

Curbside Commingled Recycling Quality

Presented by Chris Thomas

Waste Connections, Inc.

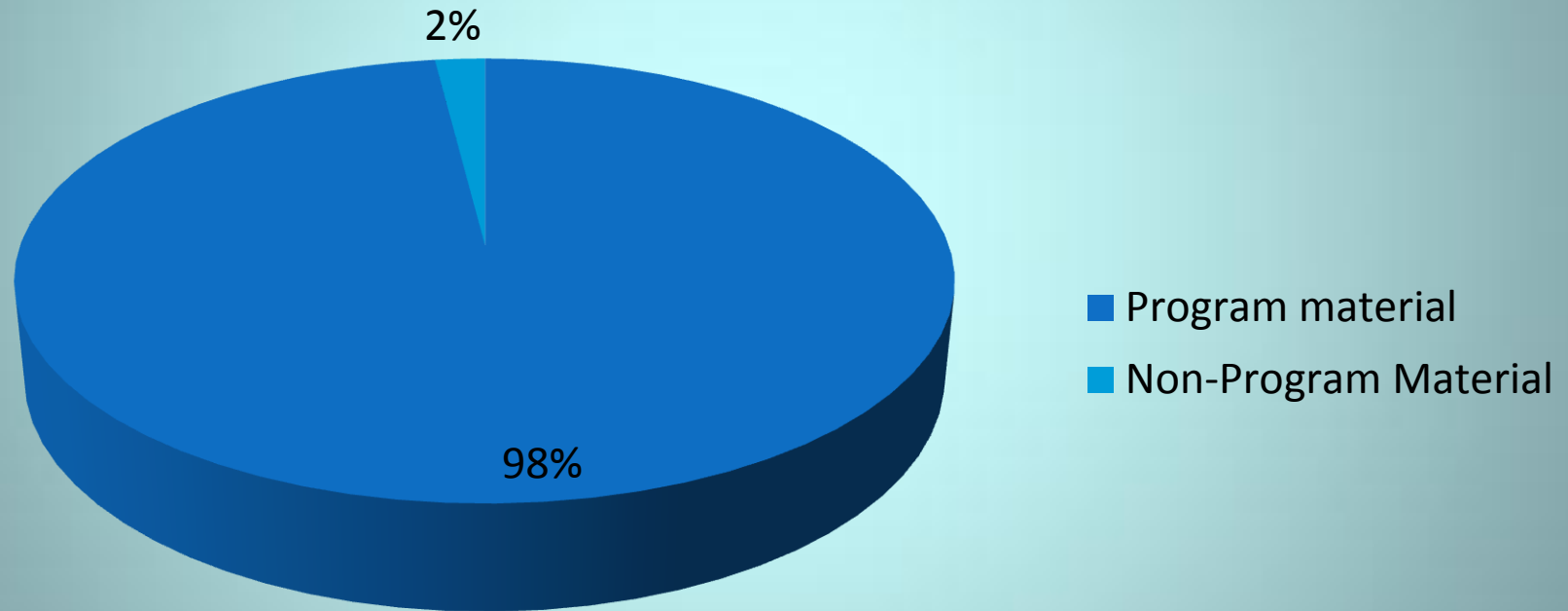
AOR Annual Meeting

June 16, 2011

- Since the shift to commingled curbside recycling in early 2000 the quality and make up of the material has changed significantly.
- Newspaper used to account for 60+% of the mix.
- Now newspaper is under 30%
- The balance is cardboard, mixed paper, plastics and non-program material.

