CARPET AMERICA RECOVERY EFFORT

2006 ANNUAL REPORT
[as amended on May 17, 2007]

CARPET SM AMERICA RECOVERY EFFORT

WWW.CARPETRECOVERY.ORG

CARE AMERICA RECOVERY EFFORT
Developing market-based solutions for the recycling and reuse of post-consumer carpet

CARE 2006-2007 SPONSORS

SUSTAINABLE LEADERSHIP SPONSOR
Interface Americas Inc.

GREEN SPONSORS
Milliken
J & J Industries
Mohawk Group

CORPORATE SPONSORS
Antron® Carpet Fibers
Axsun Technologies
Beaulieu of America
Rebound Sales Group
Carpet Cycle
Carpet and Rug Institute
Columbia Recycling
Connecticut Recycling Works
Constantine
Dalton Whitfield Solid Waste Authority
ERCS
Felplast Inc.
Champion Polymer Recycling
Kruse Carpet Recycling
Los Angeles Fiber Company
Leigh Fibers Inc.
Mannington Carpets

THANK YOU TO ALL OUR SPONSORS AND SUPPORTERS

Masland Contract
Material Innovations
MDM Fiber
NYCORE Inc.
Pencilbox Inc.
Project Consultants & Associates, Inc.
Propex
Quicksilver Recycling Services
Resource Commercial Flooring Network
Royalty Carpet Mills
P2AD
Shaw Industries
Solutia Inc.
Southeastern Plastics Recovery, Inc.
SPORTEXE
SWIX-Southeastern Waste Information Exchange
StarNet® Flooring

PO BOX 2048
DALTON, GA 30722-2048
706-428-2115

WWW.CARPETRECOVERY.ORG.

TABLE OF CONTENTS

Message from the Board Chairman, CARE 4
Message from the Executive Director, CARE 5
Executive Summary 6
Evaluation of Progress Toward National Goals for Carpet Recovery 8
Key Quantitative Results from the Carpet Recovery Survey 9
Quantitative Feedback from the Carpet Recovery Survey 18
Survey Methodology 20
Assessment of Survey Approach and Results 24
Product and Market Development Activities 26
CARE Accomplishments in 2006 30
CARE Annual Goals 32
Web Statistics 36
CARE Industry Initiatives 38
Appendix 44

A MESSAGE FROM THE CHAIRMAN

FRANK HURD, Chairman Of The Board

2006 has been a year of some real successes coupled with disappointments. We are continuing to make progress toward our goal but 2006 economic conditions have impacted our ability to reach the lofty goals we set for ourselves this year. On the very positive side we have expanded our collection network from a very modest beginning of 5 in 2002 to over 37 collection sites located in strategic locations around the US. While we still don't have the coverage we would like, the industry's growth is extremely exciting. The investment in Evergreen by Shaw Industries has become a great new driver in CARE's efforts to meet its 2012 goal. As important as the Shaw acquisition has been, the continued growth and involvement of the entrepreneur community has been spectacular. Every year more and more entrepreneurs join the CARE family because they believe in what we are doing and see a way to make money! From the start we have said this was going to be a team effort involving the carpet industry, the entrepreneurs and governmental agencies. The team is working and continues to excel.

The disappointment is that the 2006 diversion rate is well below what we had hoped for. Many factors contribute to this: housing starts are down, replacement carpet is down for the first time in many years; the nylon 6,6 market is weak resulting in backlog and causing reluctance to expand. Even with all of these negative indicators, the numbers still demonstrate we are on the correct path and making progress. While we always want to do better and continue to push, we are clearly on a path to meet our long term goal.

Excitement abounds: The StarNet partnership has provided us with a model for formation of other partnerships. LA Fiber continues to be the leader by diverting almost 80M pounds again last year. Environmental Recovery Consolidation Services (ERCS) is working hard to put together a national and regional collection network. A focus for 2007 will be to get greater residential retailer involvement.

Post Consumer Carpet has become a valuable commodity. We have seen cases where finding readily accessible post consumer carpet was a problem. The CARE Board of Directors is looking for ways to assist collectors and has commissioned a pilot project to look at banning curbside pickup in a north eastern city thus making the feedstock easier to get.

I am personally excited about the venue for this year's conference. What a great city Charleston is. Take time to enjoy the true southern charm found in Charleston. Sponsorship is critical to CARE being able to accomplish its goals. I can't say enough about this year's sponsors. They continue to make it possible for CARE to operate. The annual conference sponsors have been equally generous. A special thanks to all of them. They are the reason CARE is on a sound financial basis.

Bob Peoples, our Executive Director, is the engine that makes CARE go and with Jeremy Stroop full time we are seeing some amazing progress. This conference is a true tribute to Jeremy's hard work – if you have a chance, thank him for his extraordinary efforts and dedication. He is an outstanding member of the CARE team. Of course any one who has anything to do with CARE knows Linda Harrington. Linda's administrative skills to CARE are the grease that makes CARE run. We can't thank her enough. James Beach is another member of CRI who provides tireless support in the area of communication.

As always I can't thank my fellow board members enough for their tireless efforts. The CARE Board of Directors continues to evolve, while staying focused and energized on meeting the MOU goals.

I am extremely optimistic and excited about the future of CARE; we are on the right growth path. There are too many exciting things taking place to not be excited. The growth of PCC landfill diversion is on a path of exponential growth. While this report celebrates the half way point of CARE, year 6-10 will be an even more exciting time for CARE. I firmly believe we have cast aside doubts about our ability to meet the optimistic targets of the MOU. We are going to make it!

Once again my sincere gratitude to all who are contributing to the success of CARE.

Frank Hurd, CARE Chairman of the Board

A MESSAGE FROM THE EXECUTIVE DIRECTOR

Wow, can you believe CARE is celebrating its 5th anniversary? I remember years ago when I was with Monsanto/Solutia working with my industry colleagues to accomplish a great task – the recycle of carpet. When I took on the role as the part-time Executive Director of the newly formed CARE just over 2 years ago, our goals were lofty but certainly achievable with a focused resolve. We have come a long way in 5 years since the charter members of CARE signed the original MOU in January 2002. The mission of CARE is to keep old carpet out of landfills, and I believe we have made major progress.When you look at the growth in total landfill diversion, we are on track to meet our goal of 40% by 2012. However, it is also important to recognize that life is never a straight line, there are always ups and downs. To be successful we must keep the big picture in mind and adjust our path based on feedback and good judgment. Your CARE Board has already begun the process of analysis and outlining plans to stay on track.

We saw many significant accomplishments in 2006, and you can read about them in this report. Our number of reclamation centers has more than tripled in the last 12 months, and we now have international members in CARE. The anticipated restart of Evergreen Nylon Recycling is a major enabler going forward. Our sponsorships continue to expand beyond the founding carpet industry members. New equipment and instrumentation is being designed and built specifically for our carpet recycling needs. Our conference attendance continues to climb and set another record this year with 155 people, or a 48% increase. Clearly, we are building this new industry today – it is no longer a dream.

Of course there were a few disappointments. Several of the anticipated outlets did not materialize in 2006 driven in part by the slowing economy in the latter part of the summer and trouble in the U.S. automotive industry. While it is really a 2007 event, the January fire at Columbia Recycling was both a tragedy as well as a setback for our efforts, especially for the recycle of nylon 6,6.

So, CARE is in a transition phase. We are moving from start-up to on-going operations. We now operate with annual goals. Our budgeting process is becoming more sophisticated. We hired our first full time employee, and we plan to hire a full time executive director this year.

Peter Drucker once said, “The best way to predict the future is to create it.” That is exactly what we have been about for the past five years. It is only through the dedication and hard work of our members and supporters that we have been able to make such progress in creating our own future in such a short time. To all of you I say, thank you. It has been my honor to place a steady hand on the tiller of our CARE voyage!

When I look back at the results for 2006 and our cumulative accomplishments since January 2002, it is once again hard to believe how far we have come and the exciting growth our future holds.

