

# Carolinas Glass Recycling Summit

*Why Glass is Important to Your Community*

## Glass Container Manufacturing & Recycling Overview

Scott DeFife

President

Glass Packaging Institute (GPI)

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Wilson, NC

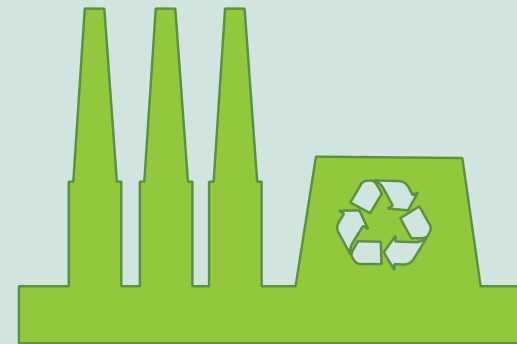
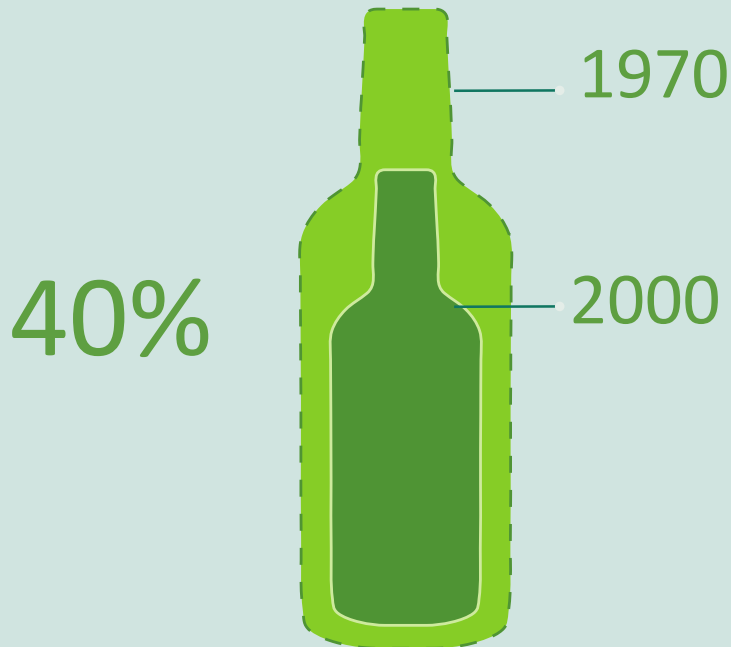


# Glass Packaging Institute (GPI)

- ❖ 5 manufacturing member companies
- ❖ 27 supplier member companies

 **16,500  
JOBS\***

**Glass Bottles  
reduced in weight**



- ❖ U.S. glass container manufacturers operate 45 plants in 22 states
- ❖ Approximately 27 billion glass containers manufactured in 2018

\* Hourly and glass company workforce employment, supplier company employment not included.

# WHY RECYCLE GLASS?



Energy and GHG  
emissions reduced by

**1/3 MT**

for every ton of recycled glass used



**91%**

of consumers want to recycle  
glass. Cities can't accomplish with  
zero-waste goals without it

