

# On-Street Food Scraps Collection Pilot

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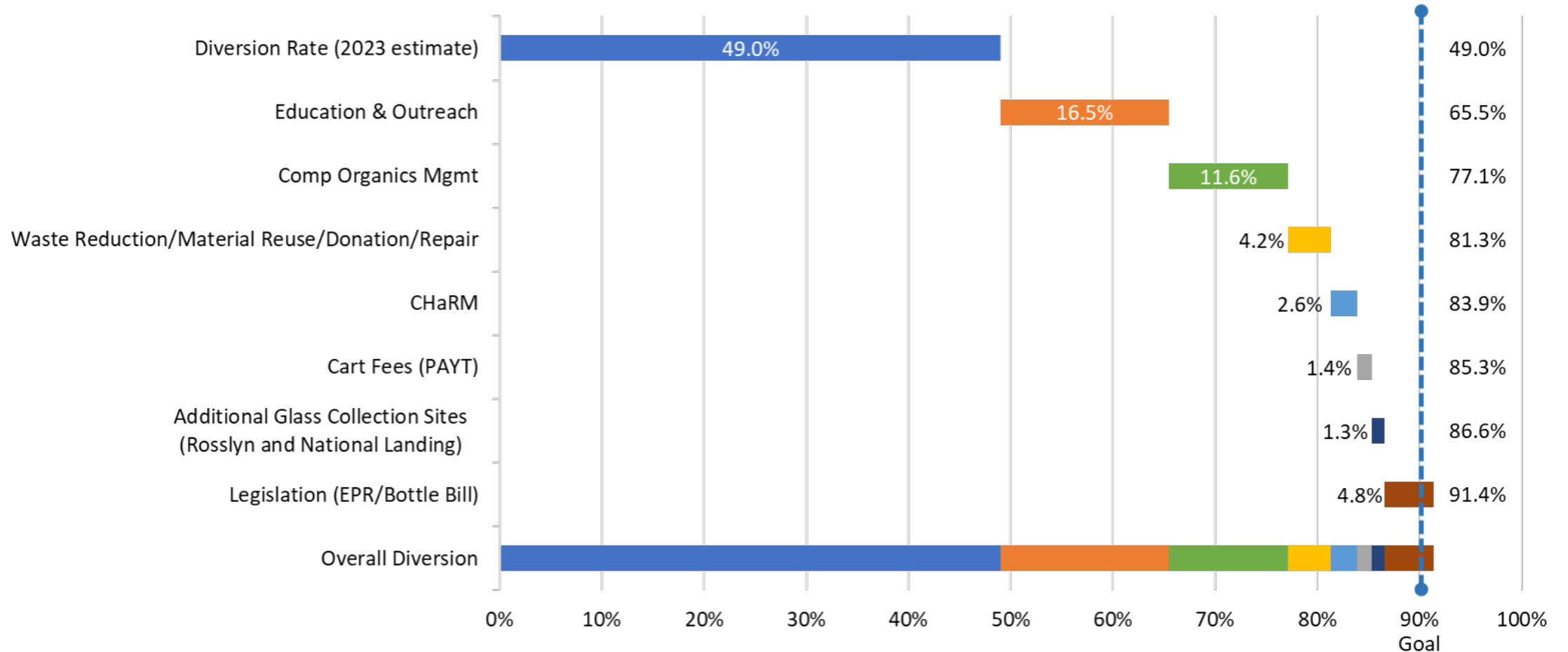
Arlington County Department of Environmental Services  
Solid Waste Bureau  
4300 29<sup>th</sup> St S  
Arlington, VA 22206  
703-228-7953



# Background Notes

- 40% of the food supply goes to waste each year. The United States has announced a goal of reducing food waste by 50% by 2030.
- The typical family disposes of about 8.7 pounds of food per week or which 6 pounds is edible, wasting about \$1800 per year.
- By changing our relationship with food and wasting less, we not only save money, but we save the land, water, energy and chemicals associated with producing the wasted food.
- According to the Environmental Protection Agency, the best way to stop food waste is to not generate it, but once food waste is generated, the best way to manage it is to compost it, turn it into soil amendments which build healthy soils, which grows healthier plants
- Understanding that composting is the best alternative for managing food waste and to further the County's sustainability goals.
- On-street food scraps collection is a way to manage food waste but true success is measured by the elimination of wasted food. By changing our relationship with food, we create changes up the supply chain which saves land, water, and energy resources.

# Cumulative Diversion



# Outreach Materials (This campaign being combined with the Avoid Food Waste Campaign)

## Transit

### Buses (Various Messages) (78)



### Bus Stops (200+)

- Combined messages poster at all bus shelters
- Using the On-street food waste bin, only at bus shelters where bins are located

## Cabs

- Messages displayed on electronic message boards



## Messages



# Outreach (Con't)

## Posters (Multi-family Properties)

Avoid Food Waste  
On-street Food Scraps

## Social Media Campaign- contracting

## Street Signs- Messages

## Website Updates

Food Scraps Collection Page  
Food Waste Prevention Page

## Videos-

*Food is Not Trash: Recycle Food Scraps Using the on-street Bigbelly Collection Program*

**Residential Food Scraps Collection**

**Avoid Food Waste**

**On-Street Food Scraps Collection**

**Food Scraps Drop-Off**

**ARLINGTON VIRGINIA**

### Toss Your Food Scraps at a Nearby Collection Bin

Arlington County has launched a pilot on-street food scraps collection program. Here's how it works:

- Download the Bigbelly Smart Compost app from the App Store or Google Play.
- The app will show the locations of on-street collection bins, their availability and what items are accepted.
- An unlock button will appear once you are within reach of the available bin. Tap the button to unlock the bin.
- Open the lid, toss your food scraps and close the lid. It's that easy!

On-street food scraps collection bin locations:

<b>National Landing</b> Crystal Dr. & 13th St. S.	<b>Outleppor Gardens</b> 4500 block of N. Henderson Rd.	<b>Arlington Mill Community Center</b> 500 S. Dumoia St.
<b>Slaba Road</b> 2500 S. Slaba Road	<b>Clayton Park</b> N. Slaty St. & Washington Blvd.	
<b>Amory Highwoods Library</b> 730 18th St. S.	<b>Beasley</b> N. Plank St. & Charendon Blvd.	
	<b>N. Plank St. &amp; Wilson</b>	

Scan here to learn more.

**ARLINGTON VIRGINIA**

# AVOID FOOD WASTE

- Manage portion sizes.
- Make a grocery list.
- Only buy what you need.
- Compost food scraps.
- Eat your leftovers.
- Understand date labels.
- Freeze to save food.
- Eat fresh foods first.
- Order out wisely.

Save money, conserve resources—one habit at a time.

Scan here to learn more.

