

On-Street Food Scraps Collection Pilot

Arlington County Department of Environmental Services
Solid Waste Bureau
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GOVERNOR'S ENVIRONMENTAL EXCELLENCE AWARDS

APRIL 8, 2025
ENVIRONMENT VIRGINIA SYMPOSIUM
MARSHALL HALL, VIRGINIA MILITARY INSTITUTE



WAY TO GO, SOLID WASTE BUREAU!!!!!!

Arlington County won multiple of this year's [Virginia Governor's Environmental Excellence Awards](#) – the only multi-winner in the state.

The awards recognized the significant contributions of environmental and conservation leaders.

Arlington County's **Solid Waste Bureau** also won a **Bronze Medal** for its On-Street Food Scraps Collection for Multi-family Building Residents program to reduce the amount of food waste in the trash system.

The program creates a system that allows residents in buildings with limited access to food waste diversion a way to compost.

Fourteen compost collection sites were placed in high-density multi-family areas throughout the county.

BRONZE

Arlington County Solid Waste Bureau

ON-STREET FOOD SCRAPS COLLECTION FOR MULTI-FAMILY BUILDING RESIDENTS

Arlington County's Solid Waste Bureau (SWB) launched an On-Street Food Scraps Collection for Multi-family Building Residents program to reduce the amount of food waste in the trash stream. The program focuses on residents with limited access to food waste diversion by creating a system that allows residents in apartment buildings and condos to compost.

The program provides 14 collection sites located in high-density multi-family areas that are conveniently spread around the County. The collection sites are equipped with smart collection bins that remotely indicate container fullness levels and display container locations for users



through an online tool. This technology benefits both residents and collection staff. Residents can check the available capacity before heading to a bin, ensuring there is sufficient space for their food waste. Collection staff can optimize pickups by reducing unnecessary stops.

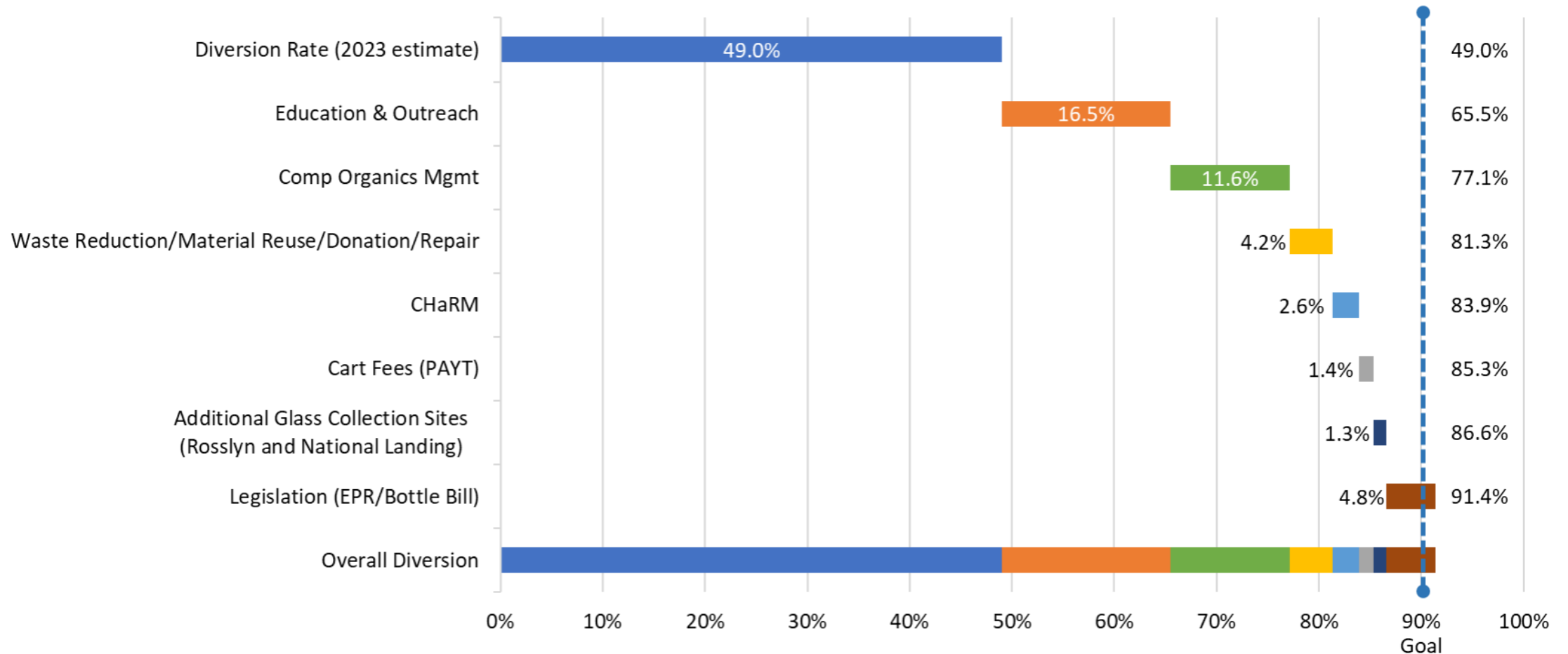
SWB paired its food waste collection efforts with a program to educate residents about avoiding food waste, enabling them to address the source of wasted food. In less than six months, the County was able to divert almost 19 tons of food waste, reducing methane emissions and creating a nutrient-rich soil amendment. ■



Food Loss/Waste Info

- **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.
- **Saves Money if Food Waste is Eliminated.** The typical family disposes of about 8.7 pounds of food per week or which 6 pounds is edible, wasting about **\$1800 per year.**
- **Saves Inputs/Resources (Electricity, Fuel, Water, Fertilizer, etc.) if Extra Food is Not Produced.** 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.
- **Composting Food Waste is the Best Management Option.** Composting is the best alternative for managing food waste and to further the County's sustainability goals.
- **Compost helps build Healthy Soils.** 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
- **On-street food scrap bins is a way to collect 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 while reducing GHG impacts.

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- 3 geo-targeted messages (banners/ 5 videos)

- Avoid food waste
- Food scraps collection- residential
- On-street food scraps collection- MF

Street Signs- Messages

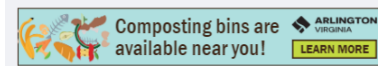
Website Updates

Food Scraps Collection Page

Food Waste Prevention Page

Videos- [ARLINGTONFOOD24 04 1 \(youtube.com\)](https://www.youtube.com/watch?v=ARLINGTONFOOD24_04_1)