Ultimately, the key to success will be creating demand for products (both carpet and non-carpet) that contain post-consumer recycled content derived from post-consumer carpet. Our procurement project to engage the state and federal procurement agencies is another step in creating that demand.

I would like to extend my personal thanks to all the entrepreneurs who are dedicated to building new businesses via the recycling of old carpet. Also, thanks to the CRI staff and especially to our Board of Directors. We are tackling tough challenges with a true spirit of cooperation that can only mean one thing – we will achieve our goal! I remain highly encouraged by the potential we command and anticipate exceeding our goals by 2012.

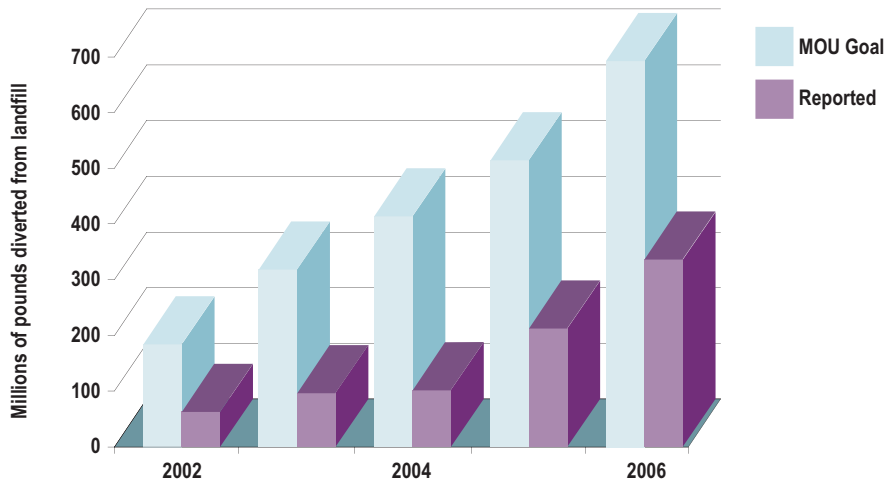
Bob Peoples PhD, CARE Executive DIrector

BOB PEOPLES,
CARE Executive Director

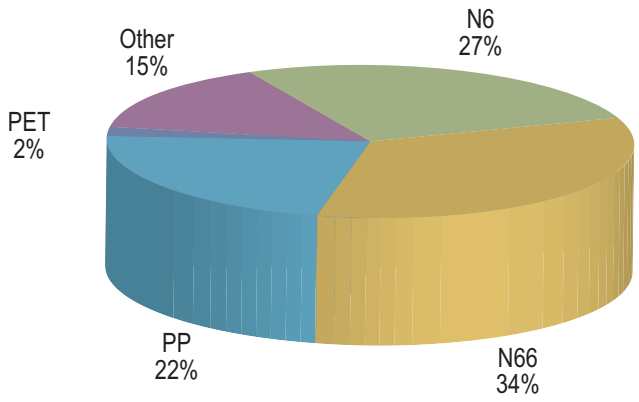
EXECUTIVE SUMMARY

In 2006, the reported recycling and diversion of post-consumer carpet increased from that reported in 2005. Although the increase was not as dramatic as previously anticipated, it appears that the reduced responsiveness to the survey used to generate these results was at least partially responsible for the lower-than-expected increase. A total of 261 million pounds of post-consumer carpet was reported to be diverted from landfill in 2006, with 240 million pounds being recycled. Compared to 2005, this represents a 16 percent increase in diversion and a 23 percent increase in recycling. In addition to survey response issues, CARE has observed marketplace dynamics that could cause reductions in post-consumer carpet recycled, such as a dramatic drop in sales in the residential carpet sector in the third quarter (equating to reduced material flow), along with a deep drop in US automotive sales, which link back to plastic markets expected to provide outlets for PC carpet. The progress in level of diversion from 2002 to 2006, along with the goals established in the Memorandum of Understanding (MOU) that established the Carpet America Recovery Effort are shown in the figure to the right.

A total of 261 million pounds of post-consumer carpet was reported to be diverted from landfill in 2006, with 240 million pounds being recycled.



DIVERSION PROGRESS VERSUS MOU GOALS



DISTRIBUTION OF CARPET FIBER HANDLED

It should be noted that the comparison shown is based upon the original MOU goals. However, the Executive Director of CARE has presented information to suggest that a more realistic comparison would be with an S-curve-shaped increase in goals, rather than the linear ramp-up assumed in the MOU. In addition, as noted above, the increase in reported recycling from 2005 to 2006 may not fully reflect growth in actual recycling levels due to difficulties in getting quantitative data from companies that perform the recycling. In fact, some data was received after production of this report was initiated and thus could not be integrated into all of the quantitative analyses, but which is included in the final tally of 261 million pounds.

For the first time, the CARE survey effort included gathering information on the type of carpet face fiber collected or handled by recyclers. This data shows a considerable diversity in the types of face fibers collected. The distribution of carpet fiber handled is illustrated in the figure to the left.
In addition, data was also collected for the first time regarding expected increases in the quantity of material recycled next year (2007). This was done to better forecast anticipated growth. Those companies that reported expected growth indicated that, on average, they anticipated their volume to more than double next year (i.e. greater than 100 percent growth). While not all companies that responded to the survey indicated a level of expected growth, this provides some sense of the potential for growth. To be conservative, if one cuts the expected growth rate in half for each company that provided a projection and applies that reduced rate to that company's reported quantity of carpet recycled, this would result in a total growth in recycling of 82 million pounds, or 32 percent. It is worth noting that the growth projections were only applied to those companies that provided a forecast, which represents about two-thirds of the companies for which quantitative data was available and less then one-third of the total number of companies targeted for data gathering, meaning that there is significant upside potential in this projection.

For the first time, data was also collected regarding expected growth in the quantity of material recycled for 2007.

DETAILED REPORT

Evaluation of Progress Toward National Goals for Carpet Recovery

The MOU that established the CARE initiative included an escalating target for diversion of post-consumer carpet from landfill, with the ultimate goal of diverting 40 percent of the post-consumer carpet generated. In addition, the MOU included estimates of the different types of diversion that might be employed to achieve the overall goal of 40 percent. When this information is coupled with projections of the amount of used carpet that will be discarded, it results in quantitative targets for diversion of post-consumer carpet. These data are shown in Table 1 on a weight and percentage basis, respectively.

The diversion goals contained within the MOU are also shown graphically in Figure 1. As noted in the Executive Summary, the MOU assumes an essentially linear ramp-up in recycling goals. Research performed by the Executive Director of CARE indicates that a more realistic projection of recycling increases may be made using the Bass Diffusion Model of Innovation. This model results in an S-shaped, rather than linear, ramp-up in recycling. Further details on the updated Bass Model may be found on page 26 of this report.

To update the progress toward meeting the MOU goals (or milestones suggested by other models for the projected increase in recycling), a confidential survey process was conducted by Weston Solutions, Inc. (WESTON) to assess the current status of diversion of post-consumer carpet from landfills in the U.S. This is the fifth year that such a survey was conducted. The results of that surveying process, as well as a description of the survey methodology, are contained on page 20 of this Annual Report.

TABLE 1: MOU GOALS FOR POST-CONSUMER CARPET RECOVERY

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total Discards[1]	4,678	4,828	4,537	5,038	5,261	5,590	5,642	5,887	6,020	6,605	6,772
Reuse				25			113		211		203-339
Recycling	180			353			620		903		1,354-1,693
Waste-to-Energy		48	45	50	53	56	56	59	60	66	68
Cement Kilns				100			300		200		200
Landfill	4,498			4,510			4,552		4,646		4,812
Recycling Rate	3.8%			7%			11%		15%		20 – 25%
Landfill Diversion Rate	3.8%			10%			19%		23%		27 – 34%[2]

(DATA EXPRESSED IN MILLIONS OF POUNDS)

1. Estimates of carpet discards provided by The Carpet and Rug Institute and incorporated into the MOU.
2. The percentage goals in the MOU do not add up to 40% and are expressed as a range to allow flexibility in achieving and potentially exceeding the total diversion goal. 40% is the official 2012 diversion target.

