

Public Purchasing of Product made with Recovered Fiber

October 16, 2009

12:30-2:30



Agenda

- 12:00-12:45 – Introductions
- 12:45-12:55 – CARE & Carpet Diversion Overview
- Product Presentations
 - Bob Reiss, Reliance Carpet Cushion
 - Tim Stillwell, GeoHay
 - Norn Kaswell, Kaswell FiverBlock
 - Adam Genei, I-Rock Composite
 - Frank Endrenyi, Carpet to Plastic
 - Jeremy Stroop, Other Products Available
- 1:55-2:30 – Questions & Comments

CARE

Carpet America Recovery Effort

Oct 16, 2009

Jeremy Stroop
Operations Manager





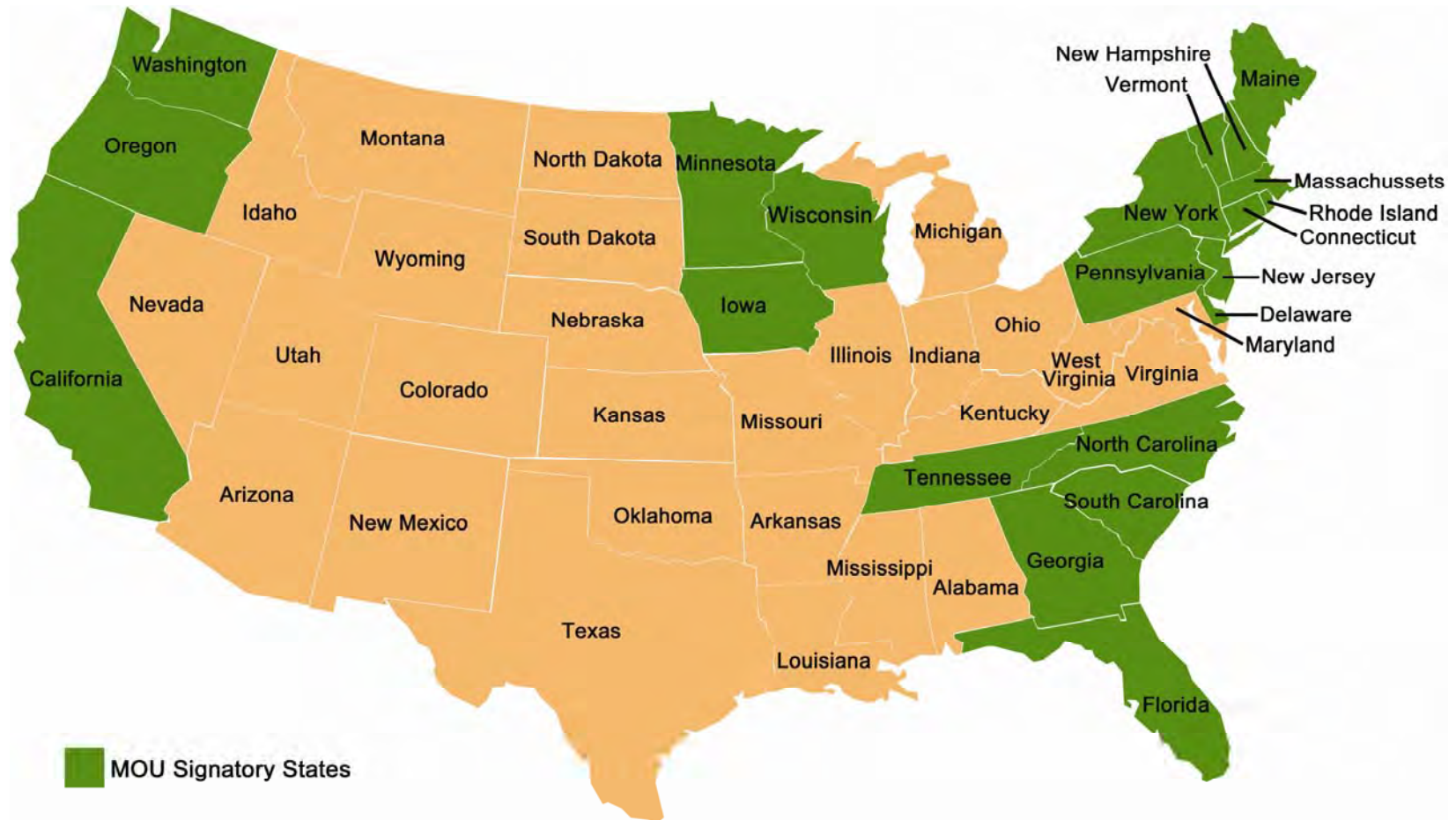
National Agreement on Recycling

An historic agreement between industry & government!



