

# Banned Materials Webinar

July 9, 2009

10am - 12pm

## AGENDA

Intro to Webinar

Overview of Disposal Ban Legislation and  
Market Infrastructure

Guidance for Local Govs Regarding Bans  
Resources Available for Ban Implementation  
Question and Answers

# Which of these things are “waste?”



# Short History of Disposal Bans

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- Senate Bill 111 in 1989: first disposal bans on lead acid batteries, used oil, tires, yard waste, and white goods in G.S. 130A-309.10 (f)
- Aluminum can ban and antifreeze added by Senate Bill 59 in 1993 (can ban effective in 1994).
- Senate Bill 59 also added:

“The accidental or occasional disposal of small amounts of prohibited solid waste by landfill or incineration shall not be construed as a violation of subsections (f) or (f1) of this section.”

# History of Disposal Bans, cont.

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- In 2005, Representative Joe Hackney sponsored H1465 and H1518:
  - H1518 required certain ABC permit holders to recycle beverage containers and included a disposal ban on those containers – effective 1/1/08
  - H1465 banned the disposal of wooden pallets, oil filters, oyster shells, and “rigid plastic containers,” defined to mean bottles, effective 10/1/2009
  - Oyster shells ban subsequently accelerated to 1/1/2007.

# Some Key Details on H1465 and More Ban History

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- Wooden pallets entering C&D landfills exempt from ban – however, only C&D waste can enter C&D landfills, so only C&D generated pallets are exempt.
- Plastic bottle ban excludes motor oil and pesticide bottles.
- In 2007, S1492 banned computer equipment from disposal, effective 1/1/2012.
- In 2008, H819 added televisions to the bans and made the date for both TVs and computers: **1/1/2011**

# Observation on the Bans

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- Main difference between early and later bans:  
Problematic Wastes vs. Commodities
  
- Electronics ban a combination of both concerns.

# The “Commodity” case for the 2009 Bans – Wooden Pallets

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- 🪵 Wooden pallets have a solid hierarchy of end uses: reuse, repair, mulch, compost, fuel, and some value-added products.
- 🪵 Pallet recycling industry extremely healthy in North Carolina.
- 🪵 Pallets easily combinable with yard waste management efforts.
- 🪵 Generators have good source reduction and reuse options.

# The Pallet Industry in NC

- 🪵 77 different pallet markets in the NC Directory of Markets for Recyclable Materials – and that's not all there are!
- 🪵 NC State study and DPPEA jobs studies indicate pallet recycling employs well over 1,000 people statewide.
- 🪵 Additional companies depend on pallet feedstock: commercial composters, mulch manufacturers, and industrial burners.

# The “Commodity” case for the 2009 Bans – Oil Filters

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- ❶ Steel and oil in filters highly marketable with long-standing end-uses.
- ❷ Every recycler of oil also recycles filters.
- ❸ Filter recycling is a competitive market place in North Carolina.
- ❹ Additional case for filters: residual oil in filters
  - From 2 to 8 oz of oil in a discarded filter
  - If only about half of the 14 million filters generated are being recycled, as much as 250,000 gallons of oil are entering NC landfills.

# NORTH CAROLINA **Recycling** Markets Directory

[RBAC Home](#)[Search Directory](#)[Get Listed](#)[N.C. WasteTrader](#)[Links](#)

