

Meeting Report for Carpet Recycling Stakeholder Meeting
Working Together to Increase Carpet Recycling in Washington: Where are we now, and where do we go from here?

October 16, 2014; 8:00 a.m. – 11:30pm
 Mercer Island Community & Event Center, 8236 SE 24th Street, Mercer Island, WA 98040

Meeting Goals:

- Share the story arc of carpet recycling, including what we have learned during the past year of outreach and actions,
- Discuss where this information leads,
- Discuss what can be done to advance carpet recycling in our state and who wants to work on it at this juncture, and
- Set the stage for **next steps**

Agenda:

- 8:00 – 8:30** **Optional Early Arrival Networking Session** *Coffee and baked goods provided.*
8:30 – 9:00 **Introductions and Meeting Overview** (Kris Beatty and Julie Colehour)
9:00 – 9:30 **Story of Carpet Recycling** (Shirli Axelrod)
9:30 – 9:45 **Break**
9:45 – 11:15 **Where Do We Go From Here?** (Julie Colehour, facilitator; introduction by Suellen Mele)
11:15 – 11:30 **Next Steps/Wrap Up** (Alli Kingfisher)

Participants:

Shirli Axelrod*	Seattle Public Utilities	Seattle, WA	In Person
Tim Bartholomew	Apex Flooring	Kent, WA	In Person
Kris Beatty*	King County Solid Waste Division, LinkUp	Seattle, WA	In Person
Bill Betts	Again	Kent, WA	In Person
Jeff Callison	Patcraft/DesignWeave Carpet	Seattle, WA	In Person
Julie Colehour**	Colehour + Cohen	Seattle, WA	In Person
Pat Finn Coven	Ballard Reuse	Seattle, WA	In Person
Tish Gasparich	Flooring Association Northwest	Kirkland, WA	In Person
Jenna Higgins	City of Kirkland	Kirkland, WA	In Person
Sego Jackson	Snohomish County Solid Waste	Snohomish, WA	In Person
Alli Kingfisher*	Washington State Department of Ecology	Spokane, WA	In Person
Troy Lautenbach	Lautenbach Industries	Bellingham, WA	In Person
Suellen Mele*	Zero Waste Washington	Seattle, WA	In Person
Emily Phillips	Washington State Recycling Association	Tukwila, WA	In Person
Mike Sheldon	CDL Recycle	Seattle, WA	In Person
Todd Smith	ReNu (NCM Contracting Group)	Snoqualmie, WA	In Person
Pieter Sundgren	ProHome Services/LeBlanc Floors & Interiors	Lynnwood, WA	In Person
Gary Tingey	Tandus-Centiva	Dalton, GA	In Person
Brian Alferman	PlanetReuse	Kansas City, MO	Webinar
Scott Bissell	Republic/Allied Services	Ferndale, WA	Webinar
Elsie Deatherage	City of Vancouver	Vancouver, WA	Webinar
Karl Englund	Washington State University Composite Material & Engineering Center	Pullman, WA	Webinar
Sarah Fenner	Division 9 Flooring	Woodinville, WA	Webinar
Mark Johnson	Washington Retail Association	Olympia, WA	Webinar
Dave Gagner	Pacific Urethane Recycling	Kent, WA	Webinar
Jim Lindsey	Aqualfil USA	Cartersville, GA	Webinar
Wendy Mifflin	Yakima County Solid Waste	Yakima, WA	Webinar
Chris Piercy	Kitsap County Public Works	Port Orchard, WA	Webinar

Bill Smith	Sustainable Solutions Consulting	Tacoma, WA	Webinar
Bill Stauffacher	Stauffacher Communications	University Place, WA	Webinar

*Meeting organizers **Meeting facilitator

Introductions: Kris Beatty (King County Solid Waste Division, LinkUp) welcomed participants. Participants introduced themselves and stated why they were attending.

The Story of Carpet Recycling: Shirli Axelrod (Seattle Public Utilities) provided a brief history of carpet recycling from 2001 till now. See [A Story of Carpet Recycling presentation](#) (PDF).