Signed January 8th 2002 in Atlanta
Signatories – carpet industry, state
governments, EPA, and NGO's





CARE MOU



- **Industry led voluntary *partnership***
- **Funded by industry**
- **Targets - Rates & Dates**
- **Visibility & Expectations**

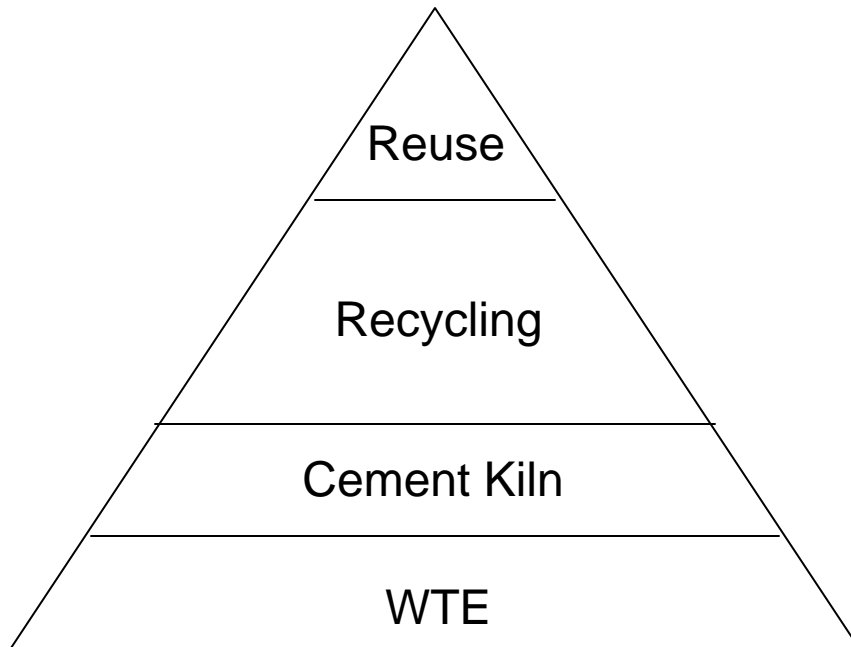
*Facilitate market based solutions for landfill
diversion of post consumer carpet*



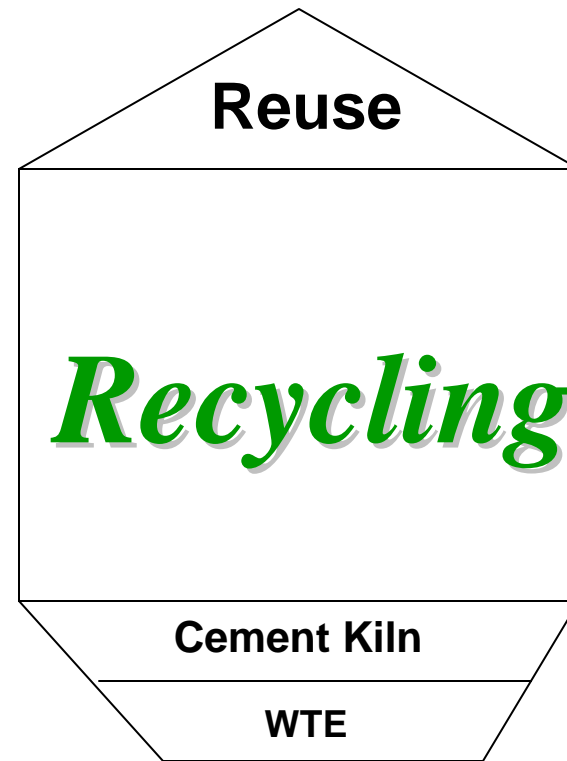
The Challenge

- 5 billion pounds & growing
- 13 trillion BTU's
- Power 106K homes a year
- 108 million gallons of gas
- Enough to drive 2.7B miles

