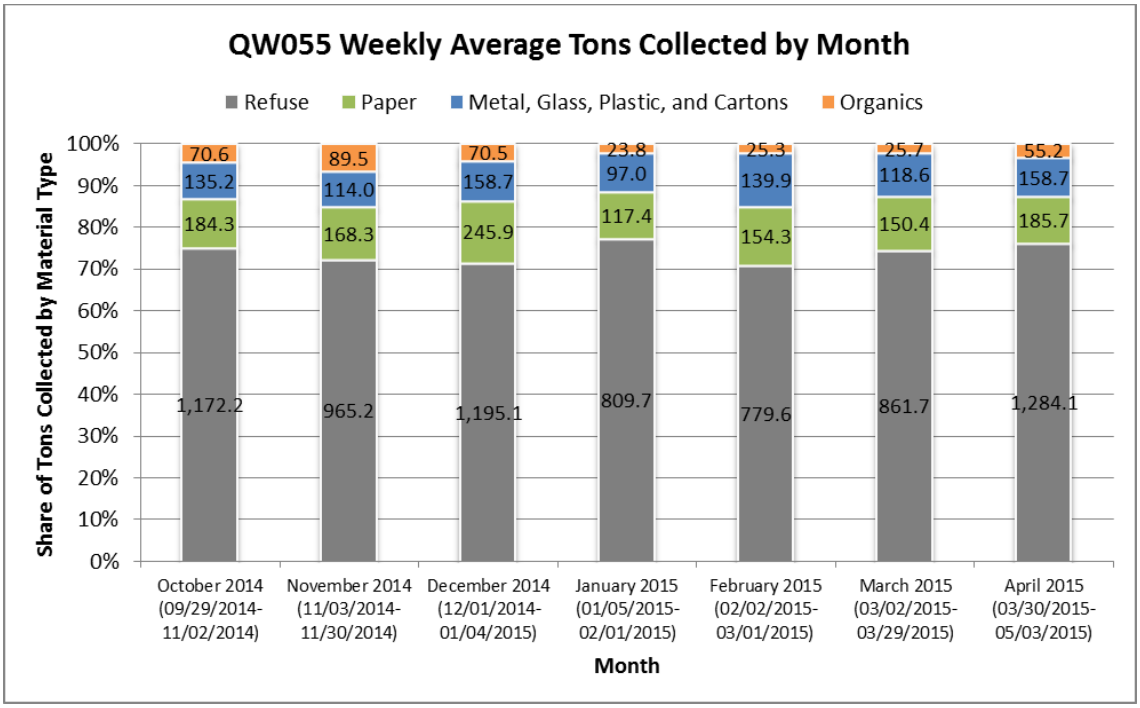


QW055: Queens District 5 Section 5 (Maspeth, Middle Village)

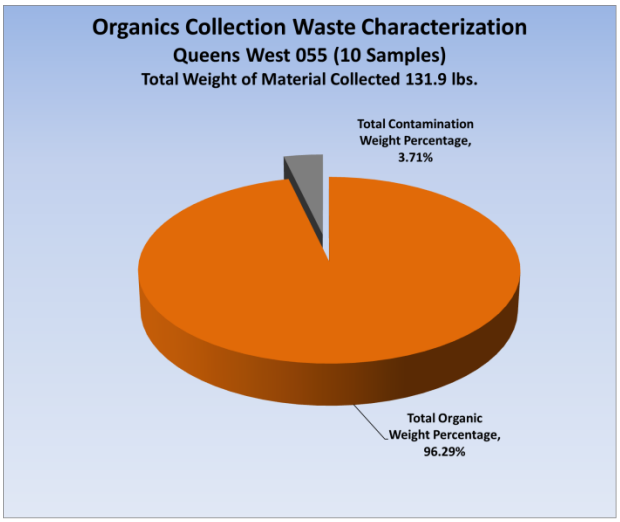
Month joined pilot: June 2014
 # Covered Households: 12,900

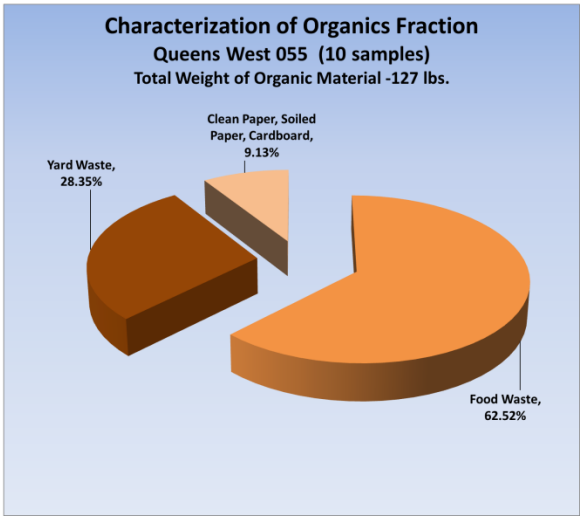
	October 2014 – April 2015
Total Tons Collected	361
Average Weekly Tons Collected	11.6
Diversion Rate without Organics Collection	22.10%
Diversion Rate with Organics Collection	25.70%

