

Carpet Recycling Workgroup Strategy for Establishing Processing Capacity and End Markets December, 2009

What is this document and how will it be used by the Workgroup?

The tactics recommended below are culled from the Workgroup's initial meeting, the Roundtables' inputs and our experience to date.

It's our aim to formulate and engage in a set of actions growing out of the tactics below. Specifically, we will identify those actions that give good "bang for the buck" and build upon each other to achieve the specific objectives outlined in our previously-approved Workgroup Charter. Those dual objectives are:

- 1. Bring local processing capacity to the region
- 2. Support local end market development

This table intends to catalogue the wide array of actions put forward as necessary to bring recovered carpet processing to this region and to develop markets. This list has been assembled from the several meetings and discussions held to date. While it is long, it is not meant to be a brainstorm of all conceivable actions. Rather, it presents activities and tactics that have risen to the top as desirable "ingredients" for achieving the objectives above.

We are now looking for your input to add/subtract/edit and further distill this list to the selected actions for us to proceed with in the near-term.

During the December 3 Workgroup meeting, we propose to do the following, using this table:

- 1. Identify anything Workgroup members are doing that relate to carpet recycling (directly or indirectly) that you want added here
- 2. Talk through the recommendations to:
 - a. Approve the Roman Numeral level tactics:
 - b. Categorize the suggested actions under each Tactic as either Tier One: "must do" or Tier Two, not a "must";
 - c. Identify the parties needed and time frame to carry out the selected actions (that is, generate the beginning of a workplan!).



Recommended Tactics	Needed Parties	Time Frame
 I. Take actions to prevent asbestos contamination, maintain/improve removal of desirable used carpet. Explanation: Asbestos contamination has barred some local carpet sellers and recyclers from participating in carpet recycling, and addressing this problem was among the top needs named by many of our Businesss Roundtable participants. Examples of specific actions suggested: Establish procedures with local building permit agencies and air agencies requiring and documenting asbestos surveys and abatement before permit work proceeds. Engage asbestos survey-&-abatement firms in publicizing asbestos laws and liability to property owners/managers and project managers. Consider measures that can be part of contractor licensing/bonding. Institute measures applicable to haulers and receiving facilities to motivate "level playing field" for compliance with asbestos laws. Develop increased enforcement measures and cooperative/joint inspection authority such as for building inspectors, air agencies, labor & industries inspectors, others. Engage general contractors to understand how to make recycling more attractive to them; work with WA State Flooring Assoc to educate flooring contractors, spread the message and provide guidance. 	 Regional Clean Air Agencies L&I Seattle Dept of Planning & Dev King County Dept of Dev & Environmental Services Rental Housing Association BOMA 	Immediate



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II. Build/advance regional infrastructure, by pushing carpet away from landfilling and enhancing the supply chain for used carpet and carpet-derived commodities.		
Explanation: Solid waste agencies and other parties can bring influence and authority in order to move carpet from the landfill-bound wastestream to reuse, recycling and desirable feedstocks. Learning from experience with other recycled materials, many complementary and related actions combine to create the environment and the physical and financial components needed.		
 Examples of specific actions suggested: Incorporate carpet recycling mandates and recovered-fiber carpet into public agency/public housing projects and contracts. Incorporate carpet recycling mandates into "Stimulus Funds" and Carbon Reduction/Energy Efficiency projects. Get more west coast customers to specify carpet recycling (green companies, green buildings) Engage architects & designers, general contractors to learn how to make recycling more attractive to them and to increase specification of carpet recycling among these professionals. Provide a model carpet recycling specification and lists of approved haulers and recyclers. Work with flooring sellers to educate other businesses. Use solid waste or other public policies (e.g. tip fees, disposal restrictions) to influence costs and motivate flow of quality material to recycling. Create financial incentives for recycling (e.g. tax breaks/credits, permit advantages). Certify C&D haulers and C&D receiving facilities to level the playing field and increase transparency and quality. Consider more collection sites with quality controls (staffed locations, may be private and public); support flooring sellers taking back used carpet to recycle/ enlist more flooring sellers to take carpet for recycling; enlist Goodwill, Salvation Army, and/or Savers (Value Village) to take carpet for recycling Prepare carpet processing RFP (yard waste e.g.: direct where to put material, provide containers, and contract for processing) Network with carpet recyclers around the country, with carpet fiber and carpet manufacturers and national processing facilities (share lessons learned and new development information Tap related industries (e.g. cluster of textile recycling: Buffalo Industries, Goodwill, SOEX) for joint efforts and examples of successful recycling infrastructure/market development. Participate activel		



