





Glass Recycling

Council of Governments – DC Metro

Bill Clark | Regional Supply Manager

Agenda



- Who is Strategic Materials?
- Why Glass?
- Collection Options
- Possible Solutions

Strategic Materials

Markets Served



We are the largest glass recycler in North America, with **nearly 50 plants**.

With over 120 years of experience, we are a recycling market leader for glass.

The markets we serve with our recycled glass helps to reduce manufacturing costs and improve sustainability.









Container

Fillers





Plastic Specialty

We recycle nearly **3 million tons of glass** a year into a variety of applications.

Strategic Materials

Our Footprint







Why Glass?

End Markets



Glass Containers











Fiberglass











Why is recycled glass used?

- ✓ Saves on energy & CO₂ emissions
- ✓ Increases throughput
- ✓ Extends furnace life
- ✓ LEED credits (fillers and insulation)
- ✓ It is chemically inert, safe packaging
- ✓ It is ocean-friendly

Flat Glass





Fuyao Glass America Inc.

Highway Bead









Glass is likely the most stable commodity in the stream for the past 5 years. All these benefits positively impact the local economies through job support.

Collection for Local Use



- What's the cost of doing nothing?
- Landfill daily cover, other uses
- Construction uses
 - Cost of local processing, inventory, sales & equipment maintenance



Collection Programs

STRATEGIC **MATERIALS**

- .Regional Aggregation sites
 - Public / Private management
 - Available for collectors
 - Source separated material
 - MRF not required
- Private collectors
 - Consumer activity hub provides material for collections



Cost of Collection



- Maximize logistics
 - Material handling efficiency, flow charting, truckload quantities (economies of scale)
- Handle once, store, ship to processor



Maximize Glass Value













(\$\$\$) Negative Value

\$\$\$ Positive Value



Maximize the Value of Glass



- Glass price is directly tied to quality of material received. Lower quality = Lower Price
- E.g. Source separated flint, amber, green
 positive value (highest value)
- E.g. 3-mix/single stream = variable value
- Glass Quality dependent on MRF processing capability / desire
- MRF processing capability dependent on City quality requirements

Glass Economic Drivers

				U	nc	dersi	ze											
			0.0%		5.0%		9.0%		10.0%		15.0%		20.0%		24.0%	25.0%	30.0%	35.0%
Non-Glass I	0.0%	\$	12 20	\$	11.75	\$	10.59	\$	10.30	\$	8.85	\$	7.40	\$	6.24	\$ 5.95	\$ 4.50	\$ 3.05
	5.0%	\$	1.02	Ş	(2.13)	\$	(1.60)	\$	(1.89)	\$	(3.34)	\$	(4.79)	\$	(5.95)	\$ (6.24)	\$ (7.69)	\$ (9.13)
	10.0%	\$	(10.59)	\$	(12.04)	\$	(15.20)	\$	(13.49)	\$	(14.94)	\$	(16.39)	\$	(17.55)	\$ (17.84)	\$ (19.29)	\$ (20.74)
	15.0%	\$	(15.52)	\$	(16.97)	\$	(18.13)	\$	(18.42)	4	(19.87)	\$	(21.32)	\$	(22.48)	\$ (22.77)	\$ (24.22)	\$ (25.67)
	20.0%	\$	(19.14)	\$	(20.59)	\$	(21.75)	\$	(22.04)	\$	(23.49)	4 }	(24.94)	\$	(26.10)	\$ (26.39)	\$ (27.84)	\$ (29.29)
	25.0%	\$	(23.20)	\$	(24.65)	\$	(25.81)	\$	(26.10)	\$	(27.55)	\$	(29.00)	- ^-	(20.16)	\$ (30.45)	\$ (31.90)	\$ (33.35)
	30.0%	\$	(29.73)	\$	(31.18)	\$	(32.34)	\$	(32.63)	\$	(34.08)	\$	(35.53)	\$	(36.69)	\$ (35 98)	\$ (38.43)	\$ (39.88)
	35.0%	\$	(37.70)	\$	(39.15)	\$	(40.31)	\$	(40.60)	\$	(42.05)	\$	(43.50)	\$	(44.66)	\$ (44.95)	\$ (40.10)	\$ (47.85)
	36.0%	\$	(39.44)	\$	(40.89)	\$	(42.05)	\$	(42.34)	\$	(43.79)	\$	(45.24)	\$	(46.40)	\$ (46.69)	\$ (48.14)	\$ (49.53)

Better Quality Supply = Better Pricing

Possible Solutions



- Rural drop-off
- Metro drop-off
- Bar & Restaurant Collection



Thank You



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