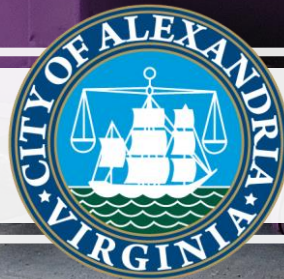




Glass Recovery in Alexandria

MWCOG | July 18, 2019



Helen Lee

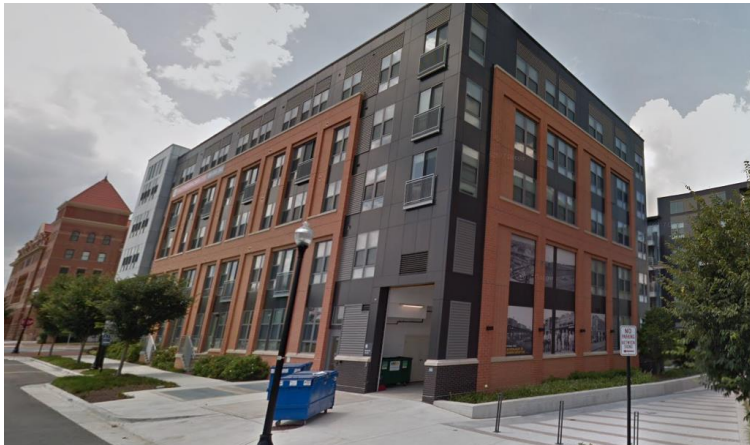
Environmental Program Manager
Transportation & Environmental Services

Overview of Solid Waste Services in the City



T&ES Collection Services

- Residents living in detached, single-family homes, duplexes, and some townhouses with three or fewer units; ~20,200 households served
- ~250 small businesses and commercial accounts
- 65 schools and government buildings and 150 non-profit organizations



Commercial Collection

- Commercial properties, multi-family buildings, Homeowners Associations are required to provide trash and recycling to tenants
- Commercial properties are required to fill out the Recycling Implementation Plan each year
- Accounts for more than 70% of the City's waste stream



T&ES Services

- 20,200 households served
- Residential recycling, yard waste composting, and trash curbside collections
- Leaf/Brush Collection
- Metal and appliances collection
- Spring Clean-Up
- Bulk Trash Pick-Up
- Public Space Trash & Recycling Bins
- HHW & Electronic Waste Recycling Center
- Composting at Farmers' Markets
- 4 Recycling Drop-Off Centers