# On-Street Food Scraps Drop-off Pilot

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The SWMP/ZWP calls for comprehensive organics management in the future for offices, restaurants and multi-family properties, this means the separate collection of food waste.

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Working towards this goal, the County is piloting an on-street food scraps collection program for Multi-family properties.

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This pilot program will evaluate on-street food scraps collection at select multi-family properties. Multi-family units make up approximately 70% of housing and is where most Arlington residents live.

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The pilot will allow the County to assess collection viability, container performance, participation, and evaluate the most effective education efforts.

# Smart Bin Design

Bright LED indicators signal drop-off availability

Removable, easy clean hopper liner

Ergonomic low lift height, leak-proof internal bin

Anchor plate to easily and securely mount concrete pad or sidewalk

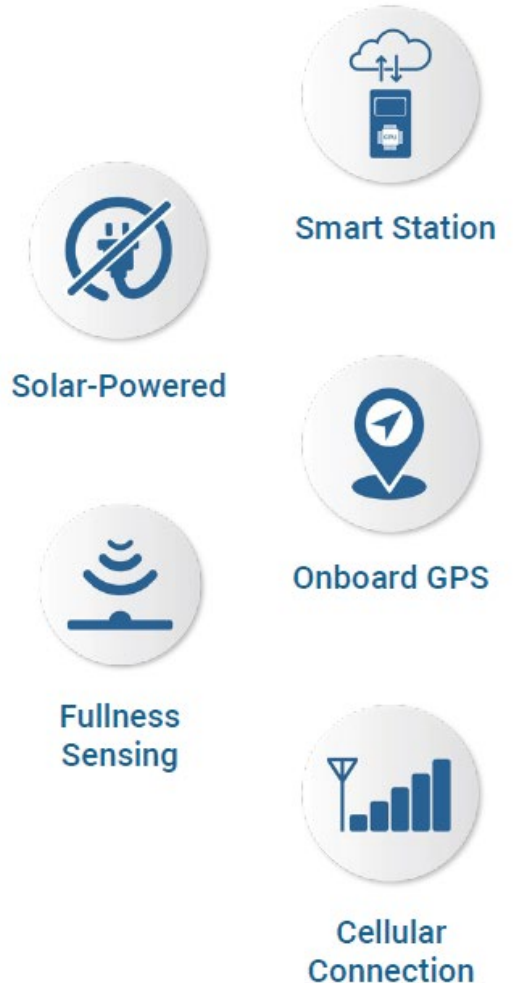


Height sensor measures & reports bin fullness level

Locked hopper door only opens for App subscribers

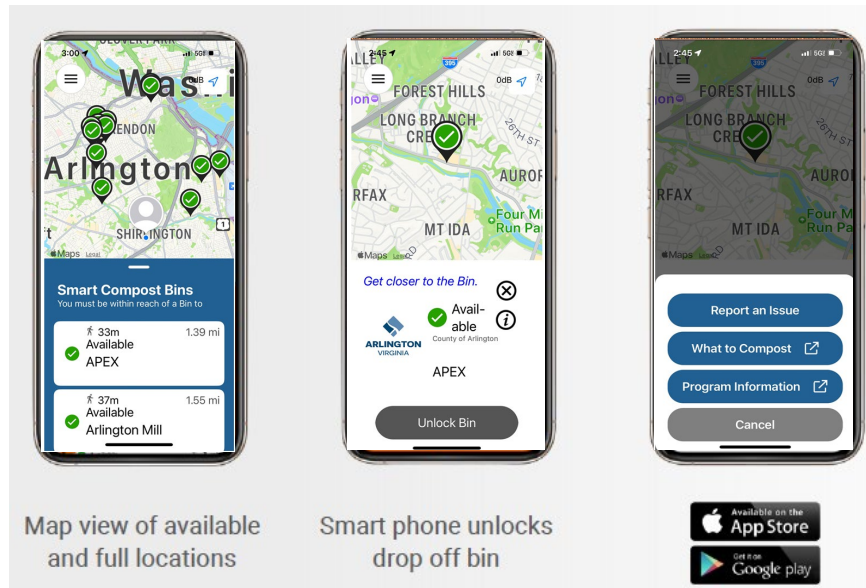
QR Code linked to App and Food scrap information

Foot Pedal with a delayed response safety feature allows for hands-free compost disposal



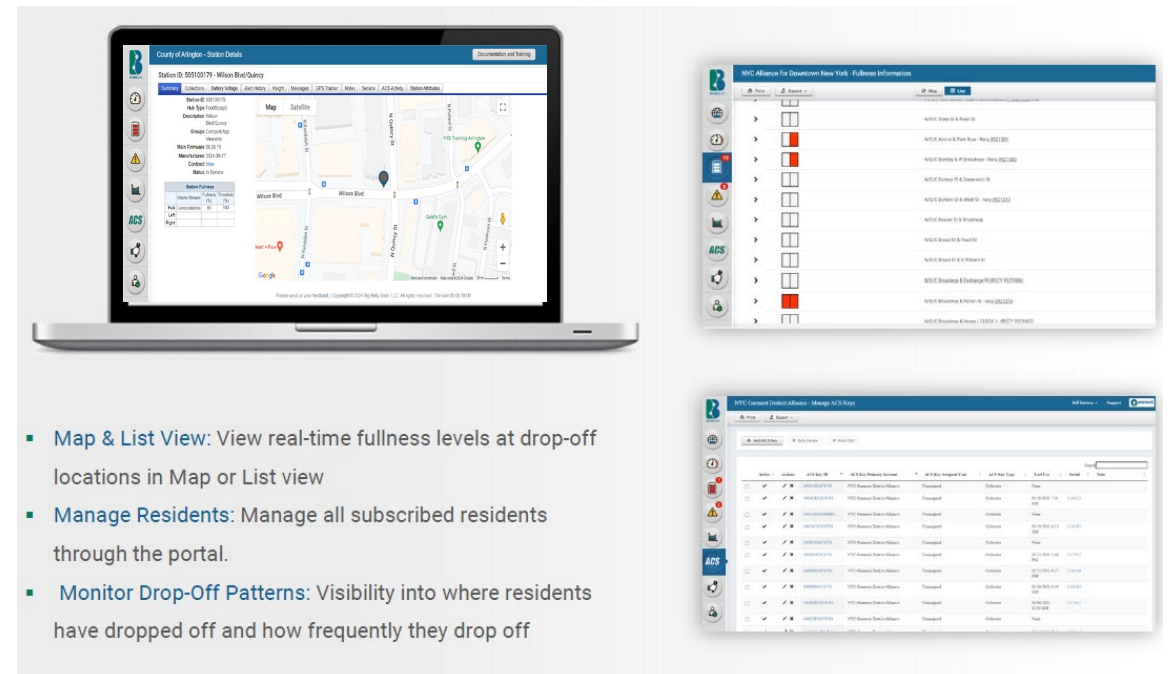
# Mobile App & Web-based Management Portal