Pre Commingled Recycling Quality

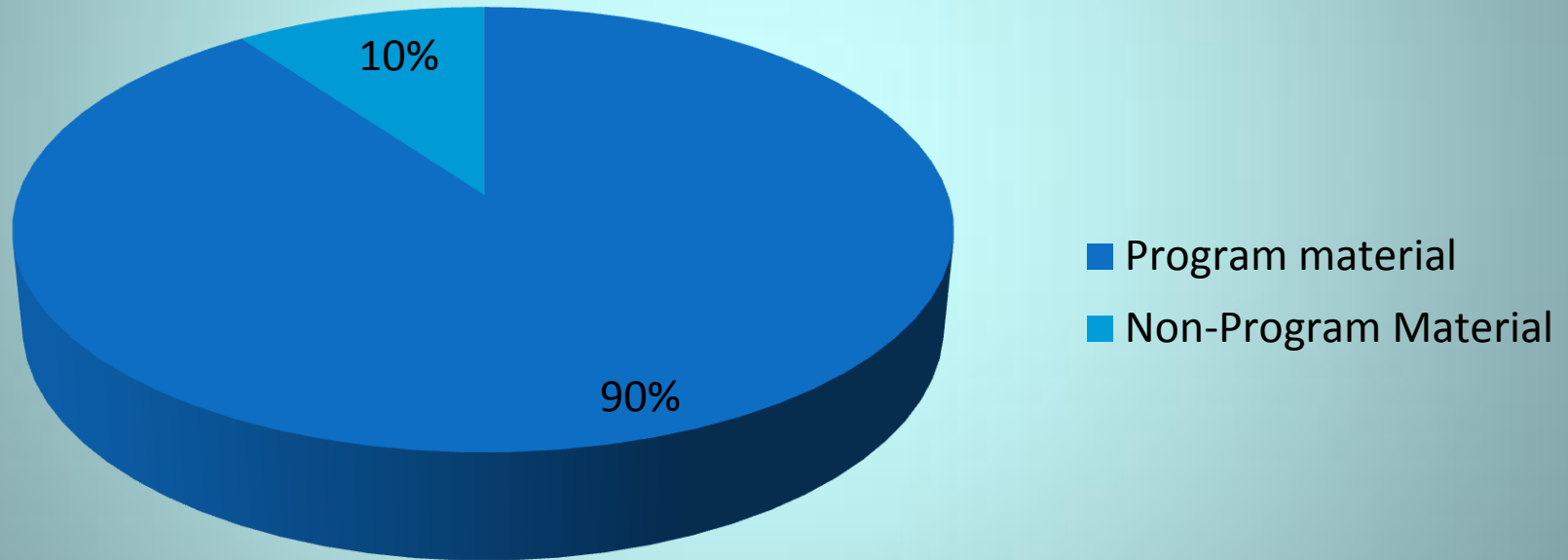
Quality



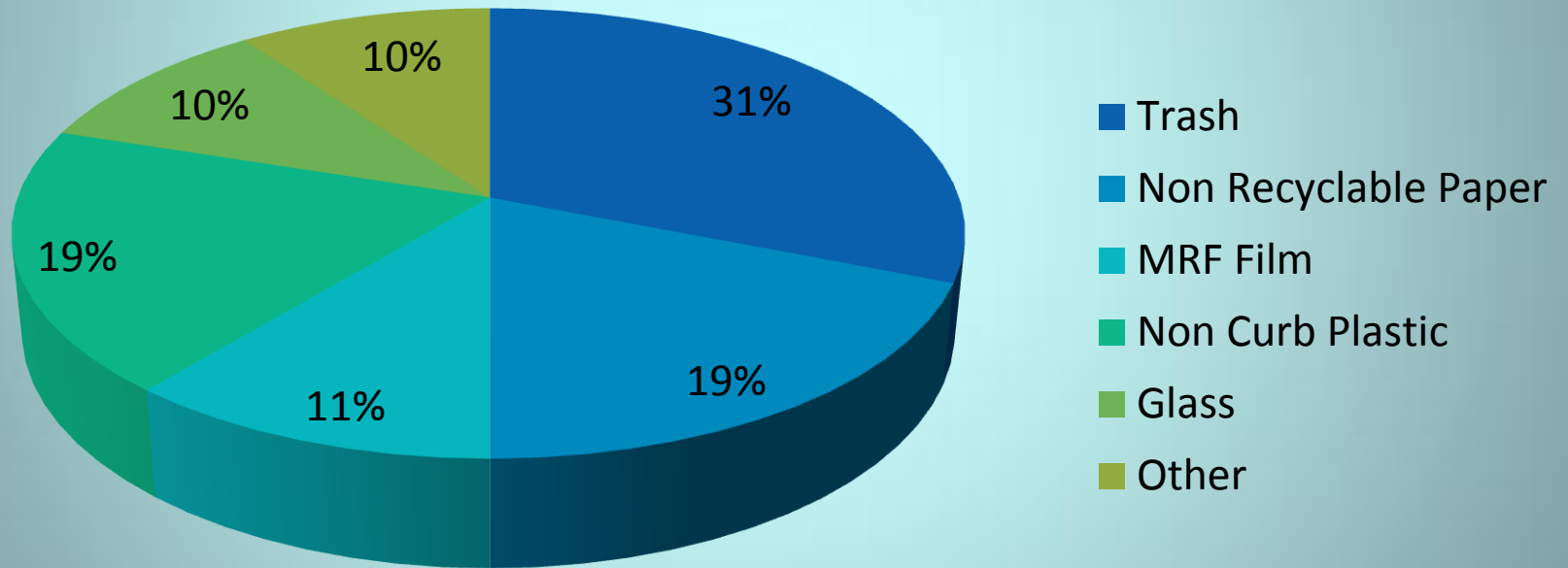
Current Commingled Recycling Quality

Based on studies by DEQ in 2010

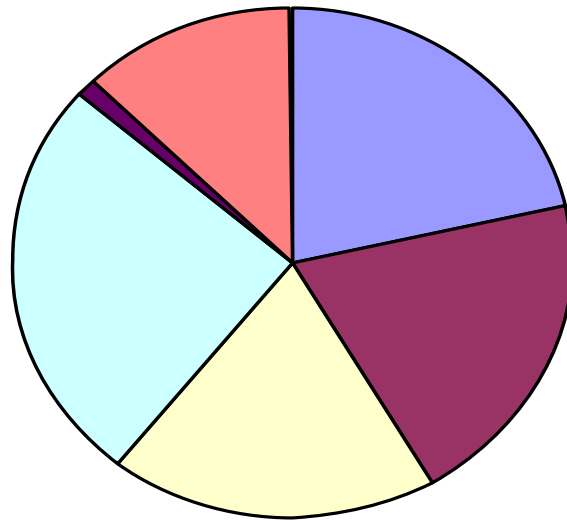
Quality



Non Program material

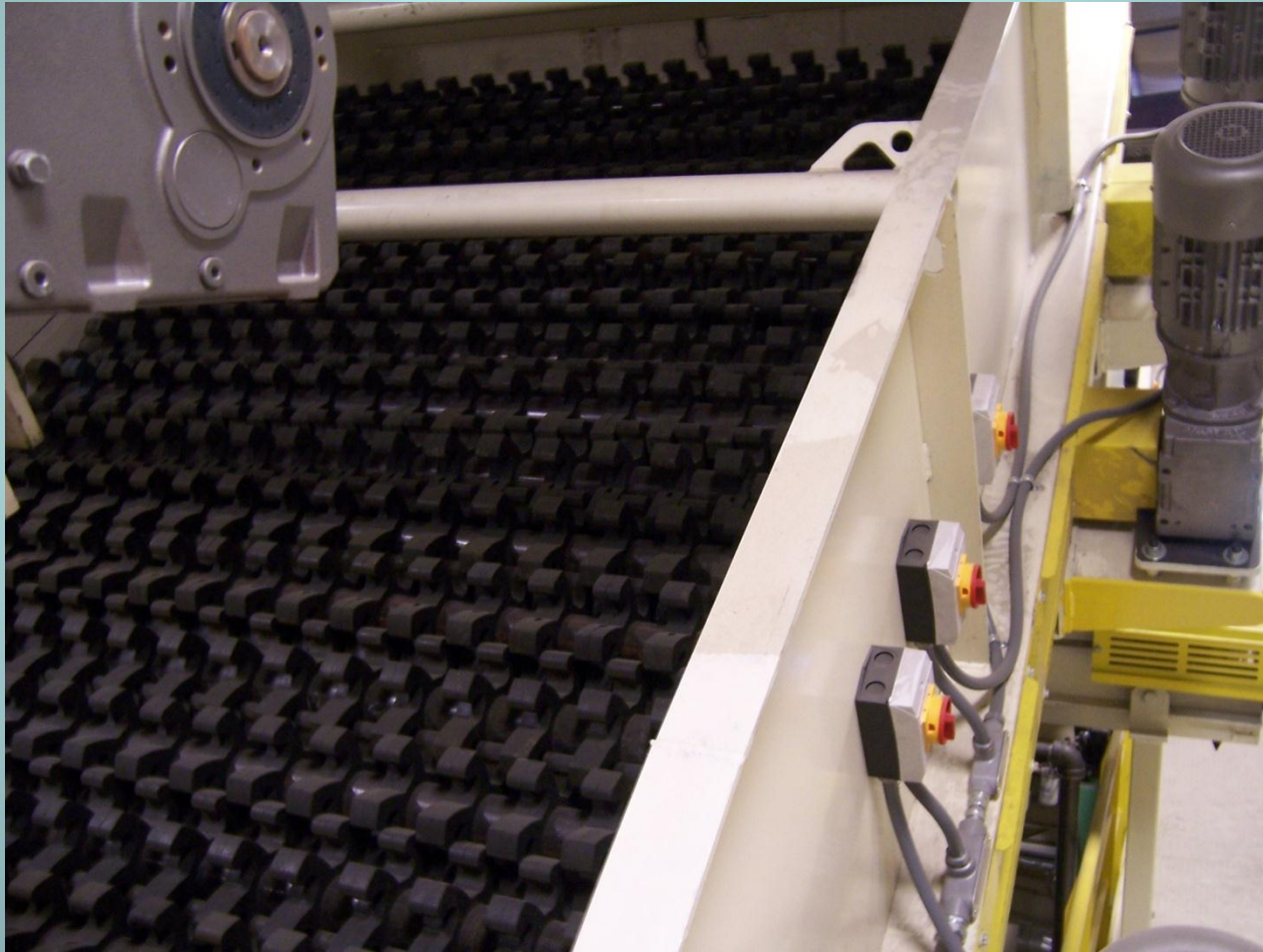


MRF FILM



- Other