Current Glass Operations



Single Stream Recycling is collected curbside

Recycling is delivered to Material Recovery Facility

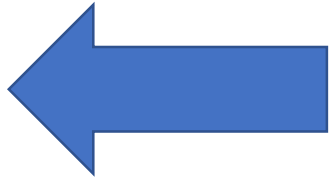
Current State



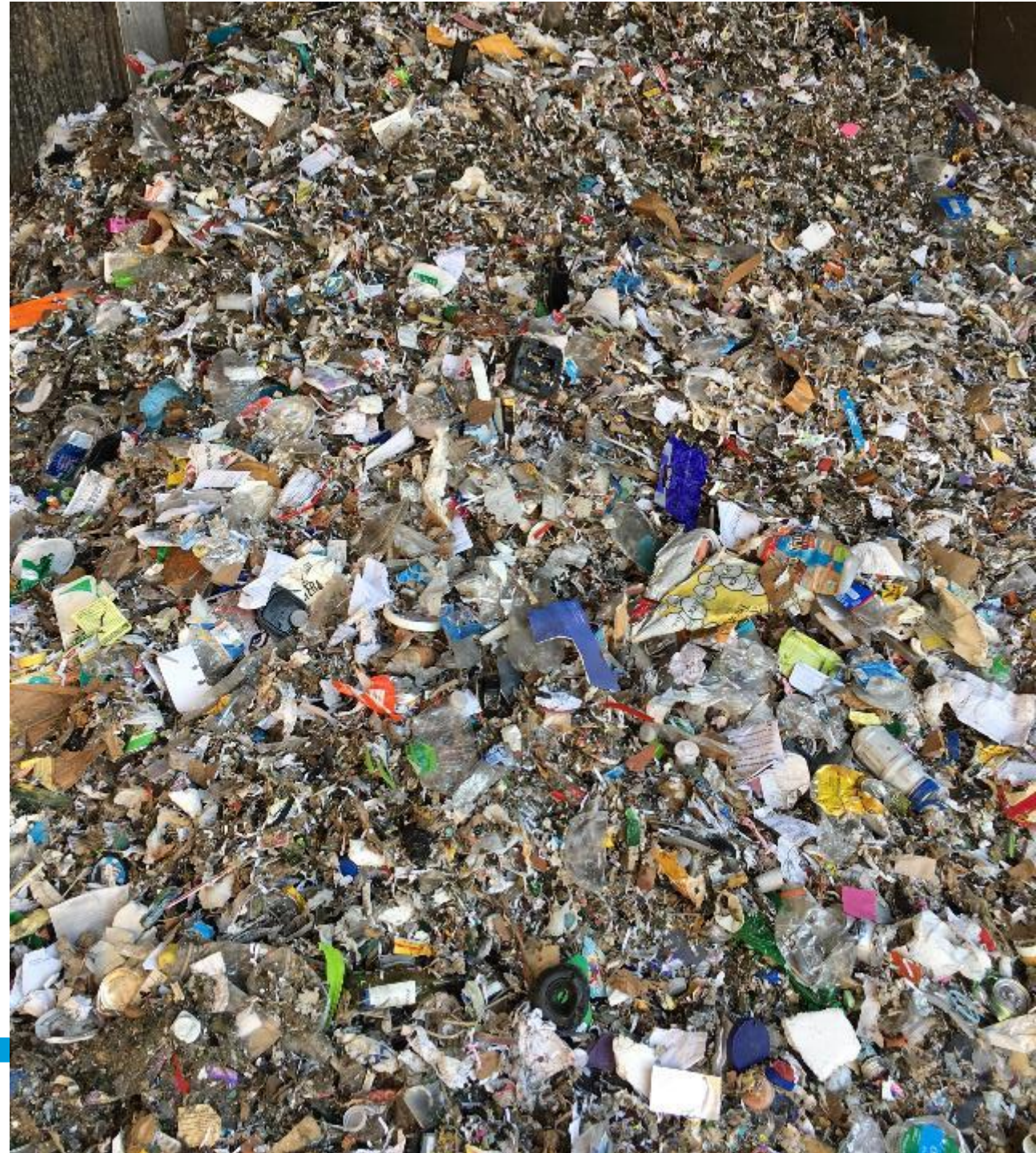
The City's "Glass" from the MRF

High Contamination with small items 2"x2"