Value Pyramid



Traditional View



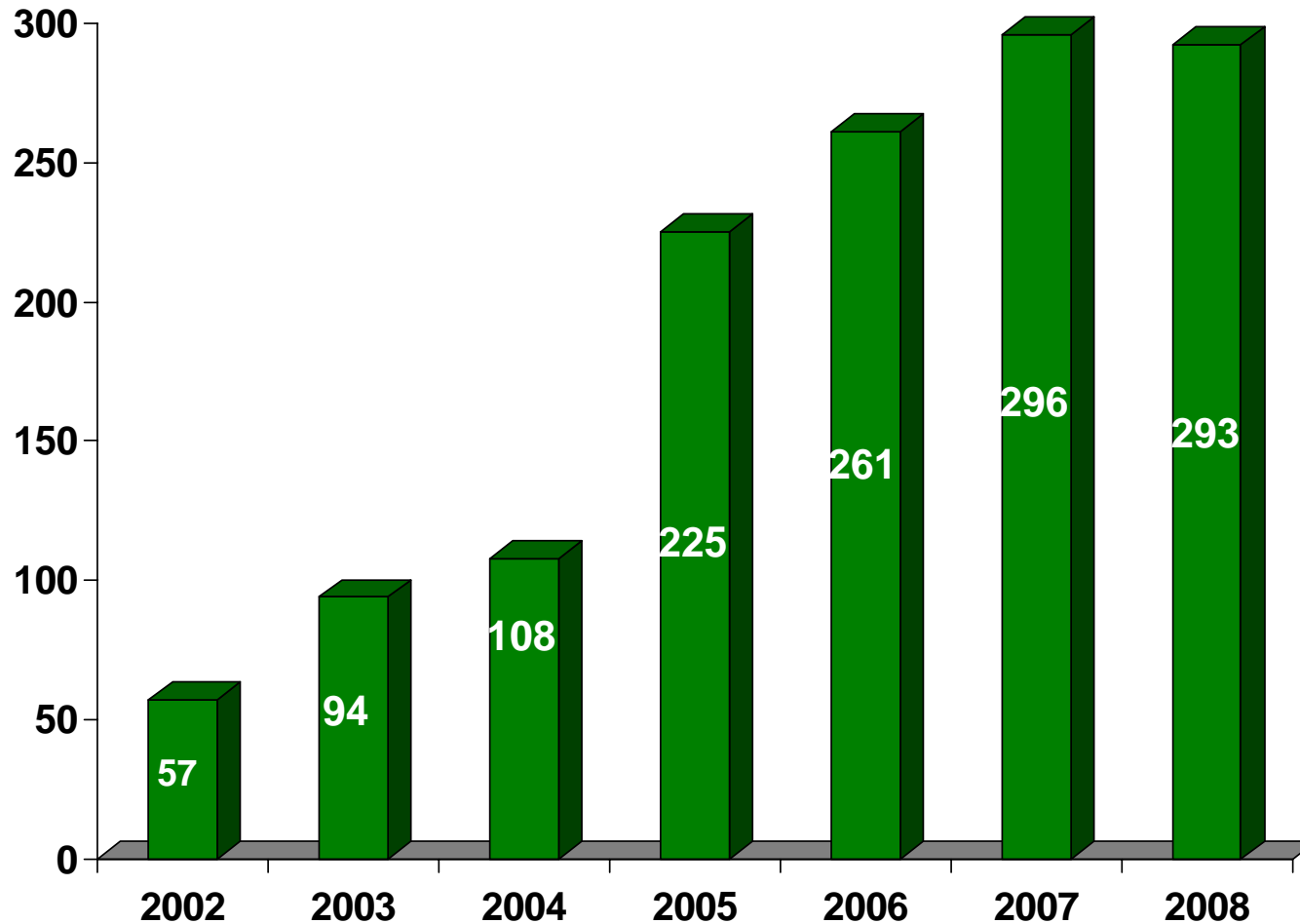
CARE's Focus of Pyramid



Where are we today?



CARE Diversion Progress



Over 1.3B pounds of Post Consumer Carpet Diverted



***CARE** Creates Jobs*

Economic Impact of Recycling
1100 Direct Jobs and 2200 Indirect Jobs
reported in our Survey



Positive Environmental Impacts of CARE

- Environmental

- Eliminated 238,000 tons of GHG Emissions
- = to 2 MM barrels of oil NOT Burned
- = 728,000 Pine trees grown for 10 Yr



A photograph of a sunset or sunrise. A large, bright orange sun is centered in the lower half of the frame. The sky is a deep orange-red. In the foreground, there are dark, silhouetted branches. One branch runs diagonally from the top left towards the center. Another branch runs horizontally across the middle, with several small, clear water droplets hanging from it. A third branch is visible in the bottom left corner. The word "QUESTIONS?" is written in a bold, orange, sans-serif font, slightly arched, in the upper right quadrant of the image.

QUESTIONS?



“Recycled, Green, Environmental Erosion Control Products”



Product Life Cycle and Sustainability



Background

- **GeoHay was first introduced in 1999**
- **Manufacturing began at Mary Ann Industries in Villa Rica, Georgia**
- **Operations later moved to Crestview, Florida**
- **Manufacturing and Sales from Crestview were limited but successful**
- **Owner became very ill and had to sell.**
- **We purchased the assets in 2007**
- **Relocated Manufacturing to Spartanburg, SC**
- **Began aggressive expansion of State DOT Approvals**
- **Very aggressive Performance-Based Testing**
- **Enhanced Quality Control**

GeoHay Products Are:

- **Made from 100% recycled carpet fibers**
- **Made with pre-cut stake holes for easy installation**
- **Reusable and Recyclable**
- **Environmentally friendly**
- **Non-biodegradable, strong, and durable**
- **Patented**

Products

- **Bales, Filters, Wattles and Mats used for boundary control during construction.**
- **Storm water sewer protection.**
- **Gutter guards**
- **Subsurface water movement and control.**
- **Hydrocarbon spill absorption and spill control.**