## Resident/User Interface Smart Phone App



- Required to access drop-off bin
- Anonymous registration
- 24/7 Access

## Web-based Management (Backend)





# Procurement

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- Litter Grant Use- approved by DEQ
- EVA Quote- purchasing mechanism
- Specifications
  - Number of Units
  - Internal Liners (additional)- supported collection construct
  - Wrap Design
  - Software subscription, App access
  - Delivery Cost included
  - Installation
  - Training
  - Warranty

# Pilot Concept



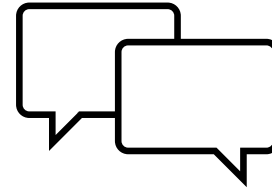
14 Geographically dispersed locations throughout Arlington County



Using 14 access-controlled collection bins to limit contamination



County Litter Staff will monitor, maintain, and empty bins



Ongoing Outreach and education



Develop best practices and implementation resources for Arlington community

# Placement Criteria

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- Near Multi-family properties
- Higher the density the better
- Located where people naturally congregate
- County Property/ County Right of Way (Bus Stops/Metro Stations/ Recycling Centers/sidewalks)
- Equity- distributed broadly
- Redundancy (initial concept)/ replaced with density
- Nothing permanent (concrete pads for placement)

# Customized Solution

Custom Wrap



Concrete Pad



Bag Dispenser



# Exterior Bin Design



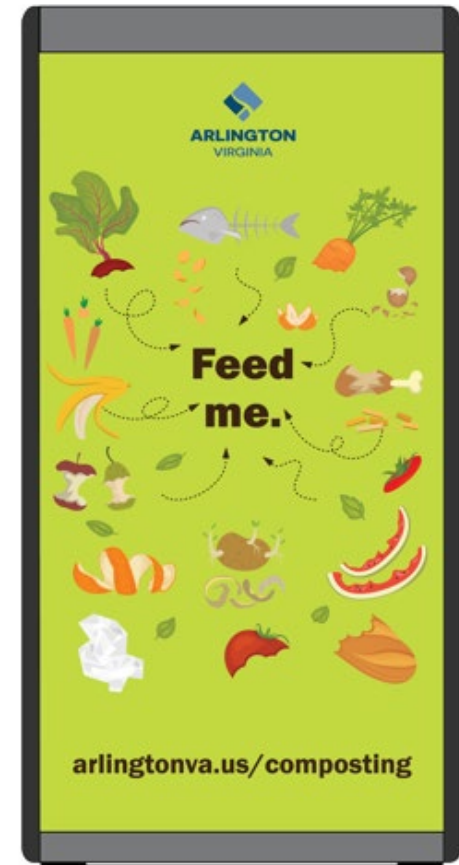
LEFT



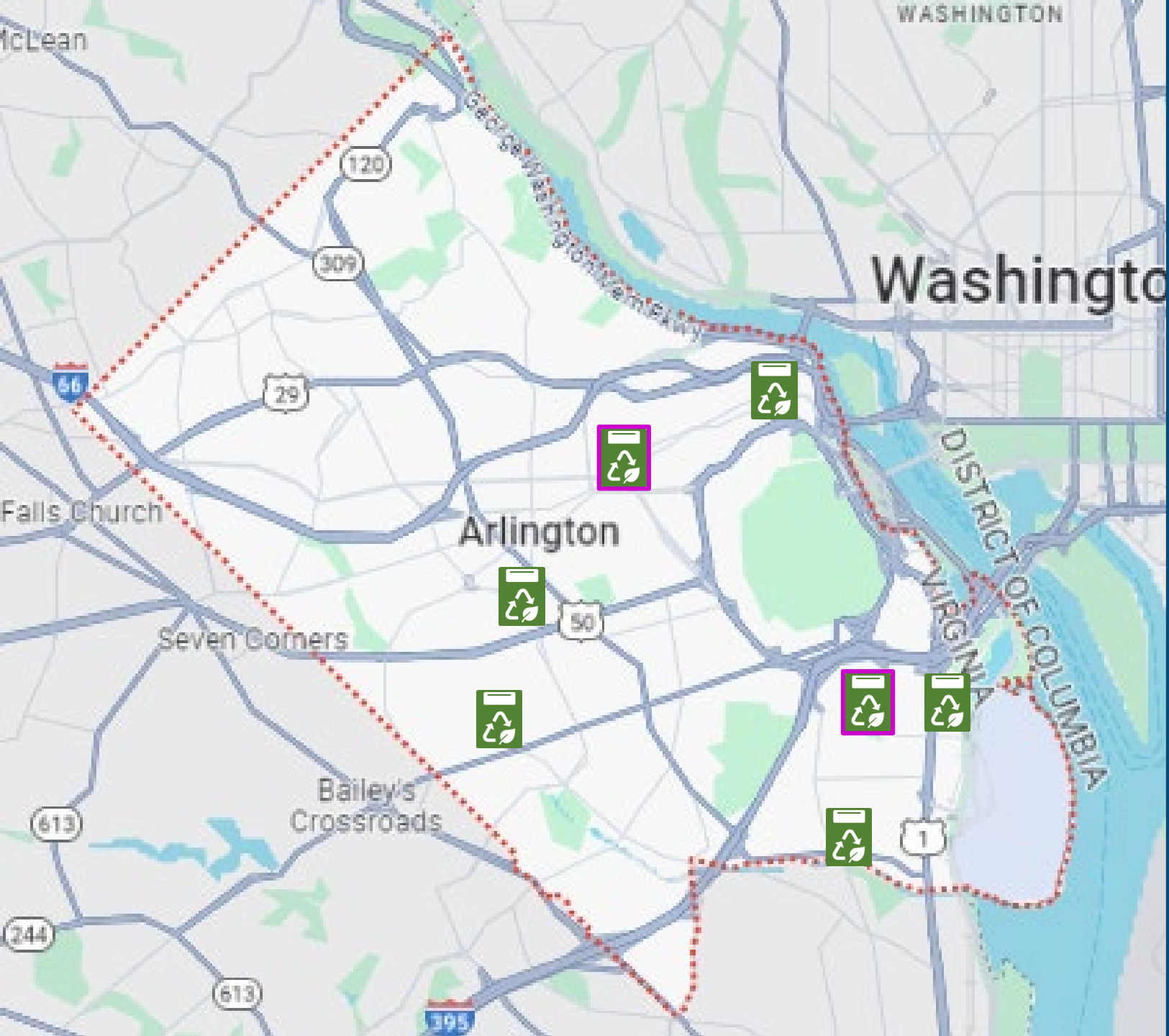
FRONT



RIGHT



REAR



# Locations



## Multi-Family Properties

- Rosslyn
- National Landing
- S. Glebe Road
- Arlington Mill Community Center
- Culpepper Gardens