- Broken Glass
- Caps
- Utensils
- Wrappers
- Styrofoam
- Shredded paper



Sent to Landfills





WasteSmart

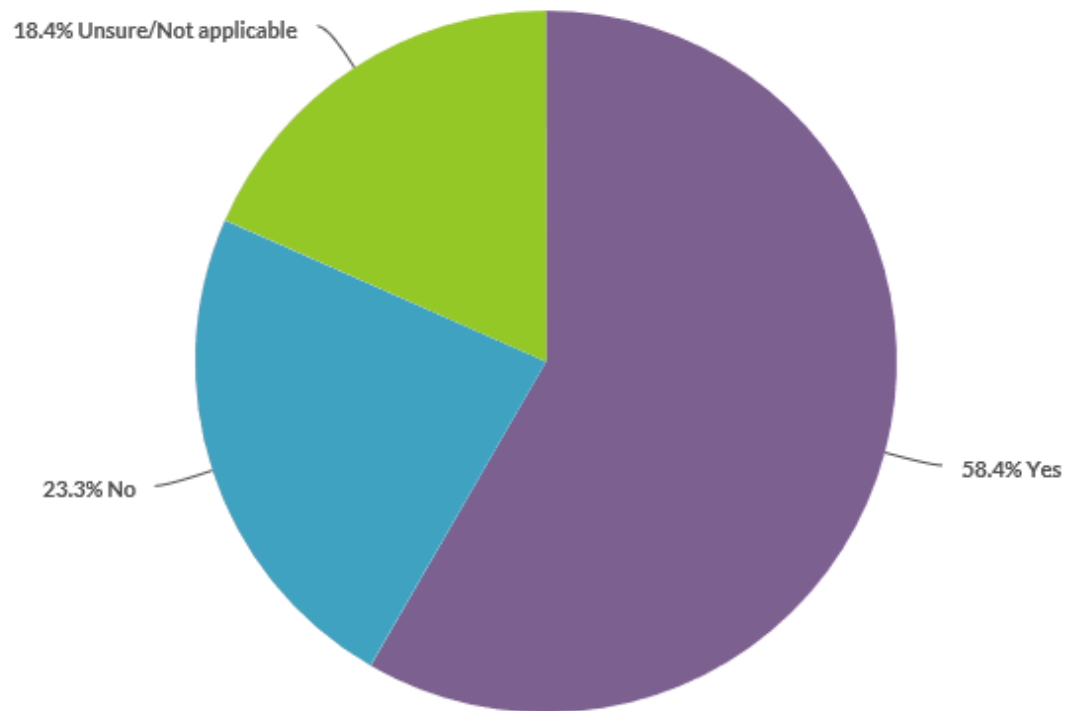
ALEXANDRIA'S 20-YEAR STRATEGIC PLAN TO SUSTAINABLY RECOVER RESOURCES



JANUARY 2019



5. Would you be willing to bring glass containers to a Recycling Drop-Off Center if they are no longer included in the items collected curbside and increases the recyclability of these materials?