# WHY RECYCLE GLASS?

**32%**

on average recycled  
glass in new glass  
containers

**2.1**

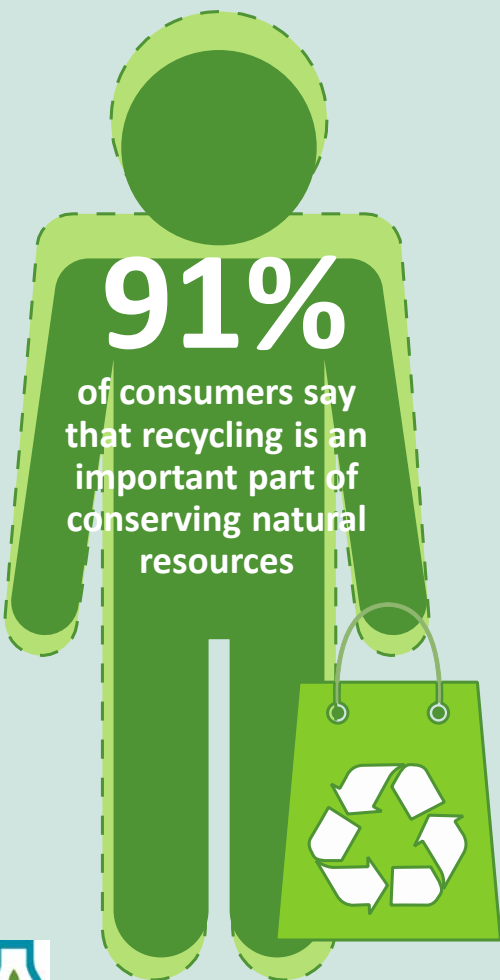
**MILLION**

tons of recycled glass  
used annual to make  
new bottles and jars

**60%**

is used for new  
containers or  
insulation

# Consumers Want To Recycle Glass Containers



**91%**

of consumers say that recycling is an important part of conserving natural resources

**90%**

say that it is important to recycle materials rather than sending them to the landfill.

**95%**

of those who live in a community which recycles glass say glass should continue to be collected by recyclers.

**91%**

say finding ways to avoid wasting our natural resources is important.