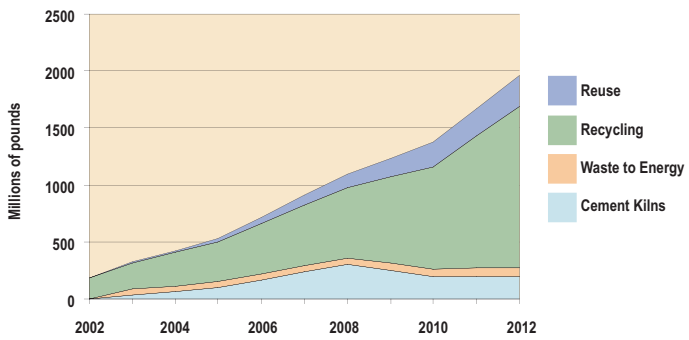


FIGURE 1: MOU DIVERSION GOALS

KEY QUANTITATIVE RESULTS FROM THE CARPET RECOVERY SURVEY

In reviewing the results from the survey of carpet recycling, it is important to put them into context, both in terms of results from previous years and the overall goals established in the MOU. Therefore, in this discussion of survey results, basic recycling and diversion data will be presented and compared with results from 2002 through 2006 and the goals of the MOU. Then, more detailed analysis of the 2006 survey results will be presented. As noted in the Executive Summary, some quantitative data was received after production of this report had been initiated. This data could not be fully integrated into the quantitative analyses, due to scheduling constraints, but did result in increased recycling and a total diversion of 261 million pounds.

Table 2 shows a comparison of the quantity of post-consumer carpet recycled and diverted from landfill in 2002 through 2006, on a weight and percentage basis.

TABLE 2: POST-CONSUMER CARPET RECYCLING AND DIVERSION, 2002-2006

	Millions of Pounds					Percent of Total Discards				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
Total Discards	4,678	4,828	4,537	5,038	5,261	-	-	-	-	
Recycled	46.2	86.6	98.4	194.3	239.5	1.0%	1.8%	2.2%	3.9%	4.6%
Diverted	57.2	93.7	108.2	224.6	260.9	1.2%	1.9%	2.4%	4.5%	5.0%

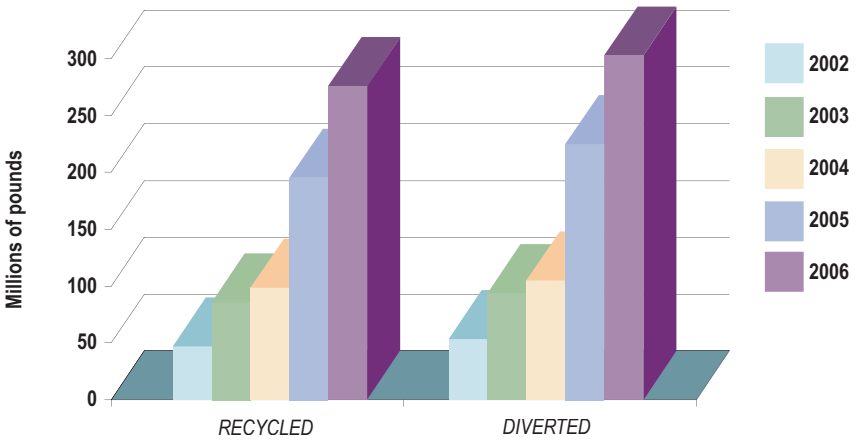


FIGURE 2: POST-CONSUMER CARPET RECYCLING AND DIVERSION, 2002-2006

It should be noted that in this report, material recycled is considered all material recovered and recycled by being remanufactured into the same or different products or by being used as a feedstock in a manufacturing process. Material diverted is all material diverted from landfill, including all recycled material, as well as material sent to waste-to-energy facilities or cement kilns.

The data in Table 2 shows that the quantity of post-consumer carpet reported to be recycled and diverted has increased each year the survey has been performed. These increases can be seen graphically in Figure 2

In looking at the comparison between these different years of data, it is important to recognize that these are comparisons of results from survey processes, and therefore it is difficult to assess how much of the change from year-to-year is a result of actual increases in recycling and diversion versus an increase in the effectiveness of the survey process. This is particularly true for the data collected this year, where there was an even greater reluctance than usual for companies to report their quantitative recycling results. For some reason, despite the fact that the surveying process was essentially identical to that in previous years (with minor additions to the type of data being requested) a number of companies that have provided data in previous years opted not to do so this year. As a result, it was known that the data received through the surveying process was not fully capturing the level of recycling that actually occurred to perhaps an even greater extent than in previous years. Thus, to make the results more directly comparable with those gathered in previous years, a number of supplemental data approaches were utilized.

For every 10 million pounds of PC carpet recycled:
- *50K cubic yards of landfill space is saved*
- *70 million pounds of GHG emissions avoided (CO_2 equivalents)*

The additional data incorporated into the analysis for 2006 included the following:

- Data provided through direct confidential verbal conversations with companies that did not respond to the survey.
- Utilization of data provided by a company for 2005, where it was known that the company had not reported this year and there was reasonable confidence (often based on confidential conversations with the company) that the level of recycling at that company was similar to that in 2005.
- Utilization of information provided from reliable and knowledgeable second-hand sources regarding the level of recycling achieved at a given company.

In all cases, attempts were made to be as conservative as possible, while still capturing recycling activity known to have occurred in 2006. The end result of this process was that of the 260.9 million pounds of diversion estimated for 2006, 89 million, or 35 percent, were derived through these alternative methods, with the other 65 percent coming from the traditional surveying approach. This is shown in Figure 3, below.

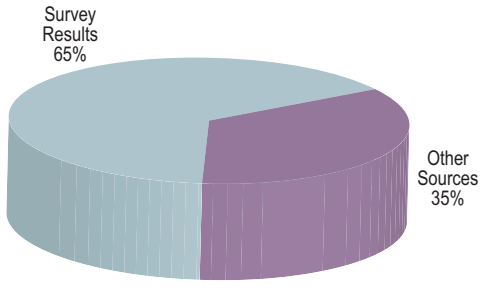


FIGURE 3: SOURCE OF DATA FOR 2006 RESULTS

GOALS ESTABLISHED BY MOU

It is also important to review the results in the context of the goals established in the MOU. Since specific recycling and diversion rate targets for each year were not explicitly established within the MOU, it is necessary to interpolate between the 2005 and 2008 targets. The comparison of the MOU goals for diversion and recycling with survey results for 2002 through 2006 are shown in Table 3. This table shows that despite the continuing increases in the reported levels of recycling and diversion, both in absolute and percentage terms, the gap between reported levels and the MOU goals increased significantly. Thus, tracking progress against the S Curve within the Bass Diffusion Model is of greater interest and is discussed beginning on page 26.