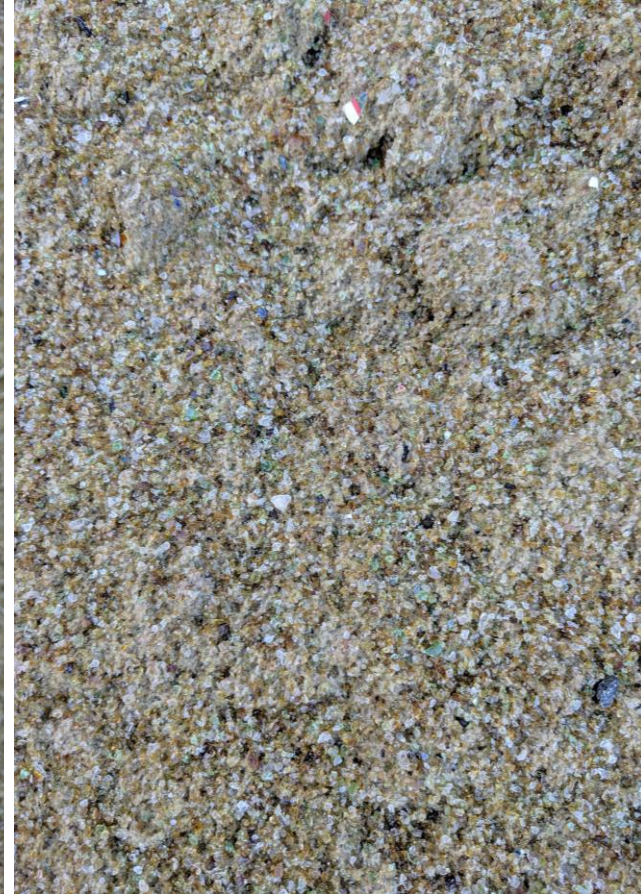


Value	Percent
Yes	58.4%
No	23.3%
Unsure/Not applicable	18.4%

Online Feedback Form

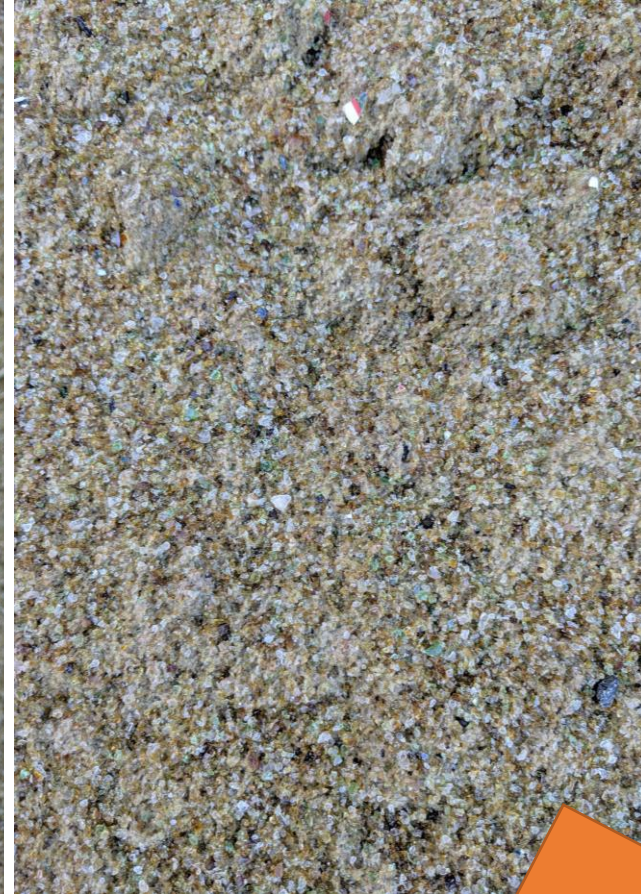






End Product





**Potential Use:
Sandbags**





GLASS RECYCLING
RECICLAJE DE VIDRIO

YES!

- Bottles and Jars (All colors, empty and clean)

NO!

- No No-Bug Cans or Plastic Lids
- No Plastic Bags or Plastic Wrap (except for metal)
- No Mix Glass (Ceramics, Porcelain, Mirrors, Windows, Pyrex or Glass Sheets)
- No Lamps or Bulbs (Incandescent, CFL, LED)
- No Food or Liquid (Greasy and smelly)

For more information: alexandria.gov/recycling

B15260

GLASS RECYCLING
RECICLAJE DE VIDRIO

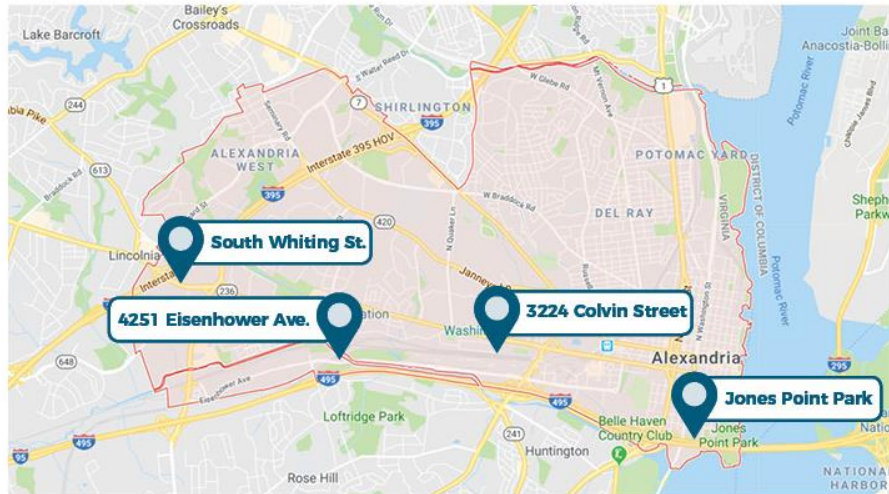
YES! NO!

