

SERDC Summit Boosting Residential Recycling Program Performance

November 9, 2016



Workshop Agenda



- 10:30 Welcome & Introductions
- 10:40 Attributes of High Performing Residential Recycling Programs
- 10:50 Overview of Supporting Policy Tools
- 11:30 Strategies for Successful Implementation
- 12:05 Carton Council Policy Toolkit and Education Initiatives
- 12:20 Break/Pick Up Boxed Lunch
- 12:35 Breakout Session How to Advance Use of Policy Tools at the Local Level
- 1:05 Group Reports
- 1:25 Closing Remarks
- 1:30 Adjourn



Who is the Carton Council?



Carton manufacturers united to deliver long term collaborative solutions to divert valuable cartons from disposal











Associate Member



Weyerhaeuser



Attributes of High-Performing Programs





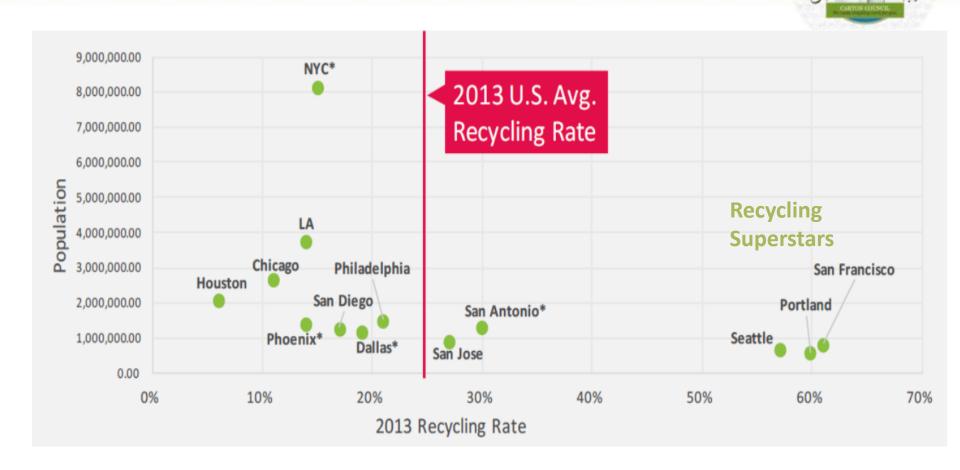
How To Define "High Performing"?



- High Recycling/Diversion Rate ("More")
- Low Contamination/ Residue Rate ("Better")
- Cost-Effective



Curbside Recycling Rates - Large U.S. Cities



Curbside data from Resource Recycling, May 2015. Other data from city website and reports. *Dallas, San Antonio include organics diversion, Phoenix includes organics and commercial diversion. LA is 2015 data. Portland and Seattle are 2014 data.

Source: Waste Management



What Makes Recycling Programs Successful?





Successful Program Attributes



- Efficient collection and processing infrastructure
- Access to convenient recycling
- High recycling awareness and participation
- Robust end markets





Policy – An Important Driver for Maximizing Recycling



| Efficient Collection and Processing Infrastructure | Policies that Create Funding Mechanisms Mandatory Service Provision Disposal Bans Best Practice Standards |
|---|---|
| Access to Convenient Recycling | Best Practice Standards Mandatory Service Provision Building Code Provisions for Recycling |
| High Recycling Awareness and Participation | Pay-As-You-Throw Source Separation Requirements Disposal Bans Mandatory Service Provision |
| Robust End Markets | Policies that Create Funding Mechanisms Best Practice Standards |
| Goals, Plans, and Performance Tracking | Planning and Reporting Requirements |



