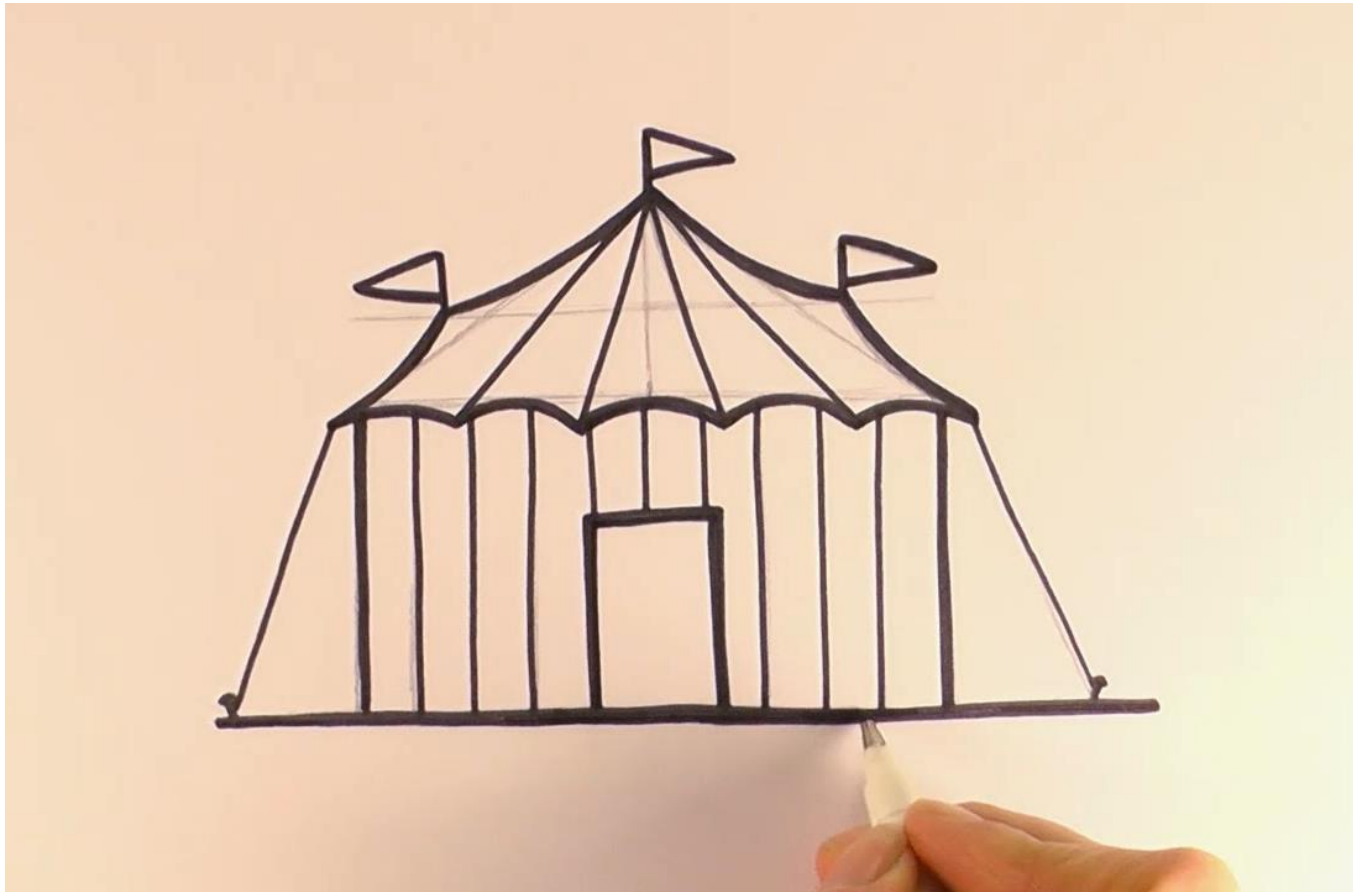


Zero Waste in SWANA's Big Tent

**North Carolina SWANA Chapter Conference
April 24, 2018**



SWANA – the big tent



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Strategic Plan 2015-2019

- **How can SWANA be relevant?**
- **4 goals and 48 objectives later, a mission:**

“...To advance from solid waste management to resource management...”

