



Waste Reduction in North Carolina

NC Department of Environmental Quality



NC DEQ – DEACS - RMMS

Division of Environmental Assistance and Customer Service (DEACS) Recycling and Materials Management Section (RMMS)



- Non-regulatory
- Local government assistance
- Recycling business assistance
- Grants
- Statewide data, reports, studies
- Conferences, workshops, events

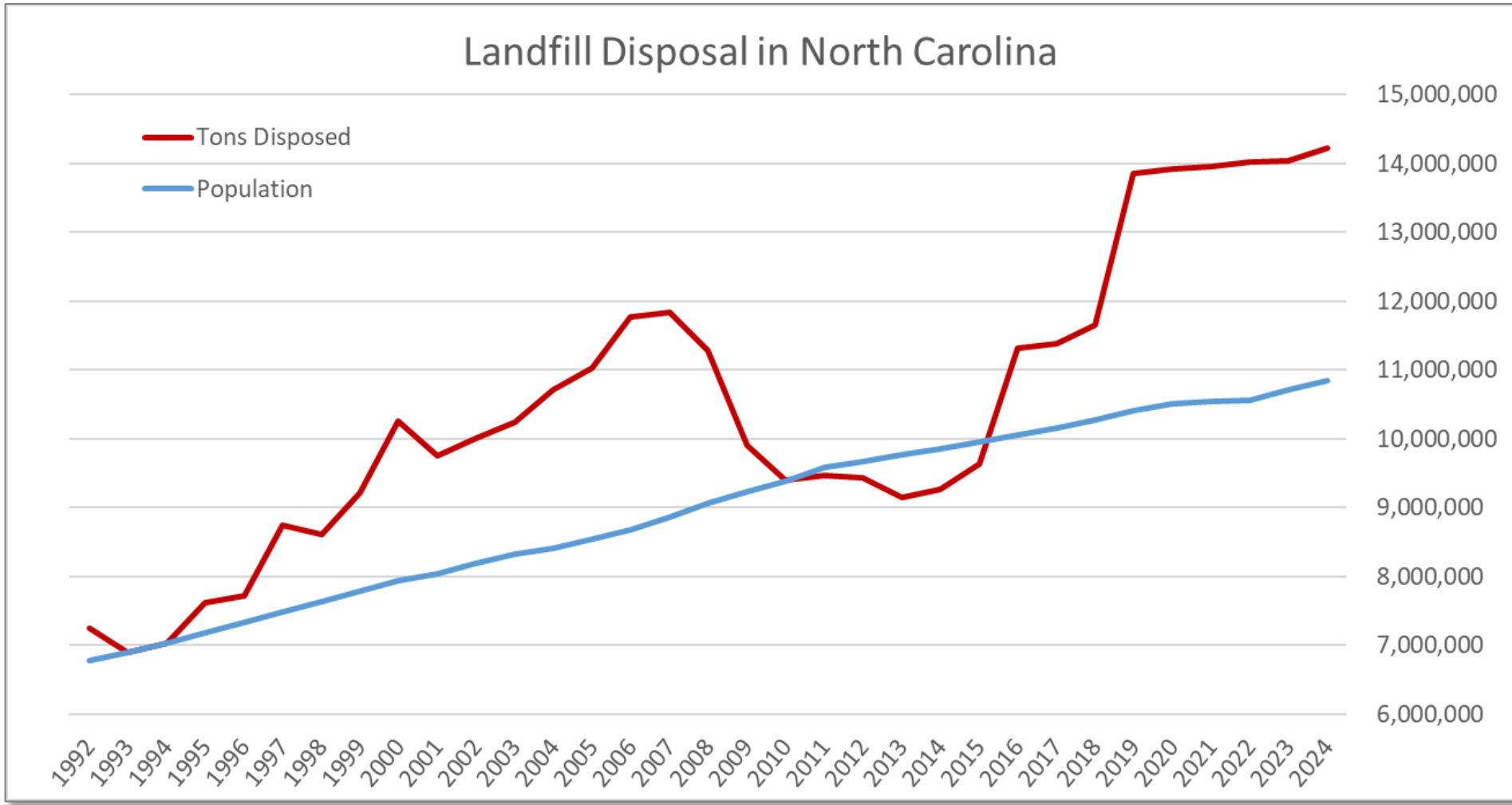


RMMS Tools and Services

- NC Recycling Markets Directory
- Grants for recycling business expansion
- NC recycling tax property credits
- Recycling employment and other technical studies
- Supply-driven policies
- Direct engagement with businesses
- Track market pricing
- Workshops, training, and events
- Recycling Works newsletter