Company Name	City	County	State	Phone Number
<a href="#">3RC Resource Recovery &amp; Reduction Company, LLC</a>	Winston-Salem	Forsyth	NC	(336) 784-4300
<a href="#">Advanced Recycling</a>	Laurinburg	Scotland	NC	(910) 276-9193
<a href="#">Carolina Environmental Associates, Inc.</a>	Burlington	Alamance	NC	(336) 229-0058
<a href="#">ECOFLO, Inc.</a>	Greensboro	Guilford	NC	(336) 855-7925
<a href="#">Ecotech, Inc.</a>	Denver	Lincoln	NC	(704) 489-8703
<a href="#">Environmental Recycling Alternatives, Inc.</a>	Banner Elk	Watauga	NC	(828) 963-8735
<a href="#">FCC Environmental</a>	Concord	Cabarrus	NC	(800) 535-9694
<a href="#">Filter Specialty, Inc.</a>	Autryville	Sampson	NC	(910) 567-5474
<a href="#">Garco, Inc.</a>	Asheboro	Randolph	NC	(336) 683-0911
<a href="#">Giant Resource Recovery, Inc.</a>	Harleyville		SC	(800) 786-0477
<a href="#">HAZ Mat Transportation &amp; Disposal, Inc.</a>	Charlotte	Mecklenburg	NC	(704) 332-5600
<a href="#">Heritage Environmental Services, Inc.</a>	Charlotte	Mecklenburg	NC	(704) 391-4500
<a href="#">Heritage-Crystal Clean, LLC</a>	Charlotte	Mecklenburg	NC	(704) 376-9636
<a href="#">Holston Companies</a>	Chatanooga		TN	(800) 222-4530
<a href="#">Holston Environmental Services Inc.</a>	Waynesville	Haywood	NC	(423) 899-7300
<a href="#">MCF Systems</a>	Decatur		GA	(800) 828-3240
<a href="#">Metalpro, Inc.</a>	Springfield		VA	(703) 451-8300
<a href="#">Necessary Oil Company</a>	Bristol	Sullivan	TN	(423) 764-4533
<a href="#">Noble Oil Services, Inc.</a>	Sanford	Lee	NC	(919) 774-8180
<a href="#">Nucor Steel - Darlington</a>	Darlington		SC	(843) 395-8635
<a href="#">Oil Filter Recyclers, Inc.</a>	Easton		IL	(309) 329-2131
<a href="#">Parts Cleaning Technologies</a>	Charlotte	Mecklenburg	NC	(704) 372-9280
<a href="#">Renew Resources, LLC</a>	Rock Hill		SC	(803) 324-1913
<a href="#">Resource Reformers</a>	Durham	Durham	NC	(919) 596-3500
<a href="#">Saf-Way Recycler</a>	Conway		SC	(843) 365-1842
<a href="#">Safety-Kleen</a>	Charlotte	Mecklenburg	NC	(704) 375-0098
<a href="#">Safety-Kleen</a>	Archdale	Randolph	NC	(336) 861-4149
<a href="#">Safety-Kleen Systems</a>	St. Pauls	Robeson	NC	(910) 865-5081
<a href="#">Shamrock Environmental Corporation</a>	New Bern	Craven	NC	(252) 638-2900
<a href="#">Southern Logistics &amp; Environmental LLC.</a>	Greensboro	Guilford	NC	(336) 662-0292
<a href="#">Universal Environmental Services</a>	St George		SC	(803) 979-1212

[View Printable List](#) - [Search Again](#)

# The “Commodity” case for the 2009 Bans – Plastic Bottles

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- Plastic bottle demand rising worldwide.
  - Broad range of product applications.
  - Domestic capacity fighting with China for supply.
  - Long-term rise in petroleum/natural gas costs will keep driving reliance on PCR (post-consumer resin).
- Southeast particularly rich in bottle plastic processing and end-use.
- Carolinas becoming “ground zero” for PET recycling in U.S.