GeoBales

- Produced in the standard size of 45" or 90" length and 15" in diameter.
- Special lengths up to 20 ft are available via special order.
- The product of choice for Department of Transportation projects or where the drainage area could produce a high volume during intense rain





Left front view
First Row



GeoWattles/GeoDitch

- Produced in 9" diameter rolls with lengths of 3-16 feet
- Can be made with bendable steel to shape to your contour needs
- Can also be used as Water Velocity Inhibitors, in either ditches or contour surfaces



9 Inch Inlet Filter

Easy Installation and Removal
Reusable, Leaves Area Clean



GeoFilters



- Produced in various lengths specified by the customer
- Permits double filtering of sediment and other debris, while still allowing the water to pass
- May be placed over a storm drain or grate to prevent debris from entering the storm water system



GeoDrain

- Contains a flexible or rigid perforated pipe to aid in field lines and sewage



Flow Rates Comparisons

GeoHay:

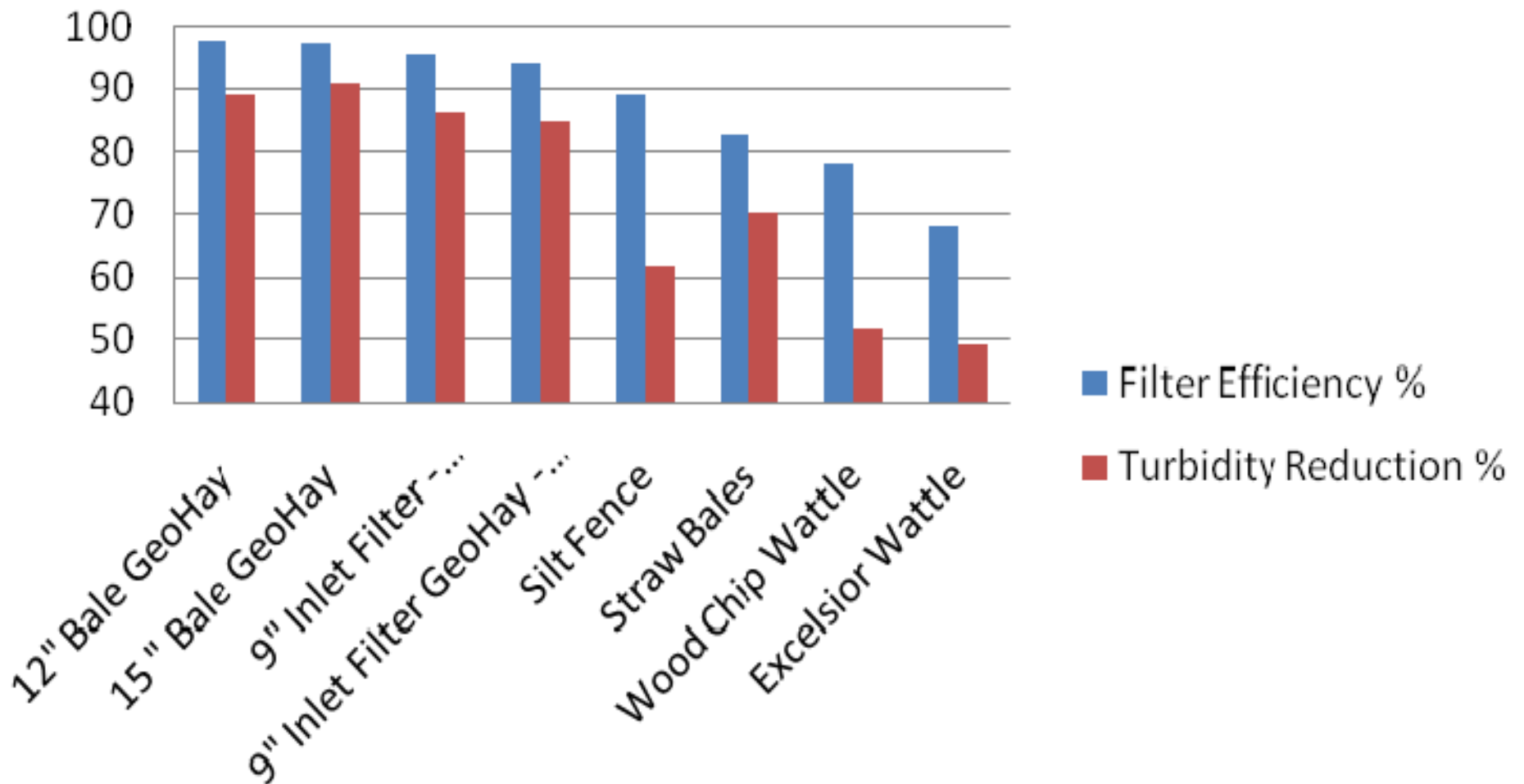
18 in. Bale	25.000 (gpm/ft ²)
15 in. Bale	30.000 (gpm/ft ²)
12 in. Bale	26.300 (gpm/ft ²)
9 in. Inlet Filter	29.500 (gpm/ft ²)
9 in. (High Density)	26.100 (gpm/ft ²)