The Problem: Disposal Trends



Per Capita Disposal
1992: 1.07 tons
2024: 1.31 tons

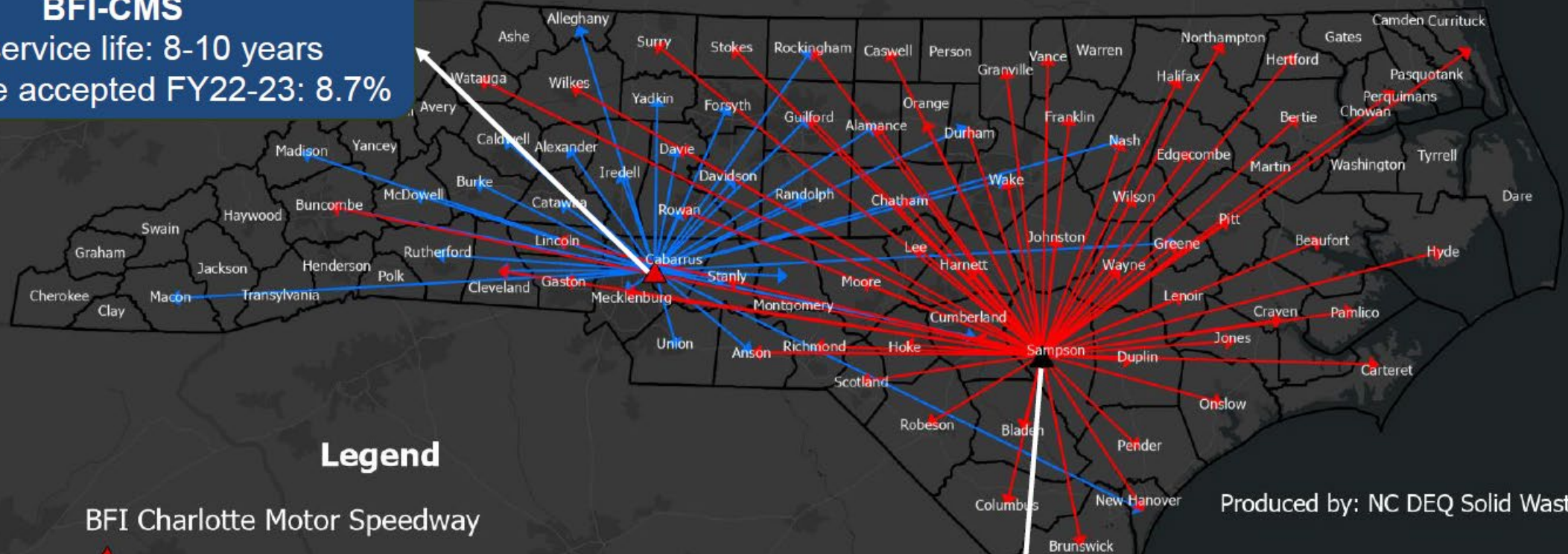


County Waste Sources for Sampson County MSWLF and BFI Charlotte Motor Speedway

BFI-CMS

Projected service life: 8-10 years

State waste accepted FY22-23: 8.7%



Legend

BFI Charlotte Motor Speedway



Sampson County Disposal, LLC



SampsonCounty Disposal, LLC Waste Sources



BFI-CharlotteMotorSpeedway Waste Sources



Sampson County

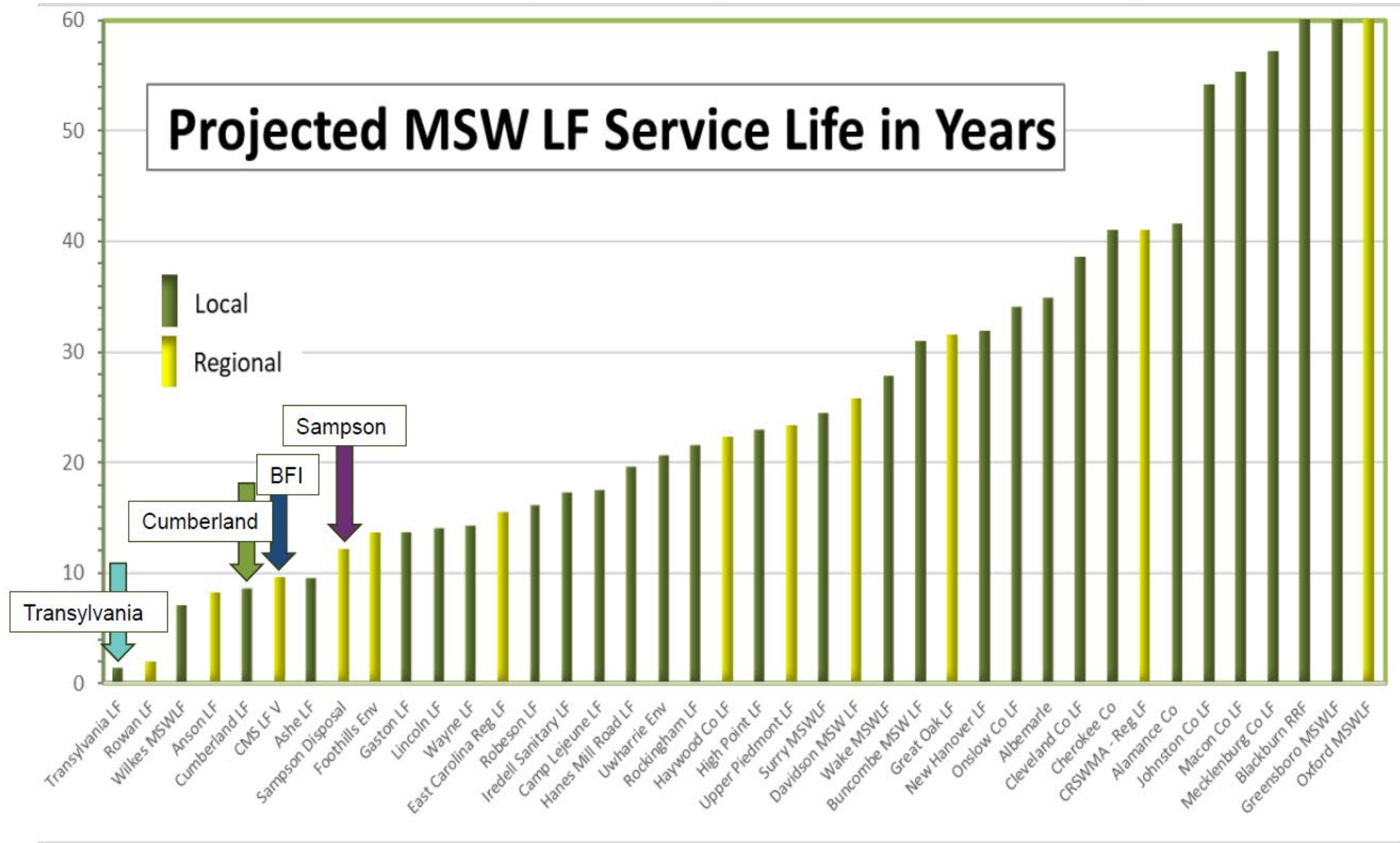
Projected service life: 10-12 years

State waste accepted FY22-23: 14.5%

Produced by: NC DEQ Solid Waste Section