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



On-Street Food Scraps Collection Videos

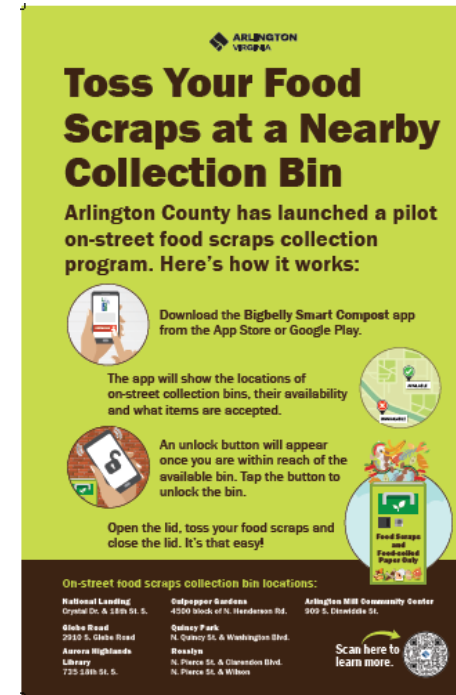


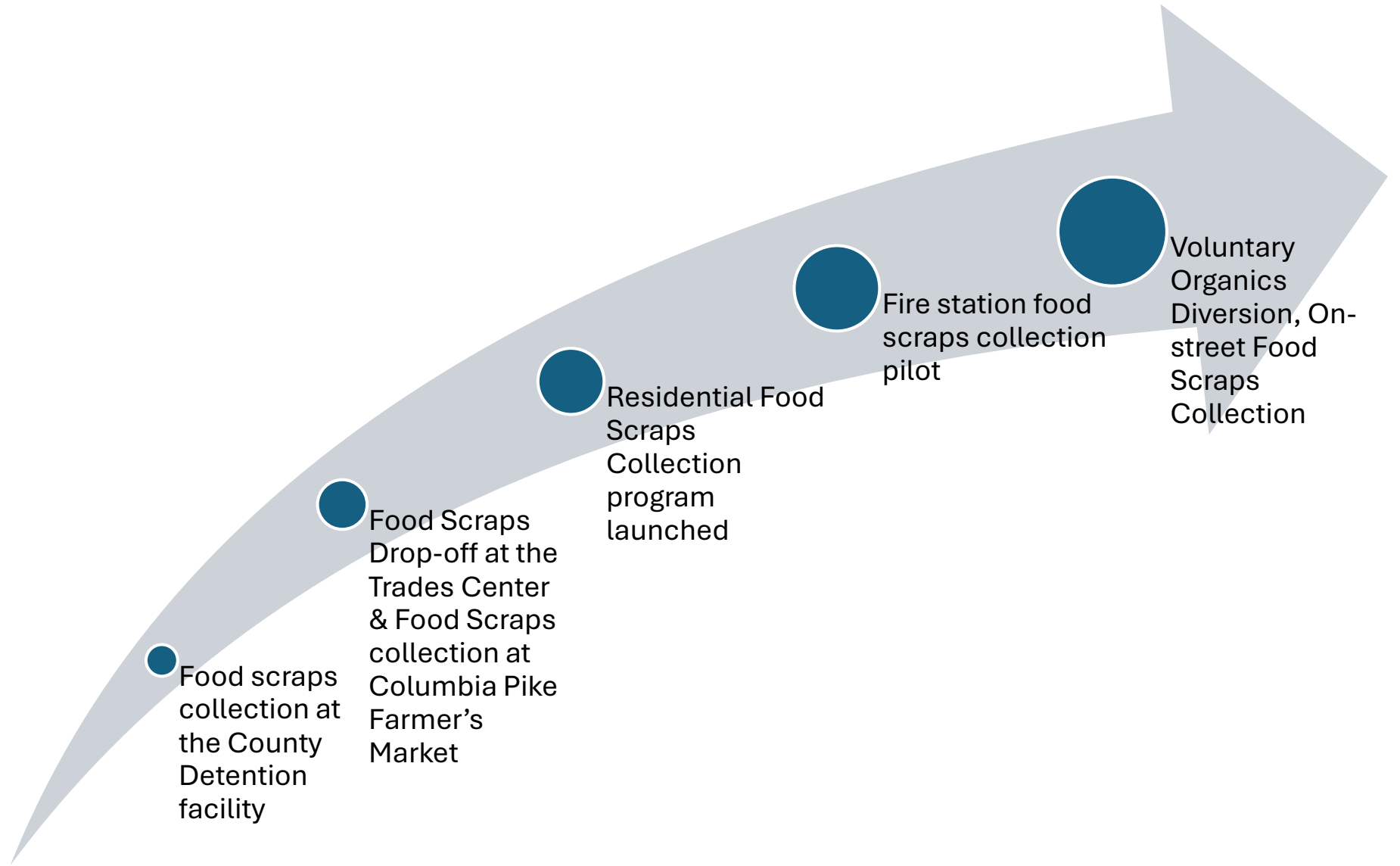
<https://www.youtube.com/watch?v=fFFg8xZk7FM>

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

Outreach Materials

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





Background

- 89,000 apartments and condos in Arlington
- 70% of housing stock
- No State authority to mandate Separate Food Scraps Collection
- SWMP/ZWP- calls for comprehensive organics management
- Pilot is a way to demonstrate that organics collection can work in the Multi-family sector

Pilot Concept

Process

Product awareness- March 2023

Product Engagement

Procurement

Program design & support

Educational Campaign

Deployment- July 2024

Measurement

Refinement

Next Steps



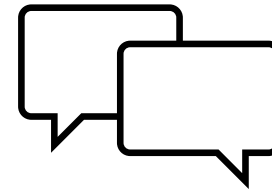
14 Geographically dispersed locations throughout Arlington County



Using 14 access-controlled collection bins to limit contamination



County Litter Staff will monitor, maintain, and empty bins

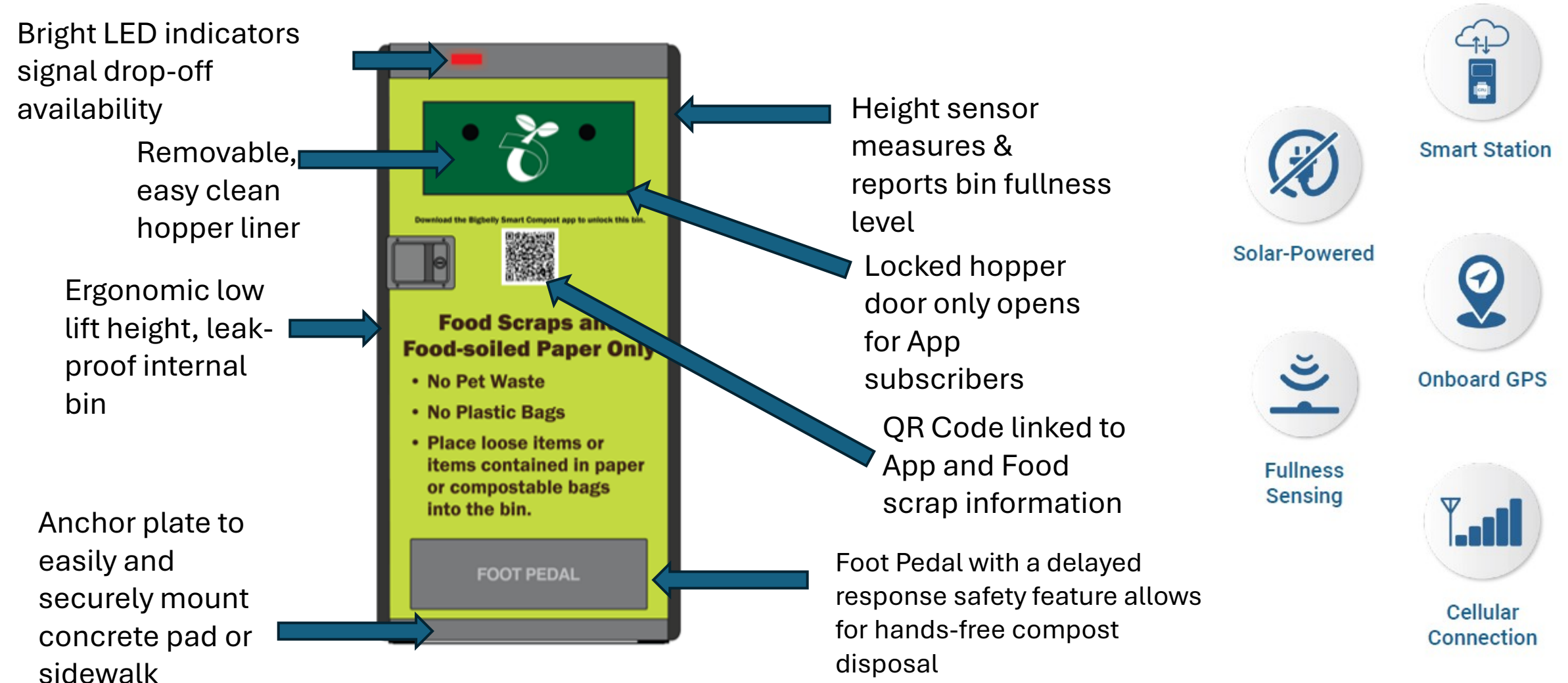


Ongoing Outreach and education



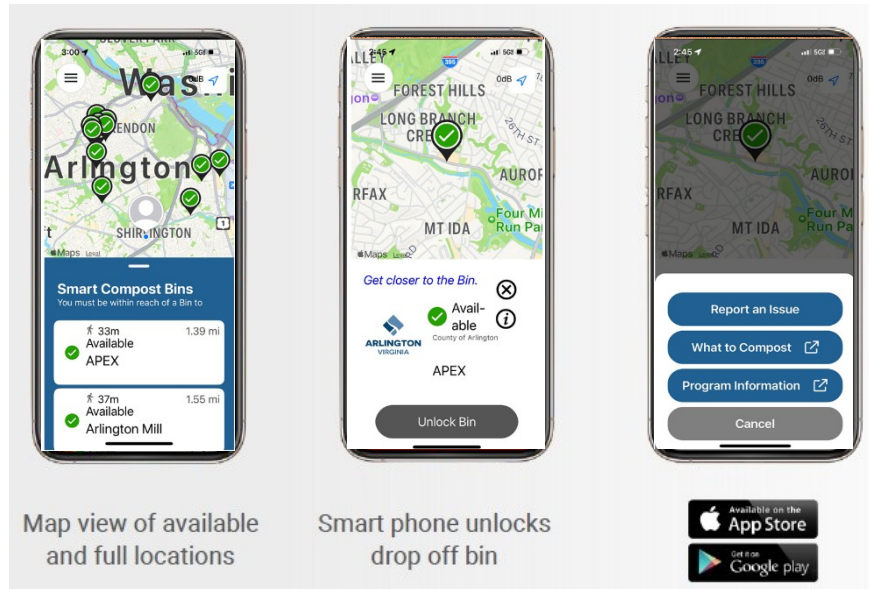
Develop best practices and implementation resources for Arlington community