Competitors Products:

Terra Tube	5.428 (gpm/ft ²)
Excelsior Wattle	15.437 (gpm/ft ²)
Straw Bales	10.505 (gpm/ft ²)
Nonwoven Fabric Silt Fence	0.974 (gpm/ft ²)
Wood Chip Wattle	12.252 (gpm/ft ²)

Filtration & Turbidity Removal Comparisons

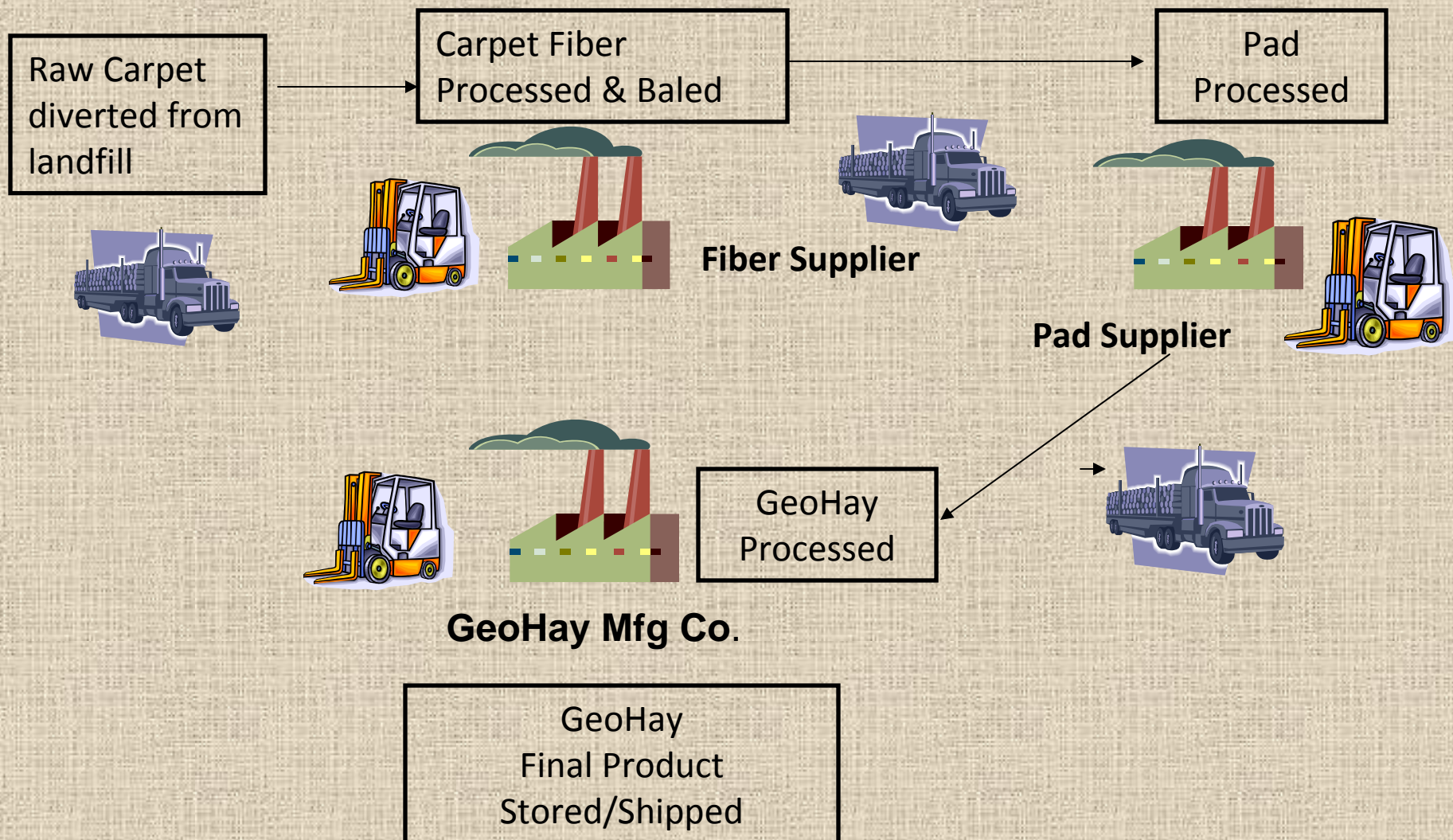
GeoHay vs Other Products



- - Approved
- - Pending



Current Operations

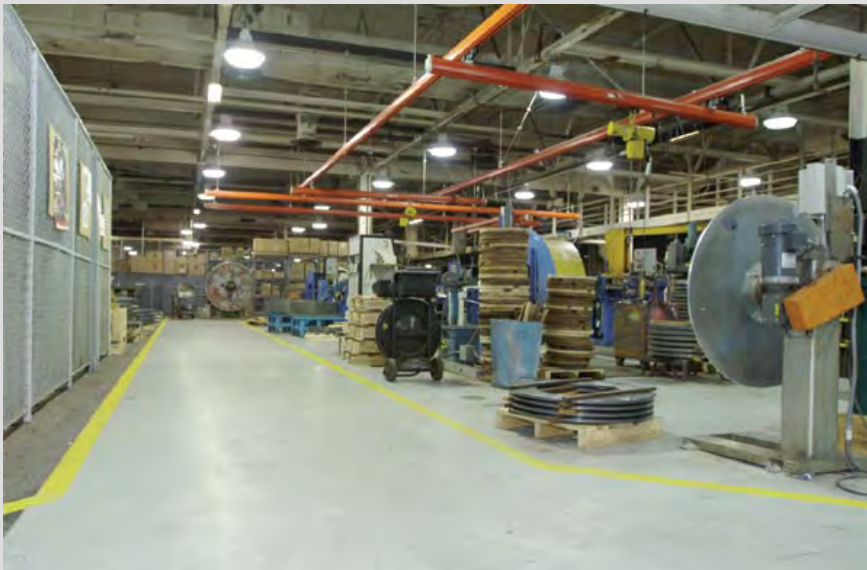


GeoHay

- www.geohay.com
- Tim Stillwell
- 770-719-2583
- tim@geohay.com

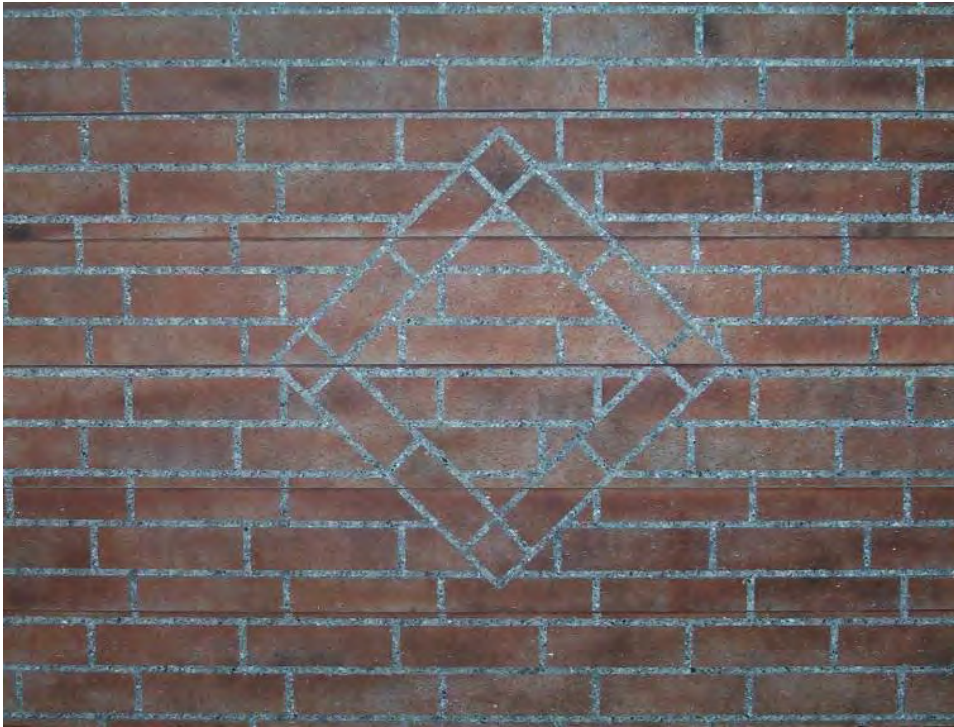


Norm Kaswell
Kaswell FiberBlock



I-Rock Com

Adam Genei



CARE

Carpet America Recovery Effort

Procurement Meeting
Oct 16, 2009

Jeremy Stroop
Operations Manager



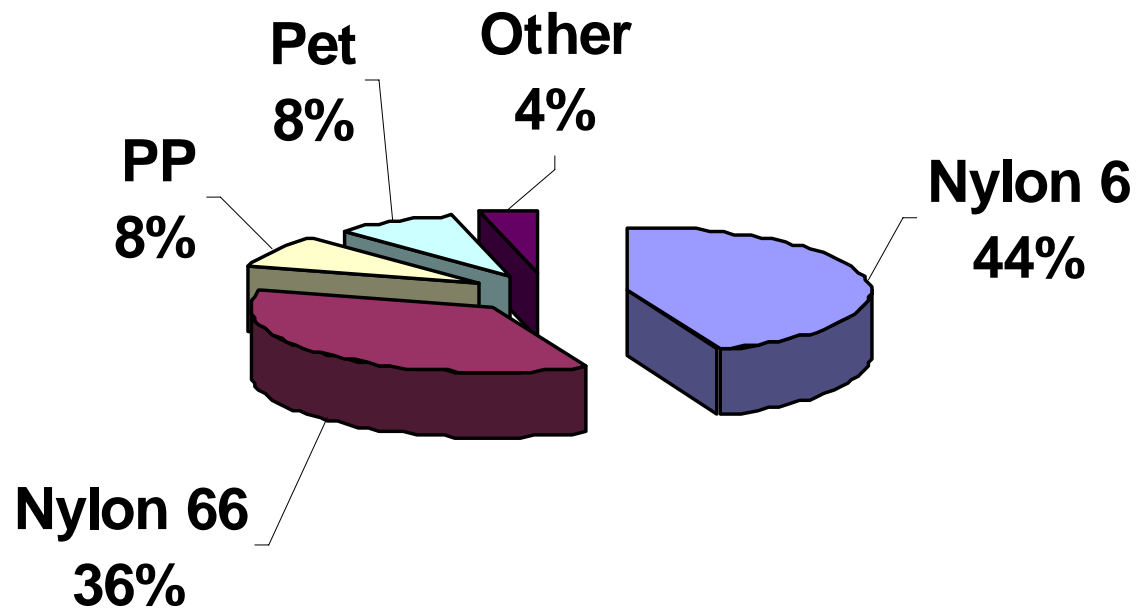