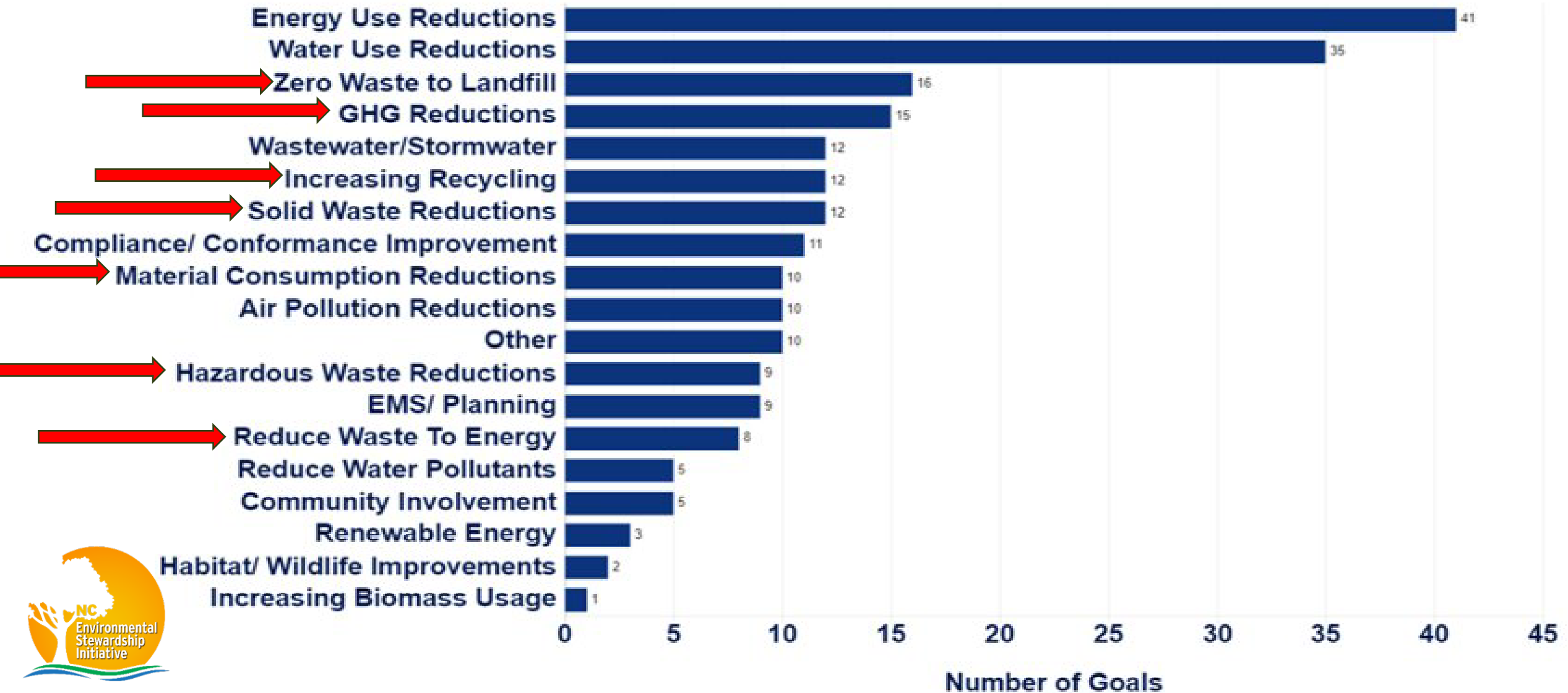
MSW Landfill Projected Service Life



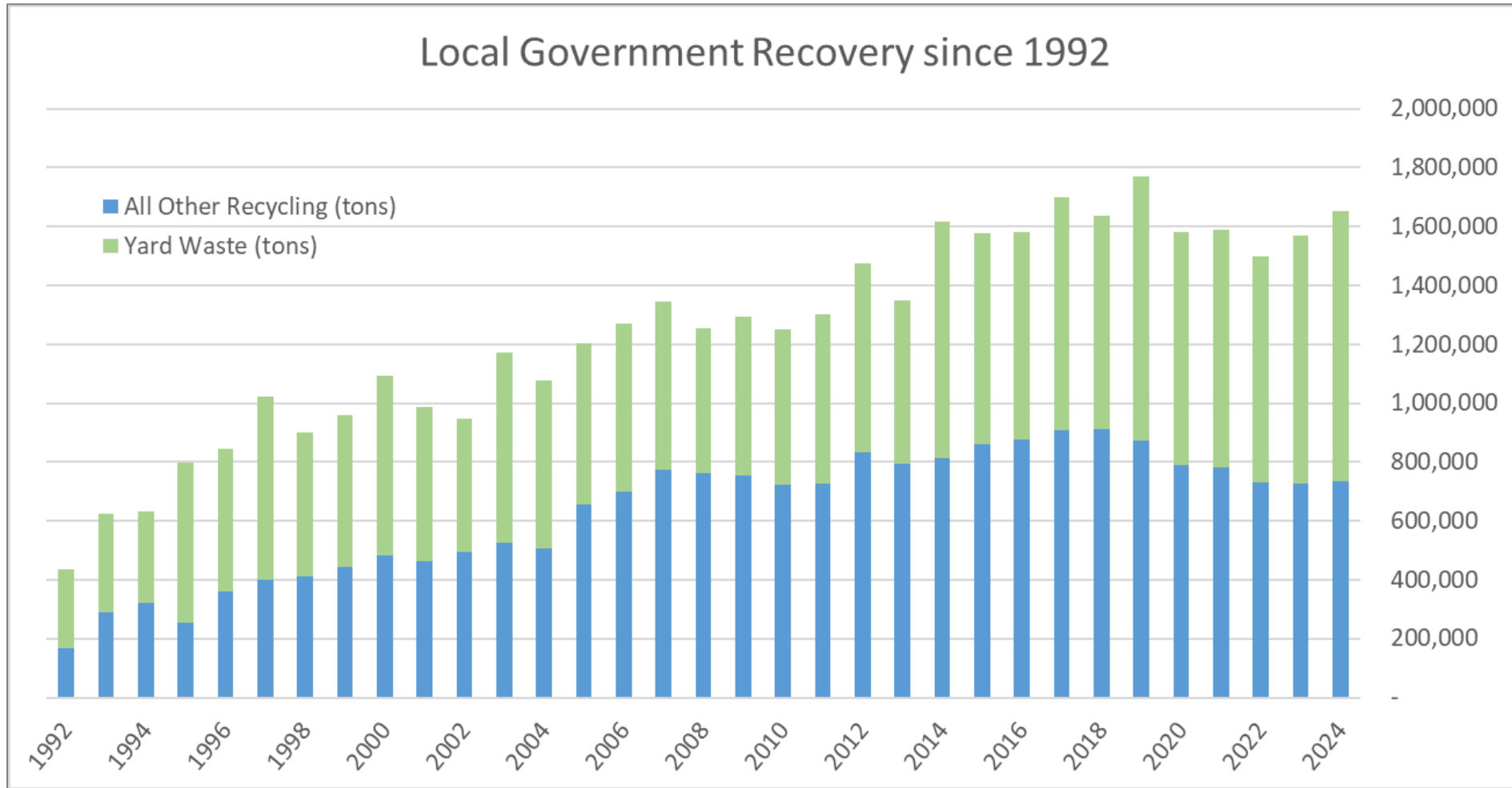
NC Recycling Infrastructure



ESI Member Goals



Residential Recovery Trends

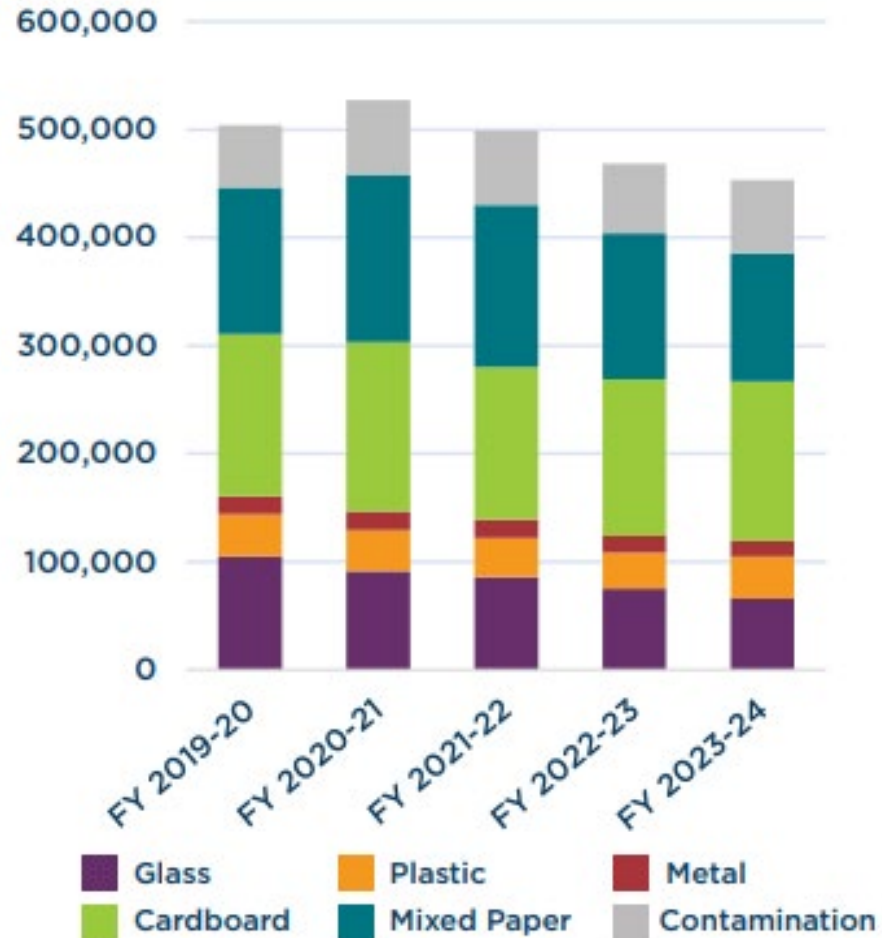


Per Capita Recycling
1992: 128 pounds
2024: 305 pounds

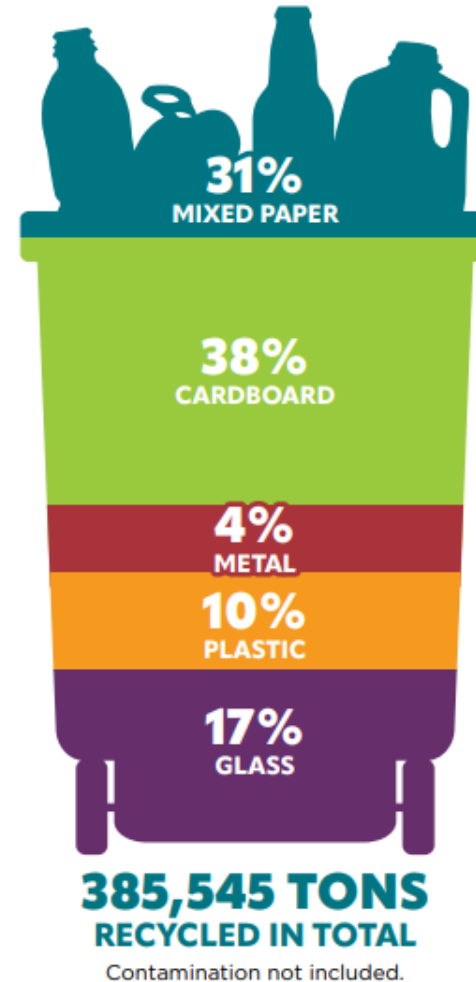


Residential Recovery Trends

TONNAGES OF TRADITIONAL HOUSEHOLD RECYCLABLES



PERCENTAGE RECYCLED BY MATERIAL IN FY 2023-24



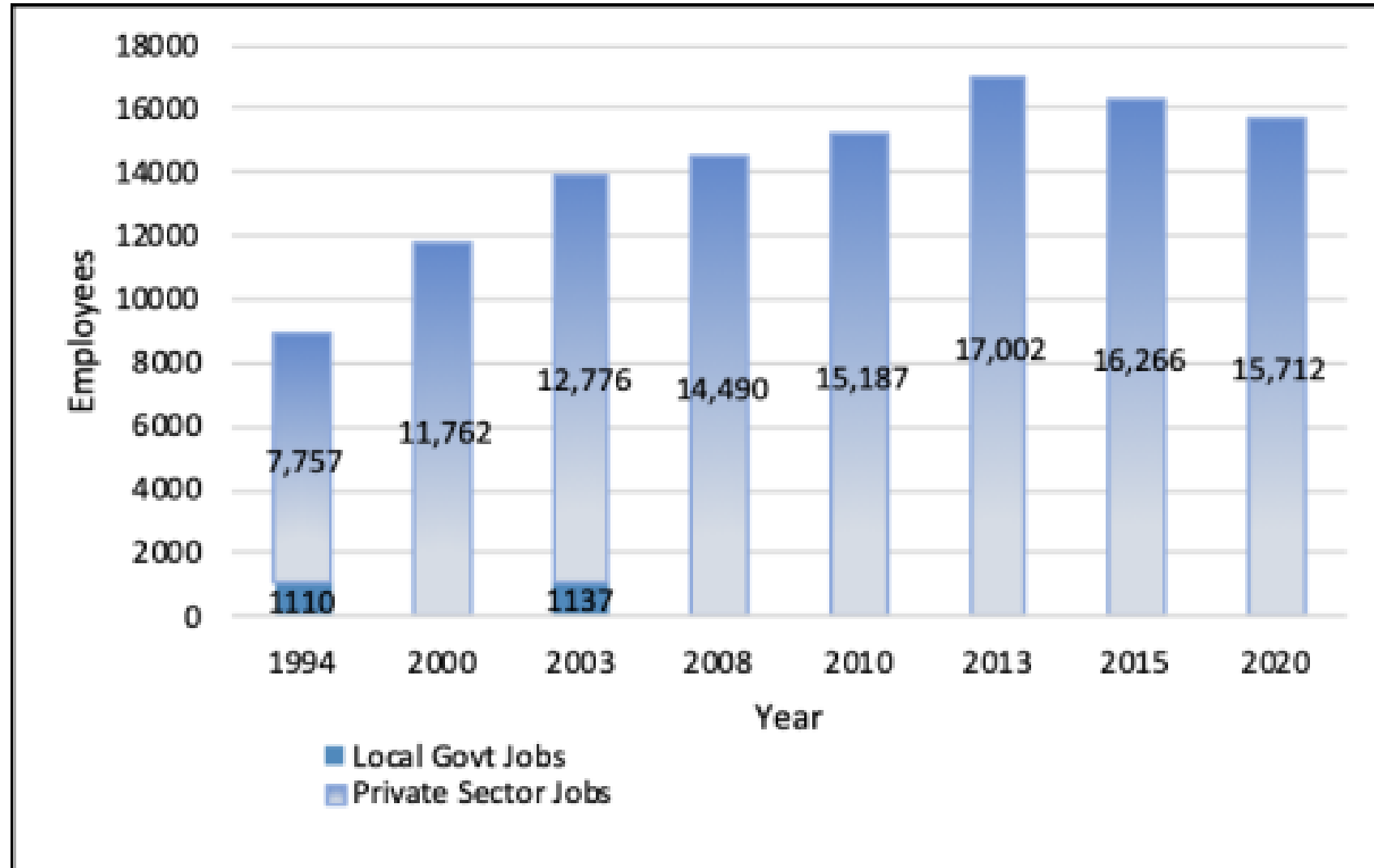
Per Capita Recycling
1992: 128 pounds
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How much waste comes from industry?