Policies that Drive High Performance





Proven Policy Tools



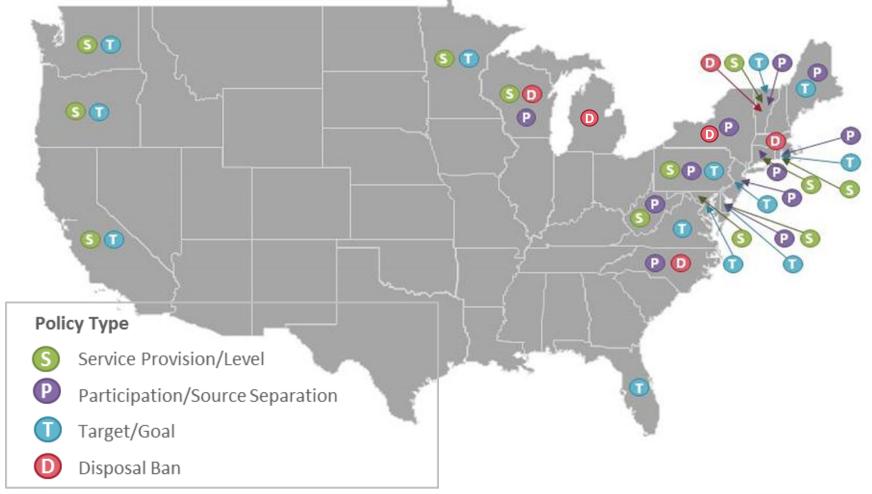
- State and local goals
 - Measurement
 - Planning
- Pay-as-You-Throw
- Disposal bans
- Mandatory recycling/ provision of service
 - Universal recycling
 - Bundled services





Overview of Select State Policies







States Recently Adopting Bold Policies







Goals and Reporting



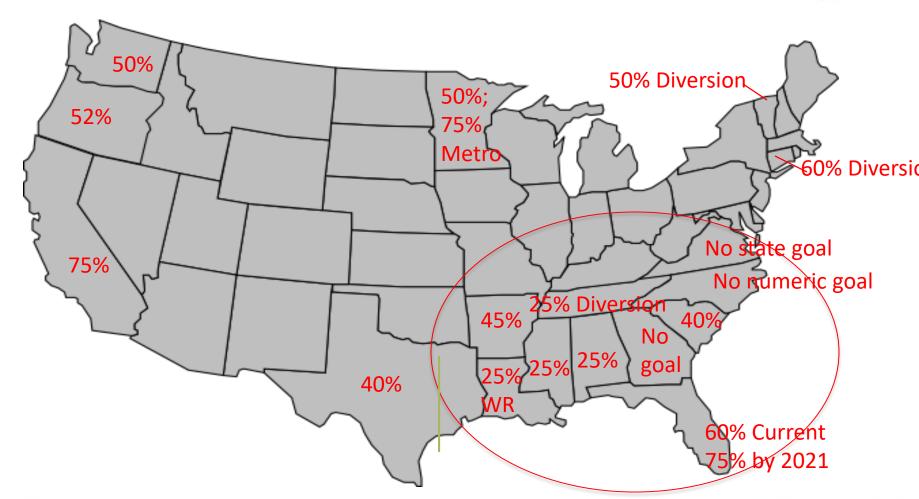
- Quantitative and qualitative
- Statewide/local/regional
- Local goals may vary based on:
 - Population/density
 - Economic conditions
- Typical quantitative metrics:
 - Recycling rate/diversion rate
 - P/p/d disposed/recycled
 - % Waste disposed
 - % Good stuff in garbage
- Trend towards systems-based goals based on LCA