Where Do We Go From Here? Suellen Mele (Zero Waste Washington) explained the [Carpet Recycling in Washington: Current Landscape handout](#) (PDF) for looking at the full carpet recycling system. Facilitator Julie Colehour asked each participant to name one thing they thought needs to be done to spur carpet recycling in Washington. Key comments/questions from this “round robin” and subsequent conversation are summarized below.

Creating and encouraging end-markets

Many participants cited the need for growing robust markets. Specific approaches included applying penalties and/or providing incentives to promote recyclables over non-recyclables; involving manufacturers more completely in developing markets and applying incentives and disincentives to them; and roles for governments in determining where materials go.

- Focus on the green markets here, especially with the governor’s interest in green issues.
- Some pointed out the need for closed loop recycling back to carpet; others said we may need to realize that material might not go back into carpet.
- Market solutions are needed for PET and for other non-recyclable materials from carpet.
- There’s a disconnect between the people who are manufacturing carpet and the people trying to find something to do with it.
- If government is going to require products be diverted from landfill, then it behooves government to find places for materials to go.
- Have manufacturers develop the markets at local levels.
- Markets for processed materials are distant. Shipping from the west coast to China works, but all the way to the east coast is different.
- Improve connections between collection facilities and the businesses that develop the products.
- Increase demand for recycled products.
- Look at RCW 70.95H, the Clean Washington Center, still in the law although terminated in 1997. Its whole point was market development, meant to spearhead private sector investment and activity.
- Embed cost of the entire recycling system in the price of the product, including R&D and market development. Based on the recyclability of different resin types, you change economic dynamics from favoring cheaper resin to more durable ones.

Waste-to-energy

- There are environmental advantages to fuel from waste compared to coal. Maybe it’s time to take a different look at fuel, looking for industries that can use this product.
- If fuel from waste is the solution, then industries who want it should finance the research and technology.
- Recycling is the best option from a climate change perspective, and landfilling is better than waste-to-energy incineration, as described in the report, [Environmental Impacts from Carpet Discards Management Methods: Preliminary Results](#), 2010.

Consumer education

Some participants said carpet buyers/owners don’t know the environmental impacts of materials in carpet. Some suggested that dealers are in a position to influence consumer choices, so suggested they educate their customers. Buyers who are informed about how much carpet goes to landfill and the values of different materials may be willing to pay more for sustainable carpet.

- Retailers are willing to get the message out to the consumer about current options for recycling. A pilot project in King County would be helpful since it is the population center for our state.
- Governments have small pots of money for getting recycling messages to the public, making it hard to be heard among the better-funded manufacturers' advertising messages with little emphasis on recycling.
- Counties and municipalities could tell customers that PET carpet can't be accepted for recycling and is dumped in the garbage.

Carpet design, standards, and sustainability

A number of participants' comments centered on carpet design as a key factor in recyclability, and how better criteria in product and building standards could leverage more sustainable and recyclable carpet.

- Conduct lifecycle assessment on different materials from which carpet is made.
- Current cradle-to-cradle products can be recycled, but we need a different technology for old products coming out of floors today.
- A change in regulations could change design, type of fiber used, and the end markets needed.
- Examine what a sustainable carpet looks like. Examine what a sustainable recycling program looks like—what's working and what's not.
- Choices of product are driven by the architectural specifications.
- Participate in standard-setting, such as NSF/ANSI 140 Sustainable Carpet Assessment, LEED and other standards used by purchasers and specifiers.
- Note that Healthy Building Network has called out carpet. NSF is examining bio-based material among other aspects. The International Living Futures Institute oversees the Living Building Challenge program and the Declare label disclosing product ingredients to provide transparency, which customers and the architecture & design community have asked for.
- Incorporate penalties in local building codes relating to the products used. Give gold stars to builders using better materials.
- There isn't any "start" and "finish" between end markets and design.
- Governments can regulate what they themselves buy, but limiting what homeowner consumers can buy to recyclable fiber and backings will drive up prices.
- Don't agree that if governments require recycling then they should find the markets. Need the people who know materials and design to be more forward-thinking about the uses of them. Governments can offer to sit down with manufacturers and people who design their products.
- Governments could require third party environmental certification for sustainable carpet, keeping a level playing field rather than dictating brands or models to buy.