Economic Impacts of Recycling in NC

- 15,000 private sector jobs
- 500+ recycling businesses
- \$750 million in payroll
- \$3 billion in economic activity

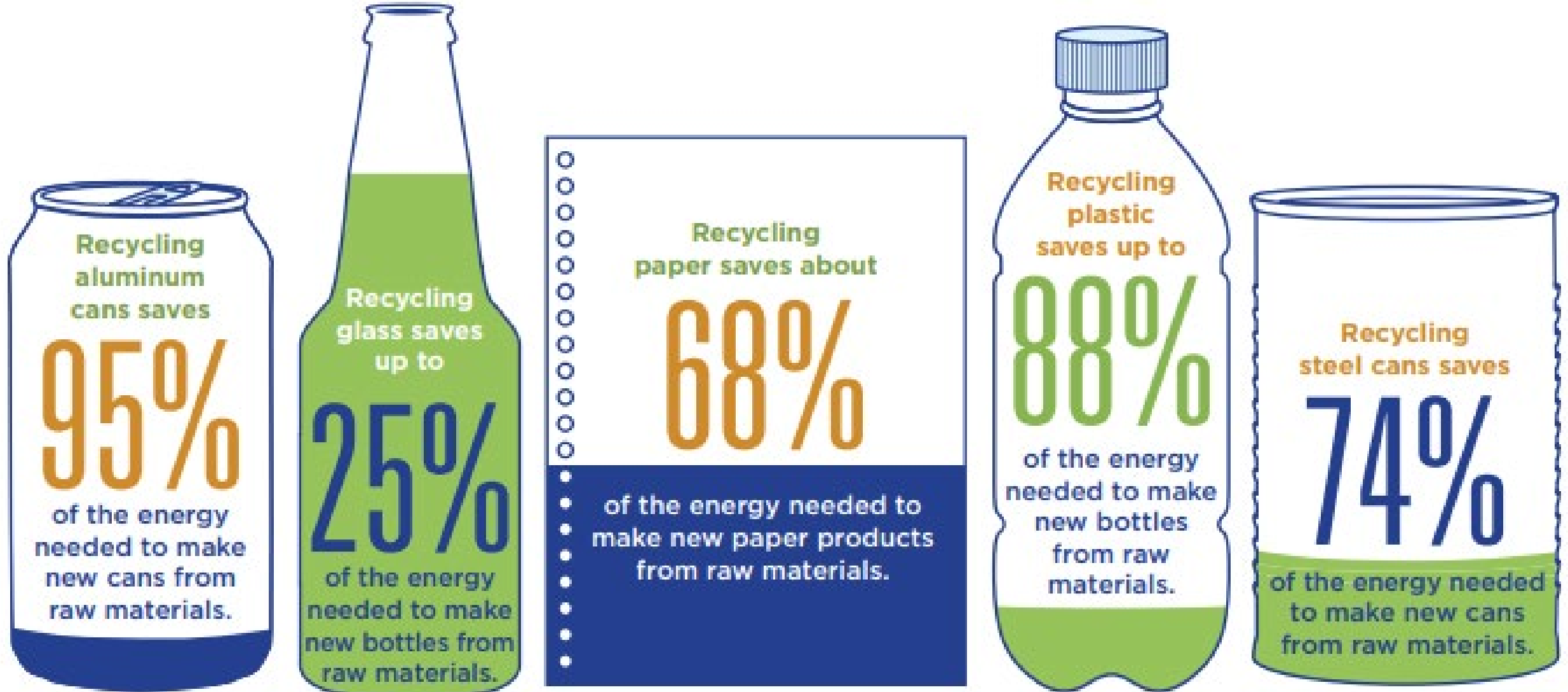


Environmental Impacts of Recycling in NC

Last year:
386,000 tons
of *household*
recyclables

- Conserved landfill space
- Reduces 220,000 car equivalent
- Replaces 4.5 million cut trees
- Conserved water usage

Energy Impacts of Recycling



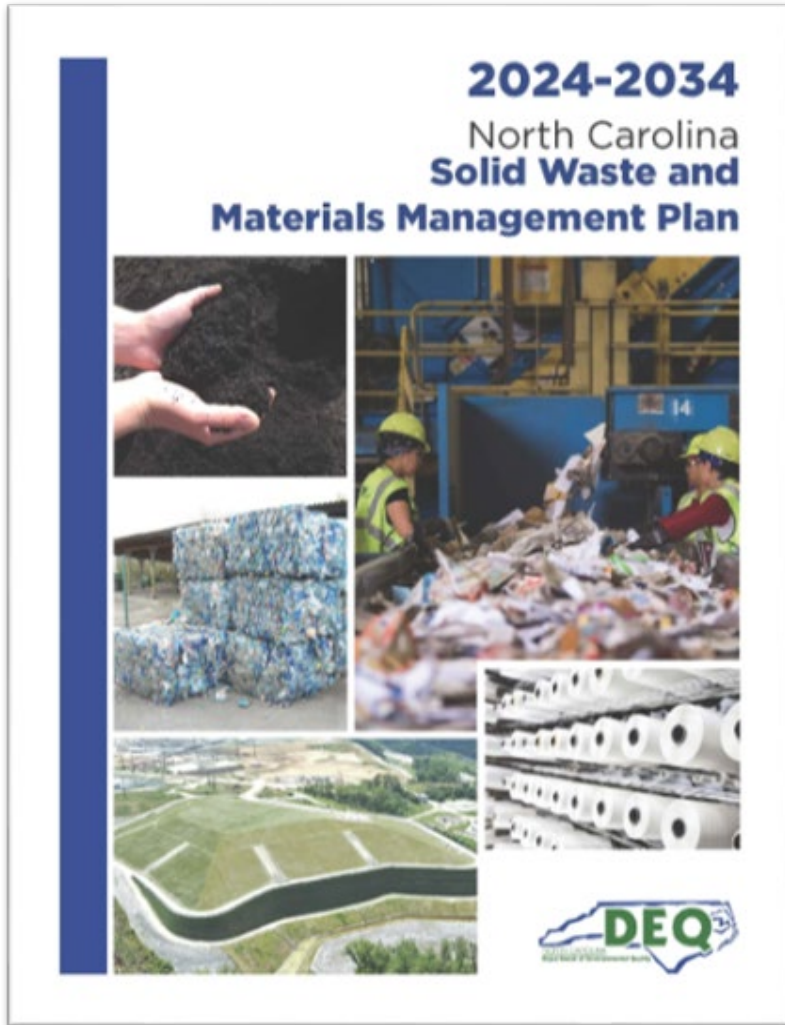
Moving Forward: 10 Year Plan

Solid Waste Management Act of 1989

Requires NCDEQ develop a comprehensive statewide solid waste and materials management plan (G.S. 130A-309.06(a)(1)).

Past state Solid Waste Management Plans: 1990, 2003, 2014

DEACS and DWM coordinate the 2024-2034 Solid Waste and Materials Management Plan



Advance Waste Reduction

Ensure continued stewardship of landfills and all other solid waste management activities with the goal of protecting environmental and public health while promoting economic viability.

- Expand Materials Recovery
- Evaluate Landfill Capacity & Management
- Oversee Management of Closed Landfills
- Reduce Illegal Activities
- Support Source Reduction



Grow the Circular Economy

Redirect valuable landfill-bound materials back into the economy to manufacture new products, create jobs and investment, and lessen environmental impacts.

- Enhance Policies to Support Solid Waste and Materials Management
- Improve Markets for Recycling Commodities



Develop Infrastructure and Optimize Material Recovery

Expand current and build new solid waste and material recovery, collection, and processing infrastructure.

- Expand Residential and Away-from-Home Recycling Programs
- Improve Material Quality in the Recycled Materials Stream
- Expand Organics Material Recovery and Diversion Infrastructure



Manage Special Waste Streams

Promote, educate, and regulate for the safe management and disposal of special wastes with the goal of increased reuse/recovery of these materials.

- Evaluate Regulations
- Reduce Toxicity of Disposed Waste
- Improve Disaster Debris Response



Educate and Engage with the Public

Increase external and internal training and outreach with a focus toward customer service, public awareness, and environmentally sustainable solid waste and materials management.

- Provide Technical Assistance
- Expand Facility Operator Certification Programs
- Develop Training and Outreach Opportunities
- Improve DEQ Information Resources



EPA Grant

EPA Solid Waste Infrastructure for Recycling (SWIFR) Grant

3-year project period: 2023-2026

NC Materials Management Optimization Study

- Waste Characterization
- MRF Study
- Hub & Spoke Analysis
- Market Assessments

Statewide Education Campaign

Waste Characterizations



Spring and Fall sorts at 3 locations:

- East: CRSWMA Landfill (New Bern)
- Central: Greensboro Transfer Station
- West: Watauga County Transfer Station (Boone)



Waste Characterizations



Common Industrial Recycling Challenges



- Hard to recycle materials
- Material value
- Storage limitations
- Communication and operations
- Proximity of material vendors

Recycling Markets Directory



NORTH CAROLINA
RECYCLING
MARKETS DIRECTORY

The NC Recycling Markets Directory is an interactive database of *recycling* vendors. Search by company name or material type to find a recycler that meets your needs.



**Search by Material
Category**

**Search by
Company**

**Search by
Specific
Material**

North Carolina Recycling Markets Directory

The North Carolina Recycling Markets Directory connects waste generators such as businesses, schools, or government entities with companies that can remanufacture those materials. Search the directory by material using the drop-down menus below to find recycling companies near you to discuss specifications, restrictions and availability to accept recyclable materials.

We recommend using this directory with Chrome, Firefox, or Edge internet browsers.

Select a Category

Select a Material

Material Search

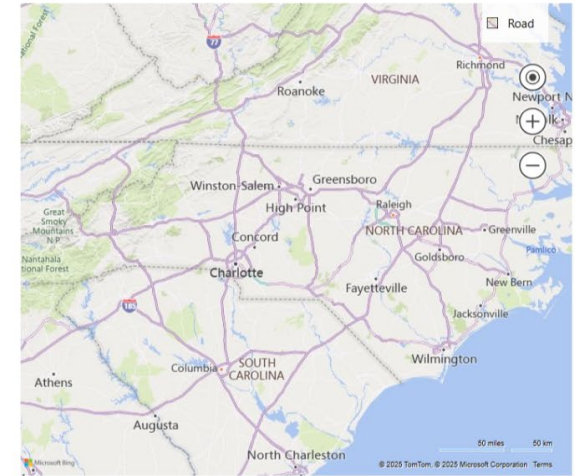
OR

Search by Company Name

Company Search



NORTH CAROLINA
RECYCLING
MARKETS DIRECTORY



Edit My Listing

Get Listed



NORTH CAROLINA WASTE TRADER

A statewide marketplace for discarded or surplus materials and products

This waste exchange service is designed to divert reusable and recoverable materials from disposal while providing feedstocks and supplies to potential users. NC Waste Trader aims to turn one organization's by-products into usable goods or inputs for another organization. In addition to reducing landfill disposal, this exchange can help users save money, save energy, and discover new business opportunities.