# Snapshot of In-state and Nearby Plastics Bottle Processing and End-use Capacity

★ Signode, KY

Plastics Revolutions  
75 million lbs, HDPE

Envision  
72 million lbs, HDPE

Blue Ridge  
Mixed plastic bottles

Recycle America  
120 million lbs, mixed  
bottles

Unifi

Southeastern Container

Spectrum Yarns

Mohawk  
Carpet, GA  
225 million  
lbs, PET

★ NUURC (Coke)  
130 million lbs, PET

Engineered Resins  
20 million lbs, HDPE

New Horizons  
84 million lbs, PET

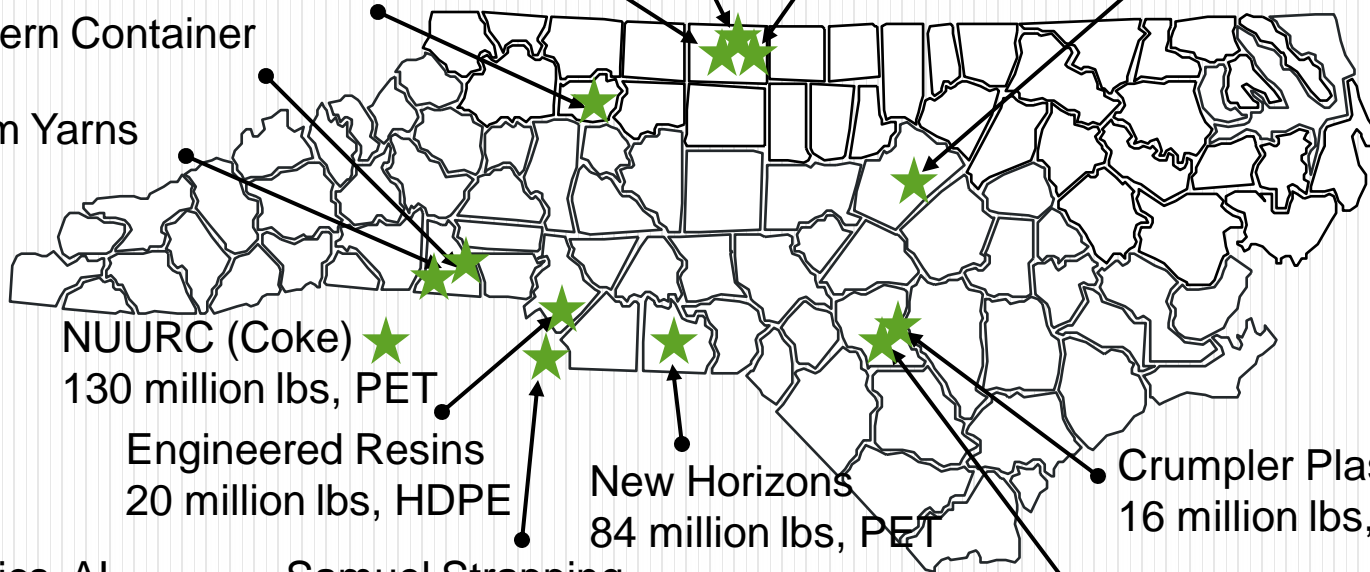
Crumpler Plastic Pipe  
16 million lbs, HDPE

★ KW Plastics, AL  
250 million lbs, HDPE

Samuel Strapping  
PET

Clear Path Recycling  
280 million lbs, PET

★ Custom Polymers, AL (headquarters in NC)  
50 Million lbs, PET



# Plastic Bottle Recycling Capacity vs. NC generation and recovery

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- 1.097 **billion** lbs of HDPE reclamation capacity in the U.S.
  - Utilization only **69%**
- End-use capacity for PET in 11 southeastern states: 1.439 **billion** lbs per year
- Generation of all plastic bottles in NC per year:
  - 288 **million** lbs.
  - Recovery rate of local programs: 16%
    - 44.6 million lbs.

# Summary

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- Disposal bans a long-standing feature of NC solid waste legislative activity.
- General Assembly paying attention more and more to the commodity aspect of bans:
  - Demonstrated markets and capacity help state reach its waste reduction goals.
  - Job and business creation from material recovery becoming paramount.
  - Proven ability of public and private sector recovery efforts make bans easier to implement.

**RECYCLE**

**2 MILLION**

**TONS**

**BY 2012**

# Guidance for Local Governments Regarding the Bans

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# Pallets & Oil Filters Audience



## Pallet Players

- Large retail stores
- Conference Centers
- Building/Property Managers
- Retail Merchants Association
- Fair grounds and festivals
- Restaurant and Lodging Association
- Distribution companies
- Concert and sport venues



## Oil Players

- Mechanic shops
- Auto retail stores
- Dealerships
- Retail Merchants Association
- Marinas
- Fleet Services
- NC Public Transportation Association

# Recycling Oil Filters

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- **Straightforward Process**
  - Infrastructure is in place
  - Collection is similar to other special wastes
  - 46 local government already have programs
- **Process similar for public and private sector**
  - 55-gallon collection barrels; some vendors offer bulk totes
  - Barrels hold 250 to 400 filters
  - Avg. program recovers 1 filter for every 2 to 3 gallons of oil recovered from residential sources
- **Filter recycling is a low cost commodity**
  - Collection cost - \$40 to \$85 per barrel
  - Average program costs 1.7 cents per capita

# Recycling Wooden Pallets

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- Assess incoming stream of pallets.
- Evaluate your current services, resources, and infrastructure.
- Determine best potential markets/uses of wood pallets:
  - Investigate collaboration with pallet recycler.
  - Grind for mulch and compost (with or separate from yard wastes) – in-house or contract grinder?
  - Use as boiler fuel or landfill cover.
- Set up collection/drop-off program according to needs/markets.
- Consider differential fees to encourage separation.