“Core Purpose: To advance the responsible management of solid waste as a resource”

Our Partner



Why Zero Waste for SWANA

- **Business:** new product, new audiences
- **Practically:**
 - We do this work every day
 - ISWM is a major part of what Zero Waste is about
- **Philosophically:**
 - Being at the end-of-the-pipe forces reactions, not good public policy
 - Overlooked aspects of **reduce** and **reuse**

China's Waste Import Restrictions: Challenges and Opportunities



David Biderman
CEO/Executive Director
SWANA

March 26, 2018

MassRecycle 2018 R3 Conference
SWANA Recycling & Solid Waste Conference

**And now back to
the planned topic**



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Points of Dissension

Definitions and Technologies:

- Is Zero really Zero?
- What does Zero Waste mean?

Zero Landfill?

Zero Disposal – No burn or bury?

MOU Set Our Parameters

- **Points of dissension**
- **Length of the course and shared certification**
- **Money in and money out**
- **Ownership of the material**
- **Process for picking consultant team to write course**
- **Process for resolving differences**

Agreed:

- **Different groups have varying definitions of Zero Waste – share them all; survey**
- **Existing systems use a variety of technologies**
- **Discuss how the technologies in a local system can fit into the local definition of Zero Waste**
 - Including WTE and waste conversion
 - Grudgingly

Table of Contents

- **Introduction – Definitions**
- **What's in Your Waste Stream**
- **Upstream, Midstream, Downstream**
- **Collection Options**
- **Processing Technology Options**
- **Managing Organics**
- **Public Venues and Challenging Materials**
- **Changing Behavior Through Education and Outreach**
- **Financing and Funding**
- **Contracting and Partnerships**

The Team



Review Group volunteers: some from SWANA, some from CRRRA to read and comment on every chapter, some multiple times

INTRODUCTION TO ZERO WASTE

"We can't think clearly unless we call things what they are."

George Orwell

WHO DEFINES ZERO WASTE?

- Zero Waste International Alliance
- Grassroots Recycling Network
- Zero Waste Canada
- California Resource Recovery Association
- Many others

ZERO WASTE PLAN ELEMENTS

- Policies
- Programs
- Infrastructure
- Education and outreach
- Funding sources and mechanisms

UNCONTROLLED CONSUMPTION

- Environmental and social impacts are weighted to the point of resource extraction, often far from where the product is used
- Planned and perceived obsolescence
 - It broke after 2 years. I have to buy a new one.
 - It isn't the current fashion.
- Encourages viewing materials as wastes to be managed (downstream)

SUSTAINABLE PROCUREMENT

Purchasing process that takes into account the economic, environmental and social impacts of spending.



Source: EPA Greener Products

UPSTREAM, MIDSTREAM, DOWNSTREAM

UPSTREAM

Maximize resource efficiency and waste prevention through producer responsibility, product redesign, Zero Waste purchasing, and policies that promote a circular economy.

MIDSTREAM

Maximize resource longevity through reuse, repair, repurposing, donations, and food recovery.