	Total Discards	Recycled		Diverted	
Year	Millions of Pounds	Millions of Pounds	Percent of Total Discards	Millions of Pounds	Percent of Total Discards
2002					
Reported	4,678	46.2	1.0%	57.2	1.2%
Goal		178	3.8%	178	3.8%
Difference		-132	-2.8%	-121	-2.6%
2003					
Reported	4,828	86.6	1.8%	93.7	1.9%
Goal		235	4.9%	283	5.9%
Difference		-148	-3.1%	-189	-4.0%
2004					
Reported	4,537	98.4	2.2%	108.2	2.4%
Goal		267	5.9%	358	7.9%
Difference		-169	-3.7%	-250	-5.5%
2005					
Reported	5,038	194	3.9%	225	4.5%
Goal		353	7.0%	528	10.4%
Difference		-159	-3.1%	-303	-5.9%
2006					
Reported	5,261	239	4.6%	261	5.0%
Goal		442	8.4%	715	13.6%
Difference		-203	-3.8%	-454	-8.6%

Totals discards assumed to be equal to quantities projected in MOU

TABLE 3: COMPARISON OF POST-CONSUMER RECYCLING AND DIVERSION WITH MOU GOALS

The results in Table 3 must also be considered within the context of the overall response rate for the survey. Response rates have been historically low in each year of the survey, although in the survey for 2005 a more focused surveying effort increased the number of companies responding. As a result, this more focused effort was used for the 2006 survey, with more emphasis placed on getting quality contact information for those companies known to be significant participants in the carpet recycling marketplace. Thus, the surveying effort was focused on 51 companies, with a great deal of attention paid to follow-up with each of these companies to try to get survey responses. However, this more focused effort did not result in higher response rates. In last year's survey a total of 32 companies provided quantitative data – which was significantly higher than the roughly 20 companies that had provided data in previous years. This year, quantitative data was received from only 19 companies (a number of other companies responded to the survey but did not provide any quantitative data). This is the reason that the alternative approaches to data gathering had to be utilized.

This alternative data gathering approach was utilized for a total of 6 companies. Thus, even with this alternative data, the results are based upon data from **less than half of the companies targeted.** As a result, the reported diversion and recycling may still be under-counting actual activity.

With those basic comparisons complete, the results of the 2006 survey can be examined in greater detail. Table 4 presents the 2006 survey results, showing the breakdown by type of diversion from landfill.

It should be noted that the flow to wholesale/retail establishments is characterized as part of recycling, based upon our understanding of how this material is handled (in 2002 – 2004 it was considered as "reuse" as a separate category). The other material recycled is material that is sent to sorters, processors or manufacturers after being handled by companies responding to the survey.

The data in Table 4 show that for 2006, all of the quantitative results for diversion came primarily from two types of activities: recycling and waste-to-energy, with the vast majority of the diversion occurring through recycling. There was also a small amount of diversion reported through cement kilns.

TABLE 4: BREAKDOWN OF 2006 DIVERSION OF POST-CONSUMER CARPET

	Millions of pounds	As % of Total Diversion	As % of Total Discards
Recycling			
Wholesale/Retail	0.5	0.2%	0.0%
Other	239.0	91.6%	4.6%
Total Recycling	239.5	91.8%	4.6%
Waste-to-Energy	21.2	8.1%	0.4%
Cement Kilns	0.2	0.1%	0.0%
TOTAL DIVERSION	260.9	100%	5.0%

Figures may not add up due to rounding

NOTE: The total 2006 diversion was 261 million pounds (8 million came in after the survey closed)

Another type of data gathered during the surveying process was information regarding the flow of used carpet through different types of companies. This information can help future market development efforts, and as a result, the surveying process was designed to extract as much information as possible regarding the flow of material through different types of entities. To accomplish this goal, survey respondents were asked to characterize the nature of their business into one or more of the following categories (which are listed below along with their definitions):

- Collector – A company that collects used carpet from the point of generation and transports it to a processing or waste management facility.
- Sorting Facility – A facility that separates waste materials (including used carpet) from a mixed waste stream. The end result of this process is used carpet that is separated from other materials.
- Processor – A company or facility that takes used carpet (whether handled by a sorting facility or brought directly by a collector) and processes it for use as a feedstock in a manufacturing facility.
- Manufacturer – A company or facility that utilizes processed carpet materials and transforms them into other products, or uses them as raw materials in a manufacturing process.

The breakdown of diversion by different types of companies is shown in Figure 4.

It can be seen from Figure 4 that there is significant diversity in the types of companies contributing to the diversion of post-consumer carpet in 2006. This diversity is fairly similar to that reported in 2005, although the specific breakdown of company types varies somewhat. The information presented in Figure 4 provides a few key insights regarding the companies involved in carpet recycling:

- The largest fraction of diversion is contributed by companies that perform all four key functions: collection, sorting, processing and manufacturing.
- 73 percent of total diversion is contributed by companies that perform collection as one part of their operations; 50 percent by companies that perform sorting; 70 percent by companies that perform processing and 53 percent by companies that perform manufacturing. This indicates that these operations all play a key role in the recycling process and that a wide range of activities was captured by the data.
- There is a very small contribution from companies that just perform sorting, as would be expected, since this activity is most often performed in connection with collection or processing.

C = Collector
S = Sorter
P = Processor
M = Manufacturer

Percentages reflect percent of total post-consumer diversion

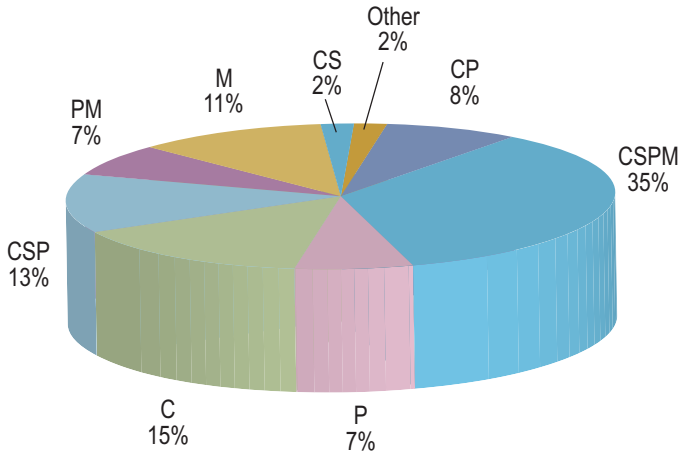


FIGURE 4: TYPES OF COMPANIES CONTRIBUTING TO POST-CONSUMER CARPET DIVERSION

DESTINATION OF POST-CONSUMER CARPET

Another component of the surveying process that was geared towards increasing an understanding of the flow of recycled material was to ask survey respondents the type of companies to which they supply used carpet material after they are done with it. Survey respondents were asked what percentage of the post-consumer used carpet that they handle is passed on to sorting facilities, processors, manufacturers, waste-to-energy facilities or landfills. The results from this portion of the survey are summarized in Table 5 and Figure 5.

It should be noted that the data in Table 5 includes the material that is received by recyclers but is rejected or ends up as waste material that is sent to landfill. This material is not counted in the total diversion figures (since these figures are designed to reflect what is diverted from landfill), and that is why the total quantity of material accounted for in Table 5 is higher than the total quantity of material reported to be diverted. * Thus, the 261.9 million pounds accounted for in Table 5 is 1 million pounds higher than the 260.9 million pounds of diversion reported elsewhere in this report, with the difference being the 1 million pounds of material sent to landfill.

	Sorting Facility	Processors	Manufacturers	Wholesalers/ Retailers	Cement Kilns	Waste-to-Energy	Landfill	Total
Millions of Pounds	11.6	68.0	159.4	0.5	0.2	21.2	1.0	261.9 *
Percent of Total Handled	4.4%	26.0%	60.9%	0.2%	0.1%	8.1%	0.4%	100.0%

TABLE 5: DESTINATION OF POST-CONSUMER CARPET HANDLED BY 2006 SURVEY RESPONDENTS

It can be seen in Figure 5 that almost two-thirds of the material handled by survey respondents was sent to manufacturers. This includes a significant amount of material that is used internally by manufacturing companies, as well as the material sent to manufacturers by other companies. Another one-quarter of the material is sent to processors. Material sent to waste-to-energy facilities and sorting facilities are the only other significant flows. It is worth noting that the volume of post-consumer carpet going to higher volume outlets is growing based on the drop going to waste-to-energy.