[View Materials Available](#)[View Materials Wanted](#)[List Materials On WasteTrader \(login\)](#)

wastetrader.deq.nc.gov

Waste Reduction Partners (WRP)

- Established in 1992, NC DEQ partnership in 2000
- Team of highly experienced, retired engineers and scientists, currently consisting of 35 volunteers and 5 full-time staff
- Commercial and industrial clients only
- Non-regulatory, no-cost, confidential
- Innovative partnership between local, state and federal agencies

Help NC businesses and institutions achieve environmental, energy, and carbon goals through waste reduction, efficiency, and renewables – saving money in the process

2024 WRP Accomplishments

111 clients
assisted in
43
counties

19,955 tons
of carbon
reduced

\$2.35 million
in client
utility savings

4,012 tons
of solid waste
diverted from
landfill

10,005
service hours
performed

81%
implementation
rate

508,000
gallons/year
of water usage
reduction

175,700
MMBtu
in client energy
savings

In the last 5
years,
49,366 hours of
technical
assistance with
\$29 million in
client savings

Recycling Works! Newsletter

Recycling Works! is RBAC's newsletter, which discusses current topics of interest to recycling businesses, including information on financing opportunities, commodity markets, and new technologies.



Recycling Works

a publication of the N.C. Recycling Business Assistance Center

March 2025

Quick Links

[Join Mailing List](#)

[Visit Our Website](#)

[See Market Prices](#)

[Past Newsletters](#)

Recycling Grants

RBAC provides grants to North Carolina recycling businesses to support equipment and facility investments that expand material recovery efforts. In addition, the Food Waste Reduction Grant offers targeted funding to help businesses reduce and divert food waste from disposal.



Business Highlights



To support the circular economy and strengthen the recycling industry, RBAC and the Recycling Works! newsletter regularly spotlight innovative recycling projects and business success stories across North Carolina.

Financing Opportunities

To support the recycling industry, RBAC regularly highlights financing opportunities available to recycling businesses across North Carolina.

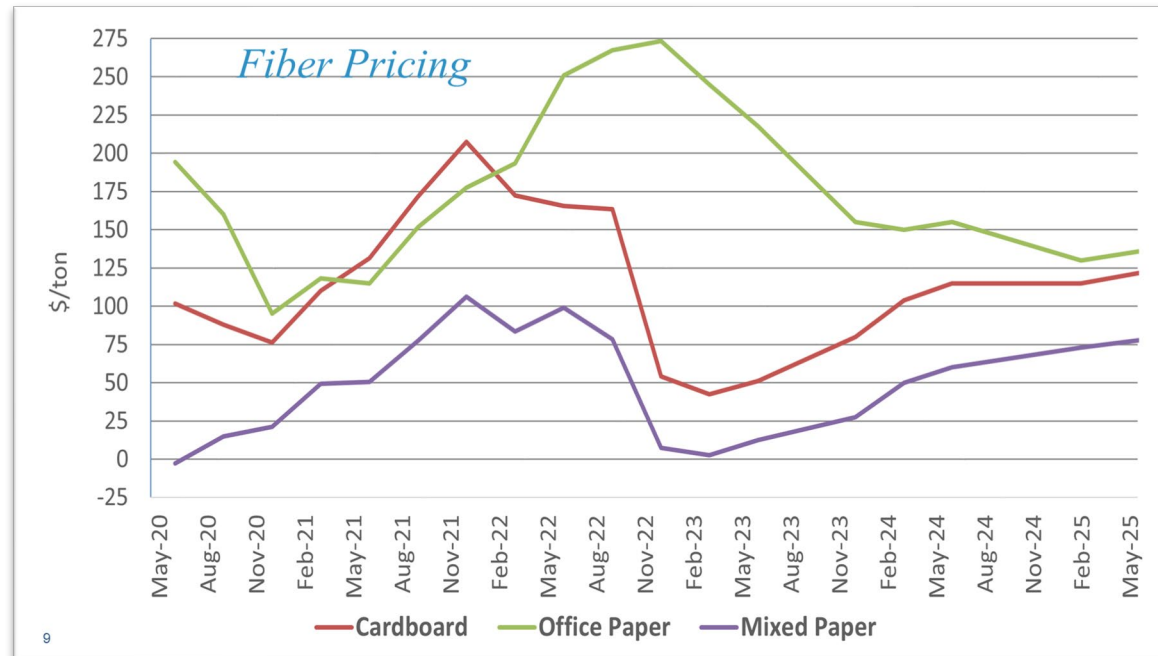
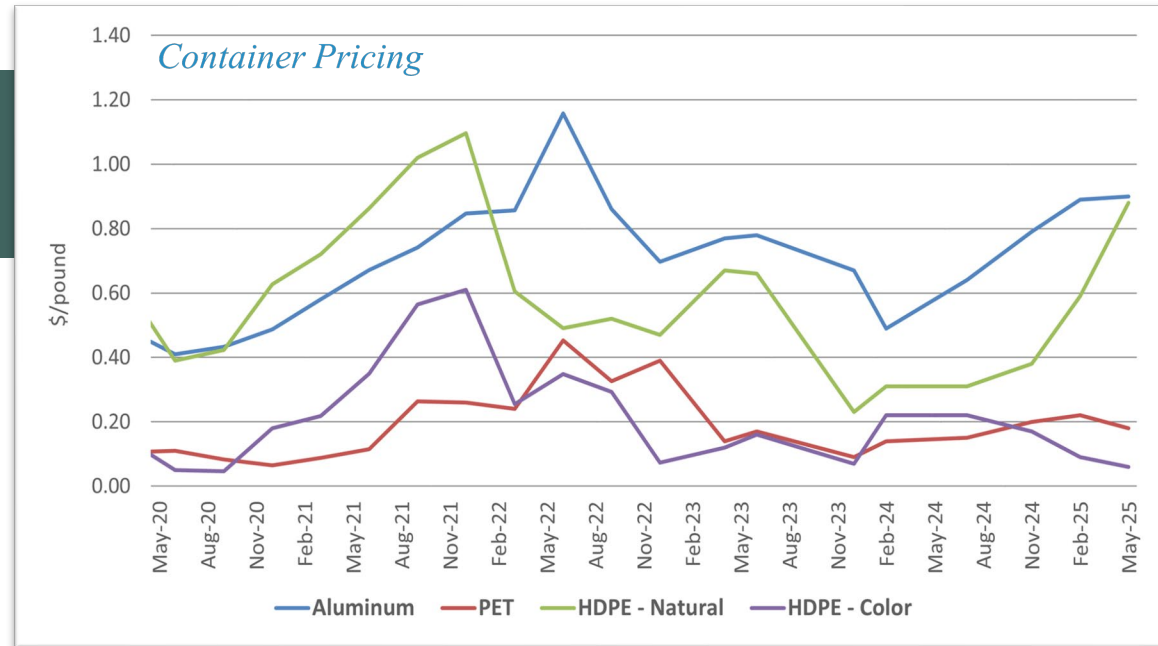