Recommended Tactics	Needed Parties	Time Frame
III. Take actions to supplant virgin feedstocks with those from recycled carpet; develop new products.		
Explanation: Recycling programs are not viable without markets for the recovered materials. These may be local and global markets; over time, various recyclables have entered commodity trading like other raw materials for manufacturing. Emphasis on local end markets has the added advantage of local economic development. Many possibilities should be pursued simultaneously for their compound and synergistic effects on each other.		
 Examples of suggested actions: Increase demand for products made with recovered carpet. Work with local manufacturers to use carpet-derived commodities/materials as feedstock. Consider uses for all fiber types and by-products. Focus on "pull-through", create end-user demand and address their needs through methodologies of collection/sorting/processing. Note that markets for various fiber types are not equally available now; local focus could emphasize fiber that is less-marketable elsewhere? Collaborate with region's university programs for product testing and design, engineering, etc. (WSU, WWU, UW). Provide student study projects, internships, etc. Facilitate connections among people in the businesses along the infrastructure chain, convene strategic forums, share contact information. Leverage with other jurisdictions, including British Columbia, Toronto. Collaborate with plastics industry, plastics recycling industry (compounders, equipment dealers, market analysts, professional organizations etc.). Collaborate with entities such as CARE, Polymers Center of Excellence, etc. Issue RFP and select partners to receive technical and/or marketing assistance. Support CARE efforts to fund end market development. Consider innovative uses in line with regional industry (for instance, transfer auto parts technology to aerospace and marine industry, perhaps new WA State ferries being built at Todd Shipyards). Don't displace products that currently use other recycled materials. New potential might include insulation promising and could tie in with current federal stimulus and energy efficiency projects. Consider home improvement retailers' potential as end markets in line with corporate green images. Address export potential from west coast as attraction for processors/sellers of used carpet fiber. 		



Recommended Tactics	Needed Parties	Time Frame
IV. Advance economic development of recycling industries, with a focus on carpet recycling.		
Explanation: Recycling means business in the region. Overall increases in recycling businesses, with end-user demand and supportive public policy, can stimulate markets and create a favorable environment for establishing carpet processing capacity. The region already has a strong recycling and green building ethics, customer expectations, and other favorable factors.		
 Examples of suggested actions: Form a consortium to bring a carpet processing facility here; multidisciplinary team with manufacturing technical assistance, financials, permitting ombudsman, etc. (for example, WA Manufacturing Services, WA Technology Center, Governor's office, etc.). Integrate carpet recycling economic development efforts into a larger effort to increase overall economic development of recycling industries. Organize a symposium and/or trade show of recycling industries, recycled products manufacturers. Launch or join a design "challenge" or competition for processing and products using local recovered materials. Look outside traditional uses for plastic products. Look at northwest manufacturing "profile" and inventories. Introduce and support legislation changing state taxes affecting recycling industries, equipment for recycling industries Create funding mechanisms, find funding sources (Shorebank Pacific business loans, Cascadia Revolving Fund, Washington Economic Development Finance Authority (www.wedfa.org), Washington Department of ecology Coordinated Prevention Grants? others?) to fund local business expansion and/or fund prototyping of promising new end-processes or end-products Engage local academic institutions' resources/programs such as product design labs, materials sciences/eng; recruit student projects Discuss with textile recycling "cluster" of businesses, other fiber handlers, (Buffalo Industries, SOEX-West, Goodwill, Salvation Army for textiles; books, wood, etc.) Establish a "Clean WA Center"- type of enterprise, a business development center or agency similar to those in other regions (Mid Atlantic Consortium of Recycling and Economic Development Officials, 		