

### Recycling Integrity:

Truths, Myths &

Emerging Technologies



**IMPACT** 

# Elemental Impact

# A National Non-Profit in collaboration with the National Restaurant Association

#### Mission:

To return the environment's resources to their natural, balanced state through collaborative, action-oriented projects





### Initiatives

### **Zero Waste Zones**

POWER – Perishable Organic Waste to Energy Recycling

Sustainable Food Court Initiative



## Zero Waste Zones

- Atlanta's response to losing a 2008 convention as client perceived another city as "greener"
- Launched in February, 2009 in an acclaimed press conference led by the Acting Regional EPA Director
- Media Loves ZWZ: CNN Story, Front-Page NY Times story among press
- Four additional zones launched in Atlanta
- Ready for national expansion



## Zero Waste Zones

### Criteria:

- Spent grease collected for production of biofuel
- Common recycling practices in place
- Excess food meeting the Good Samaritan Donation Act donated
- Other excess food and kitchen scraps collected for composting or other approved organics solutions





### Mission:

To explore and evaluate the highest good collection, recycling and use of perishable organics and make recommendations for deployment of economically viable projects within a defined geographic region area.



# Sustainable Food Court Initiative

### Mission:

To bring zero waste initiatives to food courts and develop industry, sustainable best practices for Back-of-the-House and Front-of-the-House operations

**Co-Chairs:** Chris Moyer, NRA Conserve Program Director & Doug Kunnemann, NatureWorks

**SFCI Team**: National industry experts in packaging, organics management, foodservice industry



# SFCI Pilot Project

### Hartsfield-Jackson International Airport

- Six month project designed to bring organics collection to front and back-of-the-house concession operations
- Project stages to simplify process
- Collaborative effort with City of Atlanta, Dept of Aviation, Concessionaires and SFCI Team
- GOAL: Develop a viable game plan to implement organics collection throughout the airport



## **Zero Waste**

### Is Zero Waste Possible?

- Best efforts average around 85% diversion rate
- Final ZWZ Stage requires a waste audit to determine profile of remaining "trash"



### Trash Profile

### What is landfill destined?

- Vinyl kitchen gloves
- Caps & lids to recyclable containers
- Transport packaging: polystyrene & plastic film
- Broken plates/dishes
- Kitchen plastic wrap & foil



# Tips to Increase Recycling

### An Integrated Approach to Sustainability

- Custodial staff is key to successful recycling programs
  - Consider reorganizing labor so one person is responsible for recycling separation
  - ➤ Train, Train & Train
  - > Develop incentives or rewards



# Tips to Increase Recycling

### An Integrated Approach to Sustainability

- Top Management buy-in is critical
  - Educate managers on recycling & contamination
  - Encourage managers to lift recycling container lids and look for contamination
  - Explore local recycling companies who will pay for clean, separated material



# Recycling Destination

### Single-Stream Recycling:

- Materials Recovery Facilities (MRF)
   separate material to sell as a raw material
- MRF for SS cost 5 times more than for comingled
- Most large waste haulers only offer SS recycling option



# Single-Stream

GOAL: Increase recycling participation

FOCUS: Diversion from the dumpster

RESULT: Increased recycling rates with a decrease in tonnage recycled

Collection is not recycling. A product is not recycled until it is made into another product.



# Single-Stream

Container Recycling Institute issued:

# Understanding Economic and Environmental Impacts of Single-Stream Recycling

For the highlights & to download 30-page report, visit ZWZ Blog post, <u>Single-Stream Recycling Controversy</u>



### **IMPORTANT FACT:**

Contaminated material is landfill destined, whether placed in a dumpster, a blue recycling bin or green organics bin



# What is a food court's biggest contamination challenge?



### Answer:

# Melted Ice (water) from fountain beverages



### The Glass Dilemma:

- Compactors & packer trucks crush glass into shards that contaminate paper & plastic
- Glass causes expensive equipment repairs & maintenance



### Glass Uses

# GLASS RECYCLING: ALWAYS #1 CHOICE



### Glass Uses

Where Glass Recycling is not an option:

- Fiberglass
- Secondary Uses:
  - Roadwork
  - Construction fill
  - Sandblasting
  - Interior Products (countertops, flooring, tiles)



Maintain maximum value of recyclable material (i.e. contaminant-free) with the least energy expended (electric, transportation, labor + other)



### **Zero Waste Zones:**

- Provides a network of engaged foodservice operators to pioneer new recycling systems
- Creates route density with the Zones



### **Zero Waste Zones:**

- Start with the large operators (conference centers, hotels) who provide the volume to make the economics work
- Fill-in with the other ZWZ
   Participants within the route



### Source-Separation:

- Cardboard + Paper
- Film Plastic
- Glass
- Other Plastic + Metals



### Challenges | Concerns:

- Local markets for material
- Carbon footprint of separated collection



### **Challenges | Concerns:**

- Economics creating a model that makes good business sense for the operator, collector & recycler
- Industry standards each market varies so difficult to create a template



### What Can You Do?

- Understand your current trash inventory
- Visit the MRF or other recycling material destination – understand contamination & how to eliminate it in your operation



### What Can You Do?

- Collaborate with other operators to develop a recycling system that makes sense for your locale
- Start with the easy, high-value items currently in single-stream

# Journey

Remember Recycling Integrity is a Journey
Take baby steps
Celebrate success!



# **Elemental IMPACT**

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