Glass is made from natural resources



sand



soda ash



limestone



Source: 2017 National Poll by SurveyUSA

# North Carolina Glass Manufacturing & Recycling



# North Carolina Glass Bottle Manufacturing & Glass Recycling Facilities

## Ardagh Glass

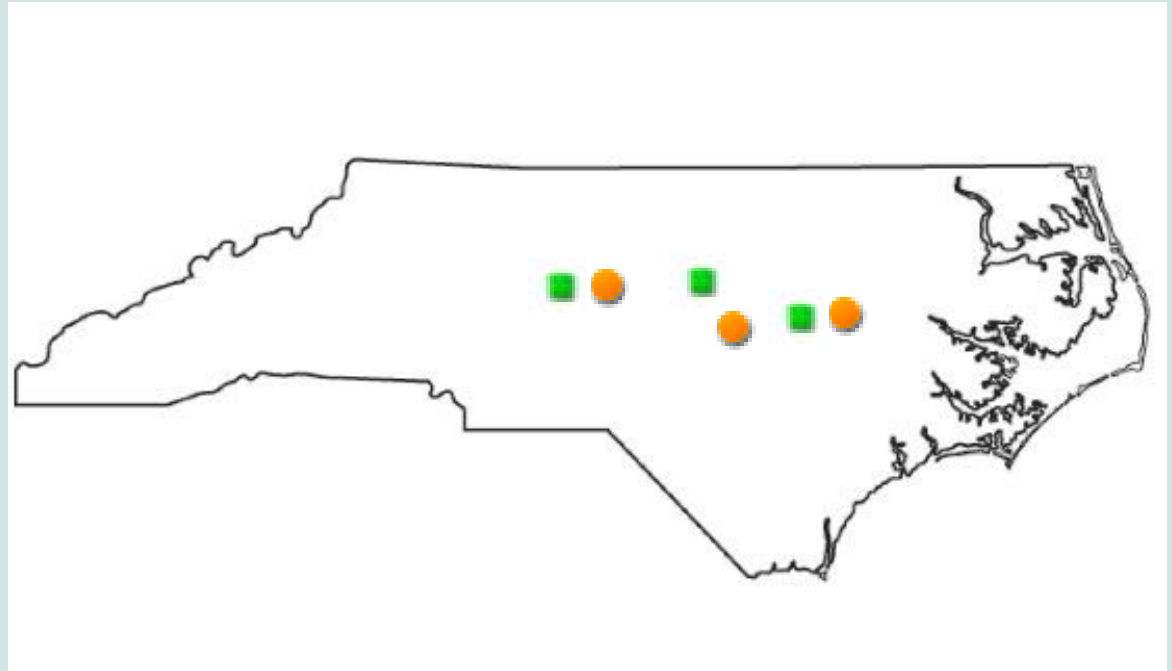
- ❖ Henderson
- ❖ Wilson

## O-I

- ❖ Winston-Salem

## Strategic Materials, Inc.

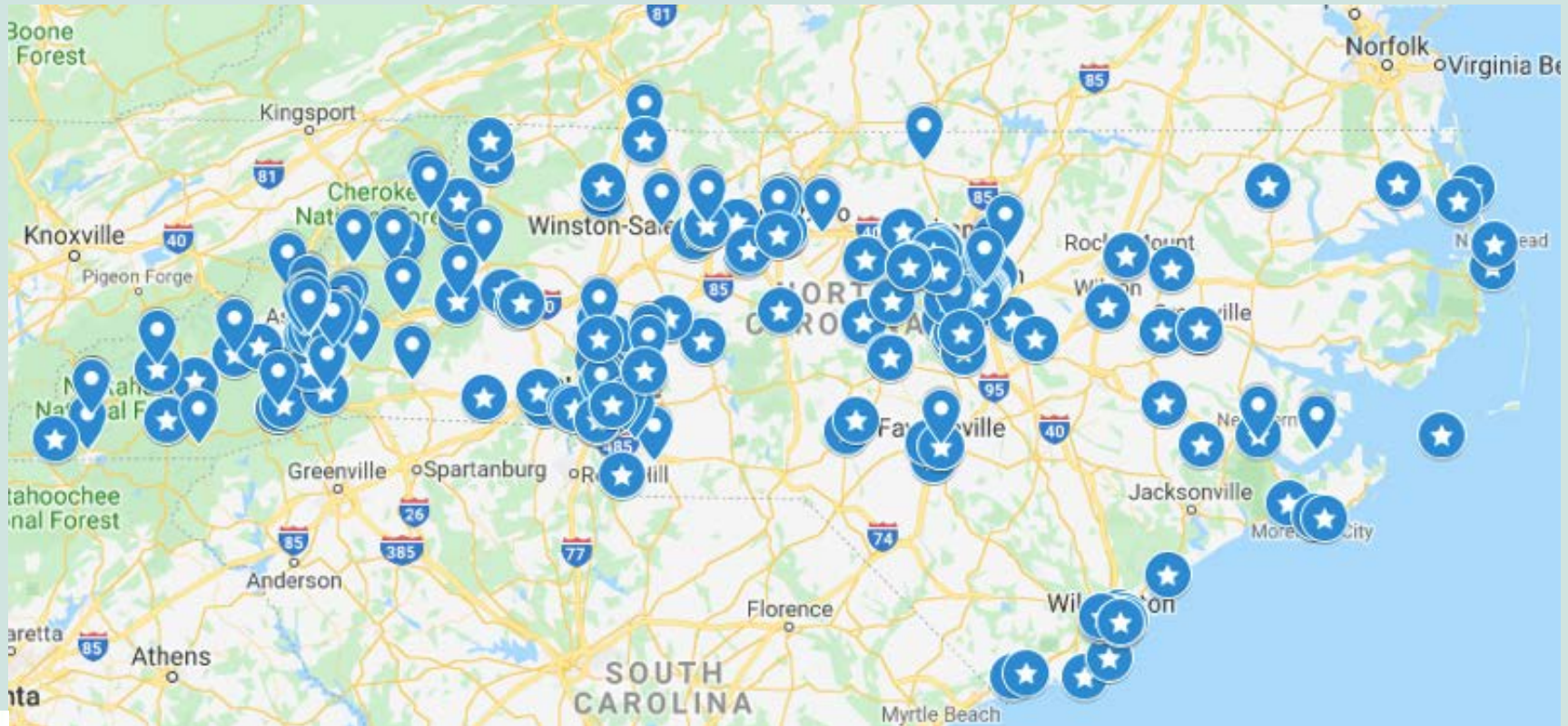
- ❖ Durham
- ❖ Wilson
- ❖ Winston-Salem



- ✓ On average, glass container manufacturing plants employ 300 people

# North Carolina Breweries

- ❖ More than 300 Breweries In-State – Highest in Southern US
- ❖ Strong & Nearby End Market for Glass Bottles





# Partnerships to Improve MRF Glass Quality

2016 & 2017 Public/Private Partnership in North Carolina

- ❖ Support two MRFs to improve glass recycling & recovery
  - American Recycling of Western NC (Greater Asheville area)
  - Sonoco (Raleigh)
- ❖ MRFs leveraged funding with NC DEQ and Glass Packaging Institute (GPI) grants, along with significant company investment
- ❖ Market proximity: Nearby glass processing and manufacturing plants
- ❖ Result - Strategic & targeted investments work!