Smart Bin Design



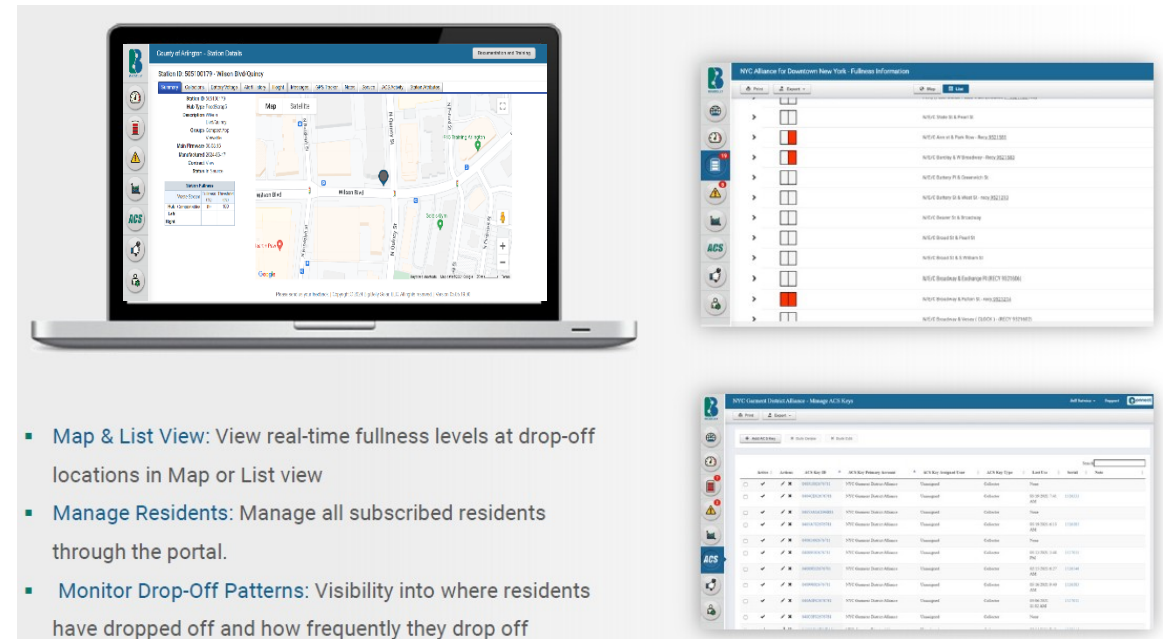
Mobile App & Web-based Management Portal

Resident/User Interface Smart Phone App

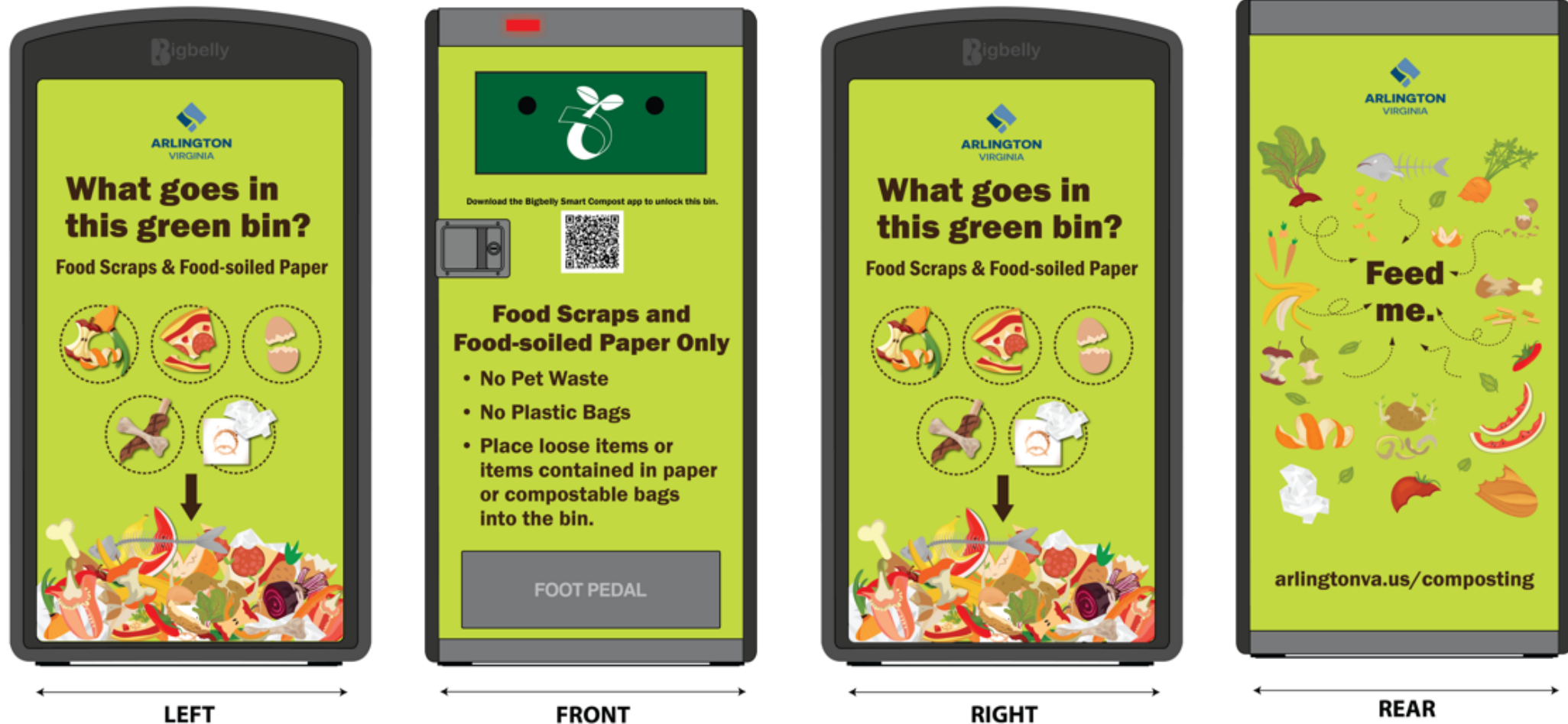


- Required to access drop-off bin
- Anonymous registration
- 24/7 Access

Web-based Management (Backend)