Market Pricing

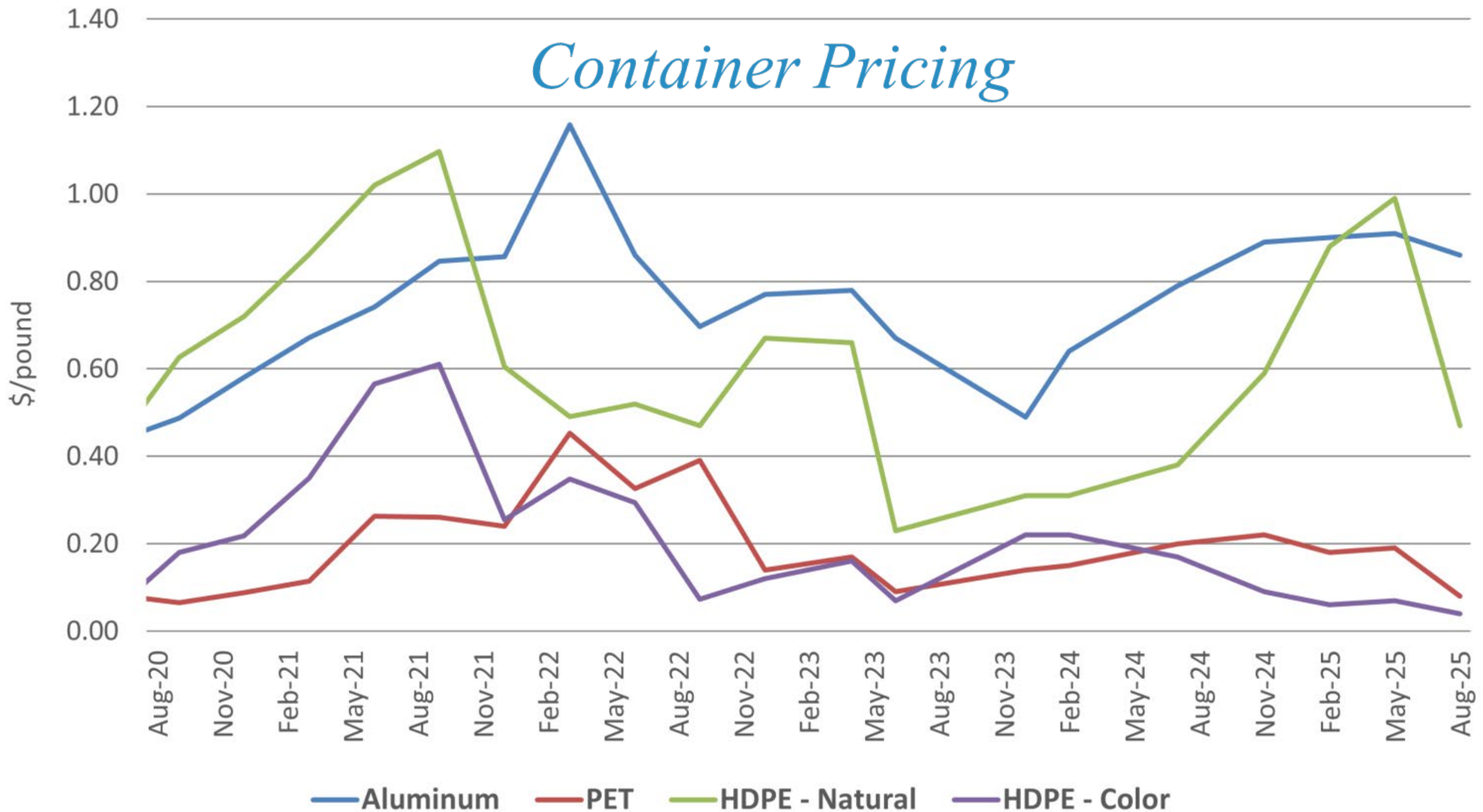
RBAC tracks commodity pricing trends across North Carolina.

Commodity pricing impacted by

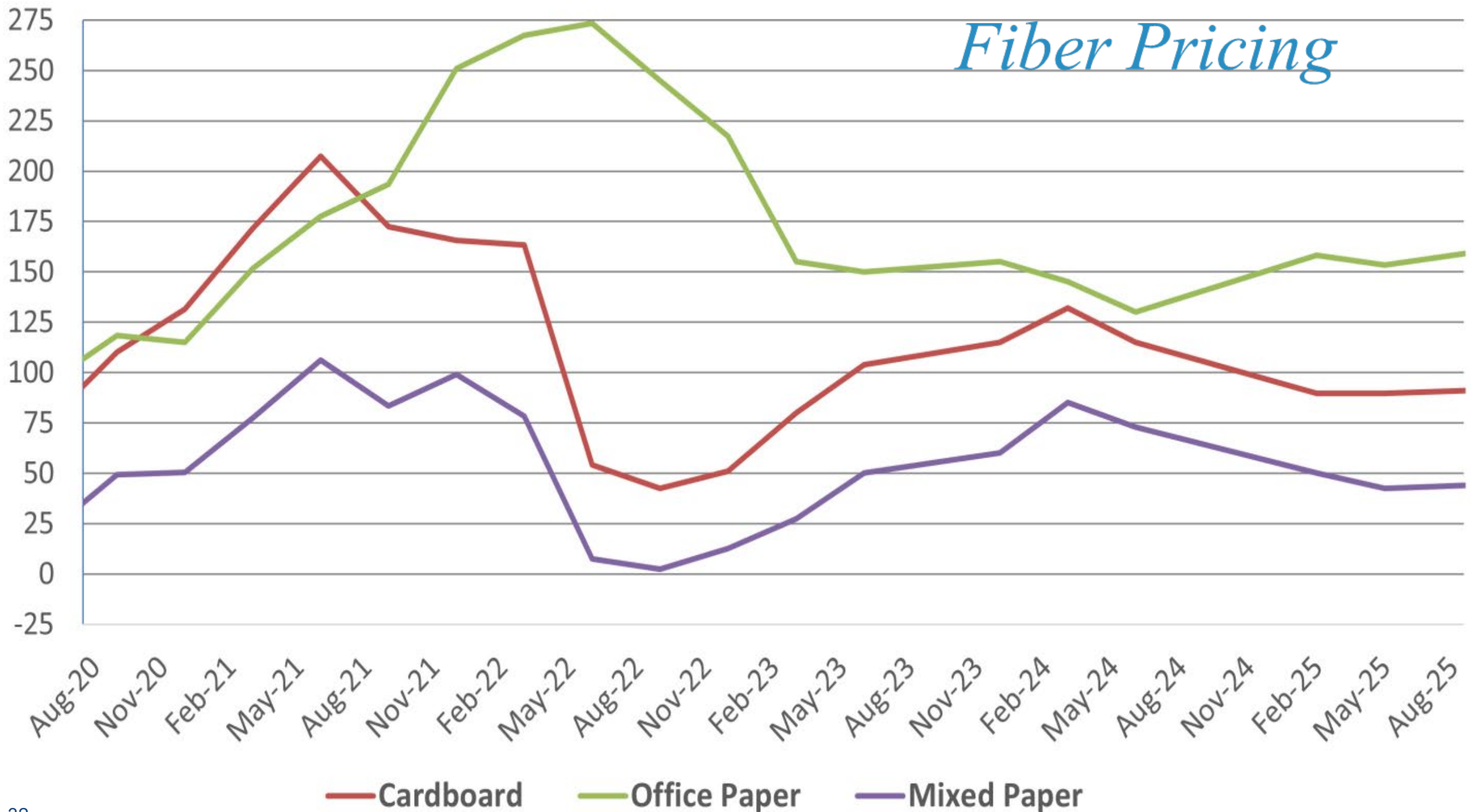
- Raw material value
- Economic shifts
- Policy changes
- **Supply and demand**



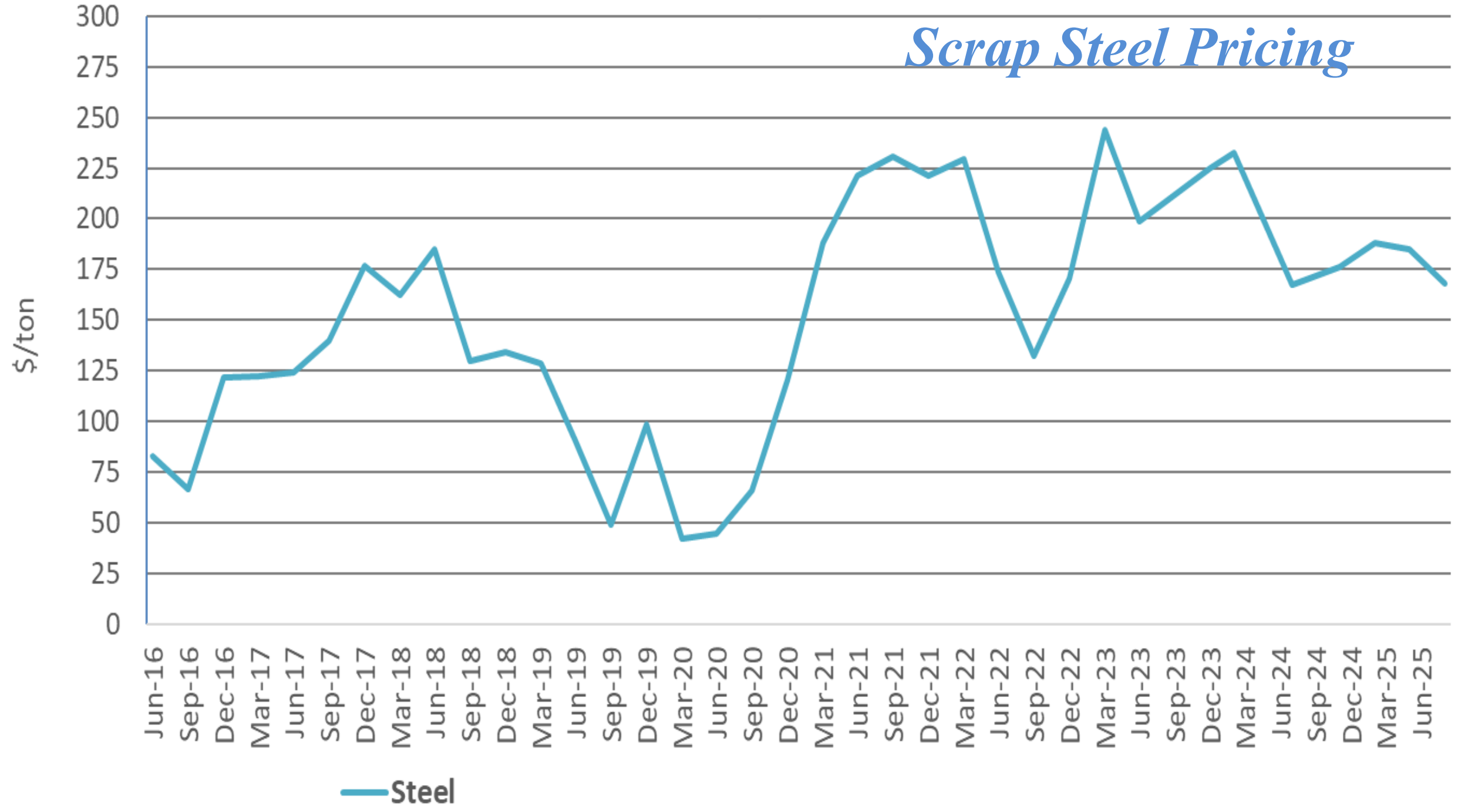
Container Pricing



Fiber Pricing



Scrap Steel Pricing



How ESI members help:

Using *recycled content* in new products and making *recyclable* products help improve the value of recovered materials.

