CARE Update

CARE Annual Meeting
May 8, 2014
Seattle, WA
Mission

The mission of CARE is to facilitate market-based solutions for the reuse and recycle of post-consumer carpet and encourage design for recyclability.

*Created January 8, 2002 as a 501c3 organization*
CARE Annual Survey

2013 PRELIMINARY RESULTS
CARE 2013 Annual Report

DRAFT

50 responders
37 primary collector/sorters
Historical Landfill Diversion

Pounds (million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Pounds (million)</th>
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<tbody>
<tr>
<td>2003</td>
<td>94</td>
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<td>2004</td>
<td>106</td>
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<tr>
<td>2005</td>
<td>225</td>
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<td>2011</td>
<td>333</td>
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<tr>
<td>2012</td>
<td>351</td>
</tr>
<tr>
<td>2013</td>
<td>438</td>
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</tbody>
</table>

Preliminary +25%
Why a Preliminary Report?

- Trying to do a true mass balance
- Some SWAGs
- Some report PCC pounds, some fiber pounds
- Not all data filled in
- Some materials pulled from inventory
- Incorporating international pounds for first time
- Working to understand our data
- Will relook at 2012 data as well

*Will solicit feedback for clarity and appoint a committee to work the issue.*
Material Balance Effort
Based on gross collections balance

Gross Collections
438M lbs.

Shipped Int’l
86M lbs.

Landfill
237M lbs.

Recycled*
115M lbs.

* 438-237-86 = 115 left as recycled in US
Material Balance Effort
Based on actual lbs. reported

Reporting Boundary

Gross Collections
438M lbs.

Landfill
237M lbs.

Shipped Int’l
86M lbs.

Recycled*
218M lbs.

* 438-237-86 - 218 = 103M lbs. too much
Destination of Processed PCC

- U.S.: 82.8%
- Asia: 12.9%
- Europe: 3.5%
- Other: 0.9%
- Unknown: 9%

Preliminary
Outlets for PCC

- Landfilled: 48%
- Recycle: 35%
- WtE: 10%
- CAAF/Kiln: 4%
- Reuse: 2%

Preliminary
End Product Markets

- Engineered Resins: 49.4% (-22%)
- Molded/Extruded Products: 0.9%
- Carpet Fibers: 28.0% (+86%)
- Carpet Backing: 16.6% (+38%)
- Other: 5.2%
Face Fiber Collected*

* This chart excludes 2013 pounds of PCC collected from 3 sources that do NOT collected PET or PP. Thus, this chart more accurately reflects the actual flow of PET PCC in the marketplace.
Recycled PCC Face Fiber
Historical Trends

* This chart excludes 2013 pounds of PCC collected from 3 sources that do NOT collected PET or PP. Thus, this chart more accurately reflects the actual flow of PET PCC in the marketplace.
Where Collections Originate

- Northeast: 14.5%
- Southeast: 26.1%
- Midwest: 23.4%
- Southwest (excluding CA): 11.5%
- Northwest (including AK and HI): 7.1%
- California: 17.3%

Preliminary

Arrows indicate change vs 2012
Jobs in PCC Recycling

<table>
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<tr>
<th>Year</th>
<th>Employees</th>
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<tr>
<td>2010</td>
<td>1,133</td>
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<td>1,462</td>
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<tr>
<td>2012</td>
<td>1,318</td>
</tr>
<tr>
<td>2013</td>
<td>1,120</td>
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Preliminary
Is CARE Meeting member Needs?

- YES: 76%
- NO: 24%

N = 46

Preliminary
Since CARE's inception in 2002, over 3 billion pounds of carpet has been diverted from our nation's landfills due to the hard work of its members.
CARE 2013

• CARE passed first ever audit – clean result
• Passed AB 2398 first audit – no material findings
• New Plan Version 3.2 approved by CalRecycle January 2014
• PET rises as biggest challenge
• Progress being made – but must accelerate
• Hired CA Program Manager: Brennen Jensen
• Thanks to Members and Board

www.carpetrecovery.org
Summary

• 438 million pounds diverted (+25%)
• 49% goes into engineered resins
• 28% (+86%) goes back into carpet face fiber
• Nylon decreasing: PET increasing (32%)
• 1,120 (-15%) people employed directly
• Launch of new website www.carpetrecovery.org
• 452 CARE members

3.1 billion pounds cumulative diversion
CA AB 2398 Update

Brenner Jensen
CA Program Manager
Making A Sustainable Difference

California Carpet Stewardship Program

Brennen Jensen
CA Program Manager
CA Carpet Stewardship Program
Carpet America Recovery Effort

CARE Annual Conference
May 8, 2014
Leveraging Trends in California

- Overview of Legislation
- Program Goals & Pathways
- Pillars of the Stewardship Plan
- Tools For Change
- Results to Date
- Looking Forward to the Future
The Legislation
What is AB 2398?

California AB 2398 is Carpet Stewardship legislation, signed by the governor of California, on September 30, 2010.

The purpose of the legislation is to increase the diversion and recycling of carpet in the state of California.

*Implemented July 1, 2011*
Program Goals
What are the Goals of AB 2398?