## Glass Drop-off Sites

- Quincy Park
- Aurora Highlands Library

### Legend

-  Select Multi-family Properties
-  Co-located with Glass Drop-offs

# Original Plan



# Where Should the Bins Go? County Profile Data

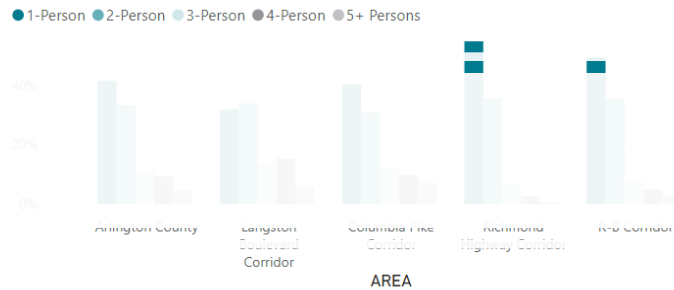
## CPHD 2024 Estimates

AREA	Population	Households	Units	At-Place jobs
R-B Corridor	63,900	36,200	38,380	88,300
Richmond Highway Corridor	25,600	15,700	16,700	52,500
Columbia Pike Corridor	39,200	18,100	19,070	8,300
Langston Boulevard Corridor	22,700	9,900	10,280	5,300
Arlington County	240,900	117,700	123,700	221,400

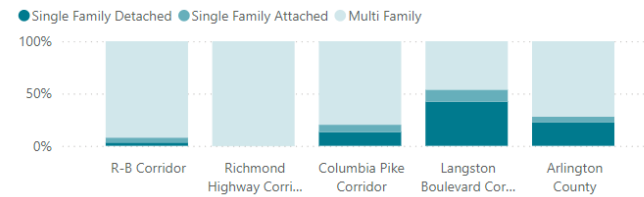
## Population Density (Persons per Acre)



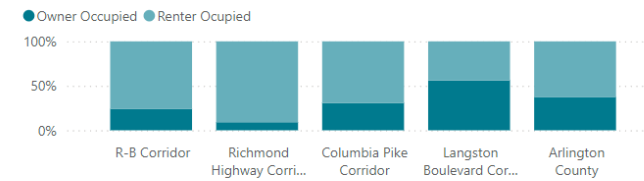
## Persons Per Household



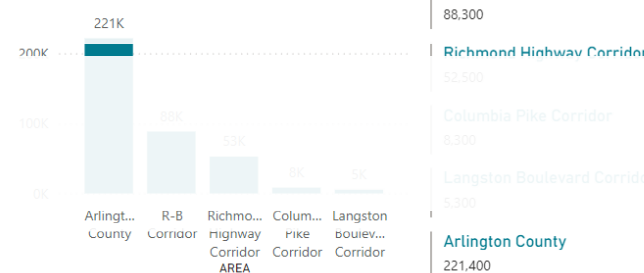
## Housing Unit Type



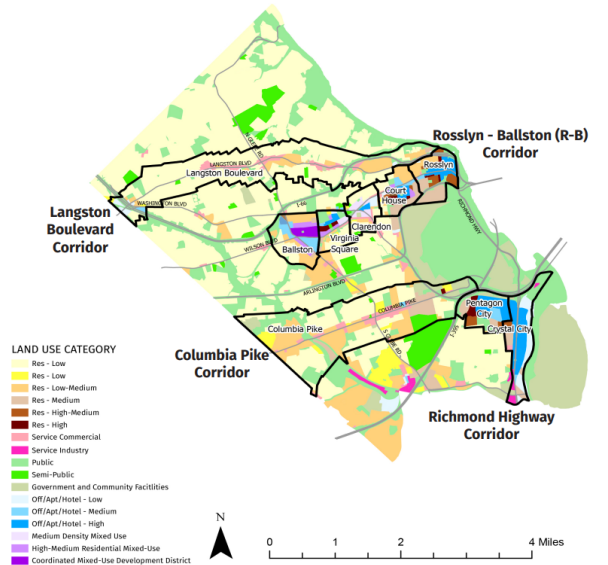
## Housing Occupancy



## At-Place Jobs



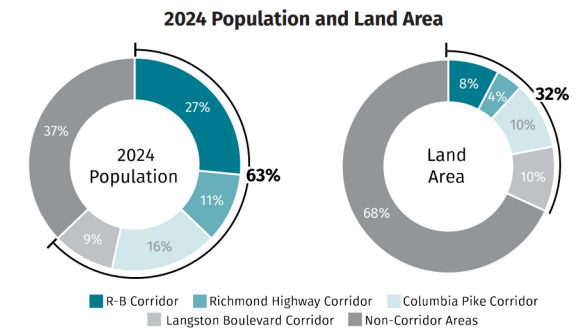
## General Land Use Plan and Planning Corridors Map



## 4 Profile 2024

## Population

**63%** of Arlington's population reside in planning corridors, with the addition of the Langston Boulevard Planning Corridor.





