Carpet Recycling Presentation for:
NEWMOA
April 11th, 2013

Sean Ragiel – President
CarpetCycle, LLC

Carpet Cycle, L.L.C.
Founded in 1999 - Dover, NJ
2001, Moved to Elizabeth, ~18,000 SF facility for 11+ years
CarpetCycle Canada (Toronto) opened August 2011
Moved to 50,000+SF Newark facility March 1st 2012
Provide PCC and ACT recycling services –
collection/sortation/baling
Provide interior demolition service which earns LEED credits
for your project
We employ 50 full time employees
Have diverted over 200MM lbs since inception
Over 15 million pounds PCC reclaimed in 2012
Target goal is 30 MM pounds PCC reclaim in 2013
WE NEED MORE RESIDENTIAL CARPET:
Current Municipal Procedure for old carpet collections:
Trash trucks pick-up at curbside
Carpets and underlayment comingled with other wastes
Carpets susceptible to foul weather
Wet carpets are difficult to handle and hard to recycle
Currently collection rates <20% in NJ...
Even less recovery in New England states

Where carpet types do we encounter in the US?

1) Residential Broadloom:
   ~60% Nylon Face Fiber Content
   ~15% Polypropylene
   ~20%+ PET
   ~5% Other types; Acrylics, PTT, Wool

2) Commercial Broadloom
   ~95%+ Nylon Face Fiber Content
   ~5% PP and other

3) Carpet Tiles (Backing type important)
   ~75% PVC Backed, close loop recycled
   ~25% Other, Urethane Cushion, bitumen etc
   --Typically some donation but mostly WTE disposition
Our target is always changing.....

Nylon % Declining

Our target is always changing.....

PET % CONSISTENTLY INCREASING
Where does the carpet go???

- Donation for Re-Use
- Carpet Tile to Carpet Tile
- Carpet Yarn to Recycled Content Yarn
- Engineered Resins
  - Injected Molded Parts
  - Auto-Industry
- Plastic Lumber: Mostly PP residue
- Energy from Waste “EFW”
- Displaces coal to fuel cement production

Cost to Recycle

Recycling Service is “Cost Neutral” with respect to traditional demolition and landfill

- Labor and trucking equal
- Added handling cost offset by landfill savings
- Synergy with carpet and ceiling removal
- VCT and gyp board recycling in development
From This

To This
To This

California AB 2398

- First state to legislate carpet recycling program
- CA is at a 35%+ landfill recovery rate
- CA population: 37,691,912 (July 2011)
- Annual CA recovery over 5 quarters = 113.3M lb
- Diverting 3.4 lb/capita/year
- We have picked the low hanging fruit
- Cost to increase diversion is escalating
- Based on an EPR model
- Prior to AB 2398 Recovery was est’d 19%
CA Recovery vs NJ

Comparative Recycle Rates

Source: U.S. EPA 2010
NJ Situation
• Currently estimate diversion is 20M lb/year
• Estimated landfill flow is 105M lb/year
• Collecting ~19% of all PCC
• 3.4lb/capita/year* = 30M lb w no EPR
• Could process 2-3x but not available
• Need something new to increase flow

* Using CA estimate actual recovery

Can we use a different model for NJ to get to 35% like CA

Waste Carpet Flow Shift: Eliminate Public Landfilling of Recyclable Carpet, Implement Comprehensive Private Collection
• CARE promotes carpet recycling to cities & towns directly citing the “win-win” of saving money on municipal waste budget, while diverting recyclable carpet from landfills. Encourage a change in Standard Operating Procedures so that carpet no longer ends up in the mixed waste stream via curbside collection.
• Educate and encourage towns to add carpet recycling to other recycling programs.
• Facilitate further cooperation between CARE collectors and town/city/municipal governments.
• Take proactive approach to carpet diversion, on CARE’s terms: engage small governments rather than waiting for the legislative rule changes (EPR) to come into play.
• Helps eliminate the unsafe practice of ‘scavenging, & poaching’ of nylon carpets from the waste stream while increasing the quality and quantity of the feedstock carpet recyclers receive.

A BETTER ALTERNATIVE!
FUTURE CARPETCYCLE EMPLOYEE??

THANKS FOR LISTENING
sean@carpetcycle.com
973-732-4858
www.carpetcycle.com