Exterior Bin Design



Customized Solution

Custom Wrap

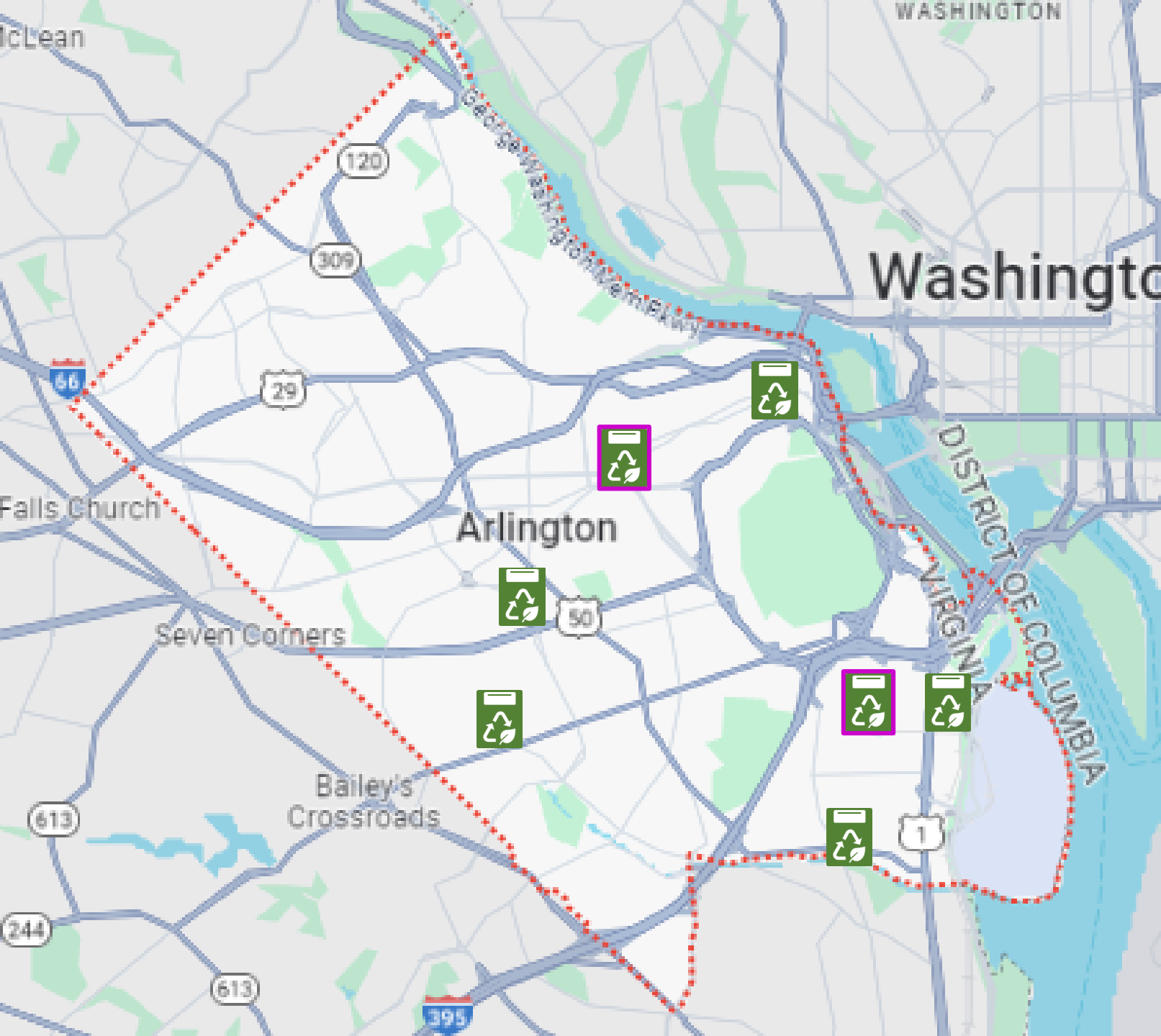
Concrete Pad



Bag Dispenser

Placement Criteria

- 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)



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

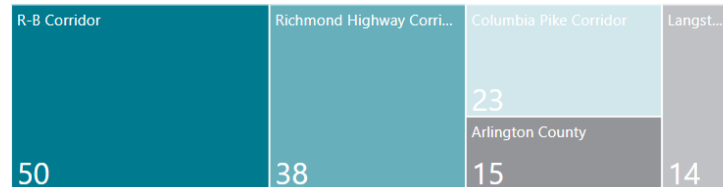


Where Should the Bins Go? County Profile Data

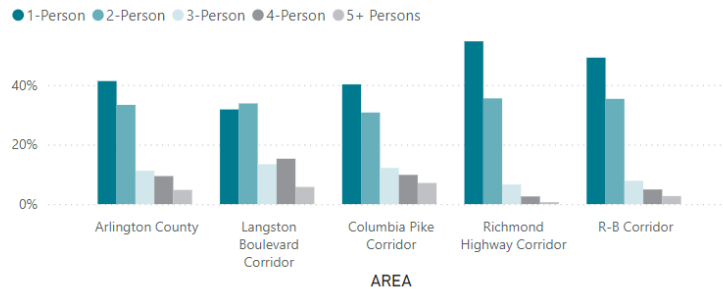
CPHD 2024 Estimates

| 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 |

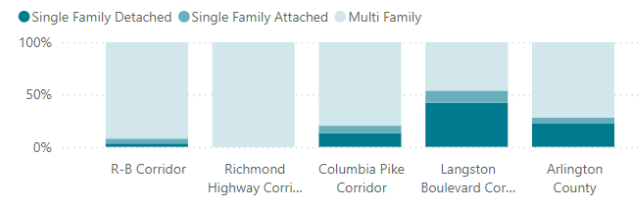
Population Density (Persons per Acre)



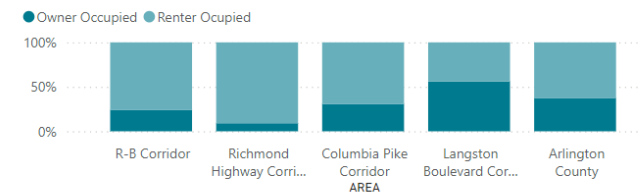
Persons Per Household



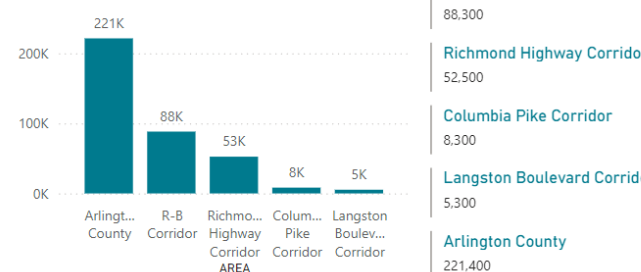
Housing Unit Type



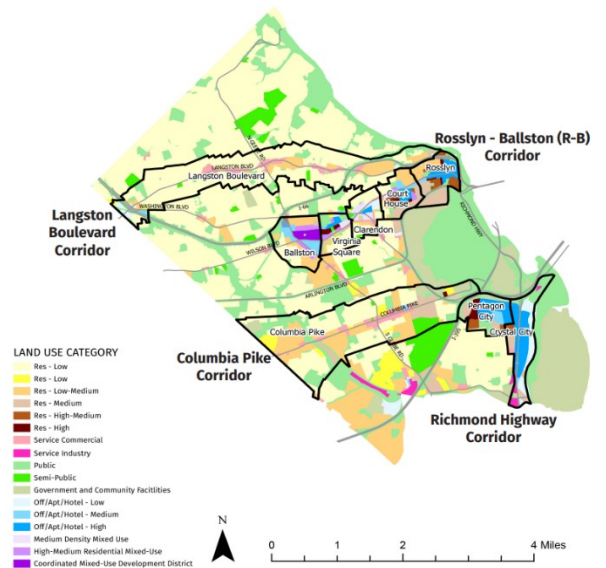
Housing Occupancy



At-Place Jobs



General Land Use Plan and Planning Corridors Map



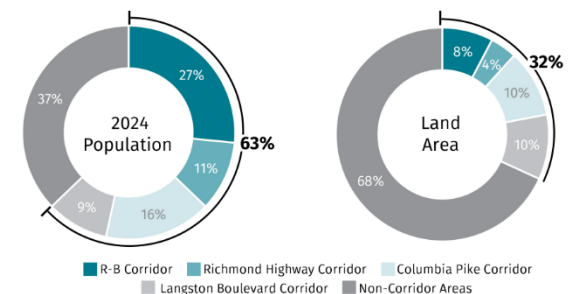
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Profile 2024