State Recycling Goals

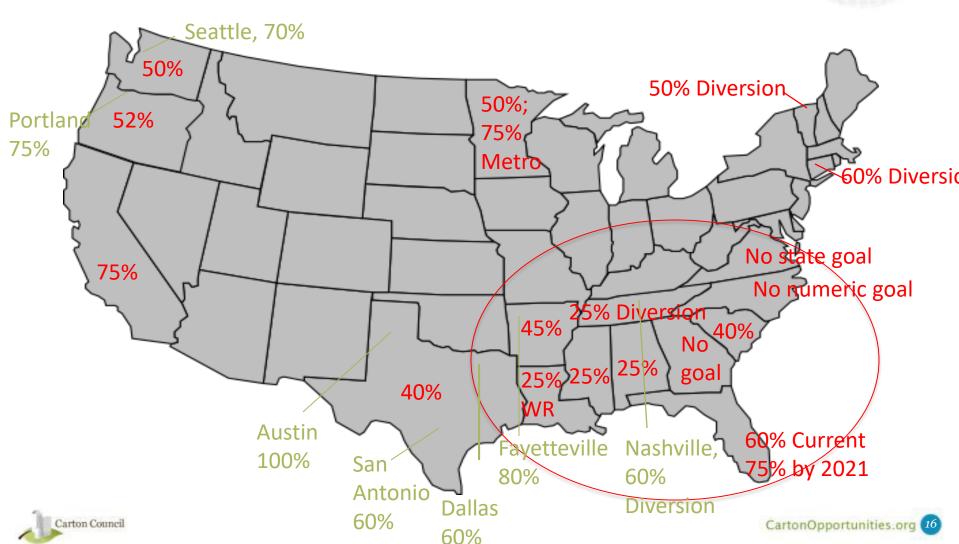






Cities with Loftier Goals





SERDC - State Recycling Goals



Legend

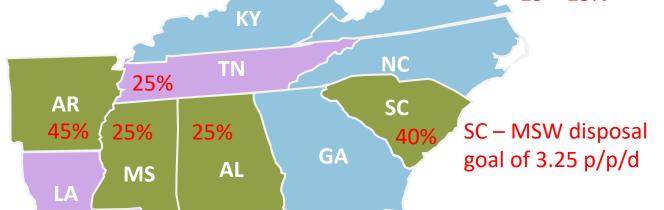
Standard recycling/diversion rate goal

No state diversion/recycling goal

Waste reduction goal relative to base year

25%

VA – No state-level goal, but regions have RR goals of 15 - 25%



60% Current 75% by 2021

VA

FL – State provides recycling credit for waste processed at **WTE**



City Example - Portland, Oregon



- Set and achieved goals, in part, via planning/monitoring
- 2007 plan set 75% recycling rate by 2015 goal
- City/county climate plan (2009) spurred more action
- Led to weekly recycling and organics collection, every-otherweek trash collection
- Commercial recycling/organics mandate
- Tons composted 3X!





Pay-As-You-Throw



- Residents pay for waste collection (and typically recycling) based on amount of waste generated
- Benefits
 - Equitable Service priced like a utility
 - Effective Can increase tons recycled by 50% or more
 - Flexible Suitable for urban/rural; all types of service providers





Types of PAYT



| Туре | Pros | Cons |
|-----------------|--|---|
| Bag/Tag/Sticker | Generator continuously incentivized to reduce waste No special equipment needed Compatible with drop-off sites | Automated collection requires technology to monitor Can be challenging to predict revenues |
| Cart | Compatible with automated collection No need to monitor trash while tipping for compliance | Residents may not think about minimizing waste, if large cart selected |
| Hybrid | Allows for greater flexibility Local governments can collect "extra" revenues | With automated collection, driver must exit vehicle |
| Weight-Based | Could provide constant incentive to minimize waste | Technology not widely used/not perfected |



States Where PAYT Common



| State* | Mandate/Support for PAYT | | |
|-----------------|--|--|--|
| Vermont | Mandatory per Act 148 | | |
| Minnesota | All communities must have variable rate pricing | | |
| Washington | Programs with WUTC oversight must include PAYT (those not provided by municipalities directly or indirectly via contract) | | |
| Oregon | Jurisdictions of different sizes have different requirements regarding # of program elements they must implement; PAYT is one element they can choose to implement | | |
| Iowa, Wisconsin | Can require local jurisdiction to implement PAYT ordinance if not making progress toward goals | | |
| California | Not mandated, state provided technical assistance to encourage; about 30% of communities have PAYT | | |
| Massachusetts | Not mandated, state promotes, provides technical assistance/ grants/resources; about 40% of communities have PAYT | | |

^{*}Bold Font – Mandatory for all jurisdictions



Prevalence of PAYT in SERDC States



| State | What is Known about Prevalence of PAYT |
|-------|---|
| NC | Seven municipal curbside, typically different sized carts but some are bag based; 17 county programs, mostly drop-off |
| SC | No curbside PAYT; Chesterfield County: drop-off |
| TN | No curbside PAYT programs; 2 drop-offs: Van Buren & Picket counties |
| AR | Fayetteville, Rogers, Eureka Springs; no drop-offs |
| FL | City of Gainesville, unincorporated Alachua County, City of Plantation |
| GA | At least 17 communities have PAYT |
| LA | None |
| MS | None |
| KY | Frankfort; no drop-offs |
| AL | Three small cart-based curbside programs; 1 drop-off |
| VA | Three curbside: Charlottesville, Poquoson, Lynchburg; no drop-offs |



PAYT Results

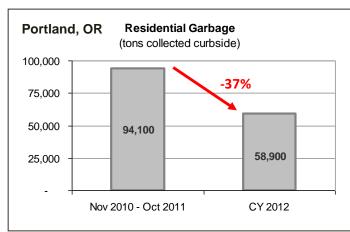


- Communities nationally:

