Presentation covers

• What is EPR
• Background on state law (AB 2398)
• Implementation: goals, progress, and trends
• Standards: NSF-140, CalGreen Building Code
• Procurement
• Market Development
• State Grants
• Sample state policy (reference only)
• Contacts (reference only)
What is EPR?

Manufacturers

State gov
Recycling Supports New Products Made with Carpet-Derived Materials

- Carpet and Carpet Cushion
- Automotive Parts
- Boards, Piers, Signs, Decking
- Filters, Booms, Absorbents
- Reinforced Concrete and Asphalt
- Floor Blocks, Wall Tiles

Source: Seattle Public Utilities based on information at: www.carpetrecovery.org/ideas.php
Carpet Recycling (AB 2398)

Signed into law in 2010: three key documents govern program:

- **Statute** addresses goals, financing, enforcement
- **Regulations** add clarity to Statute
- **Plan**
  - Developed by CARE, the stewardship organization
  - CARE designs and implements program described in plan
  - Submitted plan to CalRecycle, conditionally approved Jan 2012.
  - Plan version 3.0 approved January 21, 2014 (next Plan update 2016)
- Documents at: [www.calrecycle.ca.gov/carpet](http://www.calrecycle.ca.gov/carpet) (approved plan not yet posted, click here: [Public Notice Docs](http://www.calrecycle.ca.gov/carpet))
Carpet Recycling (AB 2398)

Goals:

• **Statute**: continuous meaningful improvement of diversion from landfills and recycled output

• **Plan 3.0** (Dec 2013, approved Jan 21, 2014)  
  16% recycled output in 2016  
  24% recycled output in 2020, assuming certain conditions
AB 2398 Performance Trends (pounds)

Source: CARE Q3 2013 update
Flow of Funds

Carpet Manufacturer Adds Assessment to Retailer Invoice

$0.05/yd²

Retailer Bills Customer

$0.05/yd²

Customer

Carpet Manufacturer pays Carpet Stewardship Organization (CARE)

CARE funds activities in State approved Plan

- Incentives: recycled output + growth, non-nylon
- Research grant: market development
- Education and outreach
- State oversight & enforcement
- Rural pilots and expansion
- Program manager in CA
- Reuse, recycling and diversion in California, etc.

Source: adapted from CARE presentation 2012
NYLON % IN COLLECTION STREAM

CARE conference 2013
## Performance Indicators

<table>
<thead>
<tr>
<th></th>
<th>(Q3+Q4)</th>
<th>(Q1+Q2)</th>
<th>(Q3+Q4)</th>
<th>(Q1+Q2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2012</td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Recycled Output</td>
<td>6.6%</td>
<td>9.0%</td>
<td>11.3%</td>
<td>12.8%</td>
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<tr>
<td>Payments to processors (Millions)</td>
<td>$.7</td>
<td>$.8</td>
<td>$1.2</td>
<td>$1.8</td>
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<tr>
<td>Unused funds (estimate in millions of dollars)*</td>
<td>$1.4</td>
<td>$3.10</td>
<td>$3.3</td>
<td>$4</td>
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</tbody>
</table>

*Plan v3.0 (Dec 2013) addresses unused funds.

New activities include: CA Program Manager, education, university grant, incentive for non-nylon carpet-derived products, bonus incentive
NSF – 140 Carpet Standard

• Awards points for mandatory and voluntary measures that are used to evaluate six key attributes of carpets:
  – Public Health and Environment
  – Energy and Energy Efficiency
  – Bio-based and Recycled Content
  – Manufacturing
  – Reclamation and End of Life Management.
  – Innovation

• Includes three levels of attainment, silver, gold, and platinum

• Used for commercial carpet

NSF-140 discussion topics (6/2013)

- **Scope**: Include Standards for Both Commercial and Residential Carpet
- **Reclamation**: Revise Formula to account for mnfrs total production of carpet
- **Recyclability**: Require Carpet to be 100% Readily-Recyclable for Platinum Level Standard
- **LCA points**: Avoid double counting points
- **Energy efficiency**: Credit Manufacturers for Reducing Energy Consumption and Greenhouse Gases
- **Bio-based & post-consumer content**: Lower the Weighting Factor of the Bio-based Content; reconsider impacts of coal fly ash (contains silica) in post-consumer content
- **IAQ**: Adopt the California Department of Public Health Standard Method for Indoor Air Quality
  - Include a Reference Exposure Level for caprolactam
California Green Building Standards Code (CALGreen)

- Adopted 2010 CALGreen –
  - Reduce environmental impacts and cost
  - New construction (residential, non-residential)
  - Section 4.504.3 Carpet systems
    - Testing and product requirements (several options)
    - Carpet cushion – CRI green label program
    - Carpet adhesive

