Perspectives on Paper Cup Recycling

November 10, 2015
A few technical details…

The session has started.

You can hear us, we can’t hear you. And that’s OK.

Your control panel to the right allows you to change VOI vs. phone settings.

Questions? Wonderful. Use Q&A feature to ask questions during webinar

A recording of this session will be available via the FPI website.
Welcome and Introductions
Lynn Dyer, Foodservice Packaging Institute
Cathy Foley, American Forest and Paper Association
Elisa Seltzer, Emmet County DPW
Questions and Answers
Increasing Paper Cup Recycling

Lynn Dyer
President
Foodservice Packaging Institute
Established in 1933

Only industry trade association in North America solely focused on all single-use foodservice packaging products

Members include:

- Converters and their raw material and machinery suppliers (represents about 85% of the industry);
- Foodservice distributors and operators
FPI’s Recovery Work

Paper Recovery Alliance (PRA)
Plastics Recovery Group (PRG)
Foam Recycling Coalition (FRC)
Goal and Tactics

- Build recovery options for used foodservice packaging by
  - Identifying real or perceived barriers to recovery and working to overcome them
  - Supporting the development of the necessary collection and processing infrastructure
  - Expanding the end use markets for recovered material
  - Educating consumers to increase recovery
  - Connecting with local governments and solid waste officials
Paper Recovery Alliance Members
What Paper FSP Is Available to be Recovered*?

- **All**
  - Other Paper: ~4.5 M tons*
  - Molded Pulp
  - OCC
  - Paper Carryout Bags
  - Other Coated Paper
  - Poly Coated Paper
  - Clay Coated Paper

- **Targeted**
  - Other Paper: ~3.5 M tons*
  - Molded Pulp
  - OCC
  - Paper Carryout Bags
  - Other Coated Paper
  - Poly Coated Paper
  - Clay Coated Paper

- **Cups**
  - Poly Coated Paper: ~0.6 M tons*

*in U.S. and Canada
Additional Paper Cup Details

- Nearly all poly coated (mostly PE, some PLA); almost no wax coated
- No wet strength
- Split is roughly half “cold” cups (poly on both sides); half “hot” cups (poly on one side)
Where Can FSP be Collected?

- Home
- In Store
- Industrial
- Commercial
- Institutional
- Public Space

Pie chart showing the distribution of FSP collection locations.
How Do Paper Cups Flow Through a MRF?

- When beverage cups were studied in 5 MRFs (weighted average):
  - 48% ended up in the carton bale
  - 26% ended up in paper bales
  - 23% ended up as residual
  - 3% ended up in other bales

- These results reflect a baseline with no attempts to optimize capture by MRFs, and suggest further work to improve capture.
Are There End Markets for Bales with Paper Cups?

- Yes – both domestic and export markets
  - Some mills can and are already processing cups in mixed paper bales
  - Some mills can and are already processing cups in carton bales
- Work is underway to identify additional mills interested in processing cups (and other paper FSP) in existing bales
Estimated Impact on Mixed Paper Bales

Adding FSP to Mixed Paper Bale*

*At a 10% recovery rate

- Hot Bev. Cups - Poly Coated Carton Board
- Hot Bev. Cups - “Other” Coated Carton Board
- Cold Bev. Cups - Poly Coated Carton Board
- Cold Bev. Cups - “Other” Coated Carton Board
- Food Containers - Poly Coated Carton Board
- Food Containers - Clay Coated Carton Board
- Beverage Carriers - Molded Pulp
- Beverage Carriers - Clay Coated Carton Board
- Pizza Boxes - Clay Coated Carton Board
- Hot Paper Cup Sleeves - OCC
- Hot Paper Cup Sleeves - Clay Coated
- Current
Current Impact on Mixed Paper Bales

*Foodservice Packaging by Coating type, as Percentage of Bale*

NYC

- Mixed Paper/Other: 99.72%
- Single-Sided Polycoat: 0.02%
- Double-Sided Polycoat: 0.04%
- Claycoat: 0.19%
- Uncoated: 0.03%

Total paper FSP: 0.28%

SEA

- Mixed Paper/Other: 99.52%
- Single-Sided Polycoat: 0.14%
- Double-Sided Polycoat: 0.12%
- Claycoat: 0.05%
- Uncoated: 0.17%

Total paper FSP: 0.48%
Estimated Impact on Carton Bales

- Cups and other polycoated containers are well-suited for recovery by mills that process carton bales due to their similar composition.

- At future 10% recovery rate, cups have the potential to make up 25% of a carton bale.
What Concerns Do Mills Have?

- **Poly coating on cups**
  - Industry currently working on repulpable coatings

- **Printing on fiber versus poly**

- **Food contamination**
  - Studies showed no appreciable difference (Boston, 2013) or only marginally more residue (Delaware, 2014) than other recyclables
  - But still concerned depending on end product
What About In-Store Recycling?

- Different challenges than home/office recycling
  - Packaging may not be empty
  - Consumers in a hurry
  - Sorting instructions less familiar/consistent than at home

- Some in-store cup recycling taking place, depending brand and infrastructure

- Look for new toolkit being launched in early 2016 to encourage in-store recycling and composting of FSP
Should Communities, MRFs, End Markets and Brands Recycle Cups?