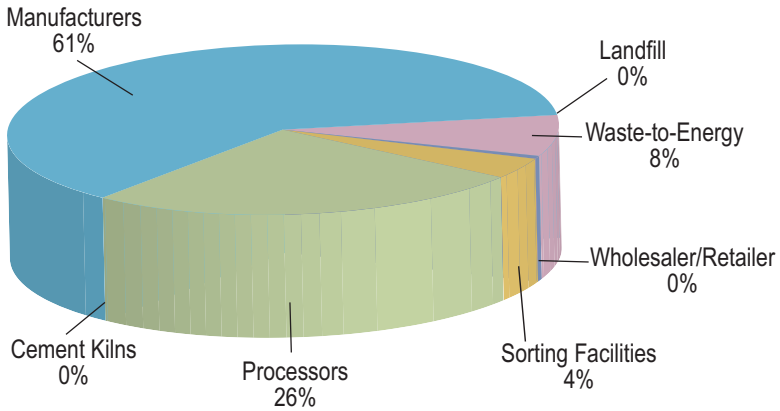


FIGURE 5: DESTINATION OF POST-CONSUMER CARPET HANDLED BY 2006 SURVEY RESPONDENTS

DOMESTIC AND INTERNATIONAL FLOW OF MATERIALS

Another component of the data gathered during the 2006 survey was information related to domestic and international flows of material. Not all survey respondents provided data regarding the destination of material handled, but the responses received account for almost 75 percent of the total flow of post-consumer material reported. Thus, this information seems to provide a reasonable estimate of the overall geographic flow of post-consumer carpet recycled. The results are shown in Figure 6.

Results are percentages of the total flow for which destinations were reported

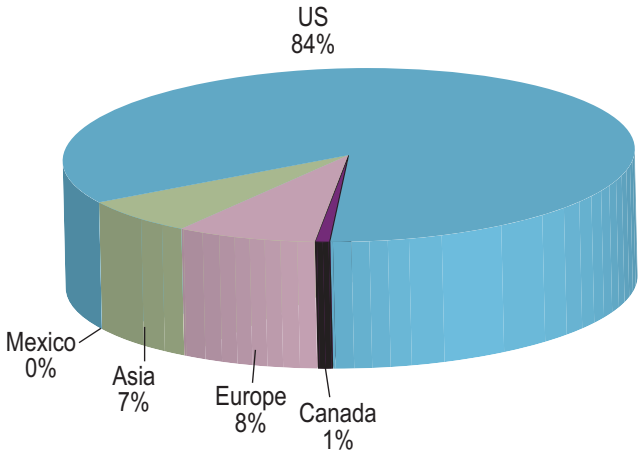


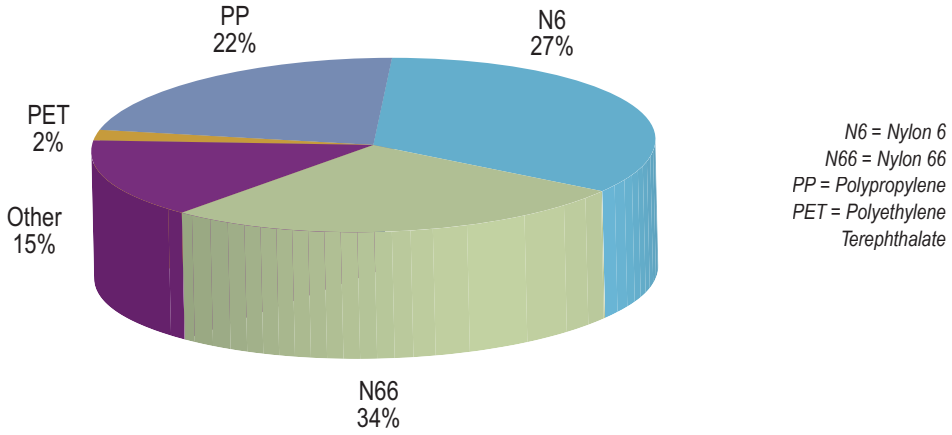
FIGURE 6: GEOGRAPHIC DESTINATION OF POST-CONSUMER CARPET HANDLED BY 2006 SURVEY RESPONDENTS

It can be seen in Figure 6 that the majority of the post-consumer material recycled is sent to facilities within the U.S. The most significant exports of material are to Europe and Asia, with relatively small quantities sent to Mexico and Canada. In comparison to 2005 (the first year this data was collected), the data indicate a slightly higher percentage of material handled in the U.S., as well as exported to Europe, with a significantly lower level of exports to Asia (24% in 2005).

TYPE OF FIBER HANDLED BY CARPET RECYCLERS

A new area of data gathering for the 2006 survey was the type of fiber handled by carpet recyclers. Companies responding to the survey were asked to provide a quantitative breakdown of the material they handle by fiber type. Sixteen of the eighteen companies that responded to the survey with quantitative results provided information regarding the type of material they handle, which means that the results cover the vast majority of the material reported to be recycled. The composition results are summarized in Figure 7.

FIGURE 7: BREAKDOWN OF CARPET MATERIAL RECYCLED BY FIBER TYPE



It can be seen from Figure 7 that the nylon fibers, N6 and N66, constitute the largest proportion of post-consumer carpet recycled, followed by polypropylene. PET makes up a very small fraction of the total material handled.

FUTURE PROJECTIONS FOR VOLUMES OF RECYCLED MATERIALS

Another new area of data gathering was projections for changes in quantities of material recycled in the future. Survey respondents were asked to provide an estimate of the percentage change in the volume of material that they would recycle in 2007 compared to 2006. Sixteen of the eighteen companies that provided quantitative information about material recycled also provided projections regarding changes in the amount of material they would process in the future. The projections ranged from 3 percent to 500 percent increases over 2006, which reflects the fact that some companies are in major growth (or even start-up) modes while others are relatively stable.

In using this information to project future increases in recycling, it is important to recognize that with the entrepreneurial nature of many of the companies that recycle carpet, there is a tendency for these companies to be optimistic in their projections. Thus, it is prudent to introduce a level of conservatism in using and interpreting these numbers. If the projection for growth for each company that provided a projection is cut in half and applied to their 2006 quantities, and if all the other companies for which quantitative data was derived (either from surveying or other means) are assumed to remain at 2006 levels, the increase in material diverted would be 82 million pounds. This would represent an increase of 32 percent from 2006 levels. This is shown graphically in Figure 8

Obviously, the projection shown in Figure 8 is just one approach to creating a projection from the data reported by survey respondents, and more or less conservative approaches could be taken to interpretation of this data. However, with only 31% of companies reporting an increase there is considerable upside potential.

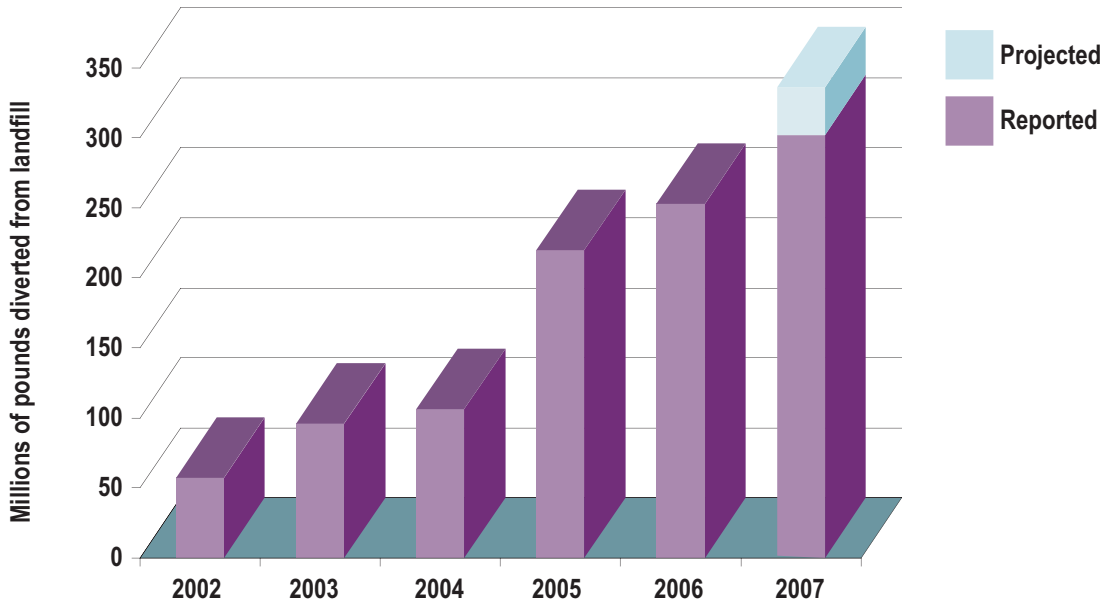


FIGURE 8: 2007 DIVERSION GROWTH PROJECTIONS

QUALITATIVE FEEDBACK FROM CARPET RECOVERY SURVEY

In addition to the quantitative data gathering that was performed during the survey, respondents were also asked what specific activities CARE had undertaken to assist the carpet recycling industry and also what activities CARE should undertake in the future. A summary of the results is as follows:

- Three companies indicated that CARE has provided support through presentations to local governments, while twelve companies indicated that CARE should do so in the future.