# North Carolina - Grant Investments & Modifications

- ✓ Moved glass sorting equipment to MRF front end
- ✓ Installed glass breaker screens
- ✓ Installed 3-deck OCC screen
- ✓ Glass bunker storage



# North Carolina Grant Results

- 5%-9% increase in tons glass recovered
- Lower contamination & higher revenue for glass received
- Additional cost savings from moving glass sorting & cleaning equipment to front end of MRF
- Reduced wear and tear on rubber discs, fiber separation screens and other MRF equipment

*“We have experienced a 50 percent increase in overall throughput following the installation of equipment because we don’t have to stop for manual cleaning or maintenance.”*

*—RON MOORE, OWNER of AMERICAN RECYCLING of WESTERN NORTH CAROLINA*

*“The project has met its goals, and the glass system flows much better.”*

*—PATRICK McDONALD, PLANT MANAGER at SONOCO RECYCLING of RALEIGH*

# Glass Recycling Coalition

**GLASS RECYCLING COALITION** | **MAKING GLASS RECYCLING WORK, TOGETHER**

The Glass Recycling Coalition was founded in 2016, collaborating across the value chain to strengthen glass recycling. Since then, we have made the following achievements in partnership with our members:

EDUCATION		OUTREACH		MEMBERS	
50+ Best Practices	800+ Webinar Attendees 8 webinars	46,000+ GlassRecycling.org webpage views	550+ Increased Annual Glass Recycling Survey Responses	37 Members	
850+ Webinar video views	400+ Users of Glass Recycling Decision-Making Tool	55+ Industry conference speaking opportunities	7 Regional Workshops	5 Government Advisory Members	
		20+ Industry Media Articles	500+ Glass Champions Database	3 Advisory Members	

## MRF GLASS RECYCLING CERTIFICATION

### Two Step Process:

#### 1. Online Application Form:



#### 2. MRF Sample Testing:

**MRF Glass Clean-Up Certification Program**

**Measuring Glass Purity Instructions**

Sample Process:

1. **PREPARE**

2. **WEIGH**

3. **TEST**

4. **REPORT**

5. **REPEAT**

6. **REVIEW**

7. **RECEIVE**

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❖ **Members:** Glass manufacturers, recyclers, MRFs, haulers & brand companies

❖ Identification for Interventions

❖ **MRF Glass Certification Program (NEW)**

❖ **Advisory & Glass Champion Network (Connecting Local Governments with Recycling Stakeholders)**

# Glass Recycling Foundation (GRF)

## Purpose: Identification & Targeted Investments to Improve Glass Recycling Stream

- ❖ Grant & Complimentary Funding Opportunities
- ❖ Initial investments from glass manufacturing, fiberglass and brand companies
- ❖ Additional information to be announced in Q1 2020



[Learn more about Glass Recycling](#)  
[www.glassrecycles.org](http://www.glassrecycles.org) >

[Contact the GRF](#)  
Contact us >

**The Glass Recycling Foundation (GRF)** is a 501c3 **non-profit organization** formed to provide and **raise funds** for **localized and targeted assistance, demonstration and pilot projects** that address gaps in the **glass recycling supply** chain across the **United States**.



### Our Vision

*To increase recycling through education and best practices to ensure the highest benefit for communities and the environment.*



# Thank You

## Questions?

Follow Up & Contact Information:

Glass Packaging Institute (GPI)

Scott DeFife

[sdefife@gpi.org](mailto:sdefife@gpi.org)

703-684-6359

[www.gpi.org](http://www.gpi.org)