# Where Should the Bins Go? County GIS Data

**ARLINGTON VIRGINIA** Arlington County, VA - Official GIS Open Data Portal

Records: Filtering **659** of 34,279

Fairfax County, VA, M-NCPPC, VITA, Esri, HERE, Garmin, USGS, EPA, NPS

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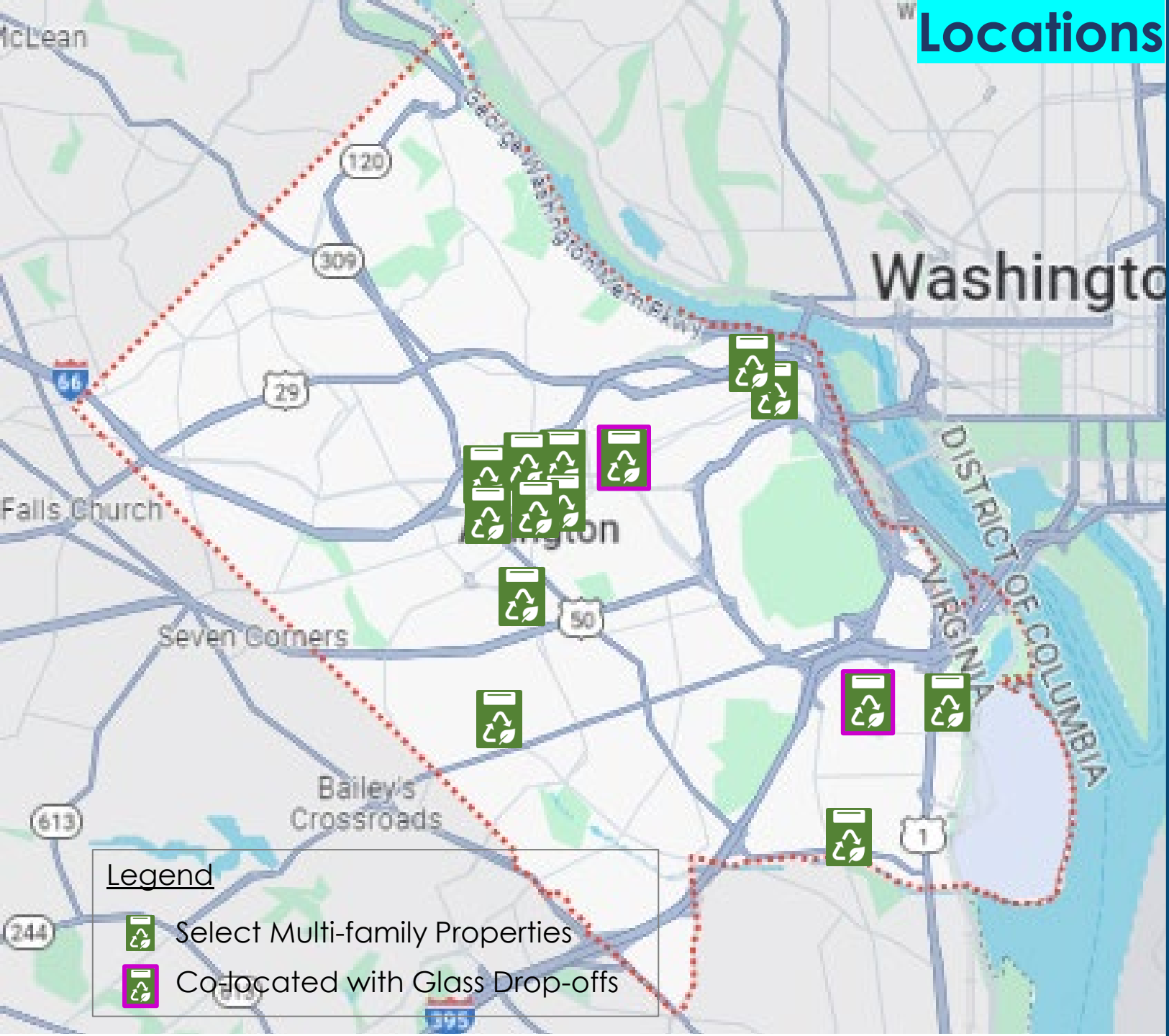
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**Master Housing Unit Database**

Unit_Type	MULTI
Type_Description	Apartment Elevator
Affordability_Type	MARKET ONLY
Total_Units	452
AF_Units	0

Fairfax County, VA, M-NCPPC, VITA, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA

# Locations



**Legend**

- Select Multi-family Properties
- Co-located with Glass Drop-offs

- Rosslyn
  - Wilson Blvd & N. Pearce St (SE corner)
  - Clarendon Blvd & N. Pearce St (NW corner)
- National Landing- Crystal Dr & S. 18<sup>th</sup> St (at the bus stop)
- 2910 S. Glebe Road Rd (at bus stop across from the shopping center)
- Arlington Mill Community Center (at bus Stop on S. Dinwiddie St)
- Culpepper Gardens (at bus stop on N. Pershing Dr)
- Ballston
  - Metro Station- Intersection of Fairfax Dr and N Monroe Street
  - Intersection Fairfax Dr & N Quincy Street (NW corner)
  - Metro Station-Intersection of Fairfax Dr & N Stuart Street
  - Intersection Wilson Blvd & N Stuart Street (SE corner)
  - Intersection Wilson Blvd & N Quincy Street (NE corner, by bike share racks)
  - Intersection Wilson Blvd & N Oakland Street (NE corner at bus stop)
- Glass Drop-off Sites
  - Quincy Park
  - Aurora Highlands Library

# Outreach Materials

- Info-card (How to Guide)
- Caddies for some participants
- MF Outreach Materials in Various Languages
  - Spanish, Chinese, Arabic, & Indo-European, etc.



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- 1. Download the Bigbelly Smart Compost app from the App Store or Google Play.
- 2. The app will show the locations of on-street collection bins, their availability and what items are accepted.
- 3. An unlock button will appear once you are within reach of the available bin. Tap the button to unlock the bin.
- 4. Open the lid, toss your food scraps and close the lid. It's that easy!

**On-street food scraps collection bin locations:**

Bin Location	Accepted Items
National Landing Crystal Dr. & 28th St. S.	ALL FOOD SCRAPS Meat & Bones Eggs Dairy Bread/Bakery Sauces & Spices Nuts Cheese Egg Shells Yogurt Dishes & Food Fruit/Vegetables/Herbs Food Clippings & Scraps Savory Pita No Sticks
Oldpaper Gardens 4500 Block of N. Henderson Rd.	NOY TOYS, PHOTOGRAPHIC MATERIAL Kerosene or Gasoline Oils Cigarettes Candles Paint Flammable Liquids Flammable Solids Flammable Gases Flammable Powders Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes
Quincy Park N. Cotney St. & Washington Blvd.	NOY TOYS, PHOTOGRAPHIC MATERIAL Kerosene or Gasoline Oils Cigarettes Candles Paint Flammable Liquids Flammable Solids Flammable Gases Flammable Powders Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes
Resilio N. Pierce St. & Clarendon Blvd.	NOY TOYS, PHOTOGRAPHIC MATERIAL Kerosene or Gasoline Oils Cigarettes Candles Paint Flammable Liquids Flammable Solids Flammable Gases Flammable Powders Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes
Library 735 18th St. S.	NOY TOYS, PHOTOGRAPHIC MATERIAL Kerosene or Gasoline Oils Cigarettes Candles Paint Flammable Liquids Flammable Solids Flammable Gases Flammable Powders Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes
Arlington MFR Community Center 309 S. Dinwiddie St.	NOY TOYS, PHOTOGRAPHIC MATERIAL Kerosene or Gasoline Oils Cigarettes Candles Paint Flammable Liquids Flammable Solids Flammable Gases Flammable Powders Flammable Pastes Flammable Pastes Flammable Pastes Flammable Pastes

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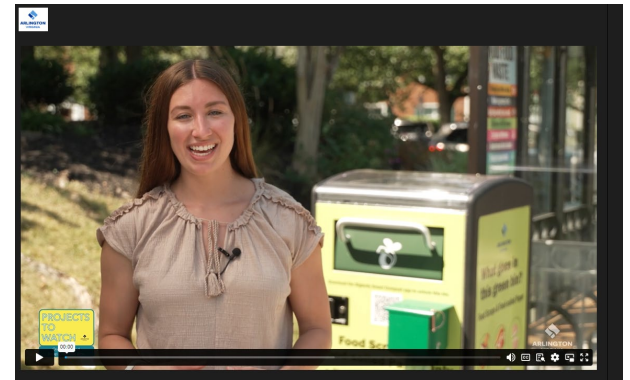
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# On-Street Food Scraps Collection Videos