North Carolina Market Prices for Recyclables

Prices current as of August 2025

Item	Western Region	Central Region	Eastern Region
METALS			
Aluminum Cans lb. loose	\$0.92	\$0.80	\$0.86
Steel Can, gross ton baled	\$175.00	\$160.00	\$170.00
PLASTICS			
PETE, lb. baled	\$0.08	\$0.08	\$0.09
HDPE, lb. baled	Natural \$0.47	\$0.49	\$0.45
	Colored \$0.04	\$0.05	\$0.03
PAPER			
Corrugated, ton baled	\$99.00	\$75.00	\$95.00
Office, ton baled	\$165.00	\$135.00	\$160.00
Mixed, ton baled	\$50.00	\$35.00	\$42.00
GLASS			
Mixed, ton crushed	(\$58.00)	\$0.00	\$0.00

*Market data unavailable

Note: Prices listed above are compiled by RBAC and are for reference only. These prices are not firm quotes. RBAC obtained pricing information from processors for each category and developed a pricing range.

Customized Outreach Design



Best Practices

- Truckload quantities
- Consolidation hubs
- Staff buy-in
- Waste avoidance



Emerging Trends

- Robotics/AI
- Policy shifts
- Evolving packaging
- Public skepticism



Recycling Business Development Grants

- Why: To help recycling businesses in North Carolina boost material diversion, create jobs, and advance a circular economy
- What: To assist with capital costs for physical infrastructure to increase the capacity or improve the efficiency of a recycling operation
- How: Grants have a 50% cash match requirement
- When: Grant Proposal Window: Sep – Nov 2025
- Grant Award: Up to \$75,000
- Grantee Contracts Signed: by Mar 1st, 2026
- Grant Contract Window: from Mar 1st – Feb 28, 2027



