

Overview of Glass Recycling in North Carolina

NC DEACS

Glass Recycling Forum

Oct 25, 2016



Why Glass Recycling is Important to NC

Glass manufacturing a long-standing part of NC's manufacturing economy

Ardagh plants in Wilson and Henderson

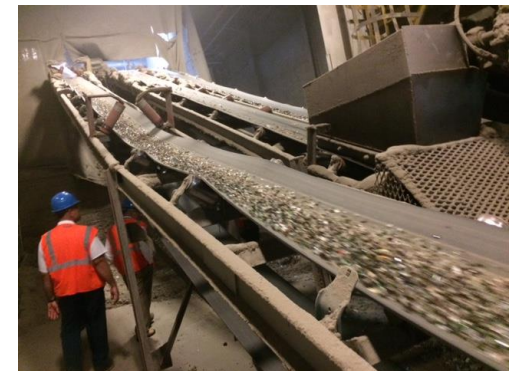
O-I plant in Lexington (and another in Danville, VA)

Large glass container users in NC

Food and beverage manufacturers

Growing craft brewery industry

NC home to one of the most sophisticated glass beneficiation plants in the U.S.



Why Glass Recycling is Important in NC

Part of an overall effort to reduce dependence on landfilling and return commodities to economic use.

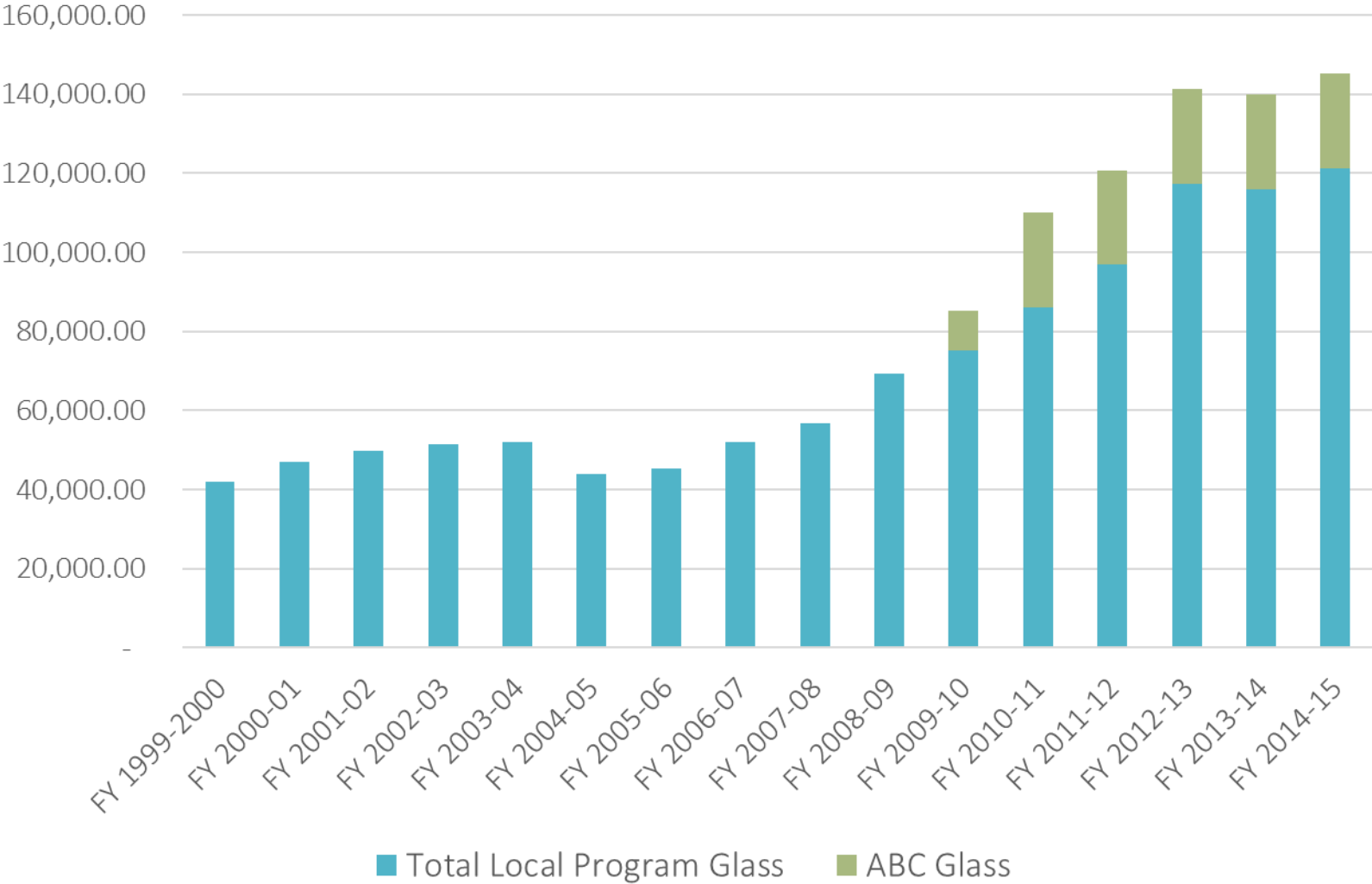
Energy reduction and resource conservation benefits