DOWNSTREAM

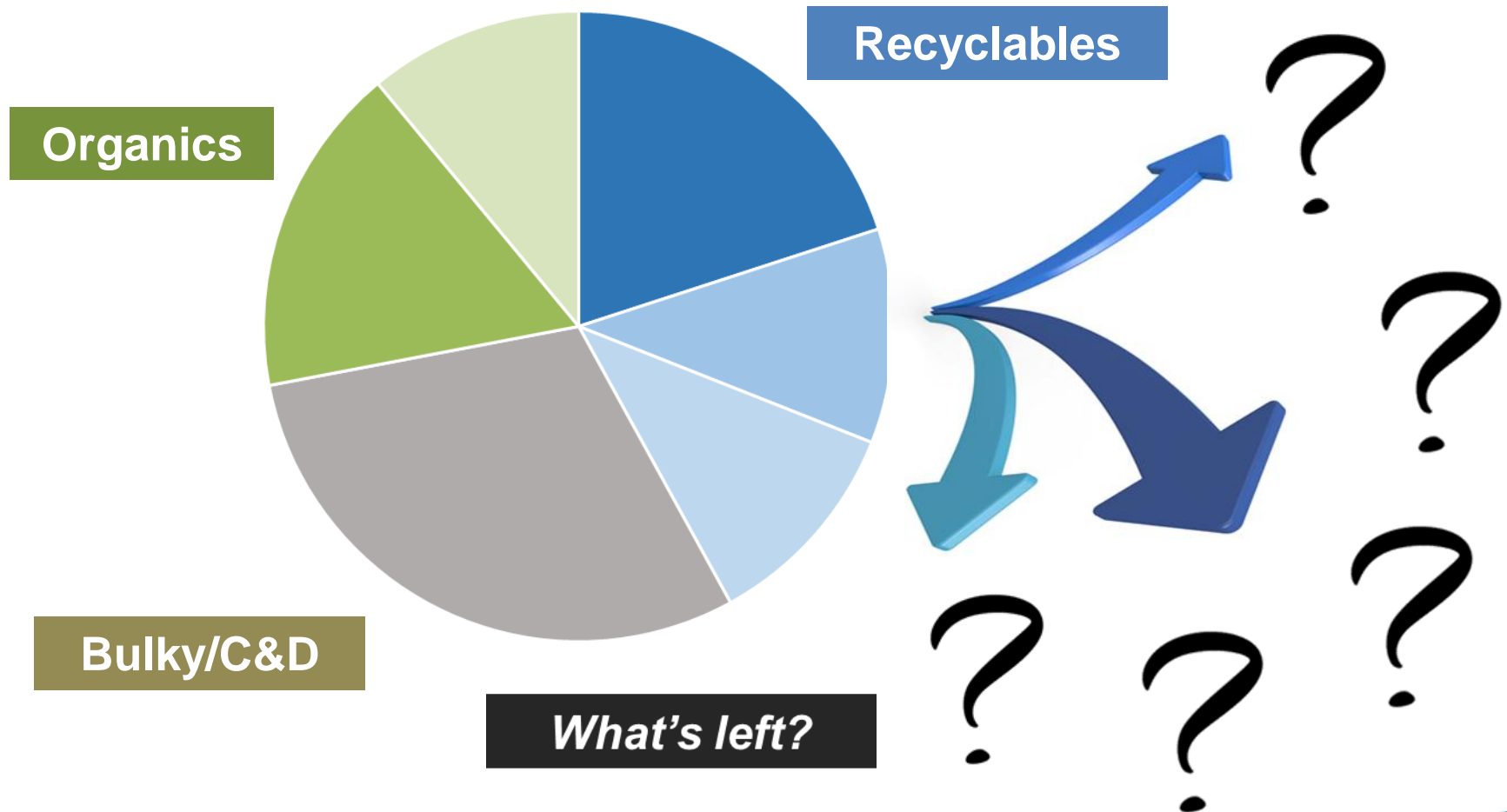
Maximize resource recovery through recycling, composting, and other recovery options.