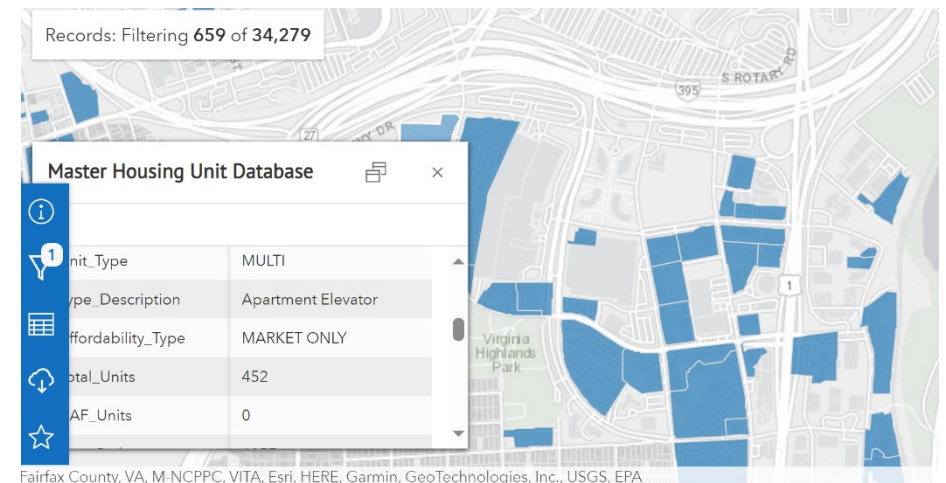
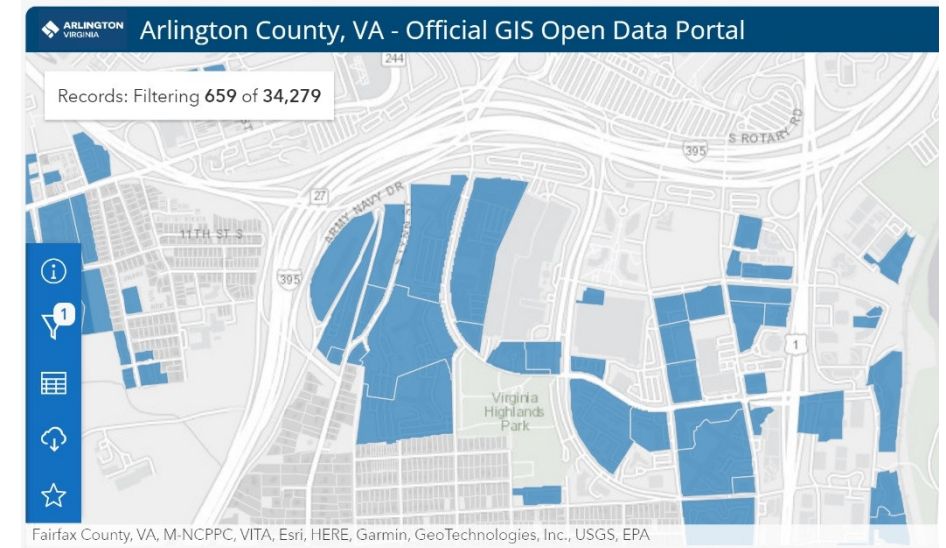
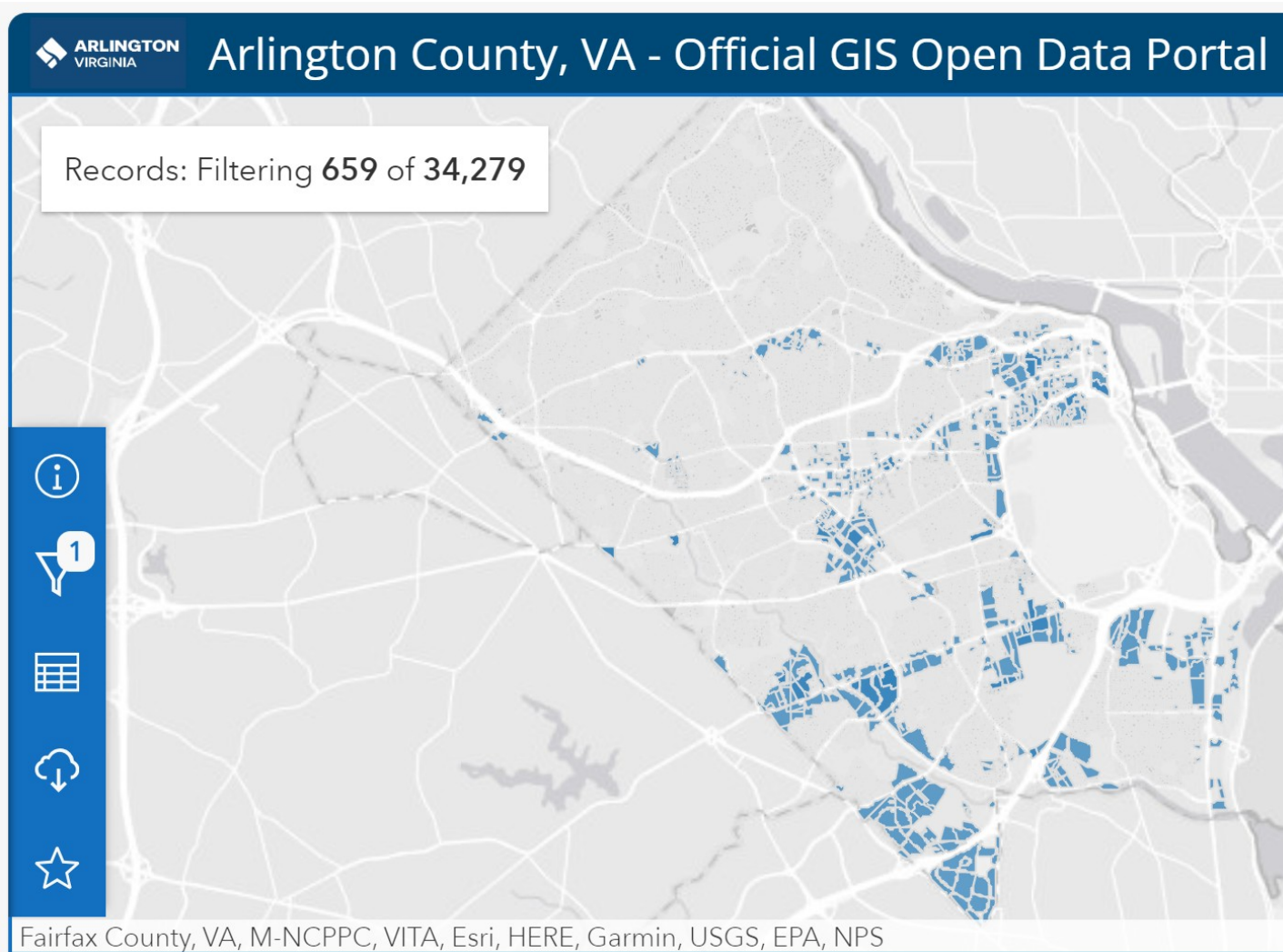
Population

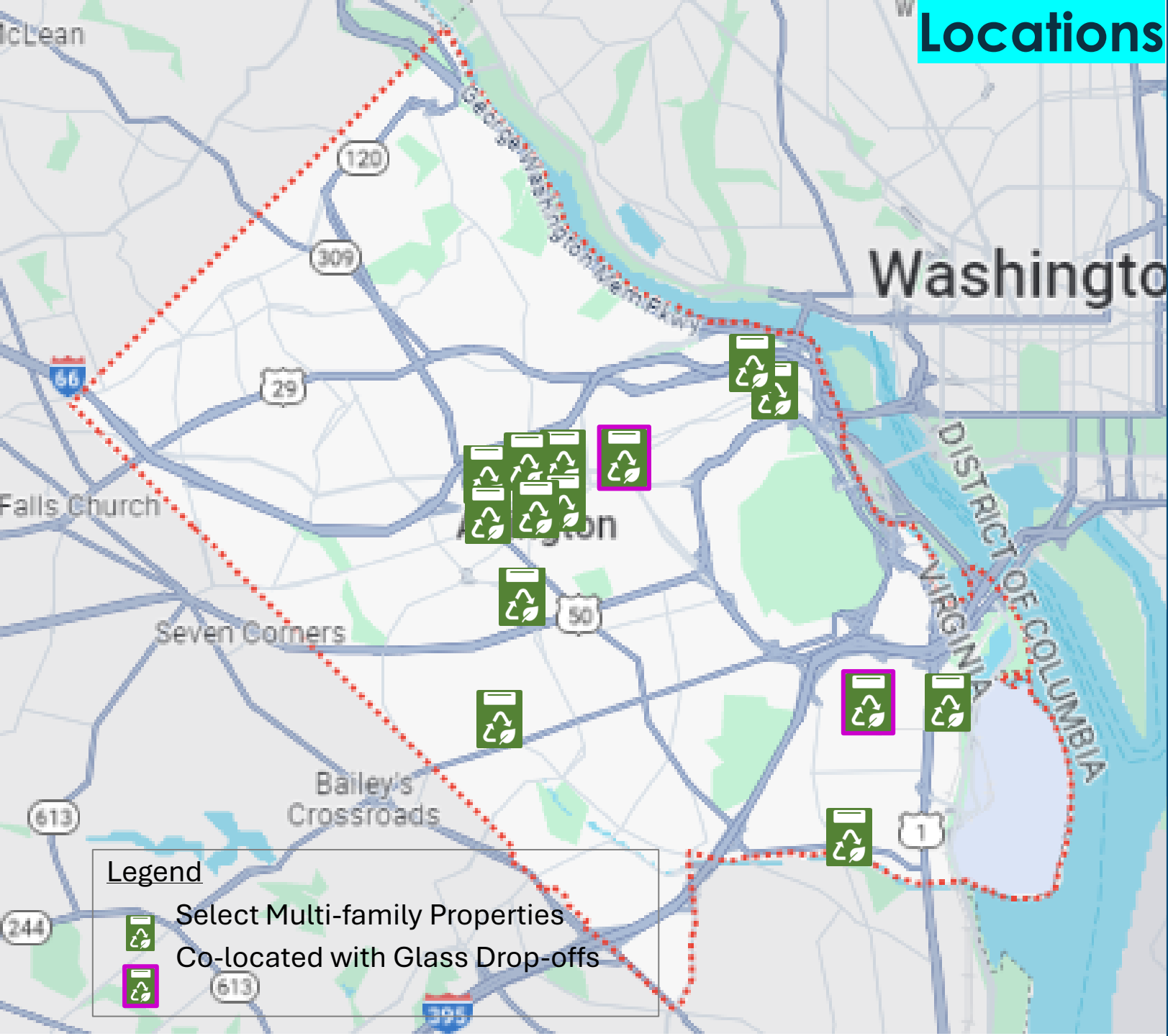
63% of Arlington's population reside in planning corridors, with the addition of the Langston Boulevard Planning Corridor.