What can we do with this Stuff?



5 Billion Pounds per year



2008 Recycling by Fiber Type



Carpet Industry Efforts

- Sustainable Carpet Assessment Standard
- EcoWorx & EcoSolution Q – Shaw
- Evergreen Nylon Recycling – Shaw
- InterfaceFLOR ReEntry
- Interface + Universal N66 recycled content
- Mohawk GreenWorks
- Earth Squares – Milliken
- Landfill Gas – Milliken & Interface
- More....



Evergreen Nylon Recycling Closed Loop Recycling

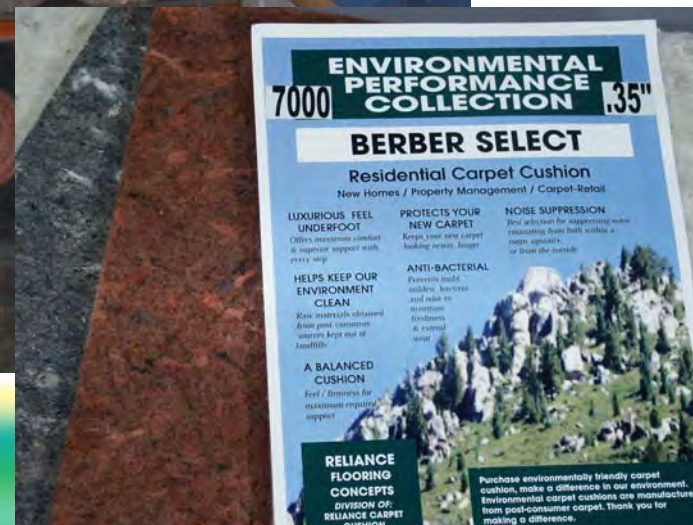




8M lb/mo PCC



CARE
Recycle of the YEAR
2002





GeoHay™



Gutter Buddies®



Synthetic Hay Bales & Filters



Automotive
Parts



CARE
Recycle of the YEAR
2004



INFILTRATOR
SYSTEMS INC



CARE
Recycle of the YEAR
2005

Consumes 85 lbs of PP per unit!