REUSE AND REPAIR OUTLETS

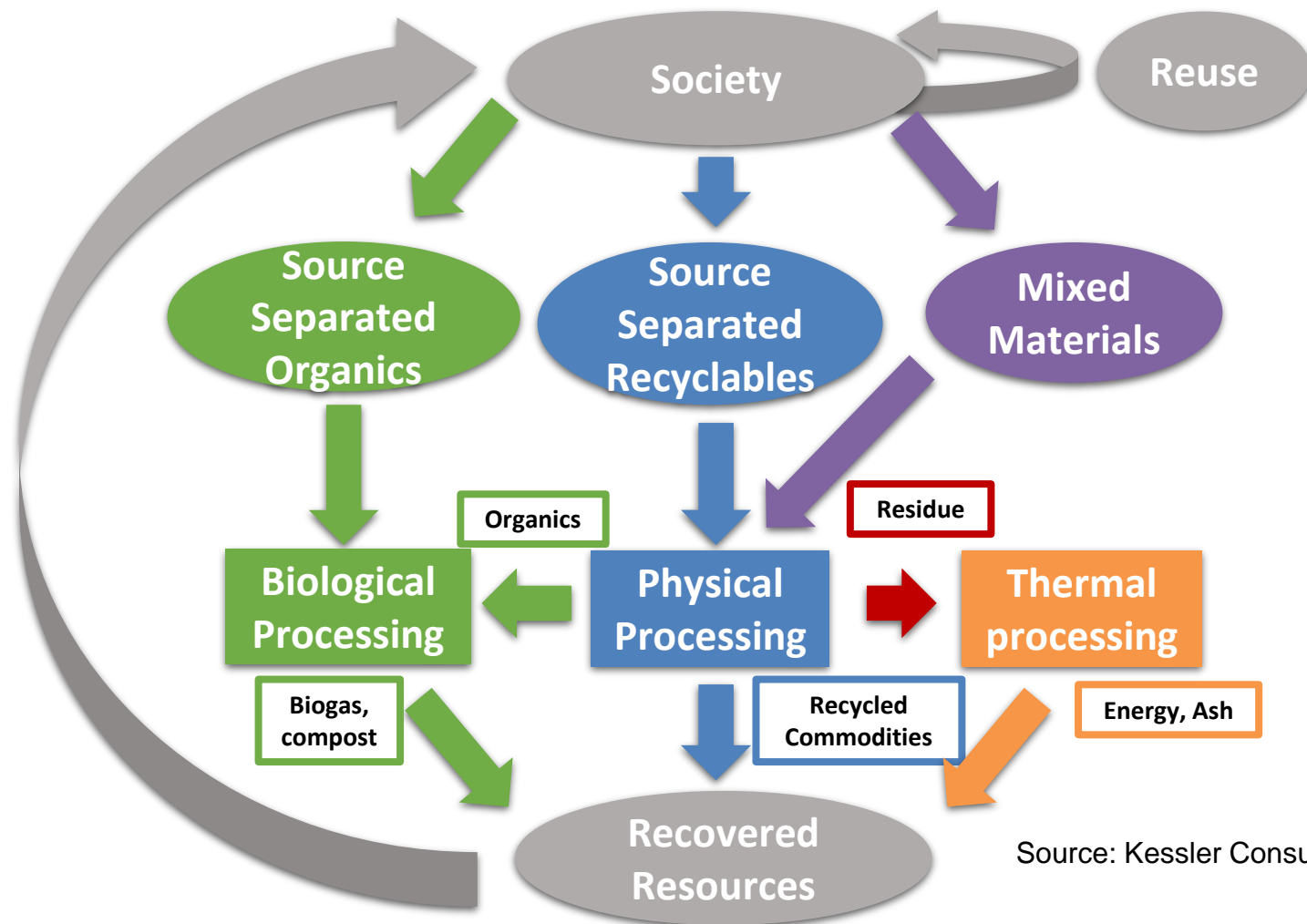
- Habitat ReStore
- Goodwill
- Salvation Army
- Other charitable organizations
- School supply stores
- Consignment stores
- Repair shops



IDENTIFYING ZERO WASTE STRATEGIES



ZERO WASTE PROCESSING—HOW TO GET THERE?