<https://www.youtube.com/watch?v=fFFg8xZk7FM>



<https://vimeo.com/arlingtonva/review/975676092/d40d4a27bb>



# Timeline

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July/August 2024

- Install smart bins & engage residents

Ongoing

- Develop/Deploy education and outreach materials

July 2024 – July 2025

- Periodic engagement
- Evaluate data and survey results

# Determining Success

Objectives	KPIs	Measure	Data Analysis
<ul style="list-style-type: none"><li>• <b><u>Avoid Food Waste Campaign</u></b><ul style="list-style-type: none"><li>• Program Awareness</li><li>• Less Wasted Food</li><li>• Save Money</li><li>• Save Natural Resources</li></ul></li><li>• <b><u>On-street Food Scraps Collection</u></b><ul style="list-style-type: none"><li>• Program awareness/ participation</li><li>• Divert food scraps from incineration</li><li>• Proof of concept for on-street container program</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Tonnage collected by site</li><li>• Participation</li><li>• Visits per day/week (Bigbelly data) by site</li><li>• Container Collection frequency (weekly/monthly)</li><li>• Social media click through rates for information resources</li></ul>	<ul style="list-style-type: none"><li>• Participation</li><li>• Tonnage</li><li>• Collection frequency</li><li>• Equipment reliability</li></ul>	<ul style="list-style-type: none"><li>• Analyze Data- data analytics tools for trends, patterns, performance</li></ul>

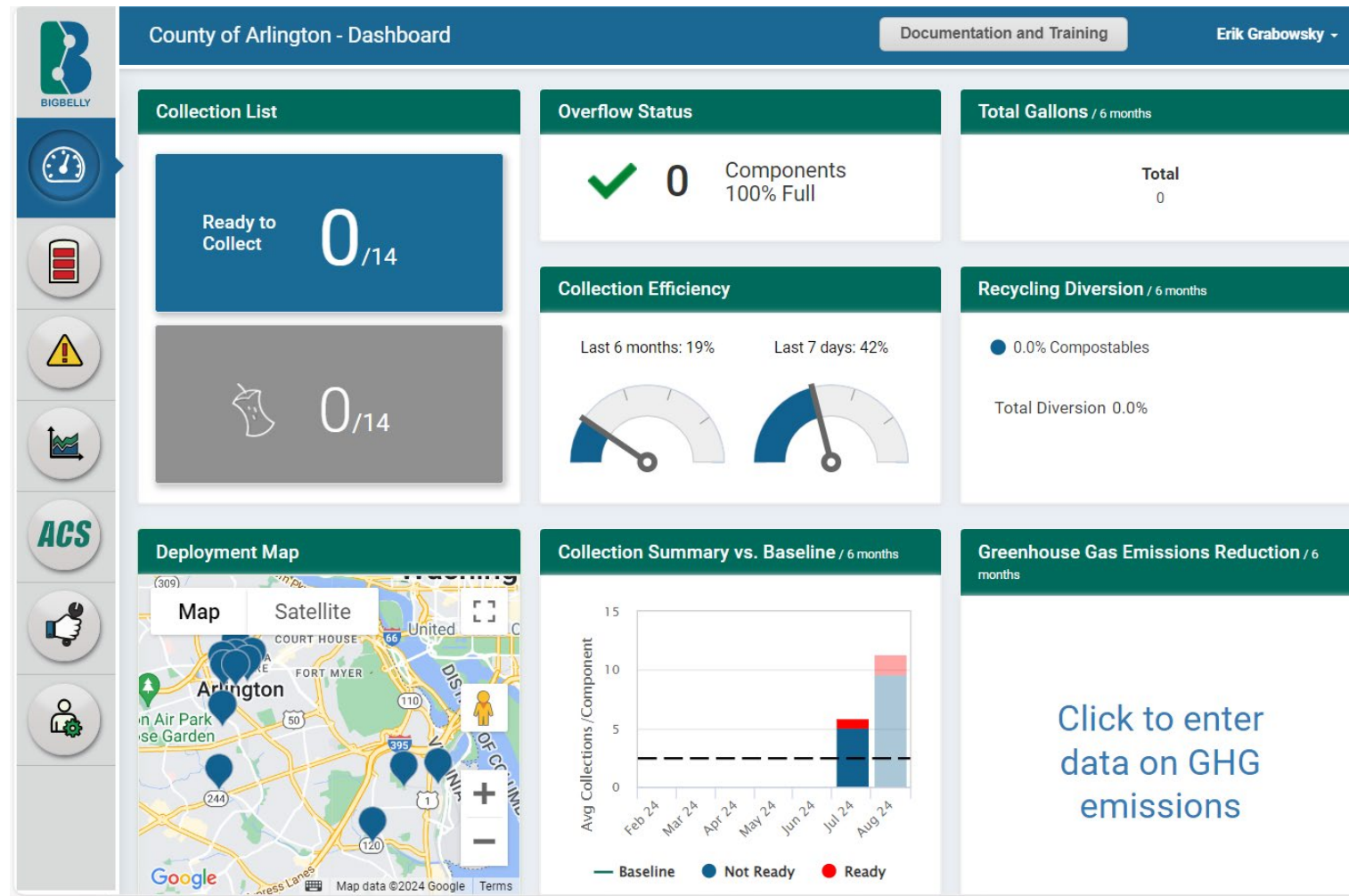
# Internal Metrics- outreach

Below are the Food Scraps Collection (FSC) analytics for the same dates, 7/2 (start date)- 8/27 (today). There were 1,213 direct searches for the FSC webpage, 33 visitors from the FSC flyer, and 26 visitors from the FSC video. We can assume the 1,213 direct searches comes from those that are scanning the bins out on the street since the QR code goes directly to the webpage. The flyer analytics are from the how-to on street food scraps collection infographic that I believe was used for tabling to AC residents and multi-family property managers.