Source: www.calrecycle.ca.gov/Carpet/Buyers.htm#Finding_Carpet
New Grant Opportunities

• Cap-and-trade workshop, CalRecycle, Feb. 6
  – Information on Fiber, Resin, and Glass Grant Program
    • infrastructure for manufacturing products with recycled content fiber, resin or glass
    • discuss proposals and criteria
  – Public Notice (agenda, handouts, etc):
    • [www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1138&aiid=1039](http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1138&aiid=1039)
Carpet Materials Management

Why focus on carpet?
Discarded carpet is one of the 10 most prevalent waste materials in California landfills, comprising about 3.2 percent of waste by volume disposed of in California in 2008. Most carpet is made from nylon and other polymers derived from virgin fossil fuel. Fortunately, numerous products can be manufactured from recycled carpets, including carpet backing and backing components, carpet fiber, carpet underlayment, plastics and engineered materials, and erosion control products.

What is being done?
California is the first state to establish a private-sector designed and managed statewide carpet extended producer responsibility program. This program, started in 2011, follows producer responsibility principles to ensure that over time discarded carpets become a resource for new products in a manner that is sustainably funded and provides jobs for Californians. Several carpet recycling facilities currently operate in California, offering jobs, and producing products and feedstock for products made from recycled carpet.

What can I do?
Find out how Californians are sustainably buying and recycling carpet to keep valuable materials in our economy, and what you can do as well! Click on the links to learn more.

Information For...

<table>
<thead>
<tr>
<th>Collectors</th>
<th>Processors</th>
<th>Buyers</th>
<th>Retailers/Installers</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>➞ Find Collectors/Processors</td>
<td>➞ Prepping Carpet for Collection (YouTube)</td>
<td>➞ Handling and Storage Guidelines</td>
<td>➞ Recycling Carpet</td>
<td>➞ Technical Information</td>
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<tr>
<td>➞ Stacking Trailers with Carpet (YouTube)</td>
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</table>
Buying Carpet

www.calrecycle.ca.gov/carpet
Procurement Activities

- Removal of old carpet
  - Direct contractor to recycle

- Buying new carpet
  - Establish policy
  - Specify carpet conforms to NSF 140 – Carpet Standard, Platinum level. [check CRI list (search “platinum”)]
  - Made with recycled content postconsumer carpet content
  - Fiber that is readily reusable/recyclable (e.g. Carpet tiles, nylon)

- Close recycling loop - Purchase products made with carpet-derived materials
Market development: Increase Purchases of Carpet-Derived Materials

• **CARE/CalRecycle Steps:**
  – Develop list carpet-derived products
  – Review list to identify those with great potential for state purchasing

• **Need:**
  – Government entities willing to share specs and try products that meet specs
Procurement policy (sample language)

• Reference NSF 140 standard

  “Effective immediately, all carpet purchased by ________ shall be certified to meet the NSF/ANSI 140-2012 Standard (Standard) at its Platinum level. If carpet is not available meeting the most recent standard, the previous NSF/ANSI 140 standard meets this requirement. “

• Purpose

  “This requirement does not replace technical product specifications; rather, it provides a minimum environmental specification.”

Source: www.documents.dgs.ca.gov/osp/sam/mmemos/MM10_01.pdf
Procurement policy (continued)

• Scope

These requirements shall apply to all modular and broadloom carpet purchases for new construction, renovation, and replacement, whether purchased through construction contracts, leases, Contract Multiple Award Schedule (CMAS), or other procurement methods.

• Verification

Carpet purchases shall require proof of independent third-party certification as specified in the Standard....
Procurement policy (continued)

• Proper management of old carpet
  All agencies and contractors who purchase carpet for government facilities shall ensure that all unwanted carpet shall be removed, utilized, and/or recycled. If not recyclable, all unwanted carpet must be managed properly, according to all applicable state, federal, and local regulations.

• Who is Affected
  All agencies, including agency contractors, and/or agency subcontractors, that purchase carpet or hire contractors that purchase carpet for government facilities.
CARE Carpet Contacts

• California
  – MS. Brennen Jensen,
    CA Carpet Stewardship Program Manager
    (831) 917-3720, bjensen@carpetrecovery.org

• National
  – Dr. Robert (Bob) Peoples, Executive Director
    Carpet America Recovery Effort (CARE)
    100 S Hamilton Street, Dalton, Georgia 30720
    706-428-2127, bpeoples@carpetrecovery.org

• CA Carpet Stewardship:
  http://carpetrecovery.org/AB2398.php
CalRecycle Carpet Contacts

• Kathy Frevert  
  Kathy.Frevert@calrecycle.ca.gov  
  916-341-6476

• Fareed Ferhut  
  Faridoon.Ferhut@CalRecycle.ca.gov  
  (916) 341-6482

• http://www.calrecycle.ca.gov/carpet/  
  (Carpet Home Page)