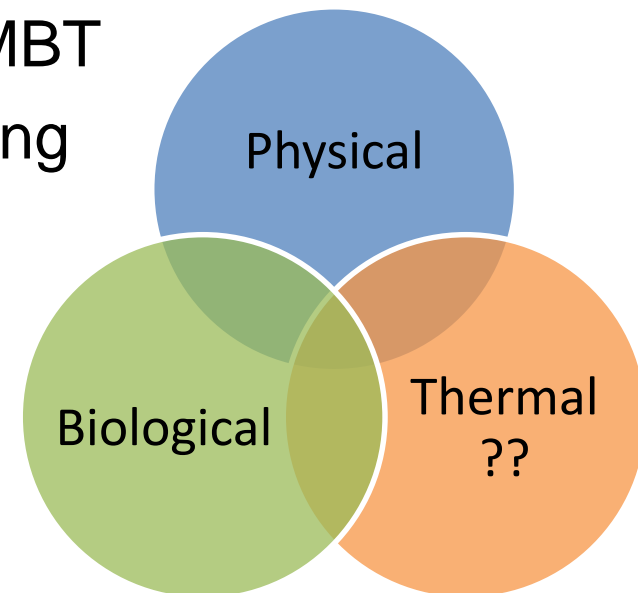


Source: Kessler Consulting, Inc.

Note: Thermal processing may or may not be a step in this process depending on the definition zero waste used locally

ZERO WASTE PROCESSING—HOW DO WE GET THERE?

- Traditional systems still have disposal:
 - Recyclables and organics that are not source-separated
 - Nonrecyclable, inorganic materials
 - Residue from MRFs, MMPFs, and MBT
 - Ash/residuals from thermal processing
- There is no silver bullet
- All available options are needed
- Upstream policy changes, reduction, and reuse are vital



Source: Kessler Consulting, Inc.

Practical considerations

- **Contracting**
- **Partners in our local systems**
- **How does this get paid for**
 - Can't rely on disposal fees

"The American populous is not ready for it..."

Change the Discussion

- Lots of money invested in THIS infrastructure
- We have to go upstream to talk to manufacturers and producers

"National EPR is a cul-de-sac"

"....safeguard the brand, intent, and proper implementation of ZW:

"...And of course I live a ZW lifestyle..."

"Your Org should stay away from it"

"politically naïve"



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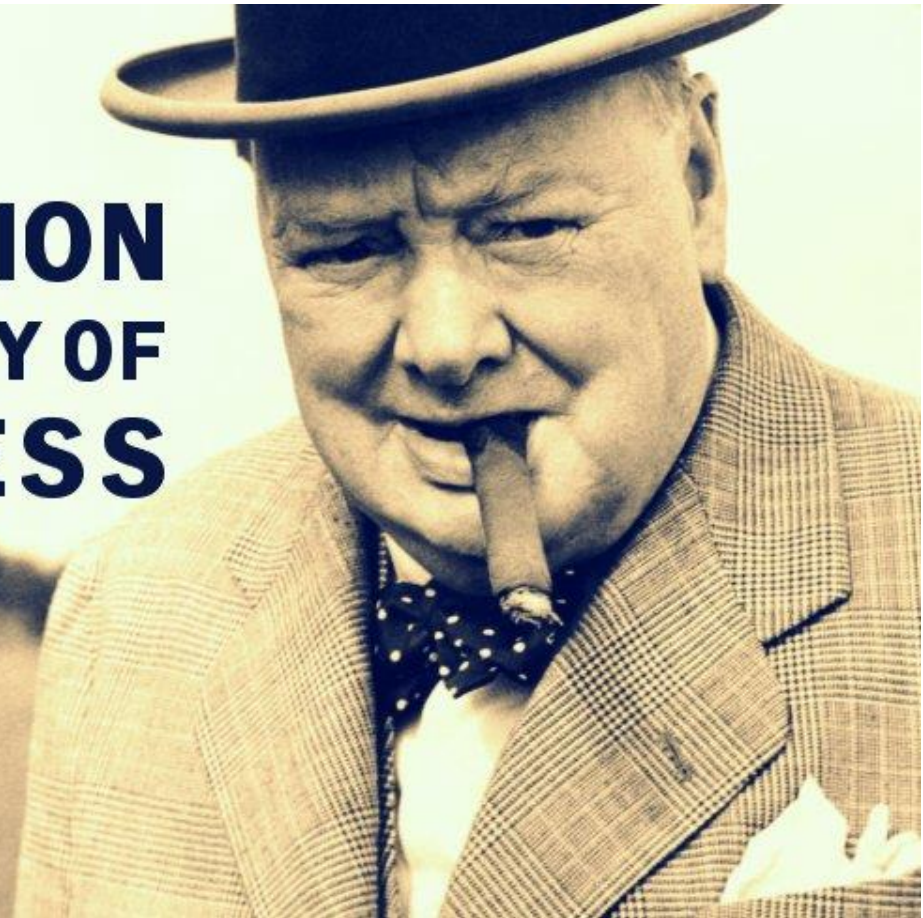
NC SWANA Training in June