- Eight companies indicated that CARE has provided research on separation technologies and five companies indicated that they think CARE should support that type of research in the future.

- Six companies indicated that CARE has provided research on processing equipment and eight companies responded that CARE should provide that research in the future.

- Thirteen companies responded that CARE has helped facilitate meetings amongst carpet recyclers and two indicated that CARE should do so in the future.

- Three companies indicated that CARE has provided research on regional recycling levels and six companies indicated that CARE should provide that research in the future.

A number of specific suggestions were offered regarding types of support that CARE should provide to the carpet recycling industry, including:

- Helping with the collection of post-consumer carpet;
- Providing N66 market demand projections;
- Helping to get local government to subsidize carpet recycling;
- Developing an awareness campaign to encourage carpet producers and sellers to work with carpet recyclers;
- Continuing and expanding general awareness and publicity campaigns regarding carpet recycling; and
- Promoting legislation to ban the landfilling of post-consumer carpet.

CONCLUSIONS

The following key conclusions can be drawn from the data presented:

- Reported diversion and recycling increased 16 and 23 percent, respectively, from 2005 to 2006. This was a level of increase significantly lower than that reported from 2004 to 2005 and than was expected from 2005 to 2006. It appears that the increased reluctance on the part of carpet recyclers to provide quantitative data played a role in this lower-than-expected increase in recycling and diversion.

- Despite the increases, reported diversion and recycling remain below the goals contained in the MOU and the gap between the goals and reported level of diversion and recycling has increased. However, the Executive Director of CARE has suggested that a different model be used for tracking progress against MOU goals (see the Products and Markets section of this Report).

- There is a great deal of diversity in the types of companies reporting post-consumer carpet recycling. As has been true in the past, the largest fraction of recycling is attributed to companies that perform all four key recycling functions: collection, sorting, processing and manufacturing.

- Over 60 percent of the post-consumer carpet material reported to be recycled was sent to a manufacturing facility and about one-quarter to a processing facility after handling by the entities responding to the survey.

- Approximately 85 percent of the material reported to be recycled was sent to facilities in the U.S. Exports to Asia and Europe constitute about 15 percent of the total material handled, with very small quantities reported to be exported to other parts of the world.

- There is considerable diversity in the types of carpet fibers handled by recyclers. N66 is the most prevalent fiber type, comprising 34 percent of the material handled, followed by N6 at 27 percent and polypropylene at 22 percent.

- Carpet recyclers project a wide range of increases in material handled in 2007 versus 2006 – from 3 to 500 percent. Applying a conservative assumption of using only half of the projected increase (and no increase for companies that did not provide any projection) results in an estimated increase of 82 million pounds, or 32 percent, over 2006 results.

- There is considerable awareness of the activities CARE undertakes to promote post-consumer carpet recycling, particularly with regards to facilitating communication amongst and between carpet recyclers. In addition, there are a number of areas in which carpet recyclers have specific ideas and suggestions about the types of activities CARE should undertake in the future.

There are many reasons to believe 2007 will keep us on the S-curve.

SURVEY METHODOLOGY

In developing a survey methodology to establish quantitative estimates of recycling of a particular waste-stream, two key factors must be taken into account: 1) participation; and 2) double-counting. Participation is essential in any surveying process, but more so for this type of survey, where there is no logical or reliable way to extrapolate results from respondents to the general population. This means that whatever results are derived from the respondents to the survey are the complete and total results. Thus, every effort must be made to maximize participation.

However, with increasing participation comes another potential problem: double-counting. Since a given pound of used carpet may pass through several different entities on its way from the point of generation to its ultimate disposition (reuse, recycling or disposal), and since all of these different types of entities (collectors, sorting facilities, processors and manufacturers) are all included in the survey, there is the chance that the same pound of carpet could be counted more than once. As participation increases, the likelihood of double-counting increases, since there is a greater chance that more than one company may be reporting on handling the same material.

A number of features were built into the surveying process to address these two key issues.

- Confidentiality of data is often the key to participation, and all aspects of the survey were designed to preserve confidentiality. In particular, a web-based surveying tool was used to allow respondents to provide data completely anonymously, if they desired. There is no need to e-mail the survey back, so if no contact information is provided, the results cannot be traced back to a particular source. In addition, all written and verbal communication with potential survey respondents stressed the confidentiality of data.

- Simplicity and ease of response is also a key to participation rates. The survey questions were streamlined to the maximum extent possible so that only the most critical data requirements were included, based upon the philosophy that it is much better to have the basic data from a lot of respondents than detailed information on a few (particularly since there is no basis for extrapolation).

- An incentive can often help to boost participation rates, so the survey was distributed with an offer that the first 20 participants would receive $50 gift certificates. While it is difficult to assess if this had an impact on participation rates, we do believe it contributed to respondents providing contact information in their web-based responses.

- Participation rates can also be boosted through the use of multiple means of contact (as well as repeated contacts). Thus, e-mail, telephone and face-to-face communication were all used as means to contact potential survey respondents.

- To maximize the value of those survey responses received, and to minimize chances of double-counting, it was determined that it would be best to focus surveying resources on large-scale manufacturers that recycle used carpet. While

all types and sizes of companies involved in carpet recycling were contacted initially with a request to respond to the survey, resources for telephone follow-up were prioritized to focus more heavily on those entities judged to be large-scale manufacturers handling used carpet. Since most recyclables tend to aggregate as they go through various stages of the recycling process (going from a large number of collectors, to a smaller number of sorting facilities, to a smaller number of processors and finally to a smaller number of manufacturers), one can get more "bang for the buck" in devoting resources to gathering data from a manufacturer than from other types of companies.

- To reduce the chances of double-counting, survey respondents were asked to identify the geographic sources of their materials, to the extent they were known. The notion behind this is that if the nature of the survey responses is such that there is a sense that information from two or more companies might reflect handling of the same material, the geographic sources of these companies could be reviewed to determine if that was likely.

- In another attempt to reduce the chances for double-counting, survey respondents were asked about the type of companies that receive the material that their company ships out after they are done handling it. This information not only allows for identification of possible double-counting, but also serves to provide a more complete picture of the overall flow of used carpet through the collection and recycling process. In one particular instance, data from one company was adjusted so as to minimize double-counting, based upon an understanding of where they send their material after collection and sorting.

Developing a survey methodology for estimating recycling quantities involves 2 key factors: participation and double-counting.

With those basic principles in mind, the surveying process was implemented, using the steps outlined below, which are described in generally chronological order:

1. The survey form used in the 2005 survey was updated to reflect the need to recover data for 2006, and to add two areas of data-gathering not included in previous surveys. The two new areas of information gathering are the breakdown of material handled by fiber type and the projections for future growth in quantity of material handled. In addition, more specificity was added to the section of the survey addressing services that CARE has or should provide. The survey form is shown in Appendix 1 to this Report.