2024 Population and Land Area



Where Should the Bins Go? County GIS Data

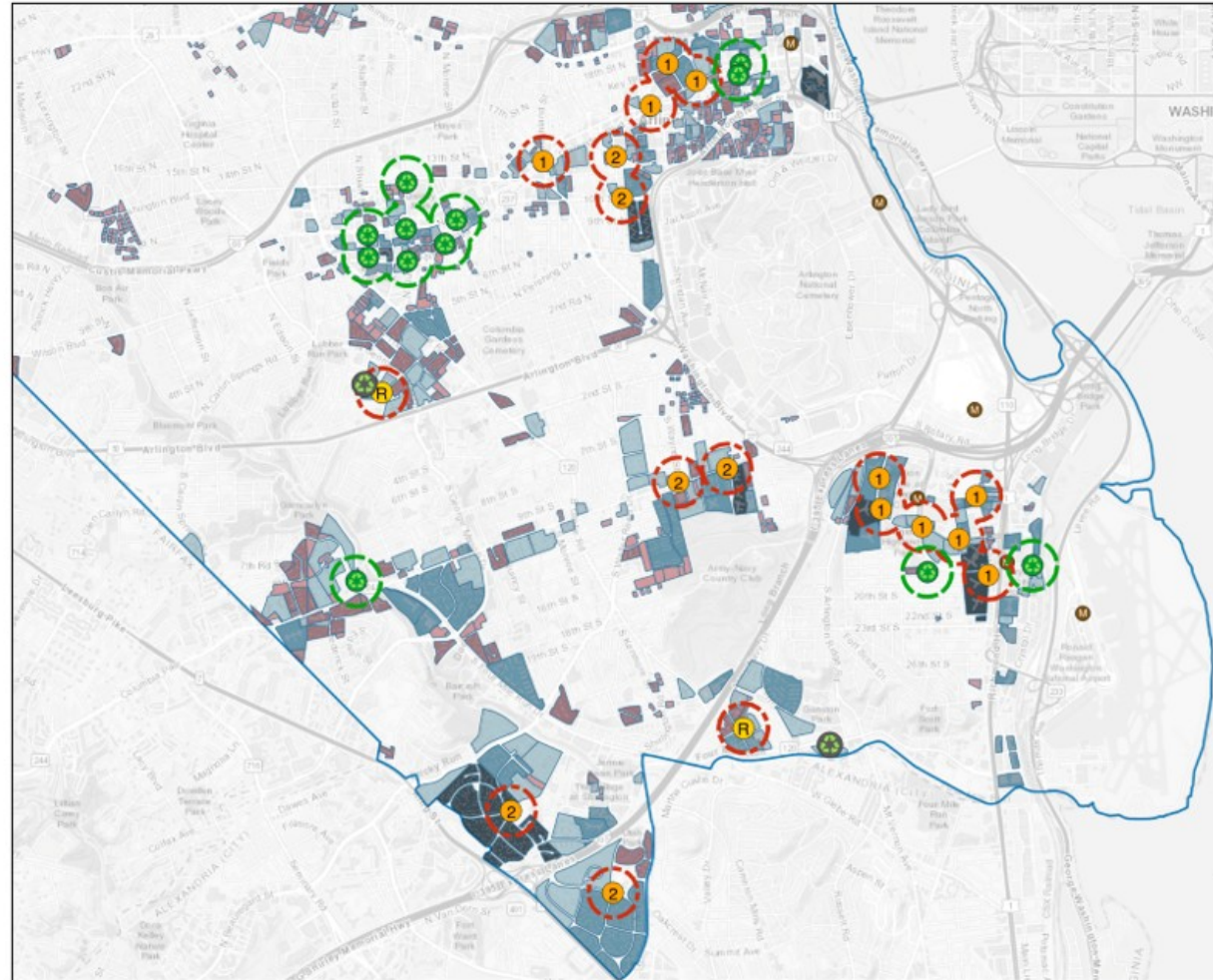
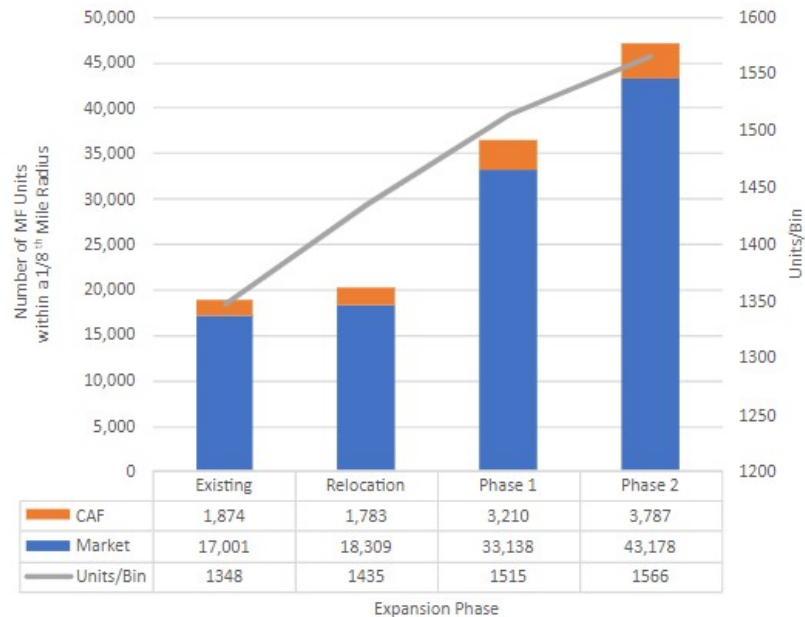




Phases 1 and 2 Deployments

Complete Overview

- All containers (30 total)
 - Existing – 14 containers
 - Relocation – 14 containers
 - Phase 1 – 24 containers
 - Phase 2 – 30 containers