Grant Examples



Carts



**Dump Trailer
and Containers**

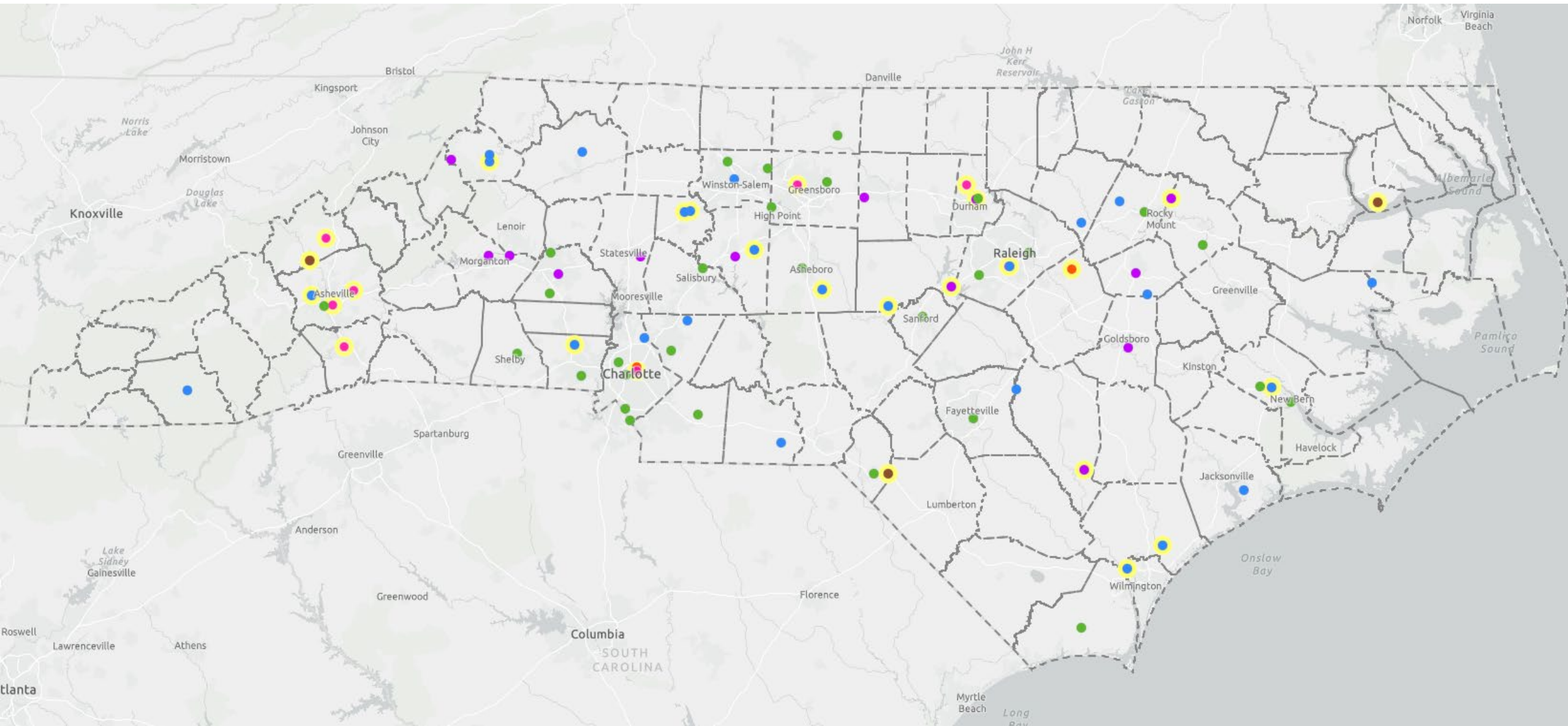


Forklift and Rotating Clamp



Baler

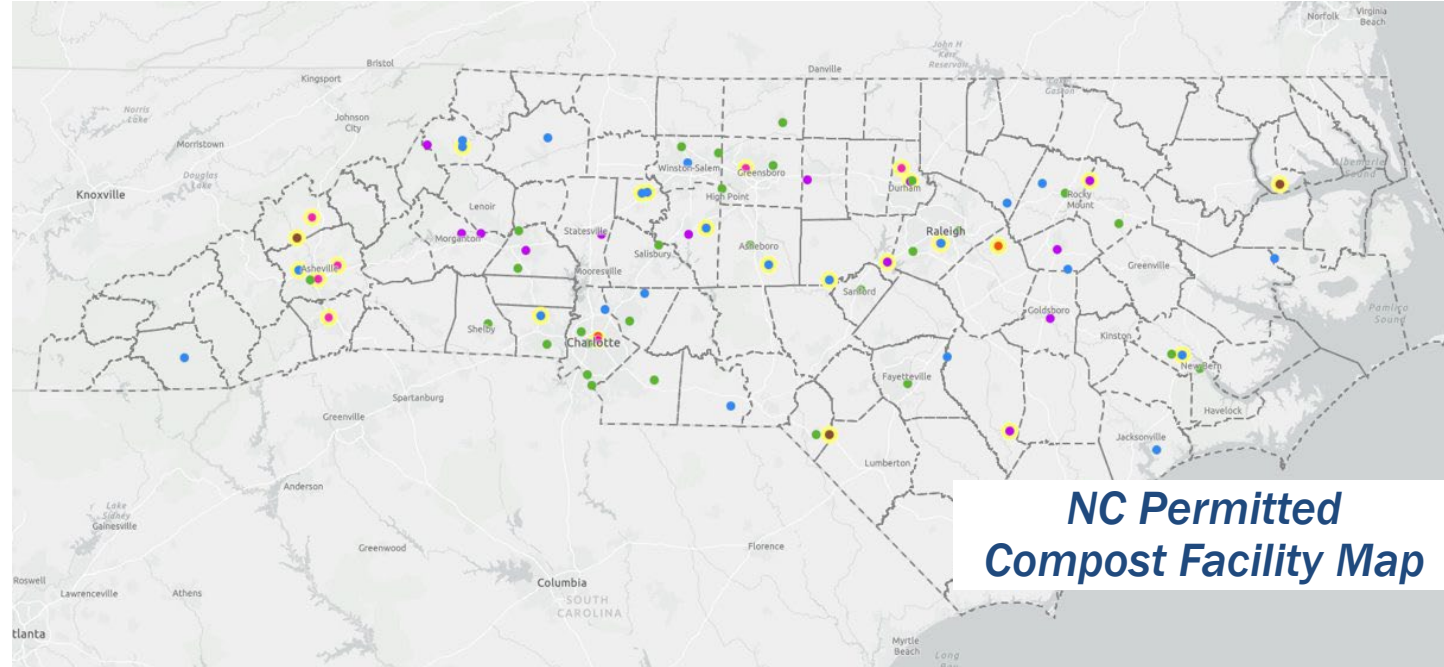
NC Permitted Compost Facility Map

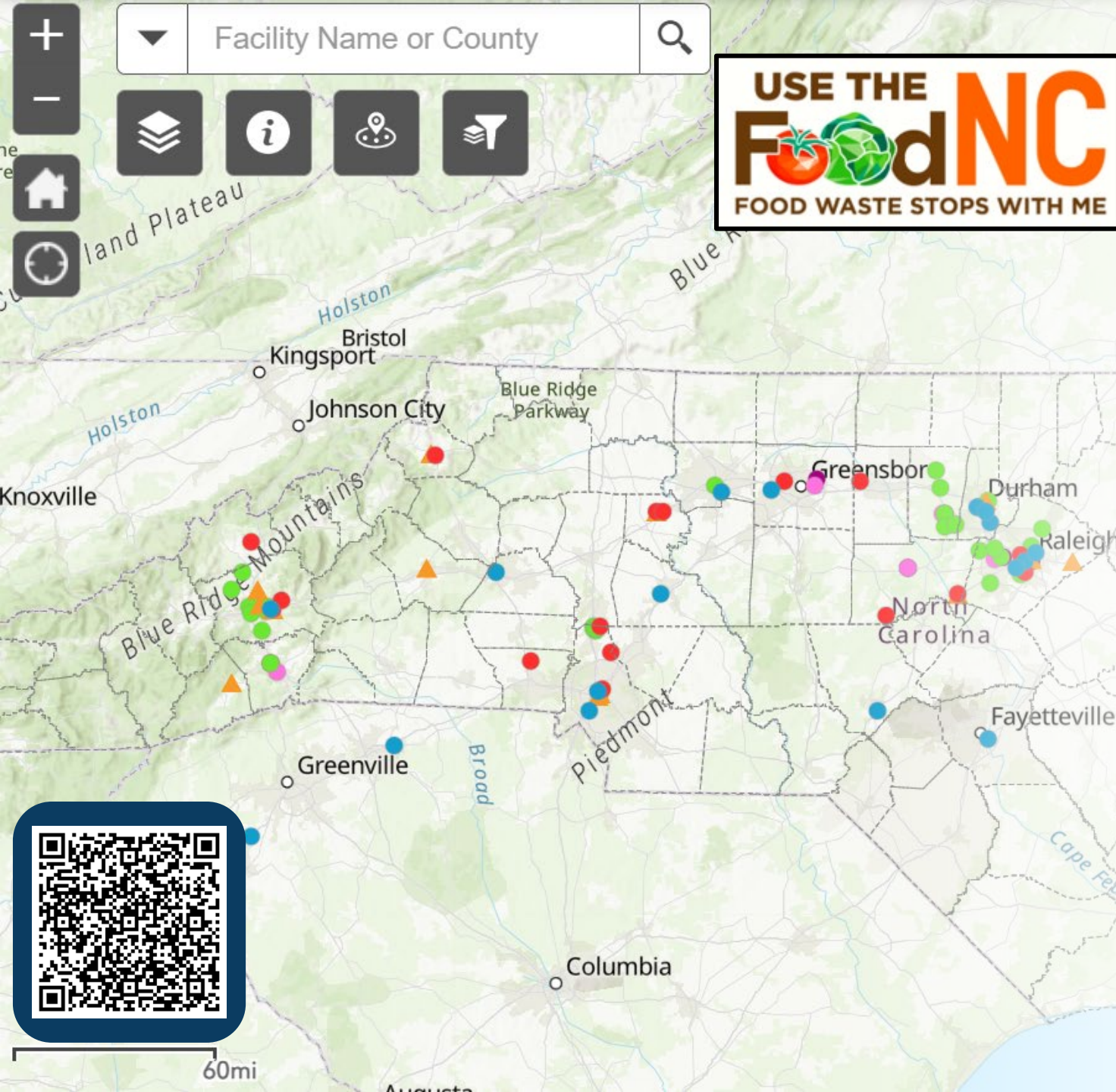


Food Waste Collection Services

- Limited local governments or private companies offer this service (yet)
- High demand from households and businesses
- Priority area of development
- Food Waste Reduction Grants
- Thinking about adding this to your services?

Christine Wittmeier, Organics Recycling
Lead, Christine.wittmeier@deq.nc.gov or 919-707-8121





Food Donation & Compost Resource Map

Identifies resources to rescue edible food and manage food waste in and near the state for residents and businesses. It includes information on:

- Food banks
- Food scrap collection services
- Food scrap drop-offs
- Compost sites, including conditionally exempt permits
- Compost resources offered by LGs

Food Waste Reduction Grants

- Awarded \$1,147,100 in three years.
- 36 projects:
 - 40,380 tons of food waste annually
 - 1,085,233 meals
 - Created 7 jobs

*2026 RFP
~Open Fall 2025*



Type 2 compost facility, collection vehicle and refrigerators funded by FWR Grant.

NC Policy Update: Lithium-ion Batteries

Lithium-ion batteries banned from landfill disposal

[SL 2023-137](#) – (H600) Regulatory Reform Act of 2023, ratified October 10, 2023

Effective December 1, 2026

***Batteries do not belong in
trash or recycling bins***

Landfill ban preparation:

- Stakeholder meetings
- Battery recycling markets
- Education and outreach



What is a lithium-ion battery?

- Rechargeable
- Laptops, phones, electronics
- Tools & household appliances
- $\text{Li} + \text{LiFePO}_4$



Battery End Markets

Redwood

Cirba

Princeton NuEnergy

PowerHouse Recycling

Call2Recycle

Lighting Resources

Cleanlites

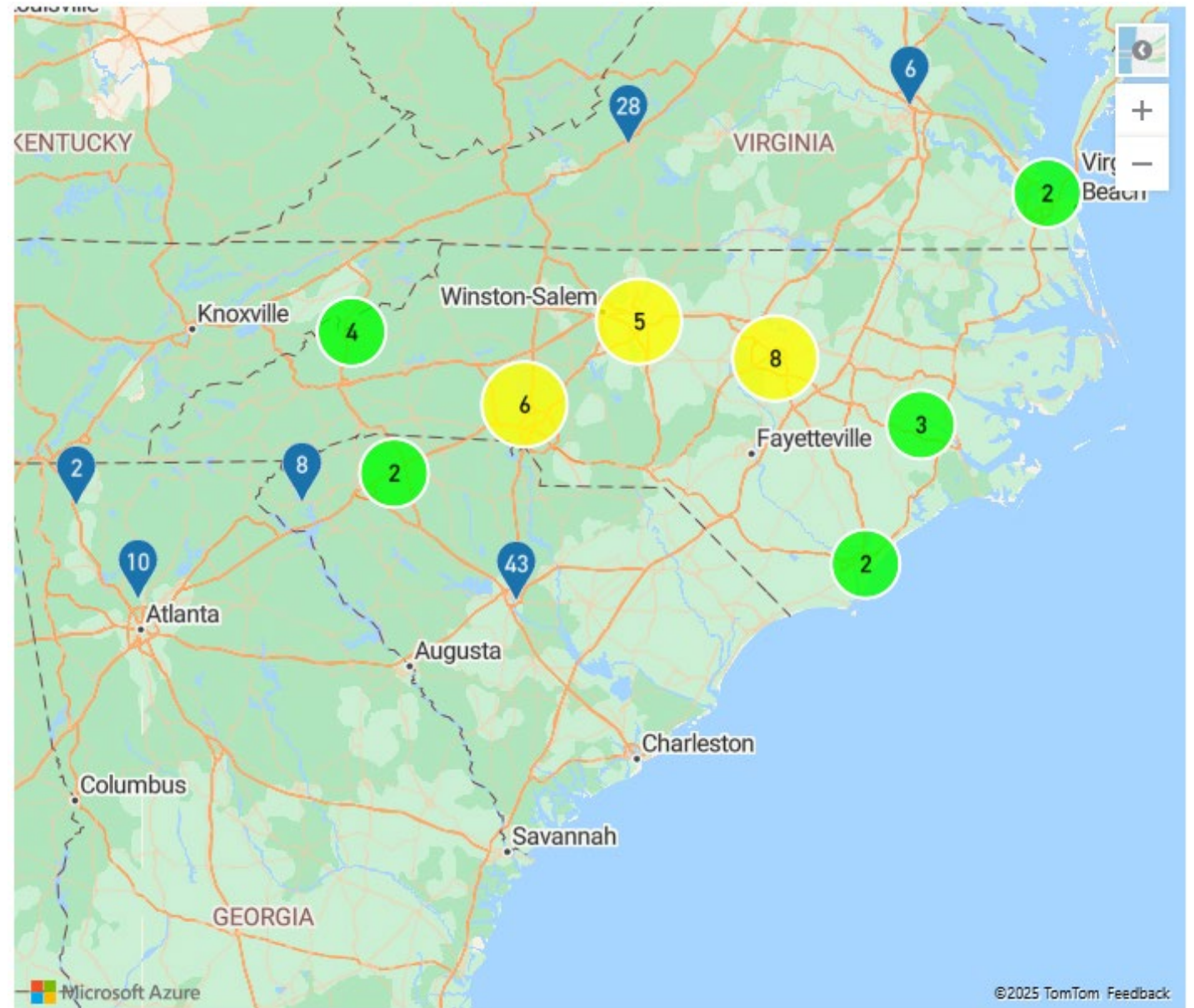
Eco-Flo

MXI

Synergy

BlueSky Solutions

Colt



NC Recycling Markets Directory

Collection and Transportation

- Segregate by battery chemistry
- Tape terminals or store in baggies
- Seal in containers
- Store in lined drums or buckets
- Proper DOT labeling
- Avoid storing in high heat
- In case of fire, do NOT douse with water
- **How are you managing batteries?**

[US DOT Guide](#)



Contact Info

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www.recyclenc.org



Breakout Session

Group 1 – Packaging Materials (Wendy and Emily)

Group 2 – Organics, wood, and pallets (Christine)

Group 3 – Specialty items, miscellaneous (Heather and Matt)

- How are you handling this material?
- What challenges does this material pose to your company?
- What resources do you need to reduce more waste?
- Can your company use more recycled content in its products?