 - Tons disposed by approx.17%
- Examples in SERDC communities:
 - Decatur, GA Recycling Rate 11% to 22%
 - Gainesville/Alachua County, FL

Tons recycled 1 25%

Transylvania County, NC
 Tons recycled 50%

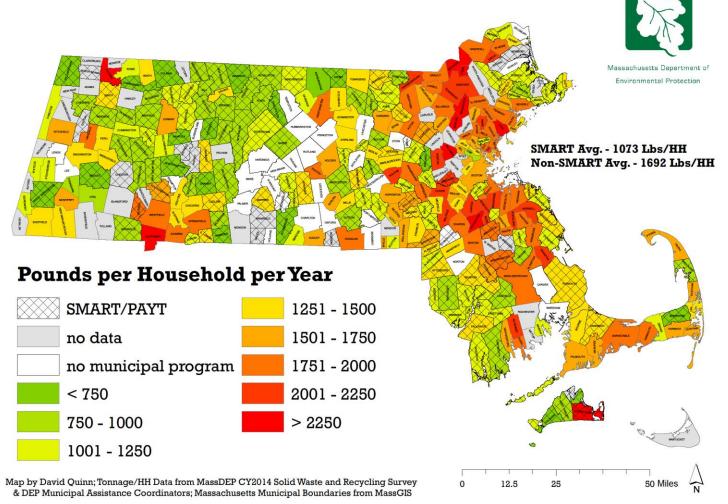


Sources: Skumatz, SERDC



PAYT/SMART Success - Massachusetts







MassDEP

State Examples: PAYT Support/Incentives



- NC DEQ: Higher-value grants for projects that support certain policies (PAYT)
- MA DEP: Assistance to municipalities
 - Education/outreach
 - Technical assistance
 - Grants to implement PAYT
 - Recycling Dividends Program provides rebates on a point system
 - PAYT bag program > cart-based
 - PAYT referred to as "the most successful program for reducing solid waste"



Disposal Bans



- Common for toxic, difficult-to-manage items and yard trimmings
- Can be challenging to enforce
- State-Level
 - Simpler message
 - Avoids materials migrating to disposal in the next community
- Local-Level Bans
 - Can be successful where local government has own disposal facility



State Disposal Bans on Recyclables



| State | Glass | Steel | Aluminum | Plastic | Paper (1) |
|----------------|--------------------|--------------------|--------------------|--------------------|----------------------|
| Massachusetts | Containers | Containers | Containers | 1-6 Bottles | OCC, RP |
| Michigan | Bev. Containers | Bev. Containers | Bev. Containers | Bev. Containers | Bev. Containers |
| New York | | | | | RP |
| North Carolina | ABC Containers | | ABC Containers | 1-7 Bottles | |
| Vermont | Containers | Containers | Containers | 1-2 Bottles | PCC, RP |
| Wisconsin | Containers | Containers | Containers | 1-2 Bottles | OCC, ONP, OMG, OP |

(1) OCC = Corrugated Containers; ONP = Newspaper; OMG = Magazines; OP = Office Paper; RP = All Recyclable Paper

Also...in Pennsylvania WTE facilities must take "reasonable measures" to recover recyclables



SERDC - Local Disposal Bans on Recyclables

- Several NC counties/cities implemented disposal bans for cardboard, paper
- 25% of NC local governments have disposal ban of some type
- None others identified, except yard debris





Mandatory Recycling/Service Provision



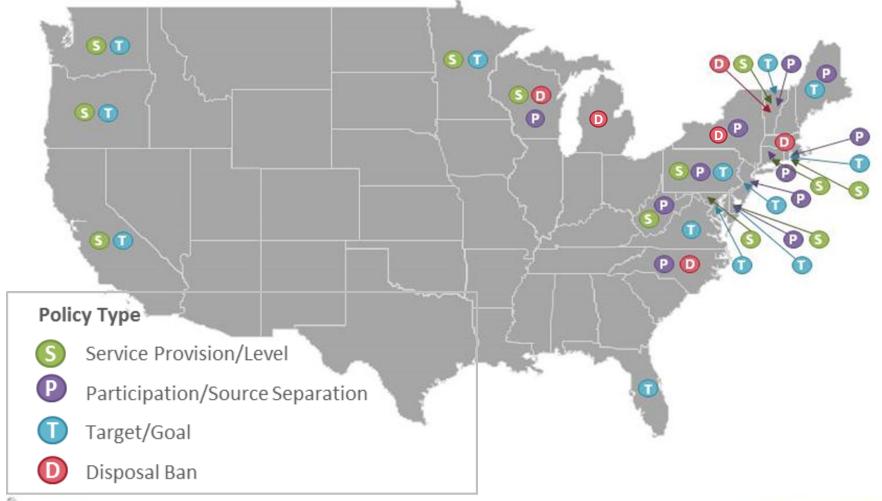
- Can mandate recycling participation
- Can mandate that specified services be provided with voluntary participation
- Variations:
 - State and/or local
 - Generator types
 - Material types
 - Requirements based on size/ population
 - Responsible party(ies)
 - Bundling of services requirement