- Bottles and Jars (All colors, empty and clean)
- No No-Bug Cans or Plastic Lids
- No Plastic Bags or Plastic Wrap (except for metal)
- No Mix Glass (Ceramics, Porcelain, Mirrors, Windows, Pyrex or Glass Sheets)
- No Lamps or Bulbs (Incandescent, CFL, LED)
- No Food or Liquid (Greasy and smelly)

SINGLE STREAM RECYCLING
ARTICULOS RECICLABLES

NO!

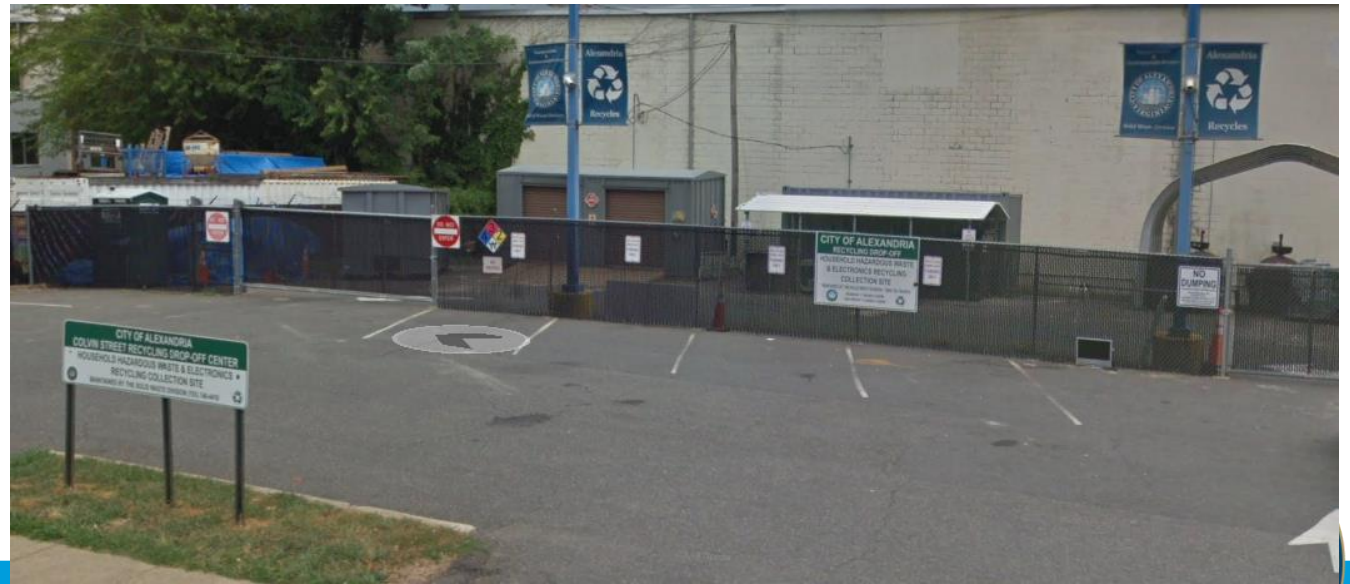
- No Food
- No Liquids
- No Appliances
- No Stumps
- No Tires
- No Paint
- No Aerosols
- No Batteries
- No Stumps



GLASS DROP-OFF LOCATIONS

- 📍 4251 Eisenhower Ave.
- 📍 3224 Colvin St.
- 📍 S Royal St. & Jones Point Park
- 📍 Tower Ct. & South Whiting St.

For more information | Español | አማርኛ | alexandriava.gov/Recycling



YES!



- ✓ Empty & Rinse
- ✓ Labels - OK
- ✓ All Colors of Glass - OK
- ✓ Metal Caps & Lids - OK

NO!



Do Not Bag Glass
No Plastic Liners



No Plastic Bags or
Plastic Wrap
(return to retail)



No Lamps or Bulbs
(use Household Hazardous
Waste Center
at 3224 Colvin St.)



No Misc Glass
Ceramics, Porcelain,
Mirrors, Windows, Pyrex,
or Glass Sheets



No Food or Liquid
(empty and rinse)





We are excited to announce the launch of glass recycling drop off bins! This partnership w/ Fairfax County Environment will enable those who want an option to recover & recycle glass to drop it in purple bins at one of 4 existing City recycling locations.