North Carolinians have a growing recycling ethic and *expect* to recycle glass

ABC Law

	WASTE	RECYCLE
Recyclable Material	Pounds/ Household	Pounds/ Household
Newspaper	11.72	86.32
OCC	45.21	73.00
Mixed Paper	150.70	88.21
Rigid Plastics	15.07	1.94
PET	36.84	19.84
HDPE	20.09	13.96
Other Plastic Containers	30.14	2.65
Glass	65.30	113.55
Steel	20.09	10.19
Aluminum	25.12	5.05
Total:	420.30	414.72

Glass Recycling Collection in NC



Challenges of Glass in the System

Wear & Tear

Glass is abrasive on collection trucks and MRF floors and processing equipment

Freight Sensitivity

Weight of glass makes it tough to ship economically long distances (not likely to be exported to China!)

Value

Glass a negative in MRF blended values

Quality

Glass attracts contaminants in MRF and contributes to them

MRF Blended Values - Spring 2016			
	% of 1	Price/ton	Value
<u>Fiber Materials</u>	MRF ton		
ONP	20.8%	81.67	\$16.99
Mixed Paper	21.3%	50.00	\$10.65
OCC	17.6%	101.50	\$17.86
<u>Container Materials</u>			
Glass	27.4%	-19.50	-\$ 5.34
Aluminum Cans	1.2%	1200.00	\$13.92
Steel Cans	2.5%	110.00	\$ 2.75
PET	4.8%	200.00	\$ 9.60
HDPE	3.4%	440.00	\$14.96
Mixed Plastics	0.8%	30.00	\$ 0.24
Cartons/aseptics	0.2%	50.00	\$ 0.10

Addressing Challenges in Curbside

At the Home

Recognize and reinforce public commitment to glass recycling

Reduce the kinds of materials that contaminate glass in the MRFs – no shredded paper in curbside!



At MRFs

Get glass out early in process

Possibly clean glass further on back end

Divert non-glass residue and fines direct to other outlets – avoid shipping



Addressing Challenges in Local Government Drop-off

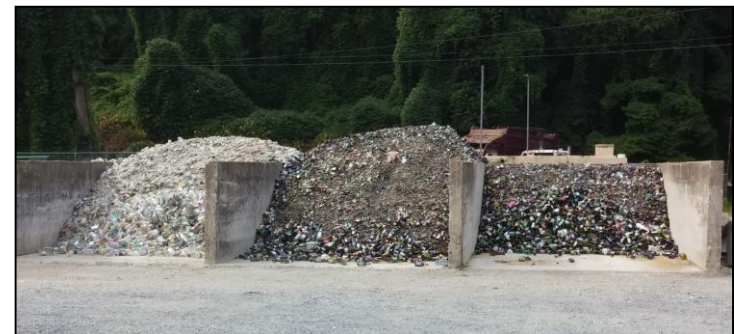
Maintain momentum toward commingling recyclables with compaction, but...

If feasible, *with glass collected separately*

Create or continue to use bunker systems for bulk storage and transport

Seek differential pricing scenarios from MRFs to allow business case analysis of glass in vs glass out

If glass is collected separately, use good signage and education



All In This Together – Roles for Everyone to Play in Helping Glass Succeed for the Long Term

NC DEQ

CRA

Local Government Collection Programs

MRFs

Strategic Materials

Ardagh and O-I

Food and Beverage Manufacturers

Glass Packaging Institute

Glass Recycling Coalition

Overview of the Day

Speakers and Topics:

Innovative Approaches in Public Drop-off Programs

Shannon Culpepper, Chatham County

Mike Etheridge, Pasquotank County

Private Sector Perspectives

Will Newsome, Sonoco

SMI

Cliff Humphreys and Bob Waldron, Ardagh

Networking Lunch

Tours – Bus Transport

Group 1: SMI 1:00 – 2:00, then Ardagh 2:30 – 3:30

Group 2: Ardagh 1:00 – 2:00, then SMI 2:30 – 3:30

Return to Wilson Agriculture Services by 4:00