

Elemental Impact

USGBC ZW Presentation Recycling Refinement July 26, 2017 Atlanta, GA

The Epsten Group



Recycling Refinement

Moving beyond landfill diversion ...

Recycling Integrity:

Maintaining maximum Material Value With Minimal Energy Expended

Contamination:

an expensive trip to the landfill



Source-Separated Materials

Source-Separated Materials

- Identify highest value, largest quantity materials.
- Source-separate with mini or regular size baler.
- Sell directly to manufacturers as raw material or
 - within the commodities market.
- Aluminum, cardboard | other fibers & certain plastics are generally the highest value items.



Plastic Film Recycling

Plastic Film Recycling

- Contaminant in single-stream recycling.
- Value often exceeds OCC.





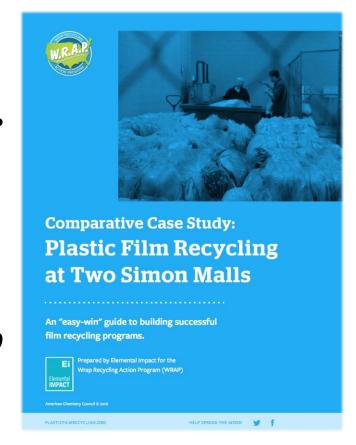
If it was easy, it would already be done!



Plastic Film Recycling

Concord Mills, a Simon Mall

- Sustainable Food Court Initiative
 Shopping Mall Pilot
- First mall plastic film recycling pilot in nation.
- ACC Plastic Film Recycling Group
 Case Study.





Plastic Film Recycling

FreshPoint Atlanta

- Nation's largest produce distributor.
- Shrink wrap on incoming & outgoing pallets.
- Returned shrink wrap used for customer deliveries.
- Ei film on pilot.
- Shared with ATL & GWCC





Elemental IMPACT

Plastic Milk Jug Recycling

HMSHost

- Starbucks City's largest generator of plastic onegallon jugs — highly recyclable yet most go to landfill.
- HMSHost operated 9 ATL Starbucks in 2011.
- 2600 milk jugs recycled PER WEEK.
- Program broke even to made some \$\$\$.
- Mini baler in back of ATL Starbucks.
- ATL Starbucks achieved 90% zero waste.





IMPACT

Food Waste

Zero Waste Zones



- Launched in 2009 at the GWCC.
- THE nation's forerunner for the commercial collection of food waste for compost.
- 2009 MPI lunch for 1200 FIRST event where ALL food was consumed, donated or collected for compost!
- CNN prime-time story; NY Times front page article



Food Waste

Zero Waste Zones

- Perfected back-of-the-house prep food waste collection practices.
- Hyatt Regency quote: This is EASY, why wouldn't everyone separate kitchen food waste?!!









Post-Consumer Food Waste

Atlanta Airport

- Sustainable Food Court Initiative Airport Pilot.
- Compostable food & beverage packaging provision in 2011 concessionaire contract.
- Set the stage for legally binding (vs. regulatory) zero waste compliance.
- Compostable Packaging Info Packet
- 2011 Greening Airport Award





Post-Consumer Food Waste

GWCC | Georgia Dome

- Sustainable Food Court Initiative Event Venue Pilot.
- Levy Restaurants shifted to reusable serviceware in suites & compostable packaging for concessions.
- Post-Falcons game food waste collection pilots.
- Compostable F&B Packaging Education session.





Source-Separate Materials Recycling Template

Source-Separated Materials Recycling Template

- Contamination is a mistake!
- Source-separated material is baled via mini-balers.
- Bales collected to common recycling center, baled into standard sized bales, stored until accumulate tracker trailer load, sold in local or commodities market, rebates distributed to participants.
- Begin with high value / volume material.
- Community-based program.



Source-Separate Materials Recycling Template

S-SMRT City-Wide Template

- Georgia Dome served as base generator.
- Orwak donated a multi-bin mini-baler for pilot.
- Atlanta Penitentiary in partnership with UNICOR

served as the recycling center.









Total Materials Management Approach

Total Materials Management Approach

- Evaluating the entire materials stream in one cost | revenue center.
- Begin with high value / high quantity material.
- Create a recycling profit center.
- Use profits from high value items (aluminum, plastics, paper /fiber) to offsets costs associated with challenging materials (food waste, glass)



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