2. The survey form was converted to a web-based survey and posted on the internet. The survey is accessed by going to a specific URL address that houses the survey, and results are submitted via the internet, without the need for e-mail or paper-based responses. The results are only available to WESTON, as they are password protected, to preserve confidentiality.

3. Based upon past experience with this survey process, the surveying was focused solely on those companies for which specific individuals have been identified as a point of contact. In addition, in the months leading up to the survey, the Executive Director of CARE worked to develop a more extensive listing of contacts and e-mail addresses than had been available in previous years. This process, which was a recommendation resulting from the previous year's efforts, is believed to be the primary contributor to the higher response rate this year.

4 Companies with specific contacts and e-mail addresses were notified via e-mail about the survey and provided the URL so that they could respond electronically. A total of 51 different companies were sent e-mail notifications of the survey (more than one individual was contacted from an individual firm in several instances). The e-mail notification stressed the confidentiality of the information they provide, as well as the opportunity to receive a gift certificate as a "thank you" for their response.

5 Approximately two weeks after the initial e-mail was sent out, follow-up activities were initiated. These included follow-up e-mails to those companies that had not responded, reminding them of the opportunity to receive a gift certificate in exchange for their response, as well as telephone calls to prompt response and answer questions that some potential respondents had raised.

6 All survey responses were reviewed for any internal inconsistencies or unclear responses. The survey responses were also reviewed to determine if there were any questionable responses (e.g. data that appears to be off by orders of magnitude with regards to company size). In those instances where there was some question about the responses provided and the respondents have provided their name (respondents can choose to respond entirely anonymously), follow-up was performed to clarify the responses.

7 Data from survey responses were transferred to a spreadsheet-based database. This database contains all of the quantitative responses, as well as summaries of any descriptive information provided by the companies.

8 Data from sources other than the electronic survey responses, such as telephone conversations and direct face-to-face contact with companies, was integrated into the spreadsheet.

9 The data in the database was compiled and analyzed to produce the results described herein.

AS PREVIOUSLY NOTED, there was one instance in which quantitative data from one survey respondent was known to include material that was already accounted for elsewhere in the survey. In this particular instance it was known that not all of the material handled by this company was already accounted for, but some portion was. To utilize this data in some meaningful way, it was decided to count one-half of this company's quantitative results as a mathematical compromise between not counting any of their data (which would mean knowingly under-reporting) and counting all of their data (which would result in knowingly double-counting).

ASSESSMENT OF SURVEY APPROACH AND RESULTS

Based upon experience in previous years, the surveying process for 2006 was focused on a relatively small number of key players known to represent the bulk of the post-consumer carpet recycling activity. The concept was that by narrowing the focus, additional effort could be placed on following up with companies whose responses would matter, rather than spreading that effort out over a larger number of companies and having some of that effort "wasted" on relatively minor contributors to recycling levels. While this concept did provide for an additional level of focused follow-up, it did not translate into a higher response rate. In fact, survey responses with quantitative data dropped to the lowest level ever.

There were two factors that provide evidence that the willingness of carpet recyclers to provide quantitative information about their activities had dropped significantly:

1. There were a large number of respondents who provided no quantitative information in their survey responses.

2. In follow-up conversations with some of the non-responding companies, they indicated that they had no intention of providing this kind of information.

While collecting quantitative data has always been difficult, the level of reluctance to provide data seemed much higher this year than in past years and necessitated the use of more data acquired through means other than surveying than in the past. Some of this alternatively-acquired data is certainly just as accurate or reliable as survey data (perhaps more so, in some instances, as there is no way to verify the accuracy of survey responses). However, some data, such as that derived by assuming the same level of activity as in past years, is inherently more approximate.

This means that if the shift in attitude towards providing quantitative responses is a permanent one, the approach to data gathering may need to be revised in the future. Discussions with CARE members may help in determining if the difficulty in getting survey responses was an aberration or a permanent shift. In addition, these discussions could help identify alternative data-gathering mechanisms that might be more effective in future years.

Another area of data analysis that is critical to reasonably accurate estimates of carpet recycling levels is double-counting. Double-counting can occur when material handled by one survey respondent (say a collector) is also handled by a second survey respondent (perhaps a processor). As discussed earlier in this report, the survey is designed to collect information that allows determination of the potential for double-counting, and in one instance the potential for double-counting was specifically identified and an adjustment to the data was made. Overall, it does not appear that double-counting is a significant issue with regards to this set of data, for the following reasons:

- Even though data gathering was focused on a relatively small pool of target companies, participation rates were relatively low. Even including the companies for which data was obtained through means other than surveying, less than half of the targeted companies provided quantitative data. Thus, with data from less than one-half of the targeted companies (and a much lower percentage of the total number of companies involved in the carpet recycling industry), even if there is some double-counting within the data, it is likely more than offset by the fact that a good deal of carpet recycling is likely going unaccounted for.

- A significant portion of the carpet recycled is handled by manufacturers who reuse the material internally within their own manufacturing process, thus eliminating the possibility for double-counting of this material.

- Only 15 percent of the material that is reported to be diverted is handled by companies that are solely collectors, and it is when there is data provided by collection-only companies that the chances for double-counting increases. When the company performing collection also does some sorting and/or processing, it reduces the chances for double-counting, since the next company in the process is unlikely to know the specific source of the material they are receiving and thus unlikely to report it in a survey on recycling of post-consumer carpeting.

For all of these reasons, double-counting does not appear to be a significant issue with the data presented herein.

PRODUCT and MARKET DEVELOPMENT ACTIVITIES

The year 2006 was another step forward for CARE. While this step did not manifest itself as a major increase in diversion, the expansion of the network of collectors, the anticipated start-up of Evergreen Nylon Recycling in the first quarter of 2007, and the development of new technology for separation set the stage for future expansion.

The decline in the US auto industry and the resulting impact on their Tier 1 plastic suppliers, many now in bankruptcy, adversely impacted the growth in outlets of post-consumer (PC) carpet, especially nylon 66. Unfortunately, this is a scenario we have seen in the past. A second big factor was the dramatic slowdown in the residential sector of the carpet industry, driven by the slump in the housing market beginning in the second quarter of 2006. This hurt us mid-year when there was an increased demand and supplies were in short supply. A third major factor was the failure of several new market outlets to come on line or expand as expected. We believe the combination of these three critical elements resulted in the lower diversion growth versus early projections. We also believe, because of the reporting concerns highlighted in Part A, that the actual number is higher, but we have no quantitative basis to support this belief.

Normal ups and downs due to natural economic cycles and external factors which are not under the control of the new carpet recycling industry are more acute when there is no buffer capacity in terms of shifting marketplace sectors, or reallocating to other product outlets typical of mature business models. That is, when one sector is down, another is usually up or doing well enough to carry a division until the economy improves.

There is cause for optimism as the demand for green products and recycle content continues to expand. In addition, the development of next generation processing technology and equipment will increase quality and efficiencies making the economics more attractive. A major enabler for 2007 will be the restart of Evergreen Nylon Recycling by Shaw Industries and the Mohawk reCover® program.

As the CARE organization grows in sophistication and market experience, we are shifting more of our focus to the end user market in an effort to stimulate demand for products containing post-consumer carpet as an ingredient.

PROGRESS

In our 2005 report we refined the Bass Model of Diffusion for new product and technology introduction into the marketplace. The concept was first introduced by Frank M. Bass in 1969 as the Bass Diffusion Model of Innovation. The model is relatively straight forward and is being used to provide mileposts against which to monitor year to year progress of the PC carpet recycling initiative as we advance toward our ultimate goal of 40% diversion by 2012.

Figure 9 shows the Bass Diffusion model along with the original Memorandum of Understanding (MOU) targets that was used to calculate a ramp up from zero to 40% diversion between 2002 and 2012.