# Other Pallets & Oil Filters

## Action Ideas

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- Write a **letter** or create a **brochure** to mail to businesses in your community that generate or create these commodities
- Work with **local markets** to help them advertize their services to small and large generators
- Conduct a **training session** for large generators in your city/county to educate them on the new legislation and who their local recycling options are
- **Open up your transfer station** for smaller generators as a recycling option
- Create a section of your **website** to educate generators and provide resources for recycling



# Plastic Bottles Audience

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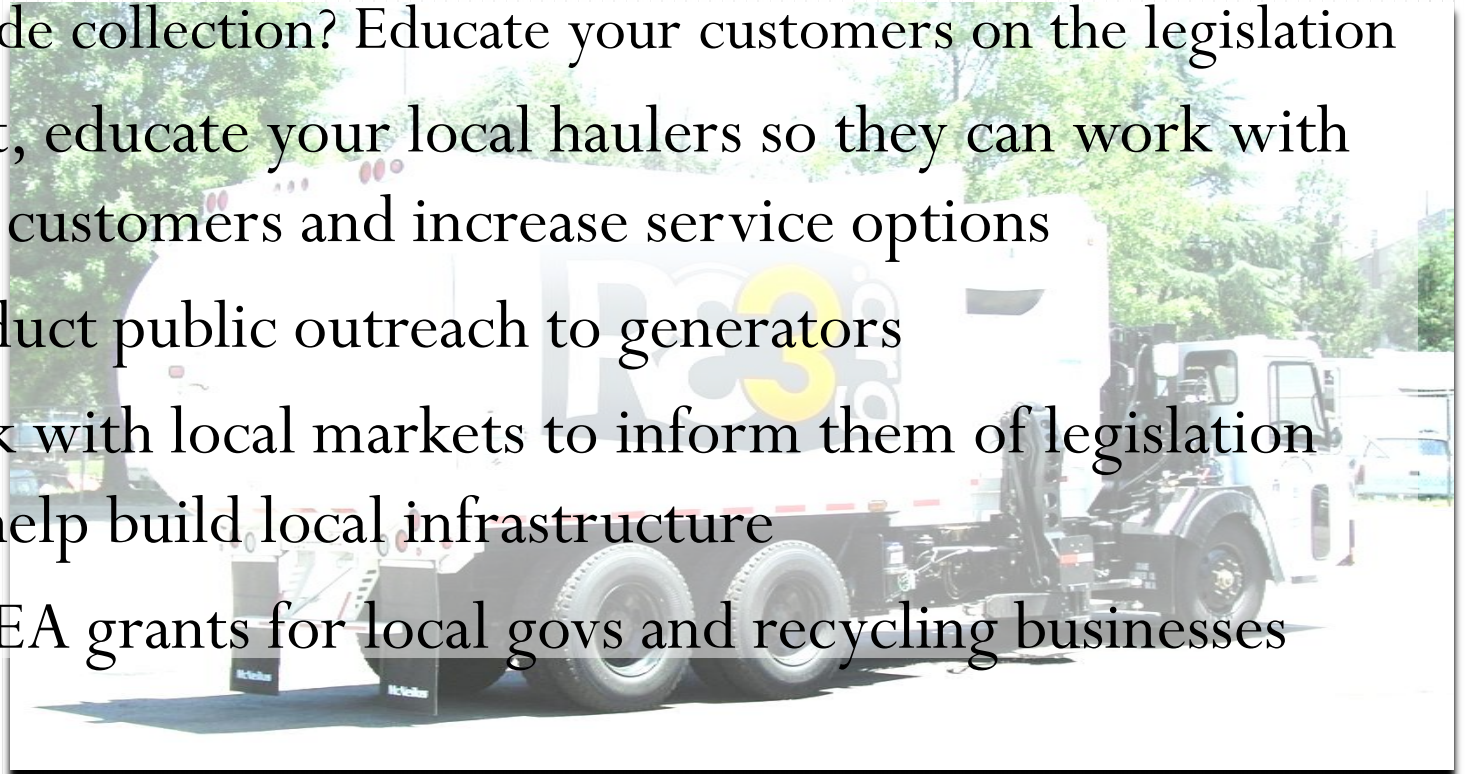


**Restaurants**  
**Bars**  
**Special Events/Festivals**  
**Concert and Sport Venues**  
**K-12 Schools, Community Colleges, Universities**  
**Parks and Rec/YMCA/Fitness Centers**  
**Office Buildings**  
**Libraries**  
**City/County Office Buildings**  
**Building/Property Managers**  
**Residents/HMOs**

# Action Opportunities

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- Operate a landfill or transfer station?
  - Educate customers about the legal obligation
  - How? Signs, letters to customers, media stories, press releases
- Provide collection? Educate your customers on the legislation
- If not, educate your local haulers so they can work with their customers and increase service options
- Conduct public outreach to generators
- Work with local markets to inform them of legislation and help build local infrastructure
- DPPEA grants for local govts and recycling businesses