SWANA TRAINING &
CERTIFICATION

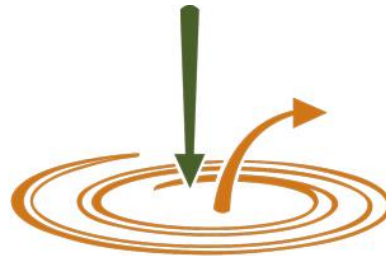


**PERFECTION
IS THE ENEMY OF
PROGRESS**

--Winston Churchill



The Partners



kessler consulting inc.
innovative waste solutions

zero|waste
Principles and Practices

Presented in partnership between
the Solid Waste Association of
North America and the California
Resources Recovery Association.



**Learn more
NOW!**

Presented by  **kessler consulting inc.**
innovative waste solutions



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Thank You

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BENEFITS OF ZERO WASTE

- Sustainable resource use
- Climate change impact
- Strong economy/jobs
- Healthy humans and other species
- Healthy soils
- Social justice



Source: NASA



Source: US EPA



Source: Kessler Consulting Inc.

Contributing Factors

- **Changing, evolving Ton**
 - Lightweighting plastics
 - Single serve packaging items
 - Online shopping
- **Aspirational recycling = I don't know, so I will recycle it**
- **Rapid increase in non-recyclable materials (NRM)**
 - Pulaski Co, Arkansas – 36% contamination
 - One Canadian buyer– 30% of total inbound



China Waste Import Restrictions

The current policy of:

- New waste import bans – 24 categories
- Stringent restrictions (0.5% contamination)
- Tougher enforcement at ports
- Inspections at MRFs
- Big reduction in import quotas

is making the **Green Fence** look like a minor issue

Monthly U.S. Plastic Scrap Exports to Mainland China During 2017 (metric tons)



What Happens Next?



"If anyone in the waste industry was hoping China was going to back off the waste ban, the Trump Administration's imposition of tariffs on steel and aluminum should dissuade them from that unrealistic dream," David Biderman, CEO of the Solid Waste Association of North America told Waste Dive in an email.

Time to Change

- **We need to change our thinking**
 - China isn't going back to pre-Green Fence
 - Other Asian markets may be a temporary band-aid
- **We need to change our messaging**
 - Recycling isn't free
 - Contamination costs cities/processors lots of \$
 - Recycling creates U.S. jobs
 - Re-focus on waste diversion/Zero Waste - Boston
- **We need to consider changing the metrics**
 - Weight-based v GHG reduction v participation rates

Questions

- Is this the right time for more single stream?
- How do we change the discussion from weight-based to outcome-based goals?
- Can energy recovery make sense in some circumstances?
- How do we change the discussion to waste reduction/circular economy/resource management?