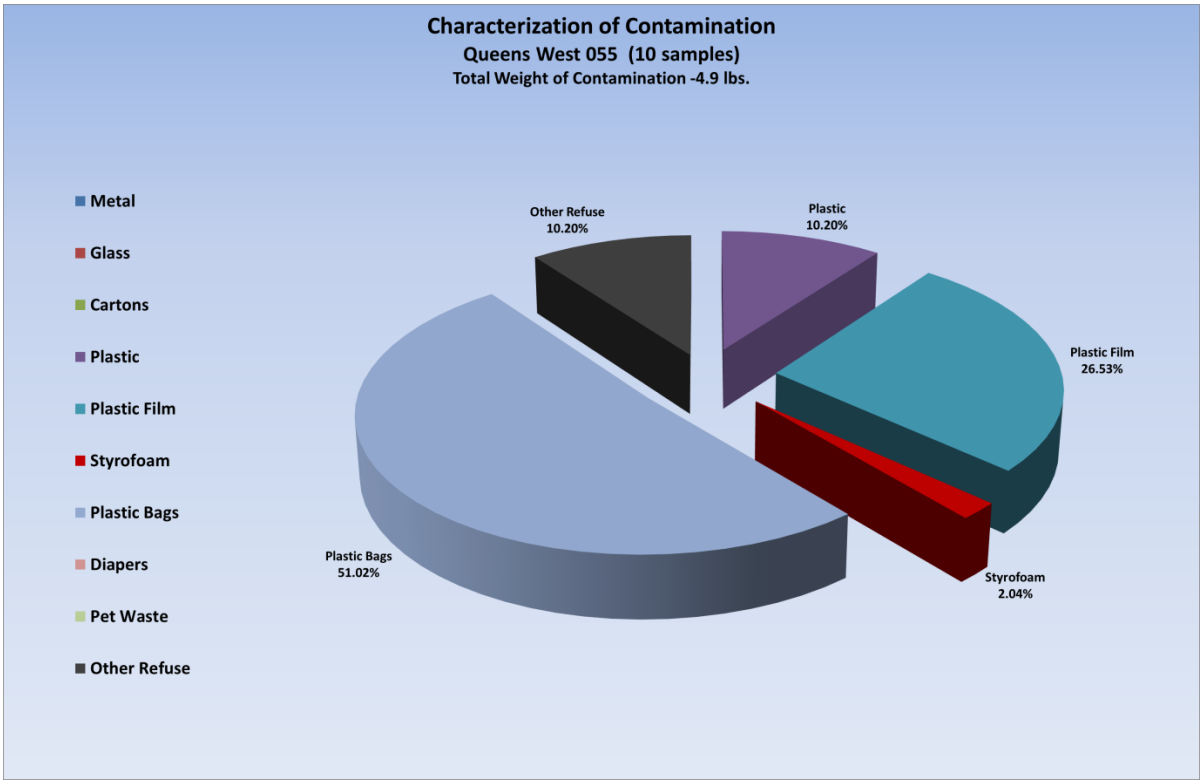




April 2015 Waste Audit Results



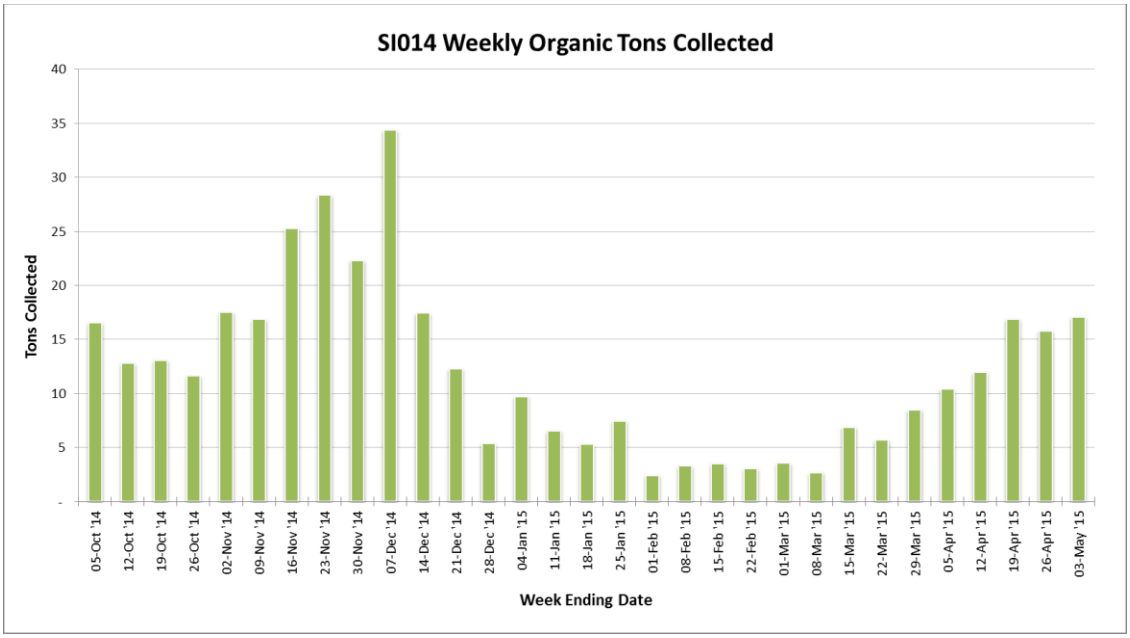


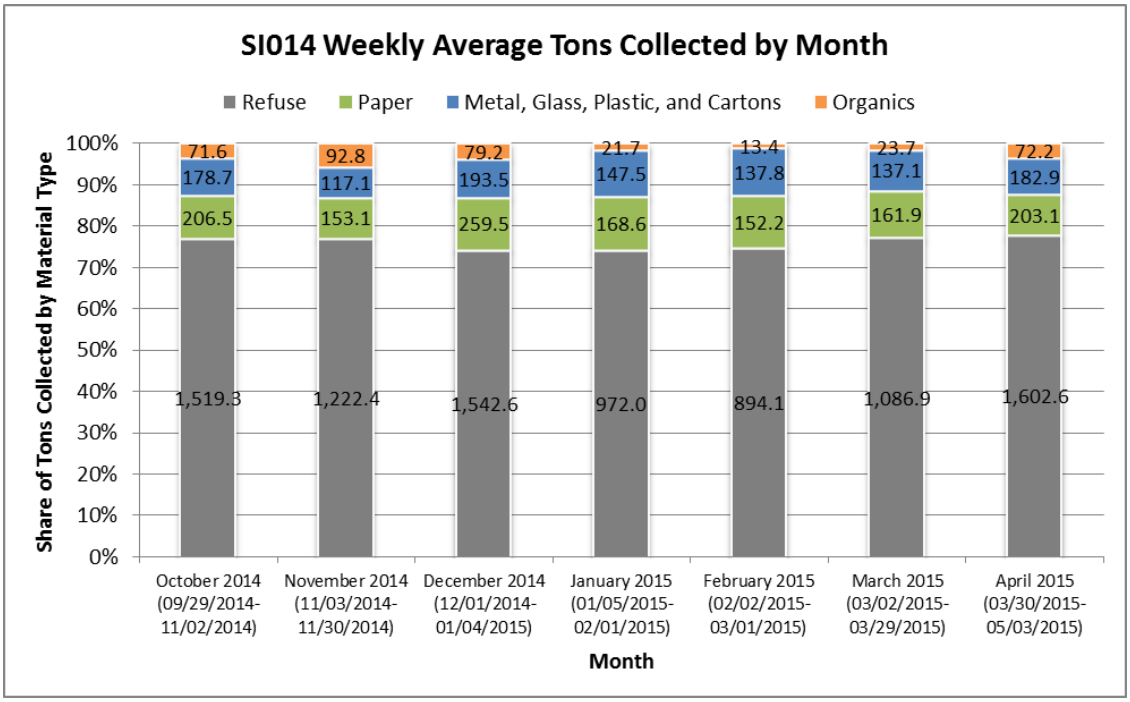


SI014: Staten Island District 1 Section 4 (Westerleigh, Mariner's Harbor, Graniteville, Arlington)

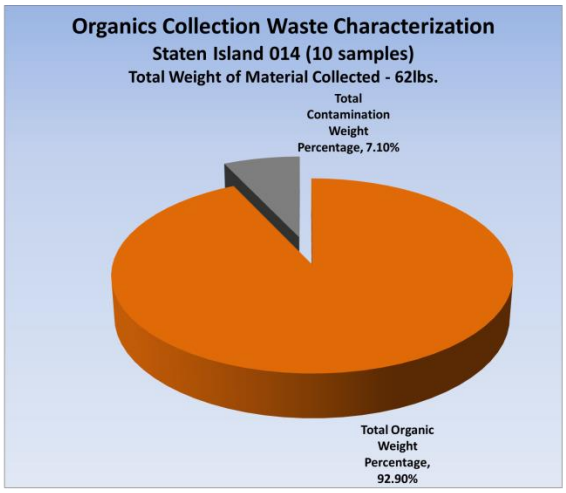
Month joined pilot: May 2013 (partial); October 2013
 # Covered Households: 14,000