A 12.5 foot length of Infiltrator chamber trench has more effective area than a 25 foot Length of stone & pipe trench.



Composite Railroad Ties



- Wood ties deteriorate
- Plate cuts into tie
- 810 mature oak trees used per mile of track
- 3.3 million trees harvested per year for U.S. ties

Creosote

- 29,000 lb/mile
- >100M lb added to the environment each year by RR crossties
- A known carcinogen



I-Rock Composites



KeLa Engineered Fuel

A coal derived fuel made up of coal fines, recycled binding materials, and renewable biomass.



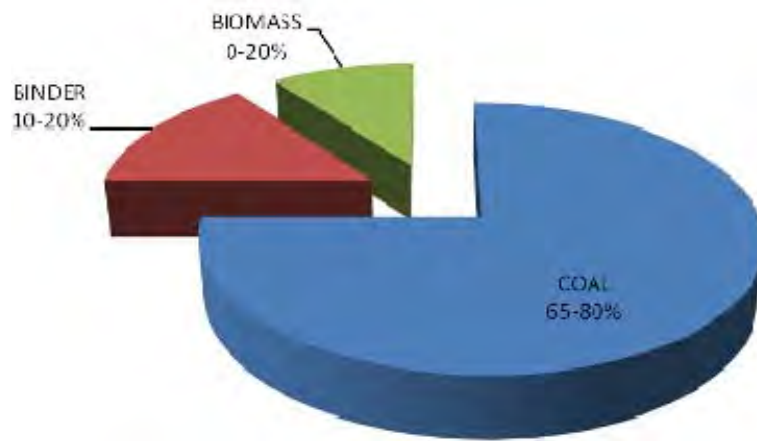
Coal



KeLa Engineered Fuel

KeLa Engineered Fuel

Utilizes a readily available stream of recovered, recycled, and renewable waste materials*