This service is one of the first short-term action items to be implemented as part of the City's Environmental Action Plan and #WasteSmart strategic plan. Remember, drop ONLY glass in the purple bins. Visit alexandriava.gov/108530 to learn more.



Education & Outreach

- Mailer sent to 20,200 homes
- Mailers at libraries, City Hall, other partners
- Employee Town Hall Meetings
- Alexandria 311 Call Center Training
- Civic Association Meetings
- Farmers' Market Outreach
- Social media, website, GoRecycle campaign
- Joint press release, media coverage, earned media



You, Andrew Kim, Jack Lee and 100 others 35 Comments 60 Shares



Translations



የአዲስ አበባ ማህተም ማሳወቂያ



የመስታወት/የጠርመራ ምርቶችን መልሶ ጥቅም ላይ ለማዋል/ሪሳይክል ለማድረግ የመጣ ያወቅላት



RECYCLE

Botellas y frascos de vidrio

Como usted habrá escuchado, la región ha estado enfrentando desafíos con respecto al reciclaje de vidrio. Si bien todavía es correcto colocar el vidrio en el contenedor de reciclaje azul, la ciudad estableció cuatro centros de entrega para mejorar y facilitar el reciclaje de vidrio. Esta es la mejor manera de garantizar que el vidrio se reciclará.

El vidrio que se separa en estos centros se transportará a una planta de procesamiento en el condado de Fairfax para reciclarlo y convertirlo en grava y arena, las cuales pueden usarse localmente. Estos productos finales podrían utilizarse en proyectos de paisajismo y construcción.



Botellas y frascos
Todos los colores (vacíos y enjuagados)



PUNTOS DE ENTREGA DEL VIDRIO

- 4251 Eisenhower Ave.
- 3224 Colvin Street
- S Royal St. y Jones Point Park
- Tower Ct. y South Whiting St.

NO!

- No colocar el vidrio en bolsas. Se prohíben los revestimientos plásticos.
- Se prohíben las bolsas o los envoltorios plásticos (devolver al comercio minorista).
- Se prohíben las lámparas o bombillas (usar Household Hazardous Waste Center en 3224 Colvin St).
- Se prohíben vidrios varios, cerámica, porcelana, espejos, ventanas, pìrex o láminas de vidrio.
- Sin alimentos y sin líquidos (botellas y frascos vacíos y enjuagados).

Ciudad de Alexandria
Servicios ambientales y de transporte

alexandriava.gov/Recycling

Gracias por reciclar. Impreso en papel reciclado con un 30% de fibra reciclada posconsumo.