Timeline

July/August 2024

- Install smart bins
- Develop/Deploy education and outreach materials

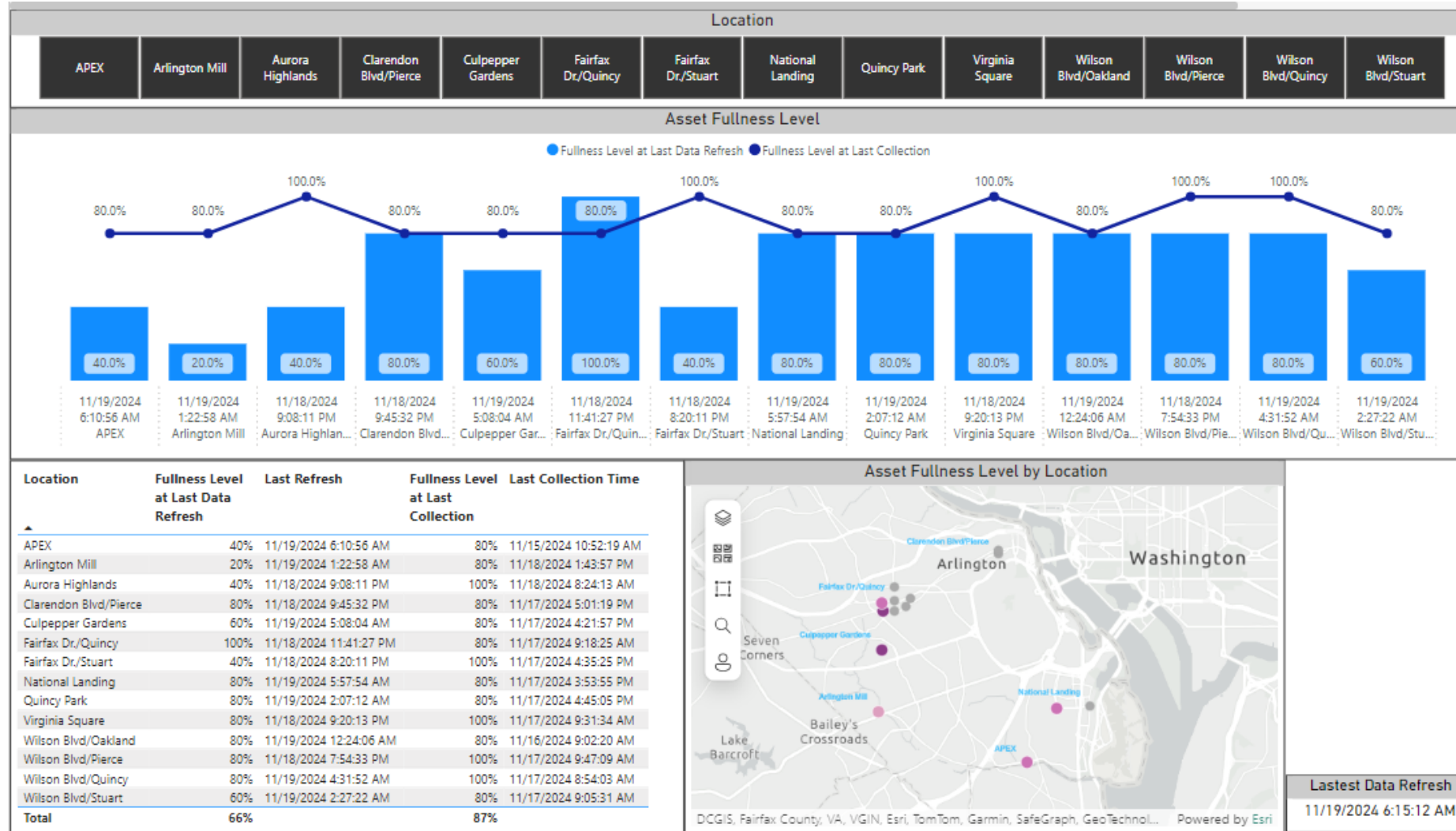
July 2024 – July 2025

- Ongoing engagement
- Deploy phase 1 bins
- Evaluate data and survey results

Determining Success

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

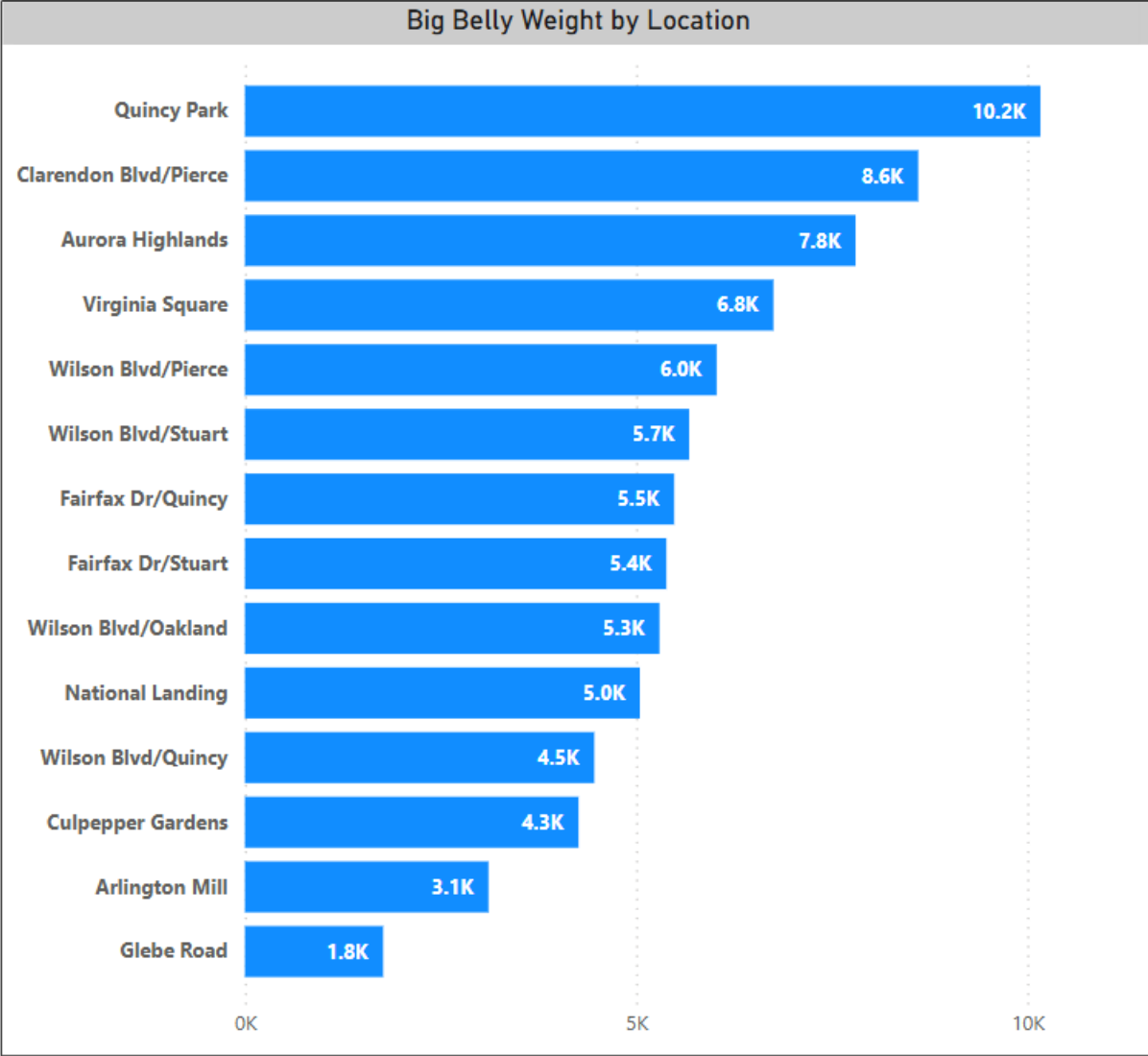
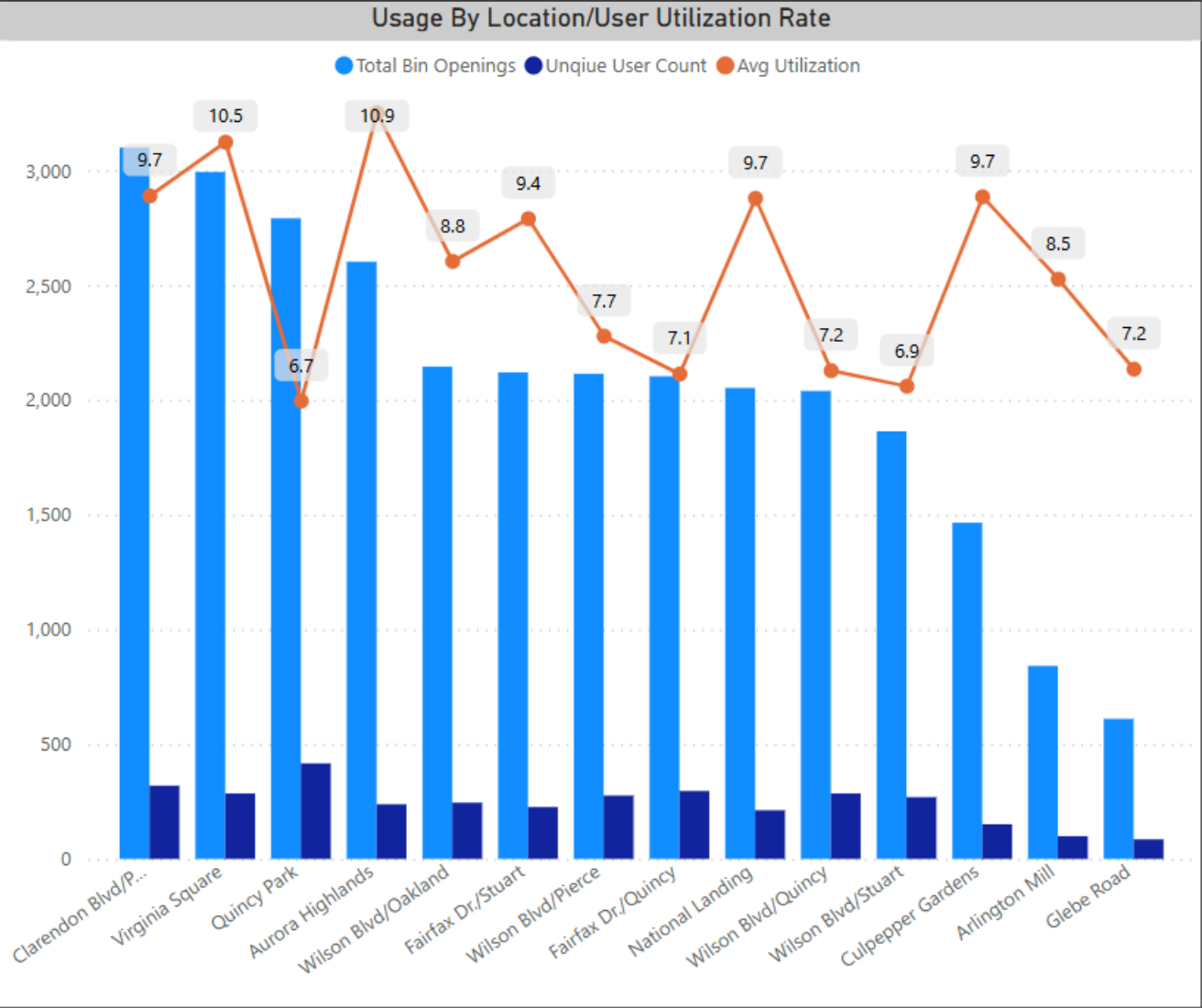
Developed Our Own Dashboards (Asset Fullness Levels)



Food Scraps Tonnage - Big Belly Program

Last Refresh Date
4/7/2025

| Month | Day of Week | Location | Total Bin Openings | Unique User Count | Average Utilization | Total Weight (Pounds) | Click to see more food scrap utilization |
|-------|-------------|----------|--------------------|-------------------|---------------------|-----------------------|--|
| All | All | All | 28.84K | 2031 | 8.48 | 79.86K | ➔ |