## Top Viewed Pages

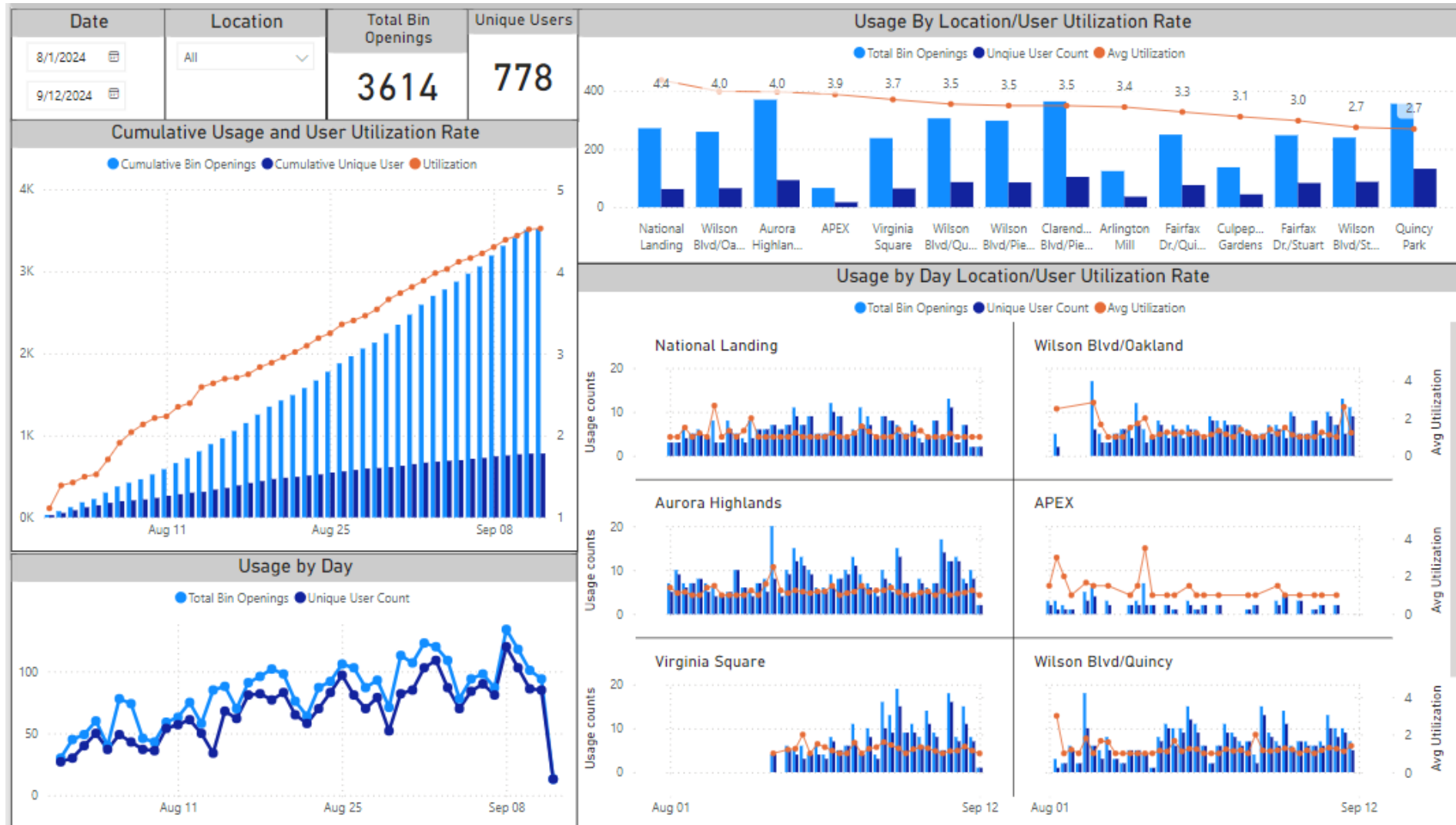
	Page location	Total users	Views	Engagement rate	Avg. Engagement Time
1.	<a href="https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection">https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection</a>	1,213	1,880	64.55%	00:00:43
2.	<a href="https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?utm_source=flyer&amp;utm_campaign=FoodScraps">https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?utm_source=flyer&amp;utm_campaign=FoodScraps</a>	33	49	52%	00:00:17
3.	<a href="https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?utm_source=video&amp;utm_campaign=FoodScraps">https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?utm_source=video&amp;utm_campaign=FoodScraps</a>	26	32	45.71%	00:00:20
4.	<a href="https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?fbclid=IwZXh0bgNhZW0CMTEAAR2YmN9EQYEZM62wq8tf_x2YYQn686STiNgWMZB50cOomZ9t_gEnAVQoGoc_aem_c6G6KyPevwFV6LQAfxE6SA">https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?fbclid=IwZXh0bgNhZW0CMTEAAR2YmN9EQYEZM62wq8tf_x2YYQn686STiNgWMZB50cOomZ9t_gEnAVQoGoc_aem_c6G6KyPevwFV6LQAfxE6SA</a>	9	13	41.67%	00:00:08
5.	<a href="https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?fbclid=IwZXh0bgNhZW0CMTEAAR1hPqu3cG-7IR-d50IHav8n50iN7Ge79uMMDWecmf6vb3IQ9OKWlnDtDvk_aem_tvllIH1gTicQ_InDIKIKeSww">https://www.arlingtonva.us/Government/Programs/Recycling-and-Trash/Residential/Organics-Waste/Food-Scraps-Collection?fbclid=IwZXh0bgNhZW0CMTEAAR1hPqu3cG-7IR-d50IHav8n50iN7Ge79uMMDWecmf6vb3IQ9OKWlnDtDvk_aem_tvllIH1gTicQ_InDIKIKeSww</a>	6	6	16.67%	00:00:01