Another Look at State Policies







SERDC Examples of Local Mandatory Recycling/Service Provision



Virginia

 Fairfax - Commercial, MFDs must have on site recycling; single-family residents must recycle

Florida

- Hollywood, Lee County, Bonita Springs, Fort Myers, Fort Myers Beach – Businesses, MFDs must have onsite recycling
- Gainesville Businesses, MFDs must have recycling on site if recyclables comprise at least 15% of waste

Georgia

- Athens-Clarke Commercial/MFDs must have on site recycling
- Atlanta MFDs with > 6 units must provide recycling
- Griffin Single-family residents must recycle



SERDC Examples of Local Mandatory Recycling/Service Provision



North Carolina

- All ABC Businesses Must recycle beverage containers
- Durham County Residential/commercial recycling mandatory (provision and participation)
- Mecklenburg County and many municipalities within mandatory recycling of commercial cardboard/paper, other targeted materials
- Charlotte, Davidson Building codes include space requirements for recycling containers for commercial/ MFDs
- Goldsboro Residents must participate in recycling, or fined \$25 on utility bill
- Fayetteville MFDs with >6 units must provide recycling



Mandatory Service Provision - Service Bundling



- Improves access and participation
- Can be accomplished easily through:
 - Direct municipal service
 - Franchise agreements
 - Municipal service contracts
- Can also be accomplished through permitting/ licensing programs
 - Residential subscription service
 - Commercial/multi-family service
 - May include organics



Local Example of Service Bundling - Boulder County, CO



- Residents hire own haulers
- Haulers must be licensed
- As a condition of license, haulers must:
 - Implement pay as you throw
 - Collect unlimited single-stream recyclables from residents, at least bi-weekly, at no extra charge
 - Collect separated organics from residents in some neighborhoods in 96-gallon carts, at no extra charge
 - Submit annual tonnage reports
 - Offer recyclables collection to commercial and multifamily customers



Mandatory Service Provision – Universal Recycling



- Ultimate form of mandatory service provision wherever there is trash collection, recyclables and organics (where appropriate) must also be collected
- Goal: For recycling to be as convenient as waste disposal or more so





Local Example of Universal Recycling - City of Austin



- Commercial/MFD Annual Recycling Plans
- All MFDs must have recycling by Oct 1, 2016, Commercial by Oct 1, 2017
- Phased in by size
- Plastics #1 & #2, paper, cardboard, glass, aluminum
- Education at least annually
- Signage on containers
- Convenient access
- Minimum container volume requirements
- Includes C&D plans/diversion requirements
- Food waste diversion being phased in by Oct 1, 2018
- Events included if on affected property



Strategies for Successful Implementation

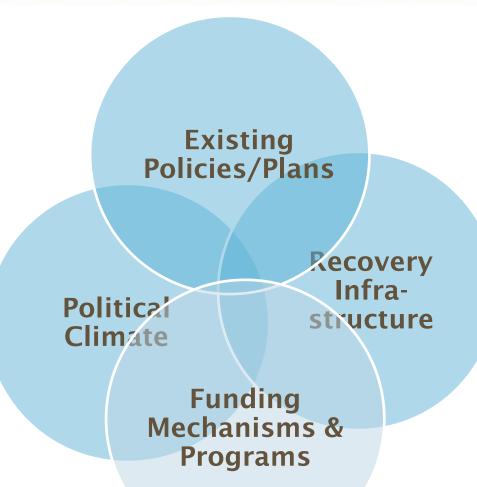




Factors Influencing Policy Choices



Local Circumstances Dictate Best Approach

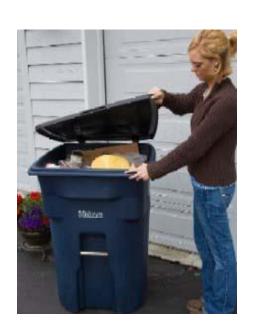




Best Practices - General



- Comprehensive package of programs and policies
- Timing preferably in an up market
- Champion to lead policy advocacy
- Stakeholder input, support, consensus building
- Early education/outreach
- Clearly defined compliance points
- Phase in compliance expectations/ enforcement efforts
- Pro-active solutions for "hot buttons"
- Monitoring, tracking