- Recovered Coal Fines
- Recycled Carpet
- Recycled Plastic
- Renewable Biomass

*Up to 35% Renewable/Recycled Content





Modular Carpet Recycling, LLC (MCR)

An introduction to a **green, recycling, renewable**
resources business

Renewlon™ - recycled nylon

Renewlene™ - recycled pp from backing/carpet

Renewtex™ - recycled backing

MCR Process

Waste Carpet to Pellet (WTP)



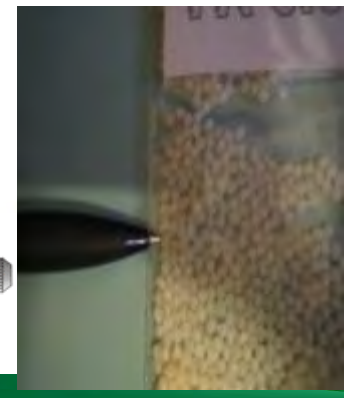
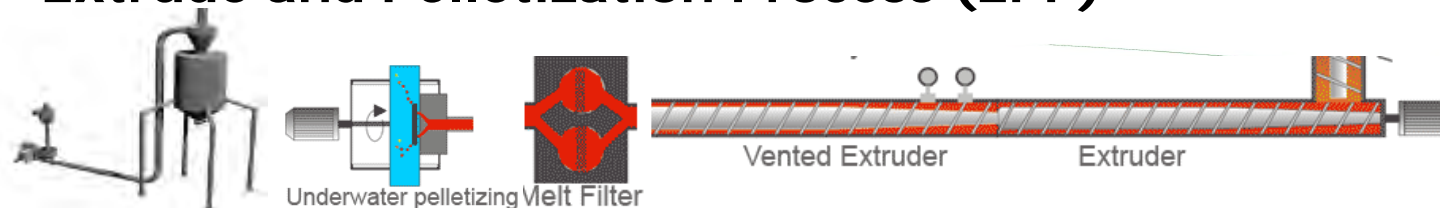
- Mechanical Purification Process (MPP)

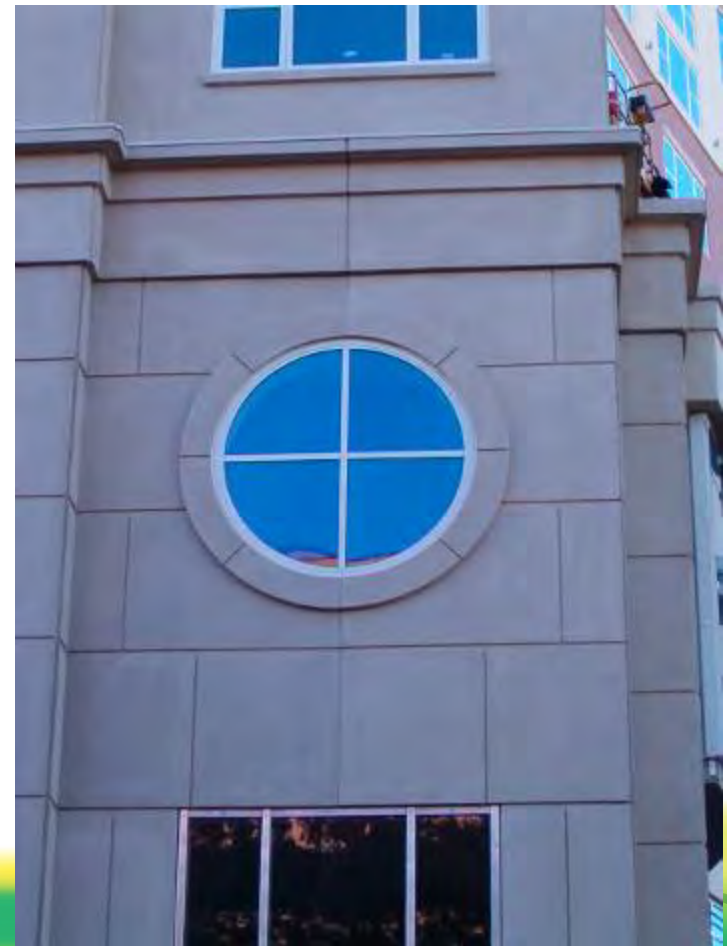


- Fine Chemical Purification Process (FCPP) – Patented technology



- Extrude and Pelletization Process (EPP)





Precast Concrete, Asphalt, and Plastic



Industrial Flooring



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