- *Increase Recyclability* of Carpets
- *Increase Reuse* of Post-Consumer Carpet
- *Increase Gross-Collection* of Post-Consumer Carpet from California Landfills
- *Increase Conversion* of Post-Consumer Carpet to Recycled Output
- *Increase Market Growth* of Secondary Products made w/ Post-Consumer Recycled Carpet Content
Diversion Goals & Pathways

- Increase Recycled Output
  - 2016 Goal = 16%
  - 2020 Aspirational Goal = 24%

- At current levels 16% RO, requires 32% GC (1/3)
- 24% 2020 goal would require 48% GC (½)
- Solution lies in: Increased RO (efficiency and fiber types), and Increased GC

RO = Recycled Output  GC = Gross Collection
Plan Pillars
Recyclability

- Technology Solutions:
  - Increased ease of materials separation into constituent parts
  - Increased opportunities for various fiber types

- Infrastructure Solutions:
  - Increased ease of recycling opportunities

- Manufacturer Annual Sustainability Reports
Reuse

- **Education Solutions:**
  - Educate Public about Reuse Options

- **Connection Solutions:**
  - Promote Connections for Reuse with Resource Centers, Habitat for Humanity, etc.
  - Broadloom Opportunities for Reuse
  - High Reuse Potential with Carpet Tiles
Gross Collection

- Technology Solutions:
  - Increase opportunities for streamlined collection
  - Increase efficiency of existing collection

- Infrastructure & Use Solutions:
  - Promote existing collection sites
  - Outreach to establish new collection sites
  - Work with stakeholders to increase participation
Recycled Output

Technology Solutions:
- Increase efficiency to generate for high value recycled output
- Increase solutions for non-nylon materials

Infrastructure Solutions:
- Increase gross collection
- Increase processing capacity
Market Growth

- Technology Solutions:
  - Increase Opportunities for Recycled Output Utilization in New Products
  - Increase Number & Availability of New Products

- Marketing Solutions:
  - Promote PCC Recycled Content Products
  - Promote Procurement Opportunities
Tools For Change
Incentives
CA Carpet Stewardship Incentives

- Effective July 2011
- 5 cents/sqyd sold (broadloom and tile)
- Incentives:
  - 6 cents/lb for high value output
  - 3 cents/lb for low value output
  - 10 cents/lb over target level for high value only
  - 12 cents/lb for 2nd tier processor of non-nylon
  - University grant (non-nylon)
  - CA Program Manager in State
Education
Getting the Word Out – Efforts To Date

- Website Resources—Stakeholder specific materials
- Retailer Education—Brochures, signage, window clings, kits, letters, webinars and industry presentations
- Manufacturer Outreach—Trade news, earned media, letters, sales training, engagement, compliance, incentives
- Consumer Education—Earned media, Earth911
- Rural County Engagement
- Outreach Presentations, Conferences & Events
Results To Date
Sales of Carpet in CA (yards\(^2\))
Discards of CA Carpet in Pounds
AB 2398 Performance Trends (pounds)
Looking Forward To the Future
Challenges & Opportunities

- Program is newly underway, first years of ops
- Complex material composition difficult to recycle
- Multiple fiber types increase complexity
- Limited supply and demand of recycling products
- General flat and downward trends in recycled output
- New collectors/processors in development
- Rural county program increasing
- Incentives are helping to encourage new technologies to further increase recycled output
State Resources Available

Calrecycle website has additional links to useful information:
http://www.calrecycle.ca.gov/Carpet
Local Government Coordination

*Some Data may be out of date, call ahead to confirm current acceptance

<table>
<thead>
<tr>
<th>City</th>
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Expansion to 10 Counties

- Four New Rural Counties
  - Butte
  - Trinity
  - Tuolumne
  - Santa Cruz

Join Existing:
- Calaveras,
- Del Norte,
- Humboldt,
- Plumas,
- Siskiyou &
- Tehama

County news: Carpet Recycling comes to Butte County

Carpet recycling is now a reality in Butte County. Recology Butte-Colusa Counties now accepts most carpet for recycling at their facility at 2270 S. 5th Avenue in Oroville. For carpet to be accepted for the program, it must be dry, no longer than 6 feet in length and rolled. The cost to recycle carpet will be $35 per ton, significantly less than it would cost to dispose at a landfill. For regular carpet installers and large institutions replacing their carpet, this will amount to a big savings as well as reducing the waste to the landfill.

Looking Forward – The Landfill of the future, will they even exist?

Landfills and the way they operate are changing rapidly. It was only a few decades ago when the common practice was to pile up the days trash as set it ablaze. Fortunately for us all, this method of managing our
Rural County Program

Calaveras County Leading the Way
Building On a Strong Foundation

- Expanding Marketing, Education & Outreach
- Increase Reach, Impact & Effectiveness
- Making the Most of Every Dollar Invested
- Leveraging Resources Already in Place
  - Strong Stakeholder & Community Partners
  - Local Governments
  - NGOs, Community Groups
  - Haulers, Recyclers, Collectors, Processors
  - Trade Organizations, Business Associations
Join CARE in making a sustainable difference

www.carpetrecovery.org
bjensen@carpetrecovery.org
831-917-3720
Thank you

• Anthony, Brennen, Susan, Jean, Heather, Caitlin
• Our Board
• Our whole CSE community
• Our stakeholders

Success is perseverance for one more minute!