Best Practices for Goals/Reporting



- Goals realistic, measurable/trackable
- Multiple metrics
- Qualitative data counts
- Reporting simple, coordinated
- Plans





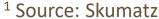


Best Practices for PAYT



- Pricing differential 50–80%¹
- Bundled services
- Mini can option
- Early, frequent, varied education & outreach
- Automatic provision
- Recycling volume ≥ garbage volume







Best Practices for Disposal Bans



- Strong markets for banned materials
- Fully developed recycling infrastructure or phase in to allow for infrastructure development
- "Grace period"



Best Practices for Mandatory Recycling/ Service Provision



- Check for existing ordinances
- Performance-based and not prescriptive
- Facilitate vs. dictate
- Potential exemptions clearly defined
- Allow for phase-in





Carrot & Stick Waste Reduction in Athens, GA

Athens-Clarke County
Solid Waste Department
Recycling Division
Joe Dunlop
joe.dunlop@athensclarkecounty.com





The What



"It is the intent of ACC to reduce the amount of solid waste generated and disposed by undertaking aggressive source reduction and recycling activities."

TRANSLATION: Try to throw out less stuff!



The How

Cartons of the same of the sam

- 1994 PAYT
- 1995 RMPF opens
- 2003 MRF opened at the landfill, allowing large recyclable items to be captured from loads of mixed waste.
- 2007 Event Recycling Ordinance
- 2010 Waste Reduction Goals set
 - 40% by 2015
 - o 60% by 2018
 - o 75% by 2020









More How



- 2008 Landfill tipping fee raised to \$42
- 2009 SWTF formed, recommended mandatory commercial recycling
- 2011 Waste Minimization Fee
 - \$1.60/month commercial
 - \$0.60/month residential
- 2011 Single-Stream Recycling
- 2011- # Haulers capped
- 2011 All solid waste haulers must offer 20 to 25-gallon containers
- PAYT Rates updated
- 2012 Commercial Recycling Ordinance





The Who





- PAYT includes public/private haulers and their residential customers. Downtown businesses use bag system
- CRO affects entities with ACC business license churches, private schools, non-profit organizations, UGA Greek houses

Exemptions - Home offices, multi-family fewer than 5



Pay-As-You-Throw



- ACC Solid Waste & 5 private residential haulers must offer 21, 32, 64 and 96-gallon size trash carts
- ACC rates are \$15.60/month; \$17.60; \$21.60 and \$28.60
- Private haulers set their own rates, but must maintain pricing differential
- In practice, larger private haulers often do not offer the smaller sizes
- Working closely with Keep Athens-Clarke County Beautiful, illegal dumping has been kept to a minimum



PAYT



- 20/25 gallon container; base rate
- 30/35 gallon container; 10% minimum increase over 20/25 gallon container
- 60/65 gallon container; 20% minimum increase over 30/35 gallon container
- 90/95 gallon container; 30% minimum increase over 60/65 gallon container