- Yes!
  - Reality is that new, valuable materials are entering the recycling stream, including FSP
    - Helps public officials and brands reach environmental goals
    - Helps with changing waste stream and increase supply for MRFs and end markets
    - Growing interest in and use of recycled materials
    - Makes good business sense
Where Would We Like Your Help?

- Are you already, or interested in,…
  - collecting paper cups in a curbside recycling program?
  - processing paper cups in a MRF and selling those bales?
  - Buying bales with paper cups for your mill?
- We want to hear from you!
  - Send an email to ldyer@fpi.org
Cathy Foley, Group Vice President
American Forest & Paper Association
About AF&PA

• Advances a sustainable pulp, paper, packaging and wood products manufacturing industry

• Fact-based public policy and marketplace advocacy

• Member companies represent more than 86% of the U.S. capacity for pulp, paper and paper-based packaging sectors.
AF&PA’s 2020 Sustainability Goals

1. Paper Recovery Exceed 70%
2. Energy Efficiency Increase purchased energy efficiency by at least 10%
3. GHG Emissions Reduce intensity by at least 15%
4. Forestry Increase certified fiber procurement
5. Safety Reduce incidence rate by 25%
6. Water Reduce use in mills by 12%
Paper Recycling: A True Environmental Success Story

U.S. Paper Recovery Rate 1990-2014

Source: AF&PA
Dual Vs. Single Stream Collection

Source: AF&PA Community Access Survey
Mill Perspective

Each Mill is different depending on end product equipment
AF&PA is committed to improving the recycling of fiber-based foodservice packaging by understanding the complexities and challenges associated with its recovery and reuse.
Recycling Cups & Cartons in Emmet County

Elisa Seltzer, Director
Emmet County Dept. Public Works
eseltzer@emmetcounty.org
231 348-0640
Emmet County
Transfer Station and Recycle Processing
Cost effective collection for rural areas
Curbside Recycling Collection
Hoteliers Happy With Recycling

“We get it to the curb and Emmet County Recycling does the rest.”

—David Marvin
Stafford’s Hospitality

Call 231-348-0640

to learn how easy recycling can be!
We love curbside recycling!

"Harbor/Brenn always made a concerted effort to recycle the paper that came through our office. But, back when we were using messy boxes in the back to store it and taking turns hauling it to Harbor Springs, no one really liked it. Now with curbside recycling, we just put it all in the bin and have it at the curb each week--and for such a nominal charge! We love it!"

--Ashley Whitney, Harbor-Brenn Agencies

Call 348-0640 to learn how easy recycling can be!
Clear visual messaging for event recycling
Public Space Recycling
Dual-stream expansion 2010
Recycled Equipment
Mixed Containers incoming via curbside & drop-site
Mixed Containers in-feed conveyor
Sorting from the fiber line
Sorting from the container line
Funding Facility Upgrades

- Reclaimed Dual stream facility with limited sort options
- Carton Council grant facilitated upgrades
- Vacuum Chutes to increase efficiencies
Sorted Cups & Cartons
Unloading Cups & Cartons to Conveyor
Carton & Cup Bales
Great Lakes Tissue, Cheboygan, MI
Great Lakes Tissue Products
Message Centers

Located at
7 of our
13 Drop Sites
countywide
Brochure Racks
The Carton Council

Promotion/Education Grant

“10,000 Pounds in 10 Weeks” campaign

• Where you buy products in cartons
• Where you recycle
• Where you go for information
• Public art
Public Art Draws Attention

“They seem to be quite the thing. It has me wondering where they’ll go next, and, well, we want them!”
The Emmet County Recycling Program, which does not rely on tax dollars, “...is a dream for Republicans.”

Bonnie Lucas, Chair
Emmet County Republican Women
Promotional Campaign Results

• Met and exceeded challenge
• 50% increase in volume coming in
• Boyne City Schools implemented recycling due to Carton Campaign - 500 cartons/day
• Requests to host the Carton Crane continue
Continued growth in volume

Growth in Paper Cups/Cartons

<table>
<thead>
<tr>
<th>Year</th>
<th>Pounds</th>
<th>Revenue</th>
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</thead>
<tbody>
<tr>
<td>2011</td>
<td>28,000</td>
<td>$1,400</td>
</tr>
<tr>
<td>2012</td>
<td>66,060</td>
<td>$5,781</td>
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<tr>
<td>2013</td>
<td>47,980</td>
<td>$4,308</td>
</tr>
<tr>
<td>2014</td>
<td>92,000</td>
<td>$8,050</td>
</tr>
<tr>
<td>2015 (est)</td>
<td>96,000</td>
<td>$8,400</td>
</tr>
</tbody>
</table>
92,000 lbs in 2014

Cups and cartons are now 6% of our container stream

![Graph showing container stream weight from 2011 to 2014](chart.png)
Building Community
Elisa Seltzer, Director
Emmet County Dept. Public Works
eseltzer@emmetcounty.org
231 348-0640
Please type any questions into the question function in your panel to the right.

Lynn Dyer  
FPI

Cathy Foley  
AF&PA

Elisa Seltzer  
Emmet County
Thank you for your attention!

For More Information:
- Recovery toolkit, study findings, and more resources at www.fpi.org/stewardship
- Webinar in early 2016 will feature a redesigned Foodservice Packaging Recovery Toolkit