- Commercial Film
- Residential Film
- Retail Bags
- Bread Bags
- Colored Bags

Before the shift.....



Half way through the shift.....



- Each MRF in the Region is hand pulling over 50 tons or 100,000 pounds of MRF film per month from the incoming curbside material.
- In addition, we cut off approximately 400 lbs of retail and grocery bags that are wrapped around the screens every day or 10,000 lbs per month!
- It is estimated that MRF's spend 20-30% of their sort line labor costs dealing with MRF film, which accounts for 1% of our inbound flow..

What are the other Non Program items?

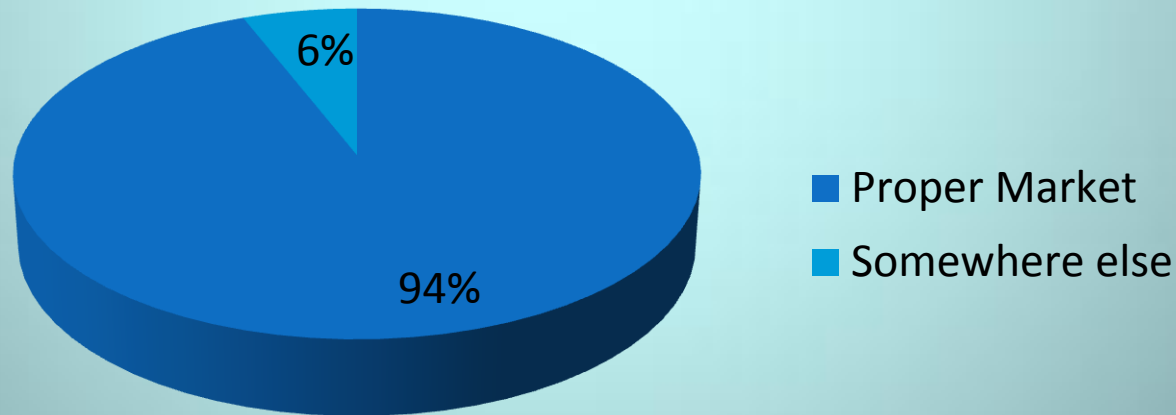
- Everything including the kitchen sink!