Food Scraps Collection

Last Refresh Date

4/7/2025

Year

Multiple selections

From Citizen Dropoff

80.26K

From Food Bank

81.40K

From columbia Pike Farmer's Market

10.60K

From Big Belly Bins

79.86K

Total Food Scraps Weight (lbs)

252.12K

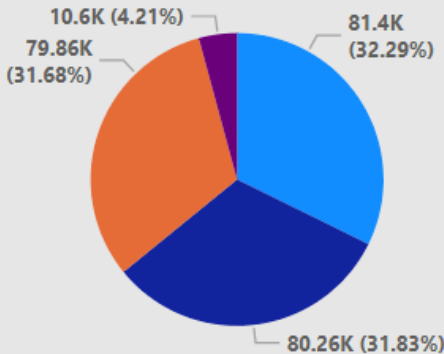
Composter Bulk Yards In

278

Composter Screened Yards Out

161

Weight(lb) by Location



Location

Food Bank

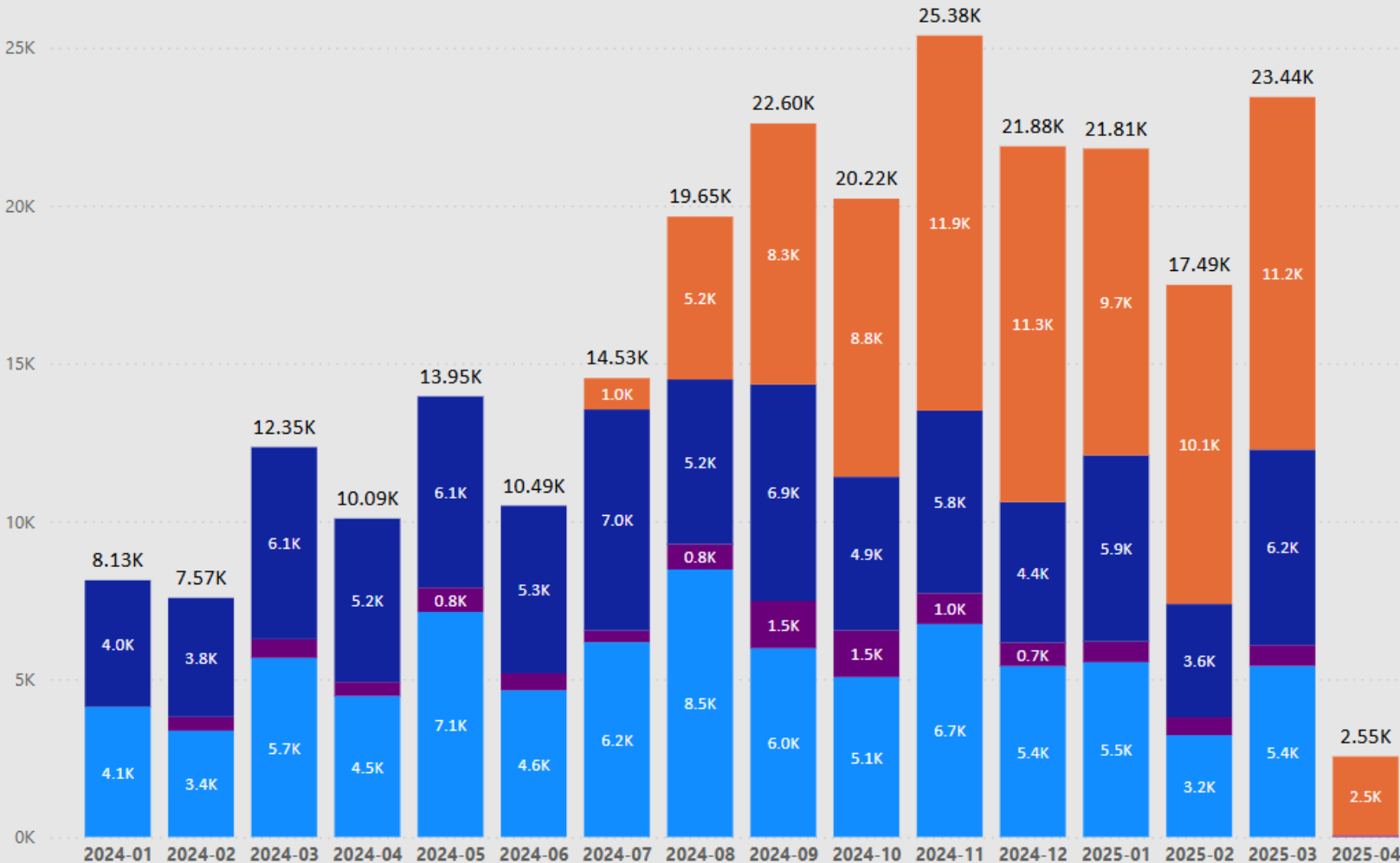
Citizen Drop ...

Big Belly Bin

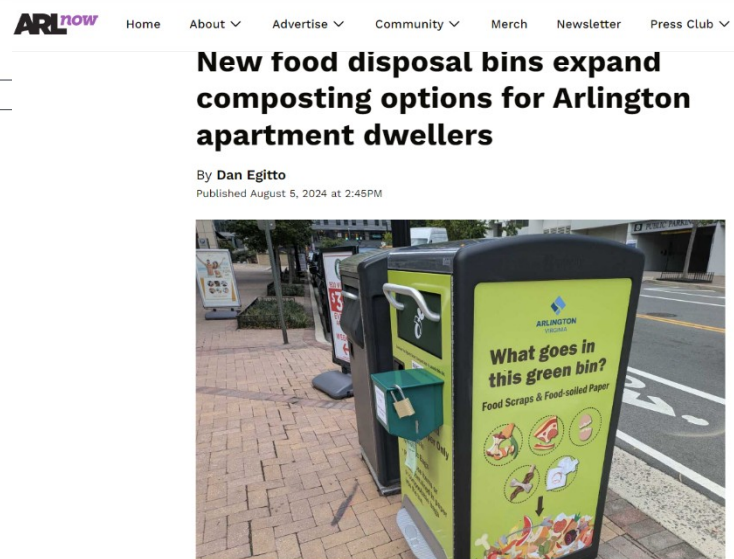
Columbia Pik...

Food Scraps Drop off by Calendar Year Month and Collection Location

Location ● Big Belly Bin ● Citizen Drop Off ● Columbia Pike Farmers Market ● Food Bank



Media & Comments



James Breiling  → 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  → 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  → 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 



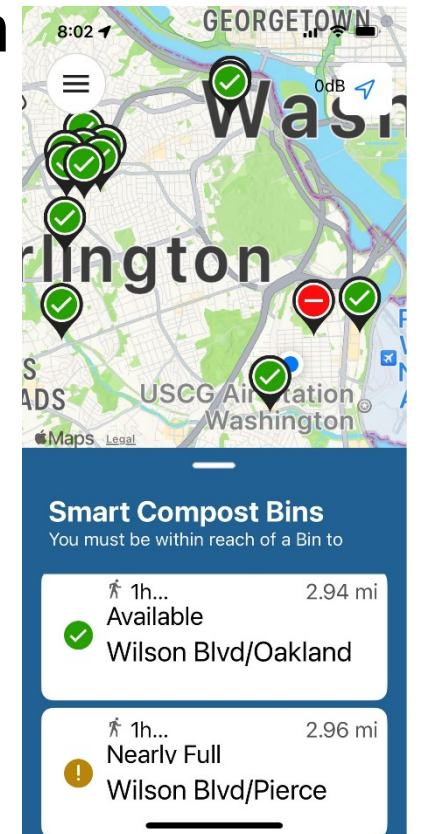
Contessa of Cleveland Park  → jfhscott

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



Extra Internal Carts



Vehicle Lift Gates



In-Vessel Composter

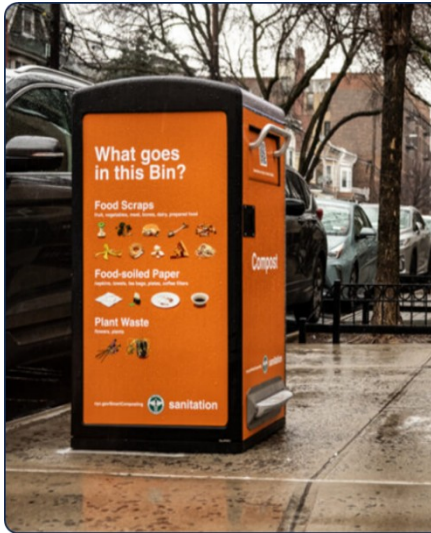


Cart Washer

Lessons Learned

- 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
- Be prepared for success and impacts

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



Thank you!