Removal and collection

Participants commented about the need for additional drop-off locations, equipping transfer stations to identify recyclable carpet, and removal practices to ensure that carpet is suitable for recycling.

- If carpet is source-separated, clean, dry, and with an asbestos report, then it's much easier to pass to processors. It's expensive for transfer stations to sort through carpet otherwise.
- Equip transfer stations with the expertise and equipment to separate recyclable from non-recyclable carpet. Note: fiber type identification equipment costs approximately \$20,000.
- Do quality control with installers, and instruct them about how removal practices like using carpet as a drop-cloth makes carpet loads unrecyclable.

Technology

Comments about technology focused on the need for advances and stimulating/funding research.

- Better processing technology could make recycling cheaper, but the technology is not there yet.
- Dedicate people at the University of Washington or Washington State University, or establish an incubator to find or create and develop technology.

Financing carpet recycling, financing research, and other financial drivers

A number of commenters said financing is critical. It was noted that research funds are scarce. Several suggested that carpet manufacturers finance carpet recycling, or that end-of-life costs — whether recycling or landfilling — be embedded into product price.

- Engage manufacturers more in financial support of recycling. Ask them how they can support processors and sorters so that businesses and recycling programs can be financially viable.
- Embed entire recycling system costs, including R & D and market development, in the price of each product, to change economic dynamics from favoring cheaper resins to more durable ones. Recyclable products will cost less at end of life than products that must be disposed as garbage.
- Must be cost effective, with recycling costing less than disposal.
- Market-based incentives require funds. Maybe that money needs to be in the cost of the carpet.
- Raise landfill rates, then markets will develop faster.
- It's often second party business working to develop markets. To do research, we need funding. Funding sources are few and far between for university research in this field, from either government or industry. The "wheelhouse" of carpet manufacturers is flooring and carpet; if they can't make something into those products, the carpet mills don't want to deal with it.
- In recent years there clearly was capital for some manufacturers to build new mills in Georgia to make carpet with PET. Recognition of what influences those companies to change their machinery is important for how to get end markets.

Legislative / regulatory approach

Legislative and regulatory approaches were mentioned several times.

- Jumpstart the market and system development legislatively; elected officials can force the system to develop by starting with regulation. Ultimately, the consumers pay anyway.
- **Q:** We've been working on this awhile. How involved have manufacturers been in the processes? We need to make sure they are at the table if we are talking about legislation. **A:** Governments and manufacturers met in national dialogue in the past. Manufacturers made it clear they wouldn't support legislation in other places besides California.
- **Q:** There was a product stewardship bill in the WA legislature. Is it to be pursued? **A:** Not aware of any effort to pursue product stewardship for carpet in WA at this time.

Reuse

There appears to be more market demand for reusable carpet tiles than has previously been emphasized.

- At least with carpet tiles, there's more potential than taken advantage of locally; and increasing reuse may get the conversation going among a number of players in the value chain.
- Tiles are widely reusable and desirable in big or small quantities for wall systems and flooring.

Next Steps/Wrap Up

Alli Kingfisher (Department of Ecology) brought the meeting to a close by sharing the impressions she was left with. These included the need to further advance market development; the need to work with manufacturers and designers; and the need for consumer education.

Meeting organizers will provide an attendee list and meeting report to attendees via email and the NW Carpet Recycling Project webpages <http://your.kingcounty.gov/solidwaste/linkup/carpet/project.asp>. Follow-up actions will need to be taken by both participants and meeting organizers. Seattle Public Utilities, King County LinkUp, Zero Waste Washington, and Washington Department of Ecology will communicate with all and connect interested parties going forward.