- There are too many categories to list
- Here are the major ones:
 - Trash
 - Auto parts
 - Random plastic items
 - Small pieces of paper
 - Textiles
 - Batteries
 - Glass
 - Medical and hazardous waste
 - etc.

How do the MRF's perform?

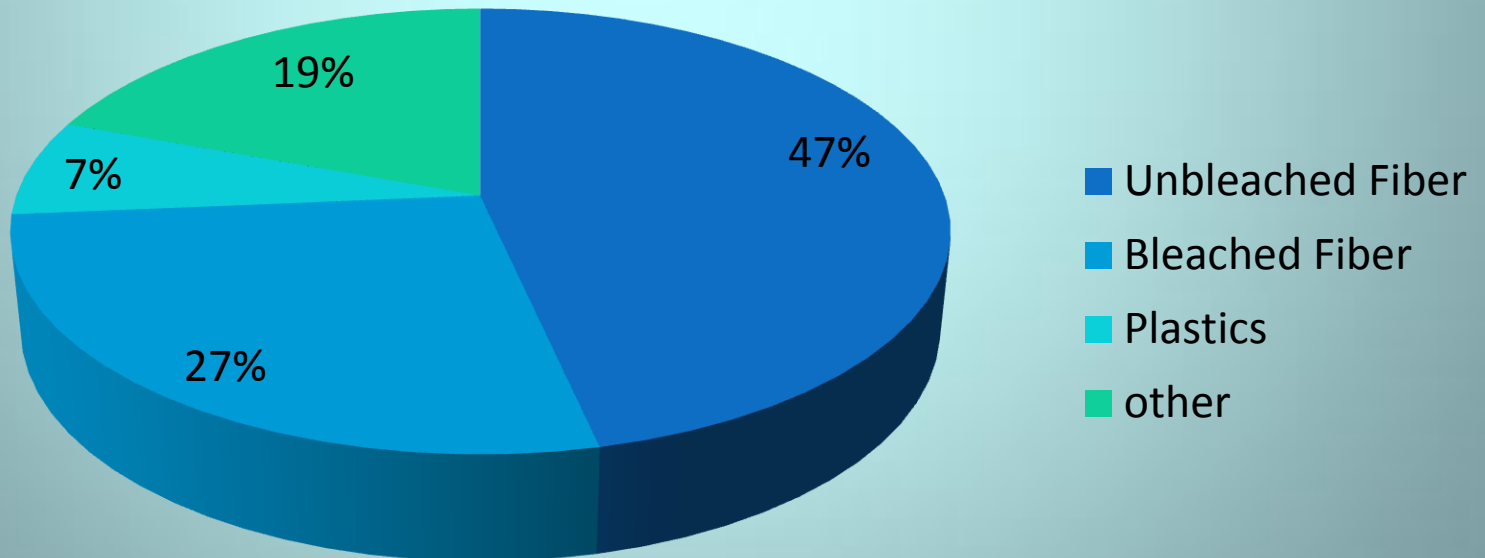
- Based upon the outbound sampling of the MRF's by DEQ the MRF's are recovering and sending **94%** of the material to a proper market.



Where can the MRF's Improve?

- The best opportunity for improvement in outbound quality is getting more small unbleached fiber out of the ONP stream.

ONP Contaminants



Resources

- Oregon Commingled Recycling Improvement Group
 - www.deq.state.or.us/lq/sw/commingled.htm
- Expanded SW Washington Regional Commingled Work Group
 - Beyond the Curb Report
 - www.ecy.wa.gov/pubs/1007009.pdf

Questions

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