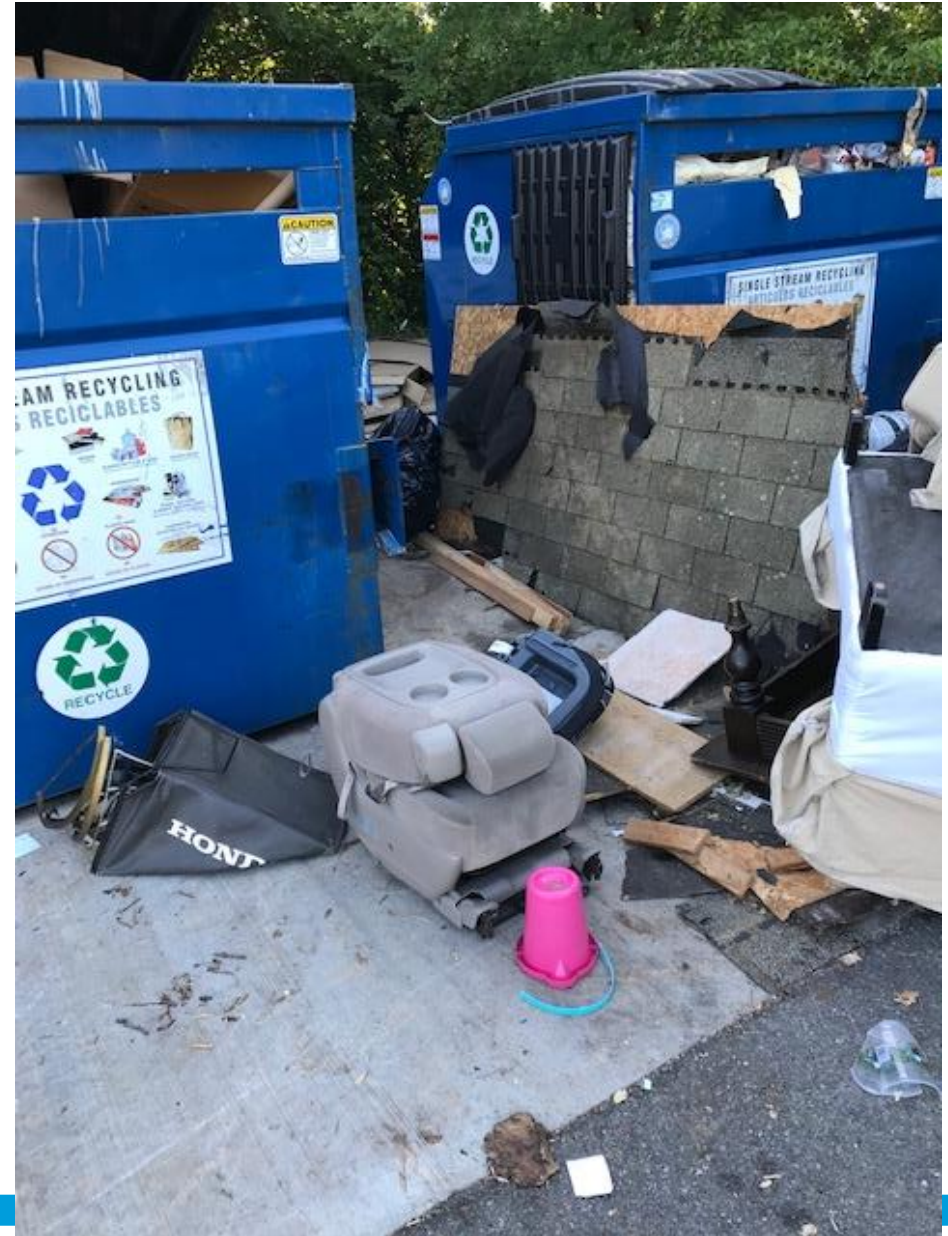




- Arlington County
- City of Alexandria
- Fairfax County
- Prince William County



Illegal Dumping at Drop-Off Centers



Annual Operating Costs

Labor	
Operator hourly wage + fringe	43.38
Time required to load and deliver to FFC	1.25
Number of times glass bin emptied / year	60
	\$3,253.50
Hauling	
Distance to Fairfax County I-95 (miles round trip)	30.8
Gas \$ /mile	2.2
Number of times glass bin emptied / year	60
	\$4,065.60
Processing	
Ave tons of glass in 40yd bin	6
Number of times glass bin emptied / year	60
Processing cost at FFC	\$10
	\$3,600
Total Costs (Labor + Hauling + Processing)	\$10,919

*Roll-Off truck depreciation costs not included



If 100% drop-off participation (2,000 tons)

Labor	
Operator hourly wage + fringe	43.38
Time required to load and deliver to FFC	1.25
Number of times glass bin emptied / year	333
	\$18,056.93
Hauling	
Distance to Fairfax County I-95 (miles round trip)	30.8
Gas \$ /mile	2.2
Number of times glass bin emptied / year	333
	\$22,564.08
Processing	
Ave tons of glass in 40yd bin	6
Number of times glass bin emptied / year	333
Processing cost at FFC	\$10
	\$19,980
Total Costs (Labor + Hauling + Processing)	\$60,601