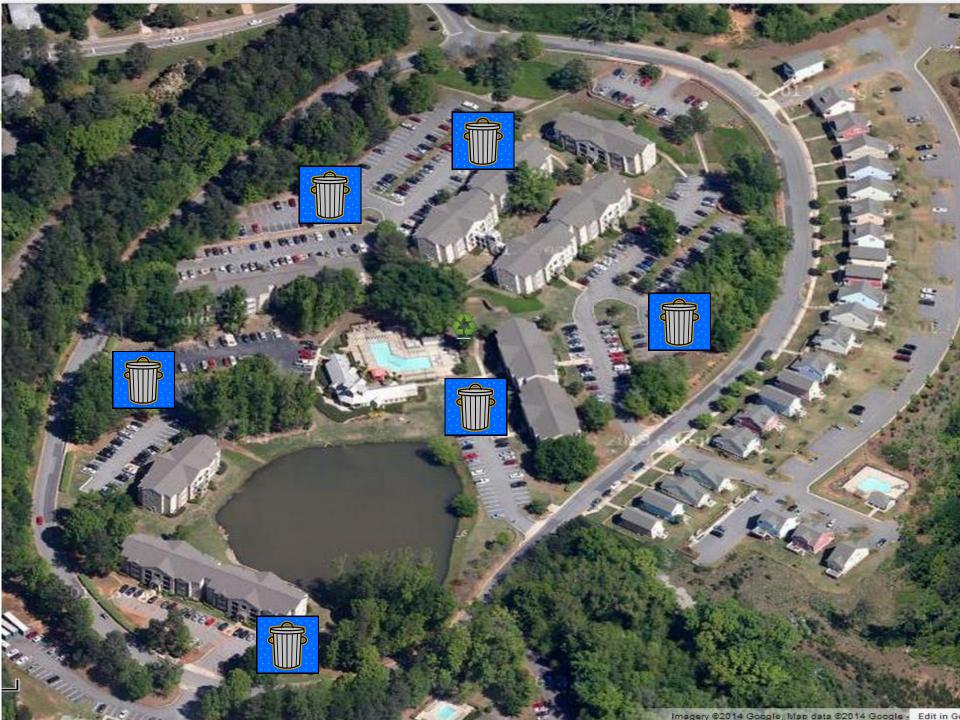
Commercial Recycling Ordinance



Requirements:

- Provide collection infrastructure (bins)
- Provide transport of material to processor (hauler)
- Education (multi-family must provide to tenants annually, and/or at new lease signing)
- Plan filed with ACC Solid Waste Department (me)
- Funded by Waste Minimization Fee
 - \$0.60/month residential
 - \$1.60/month commercial







What We Can Provide



- Education for customers and staff
 - Literature
 - Electronic (Web links, pdf, e-mail)
 - Tours of the MRF
- Interior Bins (sort of)
- Me
 - Presentations for staff
 - Audits/analysis





Challenges



- People
 - Illegal dumping
 - Free-standing dumpsters
 - Contamination
- Not enough space CRO
- Not enough containers (trash and recycling) (CRO)
- Not enough trash collection service (both)
- Older boxes configured for OCC only* (CRO)
- Awareness some haulers better than others (both)







MILK CARTONS AND JUICE BOXES ARE NOW RECYCLABLE

Remove those little bendy straws!





Be sure to rinse out all containers before recycling!



Carton Council Tools





CartonOpportunities.org



- Downloadable write ups on local policy tools
 - Infographic on supporting policies
 - O PAYT
 - Hauler Permitting and Licensing
 - Moving Toward Universal Recycling
 - How to Implement a Local Recycling Ordinance
- What next?
 - o Goals, Metrics and Planning?
 - o Disposal Bans?
 - Other?





Breakout Group Discussion



- How to Advance Use of Supporting Tools and Strategies
 - SROs & State Agencies
 - Local Governments
 - Private Sector/Other





Points to Ponder....



- Feedback on CC tools
- Other tools you would find helpful
- Ideas and approaches to advance their use
- Action steps for YOUR organization
- Assistance desired from OTHER organizations





Ideas on Advancing Use of Policy Tools

| | | CART | W COUNCIL |
|---|----------|--------|-------------|
| Actions | State | Local | Others |
| | Agencies | Gov'ts | |
| | /SROs | | |
| Promote goal, programs and policies to advance goals | X | X | X |
| Obtain/summarize performance data | Х | X | |
| Monitor progress/compliance | Х | X | |
| Provide technical assistance | Х | X | |
| Offer web based tools and links to other resources | X | X | X |
| Provide public education and promotion; Provide promo materials and guidance | Х | X | X |
| Develop model/sample ordinance(s) | Х | X | |
| Provide workshops, webinars, and networking opportunities for various stakeholder groups | Х | X | X |
| Provide grants such as incentive for employing best practices, performance grants, grants for equipment (e.g., carts) | Х | | X 65 |

Closing Remarks





For More Information



CartonOpportunities.org



Betsy Dorn RSE USA <u>bdorn@rse-usa.com</u> 561-337-5790

Susan Bush
RSE USA
sbush@rse-usa.com
401-782-6710

