Trends in FL Curbside Recycling

2019 FL. SWANA Summer Conference

July 30, 2019
10:30 AM – 11:30 AM
Tampa, FL
Panelists

Amy Boyson
Community Affairs Manager
Waste Management Inc.

John Carlton, P.E., BCEE
Solid Waste Planning Lead
HDR Engineering Inc.

David Gregory
Solid Waste Division Manager
Orange County, Fl
In Session Question?

Email your questions anytime during the presentation to:

FlSwanaRecycle@gmail.com

Question will be addressed at the end of the session!
China isn’t taking plastic recycling. It’s creating a crisis. Within the recycling community, there had been rumblings that China might ... Operation Green Fence was the 2013 effort to just start getting ...

‘Life After National Sword’: domestic market pivot, growing plastics ... We need to create more recycling infrastructure and process scrap here ... bulky rigid — their biggest challenge since Green Fence and with ...

Australia urged to invest in recycling manufacturing after Indonesia sends rubbish back Australia could quickly solve the problem of Indonesia and other countries rejecting its waste if governments invested in recycling ...

‘We Are Swamped’: How a Global Trash Glut Hurt a $25 Billion Industry India’s garbage business, from scrap pickers on the ground through layers of sorting middlemen to plastic pellet producers, is struggling with low prices after China restricted garbage imports.

Market Upheaval India’s imports soared last year when China restricted purchases and global prices fell.

Paper imports 8 billion kilograms
Where do our recyclables go?

WM is the 7th largest exporter of all goods (by volume from the U.S. (2018))

27% of our fiber went to China in 2017
<3% in 2019

WM does not export residential plastics
Effect on commodity prices & are they stabilizing?

Q1 2019 BV - $56.90/ton; lowest since Q1 2009
Survey & Analysis of Recycling Composition

- FL Residential Curbside Survey:
  - 25 Entities Surveyed Representing ~50% of the Population Florida
    - Mostly metropolitan, but also some smaller entities
  - Approximate Contamination Rates:
    - Dual Stream 5%-10%
    - Single Stream 20% - 40% (*)
- Selected Single Stream Sample by Weight:

2018 Statewide Data per FDEP:
- Based on 2018 Recycling Credit Data Reporting by Weight
- Selected Data for Curbside Recycled Categories Only (e.g., excludes C&D)
- Combined Residential and Commercial

(Selected FDEP 2018 Recycling Credits Data)

(*) Some SS programs reported low contamination (<10%), but not sure if this included rejected loads before processing so excluded.
Prices locally and by commodity?

Southeast US Region Average Price ($/ton)

Source: www.recyclingmarkets.net
Will we and how quickly will we see domestic markets develop to take up excess supply of commodities?

- Dylan de Thomas with TRP Interview by Resource Recycling July 2019
  - $400 M in investments in plastics processing planned resulting in capacity to consume 350,000 tons of plastic
  - $2.5 B in investment in fiber processing planned resulting in capacity to consume 5.8 million tons of Fiber
  - Plastics Mills Faster to Setup than Paper Mills
  - 2-5 Years before we see prices rebound
Survey of Contract Processing Costs

• Survey Findings in FL
  › 25 Entities Surveyed Representing ~50% of the Population Florida
    – Mostly metropolitan, but also some smaller entities
  › Fee Ranges $50-$105 / ton
    – Older Contracts Have Costs Embedded in Collection Agreements (Some Generate Revenue)
    – Generally Older Contracts Have Lower Rates
  › Current / New Contracts >$80 a ton - Average Around $80-$85

• Selected Survey
  › Observed Contract Rate Rising from $50 - $60 a ton to >$80 a ton last 18 months
  › Net Cost to Process Recyclables ~$40-$50 a ton

• What is driving the increase in processing costs?
How has Orange County approached the challenge of getting recycling processing capacity?

- Expiring Processing Contract
- Commitment to Recycling
- Short-term Actions
- P3 Procurement Process

County Recycling Program Info:
217,000 Residential Units
62,200 Tons
Single Stream Collection
High Contamination

Neighboring / Potential Partner Communities:
195,182 Residential Units
92,800 Tons
What investments are being made to MRFs to improve efficiency and reduce contamination?

WM invested $100 Million in 2018/$100 Million 2019

MRF of the Future near Chicago: Largest Residential Recycling Investment for WM; Opening in Q4 2019
How to deal with contamination?

Orange County Tagging Program
WM Education Programs
Cost of Education
Closing Thoughts...

“Redefine Recycling” – JC
“Sky is not falling” – AB
“Innovative, Collaborative & Inclusive” - DG
Thank you!

Panelists:
Amy Boyson, WM Inc.
ABoyson@WM.com

David Gregory, Orange County
David.Gregory@OCFL.net

John Carlton, PE BCEE, HDR
John.Carlton@HDRinc.com

Moderator:
Thierry Boveri, CGFM, Raftelis
TBoveri@Raftelis.com
Value of Education

FREE YOUR RECYCLABLES.
No plastic bags. Put items directly into your recycling container.
For more information, visit RecycleOftenRecycleRight.com

RECYCLE OFTEN. RECYCLE RIGHT.