*Roll-Off truck depreciation costs not included



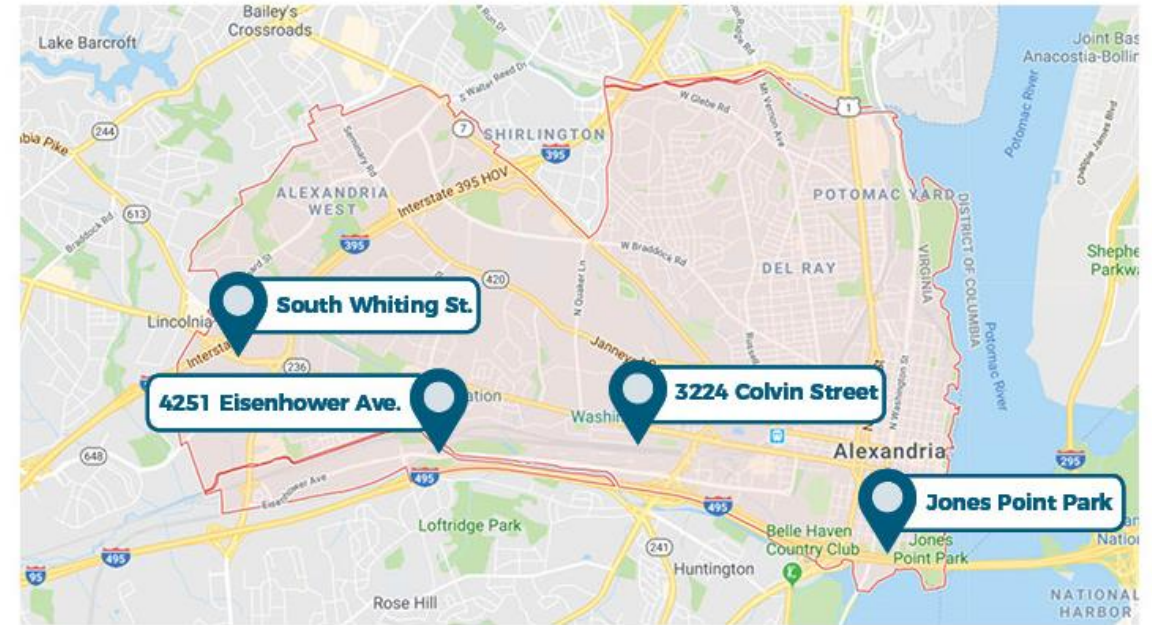
Cost of Processing (approximately 2,000 tons of glass)

Cost to process glass through single-stream recycling (no rebate applied)	\$ 73.08	\$ 152,298.72
Cost to dispose glass through WTE	\$ 43.16	\$ 89,945.44
Cost to dispose glass through Fairfax County glass recovery	\$ 10.00	\$ 20,840.00



Next Steps

- Monitoring bin fullness
- Extending coverage in the north
- Explore Public-Private Partnerships?
 - Grocery Stores
 - Breweries, Distilleries, Cideries?
- Bars & Restaurants?
- Farmers' Markets?
- Trailer for Special Events?



GLASS DROP-OFF LOCATIONS

- 4251 Eisenhower Ave.
- 3224 Colvin St.
- S Royal St. & Jones Point Park
- Tower Ct. & South Whiting St.



Next Steps

- Evaluate market conditions, develop a plan to expand glass drop-off and/or potentially eliminate glass from single stream
- Update City recycling ordinance to reflect changes in the global recycling market.



Current Glass Recycling Market

Location Type

- GPI Member Manufacturing Plant
- Recycled Glass Processing Facilities
- Fiberglass Manufacturing Facilities

Zipcode / Proximity

Postal code

Distance Miles

State

Show All

SEARCH RESET

Currently, there are no recycled glass processing facilities nearby.



Thank You

alexandriava.gov/WasteSmart

 alexandriava.gov/tes  [@TESAlexandriaVA](https://www.facebook.com/tesalexandriava)  [@AlexandriaVATES](https://twitter.com/AlexandriaVATES)  [@AlexandriaVATES](https://www.instagram.com/AlexandriaVATES)