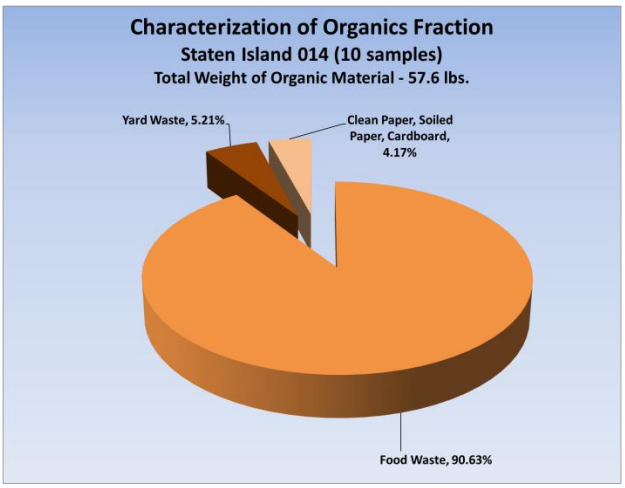
	October 2014 – April 2015
Total Tons Collected	375
Average Weekly Tons Collected	12.1
Diversion Rate without Organics Collection	20.70%
Diversion Rate with Organics Collection	23.80%

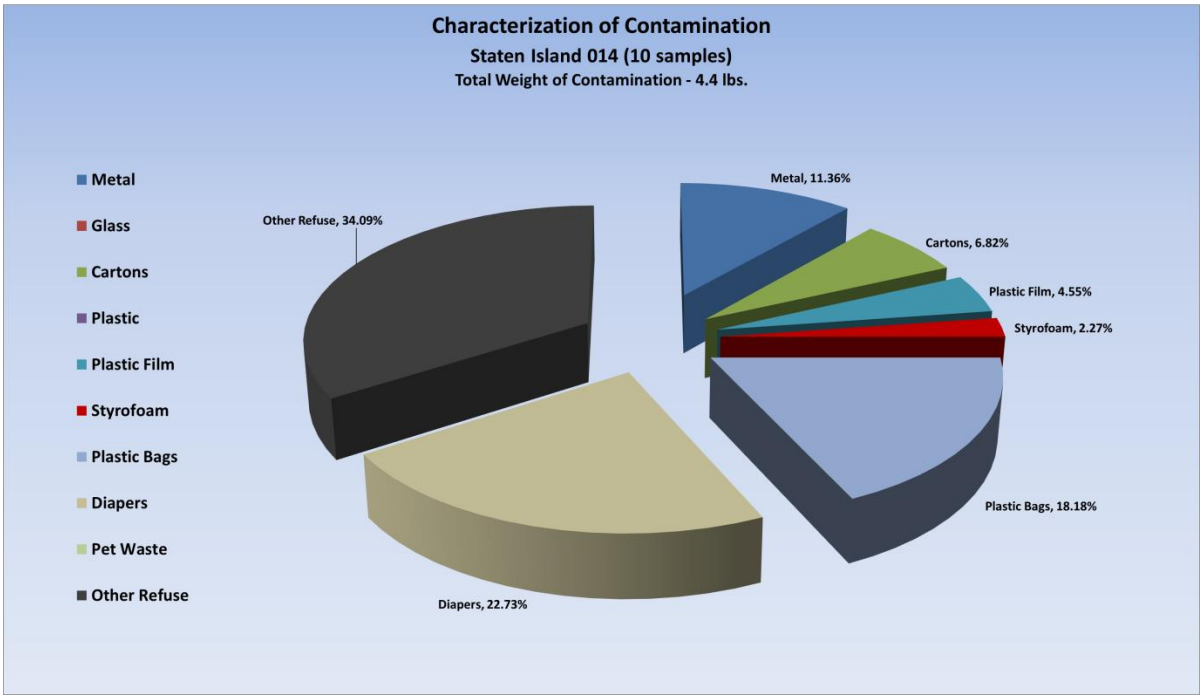




April 2015 Waste Audit Results







MN: Manhattan Apartment Building Organics Collections

Dedicated High Rise Truck Service Began: October 2014
 # Covered Households: 7,533 (82 buildings)

	October 2014 – April 2015
Total Tons Collected	576
Average Weekly Tons Collected	8.9
Diversion Rate without Organics Collection	n/a *
Diversion Rate with Organics Collection	n/a *

* Diversion rates for Manhattan organics collections are not available, because the truck routes for organics collection do not match the truck routes for paper recycling, metal, glass, plastic & carton recycling, and refuse collections.