Recycle all my empty bottles, cans, paper and cardboard.
Keep foods and liquids out of my recycling.
Keep loose plastic bags and bugged recyclables out of my recycling.

Are you in the clear on recycling contamination?
Nationally, on average, 25% of all items in recycling bins are actually trash. That’s a big problem impacting recycling efforts around the world. You can help by following three simple rules:
1. Recycle empty plastic bottles, cans, paper and cardboard.
2. Keep foods and liquids out of your recycling.
3. Keep plastic bags out of your recycling.

For more information, visit RecycleOftenRecycleRight.com

#recycling101

RECYCLE OFTEN. RECYCLE RIGHT.
Back to Basics:

Let’s get back to the basics of recycling. Remember these three rules each time you recycle:

1. Recycle all empty plastic bottles, cans, paper and cardboard.
2. Keep food and liquids out of the recycling.
3. Empty recyclables directly into your cart - NO bagged recyclables.

When in doubt – throw it out!

http://floridarecycles.org/

www.recycleoftenrecycleright.com
This is not recycling

- We spend 140K hours each year cleaning plastic bags, hoses, and Christmas tree lights out of equipment.
- Our recycling plants received over 5,000 bowling balls and 28,000 lbs of batteries last year. They are the largest source of fires.
Mapped out: Chinese money in U.S. recycling

Posted on September 25, 2018

by Editorial Staff

Since the implementation of Chinese scrap import restrictions, a number of Chinese companies have set up shop or established partnerships in the U.S. to process material and bypass restrictions. Below is a map keeping track of these investments.

Click the icon in upper left corner to view the list of points, and click on each point for complete details on the facilities in development, companies involved, materials being targeted and more.

This map will be updated as needed.

If you're having trouble viewing the map below on either desktop or mobile, try viewing it on Google Maps.

Where we are now...

Traditional Recycling

- National Avg. 34%
- FL Avg. 42%
- Includes Curbside + Commercial Recycling + ____
China’s Effect...

- **China National Sword**
- **China’s Effect...**
- **Recycling stockpiles are landfilled (Northwest US)**
- **US / China trade war**
- **99% reduction in plastics imports to China**
- **New plans reported for US investment in OCC processing (online 2021)**
- **Major MRF operators start investments to reduce contamination**
- **Major U.S. companies report recycling $§ declines / recycling fee discussion starts**
- **India announces proposed ban on US plastics import (summer 2019)**
- **China confirms ban of post industrial plastic and metals by end of 2018**
- **Scraper importers shift to Southeast Asia**
- **WM reports $110m investment to MRFS**
- **China imports slow**
- **Prices start falling on OCC & plastics**
### FAQ – Plastics Resin Identification Code (RIC)

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<tr>
<th>Resin Identification Number</th>
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<th>Resin Identification Code –Option A</th>
<th>Resin Identification Code –Option B</th>
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<tr>
<td>1</td>
<td>Poly(ethylene terephthalate)</td>
<td>PETE</td>
<td>PET</td>
</tr>
<tr>
<td>2</td>
<td>High density polyethylene</td>
<td>HDPE</td>
<td>PE-HD</td>
</tr>
<tr>
<td>3</td>
<td>Poly(vinyl chloride)</td>
<td>V</td>
<td>PVC</td>
</tr>
<tr>
<td>4</td>
<td>Low density polyethylene</td>
<td>LDPE</td>
<td>PE-LD</td>
</tr>
<tr>
<td>5</td>
<td>Polypropylene</td>
<td>PP</td>
<td>PP</td>
</tr>
<tr>
<td>6</td>
<td>Polystyrene</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>7</td>
<td>Other resins</td>
<td>OTHER</td>
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</tbody>
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Survey Scope

• Characterize curbside recycling in your community:
  ➤ Approximately how many residential units receive curbside collection?
  ➤ Single Stream (SS) / Dual Stream (DS)?
  ➤ Days per week / month collected?
  ➤ Automated Collection?
  ➤ Contamination Rates?

• Does your community own a recycling processing facility / MRF?

• Do you contract for recycling processing?
  ➤ If yes, with who and is it processed in your county?
  ➤ If yes, are you currently paying a recycling processing fee and what is the fee $/ton?
  ➤ If yes, please describe any revenue sharing provisions?
  ➤ If no, is there a recycling fee being proposed as part of an amendment to an existing agreement or expected as part of a proposed agreement?

• Please describe any materials your community has stopped collecting (e.g., glass, certain plastics, etc.)?

• How would you rank each of the following challenges to recycling in your community (with 3 = Major Challenge and 0 = no challenge):
  ➤ Increasing Cost to Recycle
  ➤ Contamination Rates
  ➤ Declining Market Value of Recyclables
  ➤ Lack of Processing Capacity
  ➤ Lack of Regulation
Create your Google Account

to continue to Gmail

First name
Thierry

Last name
Boveri

Username
FISwanaRecycle @gmail.com

! Sorry, only letters (a-z), numbers (0-9), and periods (.) are allowed.

Password
4076282600

Confirm
4076282600

Sign in instead

Next