# Their Dashboard (Not really Helpful) Participation and Weight Metrics Important





# Developed Our Own Dashboards (Participation)



# Developed Our Own Dashboards (Diversion Weight)

**FOOD SCRAPS BINS**  
(started 07/09/2024)

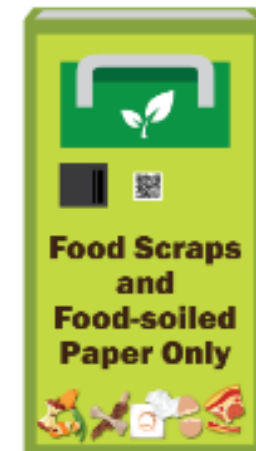
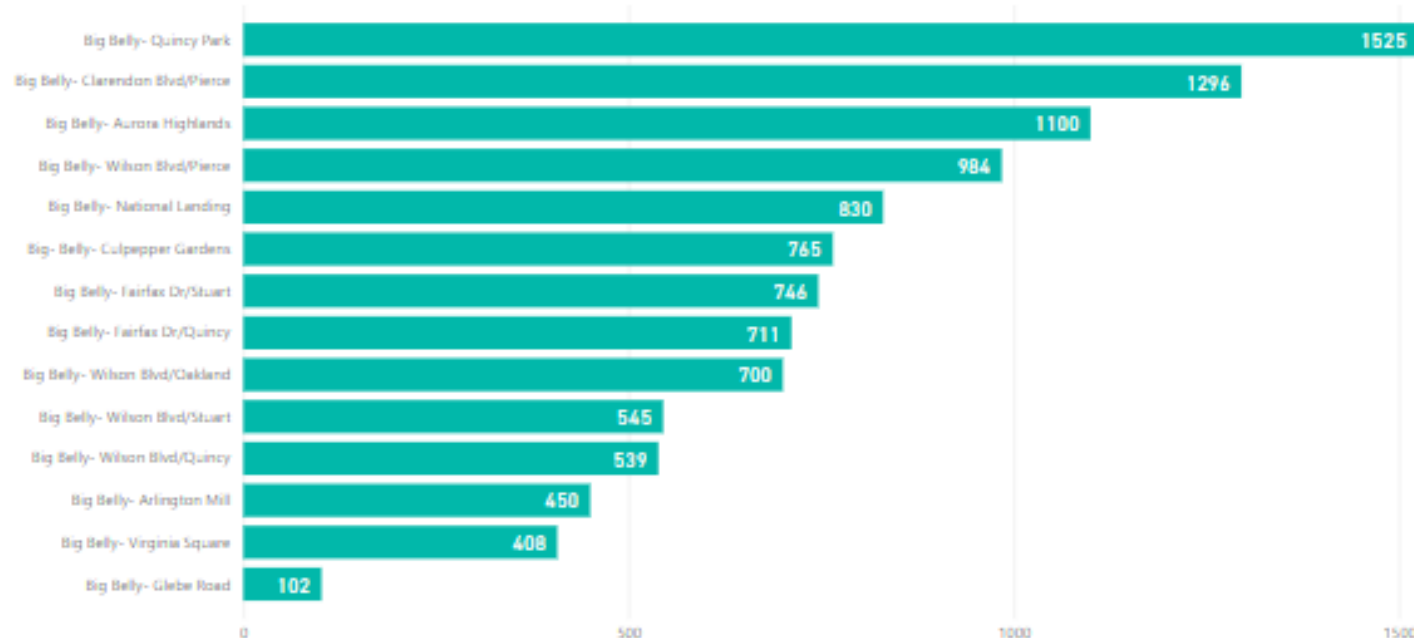
FiscalYear	_YYYY-MM	location
2025	All	All

Total Weight  
(pounds)  
**10.7K**

Total Tickets  
**186**

Avg. Weight  
(pounds)  
**57.53**

weight by location



# Media & Comments

ARLnow

Home About ▾ Advertise ▾ Community ▾ Merch Newsletter Press Club ▾

## New food disposal bins expand composting options for Arlington apartment dwellers

By Dan Egitto

Published August 5, 2024 at 2:45PM



James Breiling <sup>+</sup> → Cp Tighe

23 days ago

Sad to say, but without secure access, lots of non food discards (and non compostables) would be deposited in the bins

👍 4 🗨️ 0 Reply ↗️



Cp Tighe <sup>1K</sup> → James Breiling

23 days ago

I dont disagree...but if they want this for apartment dwellers, it should be inside the building.....the average working joe/jane aint gonna go/aint got time through this BS

👍 3 🗨️ 2 Reply ↗️



jfhscott <sup>1K</sup> → Cp Tighe

23 days ago

"I'm gonna hold onto this banana peel and walk a block out of the way to get it composted" said no one ever.

👍 4 🗨️ 3 Reply ↗️



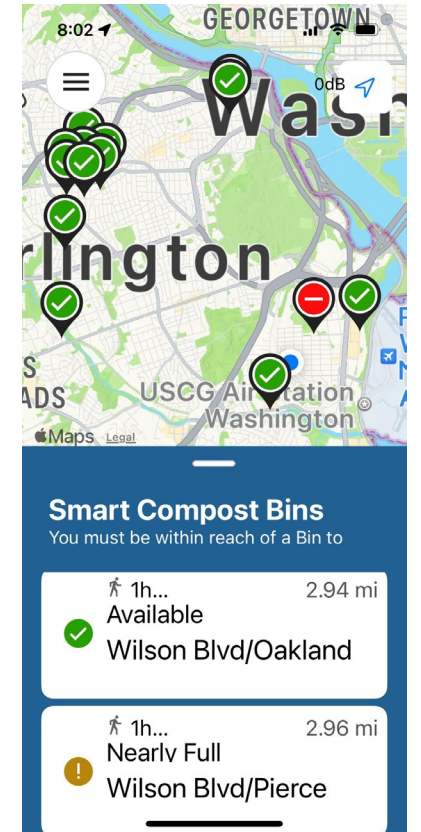
Contessa of Cleveland Park <sup>+</sup> → jfhscott

23 days ago

I freeze my food scraps and then walk 'em 3 blocks once a week to the farmers' market, which has a collection bin. Pretty easy. But you do you.

# Bin Management Protocols

- Carts immediately emptied when Red or Brown indication
- Unserviceable bins are taken out of service until repaired
- All bins are emptied on Fridays
- All bins are cleaned on Friday or as needed
  - Soapy water/sponge/rags/squeegee/blower
  - Grafitti remover as needed (panels only)



# Supporting Infrastructure

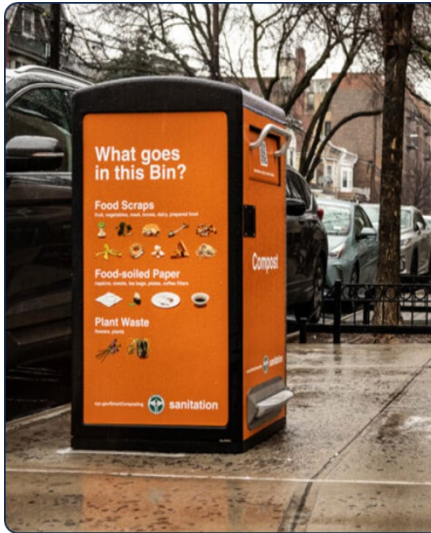


# Lessons Learned

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- Planning (Funding, Procuring, Siting, Installing, Advertising/Educating, Monitoring, Emptying, Servicing, Evaluating, Material Management, Supporting Infrastructure)
- Convenience & Reliability are key- provide compostable bags
- Collaboration (Transit Group, Comms Group, Others (libraries))
- Technology has to work (people are impatient)
- Make Materials timeless (QR codes to information pages that are dynamic)
- Staff trained to clean and maintain bins (perform basic repairs)
- Graffiti Prevention- Dense Wrap (not a good canvass)- graffiti remover- World's Best Graffiti Remover

# Opportunities- Vendor Options/ Caddie Options



Bigbelly



Compost Now



MetroSTOR

**Free Ventilated Food Scrap Buckets\*** (maximum 1,000; discount pricing for more than 1,000)



UmiMax Bucket

## Great BioBag features

- Certified Compostable by the Biodegradable Products Institute
- Certified Home Compostable for backyard composting
- Breathability, which helps dry food waste and reduce pests, mold, mildew & smell
- Uses GMO free crops
- Keeps buckets clean, reduces the “ick” factor
- Designed to fit most kitchen countertop containers
- Increases the motivation for sorting waste
- Increases waste collection

\* Cost of shipping not included

Questions?