# Evaluate your program

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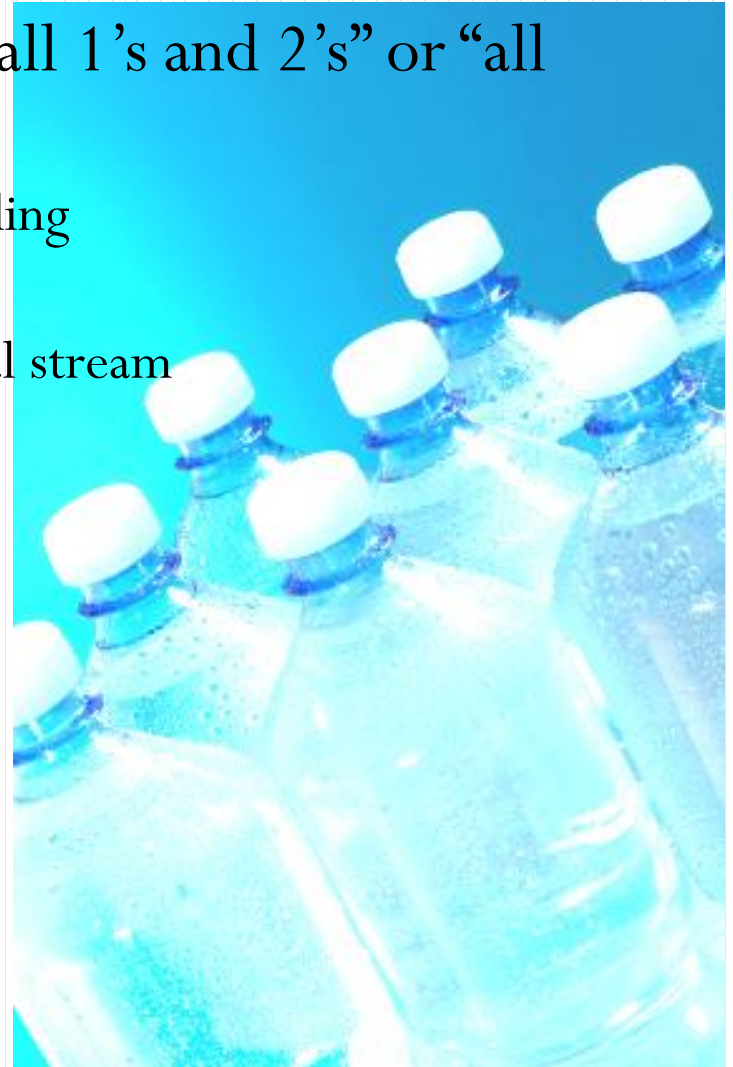
- Ban is an opportunity to evaluate plastic bottle collection efforts:
  - What does your program collect (soda bottles and milk jugs, 1's and 2's, all bottles)?
  - How does your program collect bottles – separation versus commingling, and from whom?
  - How is the public educated about plastic bottles?
- Markets for PET and HDPE are EXCELLENT!
- Many of the nation's leading processors and largest recyclers are in the Carolinas.



# Where NC is going...

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- Modernized programs by going to “all 1’s and 2’s” or “all bottles.”
  - Simplifies education and public understanding
  - Increases diversion and capture rates
  - Fits well with commingling – single or dual stream
- Challenges are manageable
  - Increase of collected materials and less contamination will outweigh out-throws
  - Less revenue will be balanced by greater collection efficiency and higher volumes



# Technical Assistance Route

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## **Your task**

- Help identify service providers
- Conduct waste assessments
- Assist with designing the collection program

## **Resources**

- Markets Directory (DMRM)
- DPPEA Guide for Permit Holders + fact sheets
- RE3 tools –artwork and materials

## **Tactics**

- Mailing information, resources, newsletters
- Post information online
- Organize business recycling seminars

# Passive Collection

AKA Drop-Off System Access

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## Options

Continue to Allow Access, Promote, or Restrict

## Logistics

- Feasible for rural areas with sparse businesses
- May be effective if site is added specifically for businesses in highly concentrated areas
- Likely only be utilized by smaller businesses
- Could potentially increase containers at drop-off sites significantly

# Active Collection

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- Incorporate into a **local government run collection** program  
OR add onto **service contract** agreement you already have
- Provide **roll carts** or **dumpster service**
- **Tax subsidized** or **fee based** service
- **Voluntary** or **Required?**
- **Benefits:** efficient and effective means to contract business recycling, high participation rates, more reasonable cost for businesses
- **Challenges:** costly for local government, requires more labor

# Key Strategies

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- Trying to avoid “I DON’T KNOW”
- Focus on strengths of your community
  - Strong private sector recycling infrastructure = focus on haulers providing service
  - Have a local government processing facility? Consider providing direct service
- Recycling markets are improving across the state – Don’t miss out on opportunities!