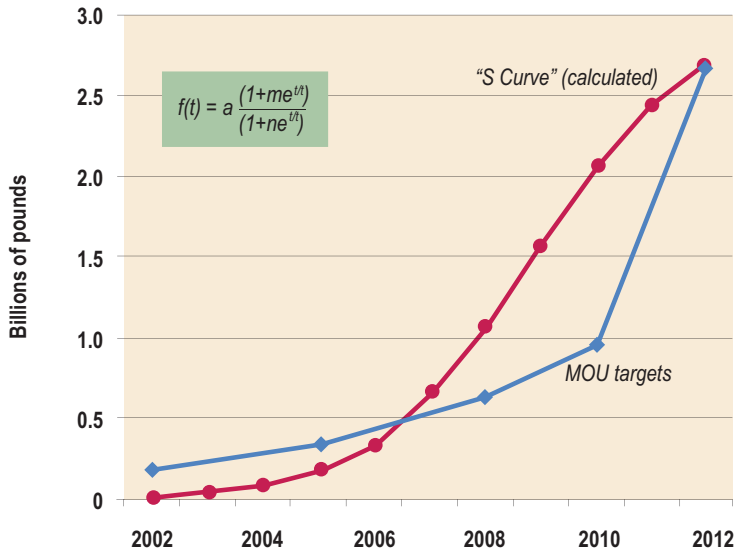


FIGURE 9: BASS MODEL OF INNOVATION

Last year's curve has been updated to reflect the actual data for 2006 along with a projection for 2007. At last year's conference a forecast of >400M pounds of diversion was anticipated. Despite the slower growth in 2006, the data indicates we are still on track in terms of growth necessary to achieve the MOU objective by 2012. Figure 10 focuses on the years 2002-2008 and plots actual results vs. the calculated S Curve.

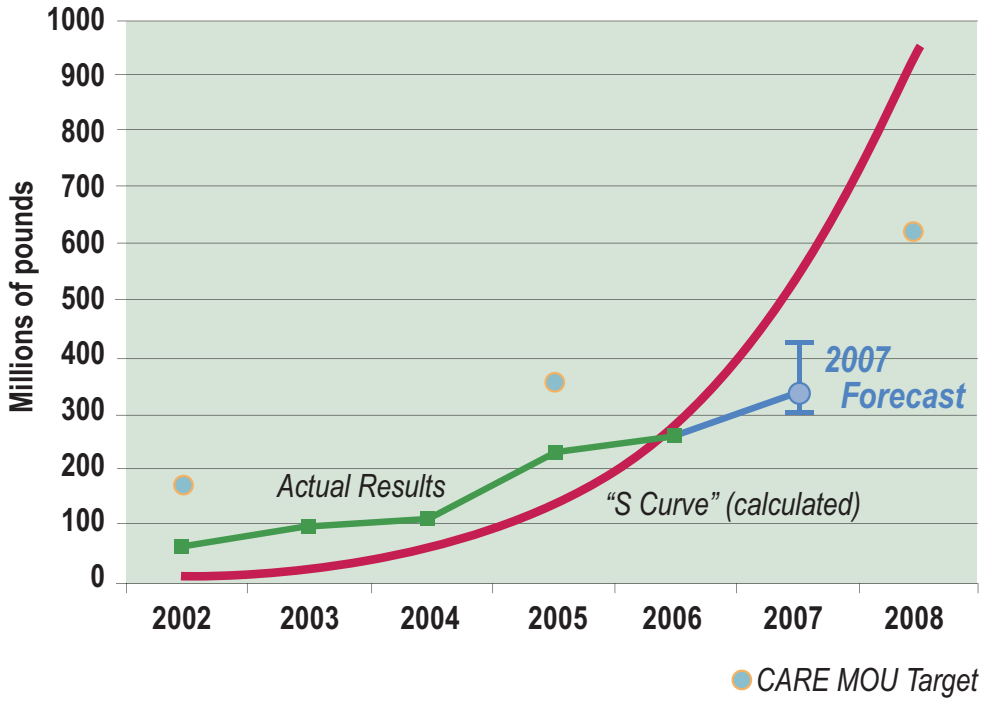


FIGURE 10: CARPET DIVERSION VS. BASS MODEL MILESTONES

It is clear from the data collected over the last five years (green data points) that we are making significant progress toward accomplishing the CARE objective. The blue line represents the 2007 forecast. Last year this forecast was based on little more than private conversations with recyclers and plans they had underway. In our 2006 CARE Annual Survey we asked, for the first time, for information on expected growth in 2007. Thus, the blue line forecast is now a combination of survey feedback and confidential conversations coupled with experienced judgment. The targeted volume represents actual responses discounted by 50% in an effort to be realistic and conservative. Thus, there is reason to believe there is good upside potential.

As stated earlier, several of the anticipated outlets for PC carpet did not materialize in 2006 as expected. In fact, most of the growth charted in Table 6 of the 2005 CARE Annual report failed to materialize. However, we also reported on drivers that we believe will contribute to the continued growth in demand for PC carpet derived thermoplastic feedstocks. These drives along with new information still suggest a good picture for PC derived feedstocks and include:

1. Crude oil prices remain at historic levels. Oil is not expected to drop below $45 a barrel for the foreseeable future. Recent forecasts peg top prices as high as $100 per barrel. This is a major driver of the economics for recycling.
2. Instability in the Middle East, South America and Africa continues to create uncertainty in crude oil availability and thus pricing instability.
3. Post-industrial (PI) sources of plastic materials, especially from carpet manufacturing, are decreasing.
4. As a result of item 3, the supply/demand balance for PI materials has resulted in dramatic price increases for this material stream.
5. US demand for post-consumer content, including carpet, continues to escalate. In fact, promotion of "green carpet" in the residential sector is expected for the first time in 2007.
6. China is expected to build > 430 billion square feet of new space in the next 25 years. This will create enormous demand for raw materials of all kinds on a global basis.
7. India is right behind China in terms of explosive growth.
8. Factors 1-7 will exacerbate pressure on raw material sourcing.
9. There is a growing infrastructure in the United States to build business models on supplying these demands. Post-consumer carpet is seen as a new and potentially plentiful source of economical thermoplastic feedstocks. The technology and equipment are emerging that makes recovery cost effective and competitive.

These drivers present a dynamic scenario where post-consumer carpet will become an abundant and desirable source of key feedstocks – primarily nylon 6, nylon 6,6 and polypropylene for products containing recycled content. In addition, the first conversations about PET carpet fiber have begun.

The MOU signed in 2002 assigns primary responsibility for "funding" CARE to the carpet industry. It is not currently possible to accurately quantify the investments made to date in CARE related initiatives. However, we do know industry and entrepreneur investments in the development of new products, technologies and facilities to recycle, process and reuse post-consumer carpet now totals an estimated $340 million dollars over the last 10 years. In fact, > 65% of these funds have been invested since the CARE MOU was signed.

CARE is aware of a number of initiatives that will become public in the second half of 2007.

PROGRESS

In the fall of 2005 Shaw Industries completed the acquisition of Honeywell's 50% share of Evergreen Nylon Recycling facility in Augusta, Georgia. In early 2006 Shaw purchased the remaining 50% interest from DSM in a strategic effort to faciltate nylon 6 fiber recycling in the United States. In order to produce 30 million pounds of recovered caprolactam, Shaw is looking to collect 100 million pounds of nylon 6 PC carpet. Nylon 6 makes up roughly 30% of the post-consumer carpet stream. In order to acquire 100 million pounds of PC nylon 6 carpet, the collection system will need to collect and process roughly 300 million pounds of all types of PC carpet annually. Start-up of this new facility is taking place during the first quarter of 2007. The impact of this start-up should be a major driver of diversion growth in 2007.

Nylon 6 makes up roughly 30% of the post-consumer carpet stream.

Assessing the success of CARE and its impact on the development of this new industry is not an easy task. One way to look at the impact is to track CARE sponsorships, conference attendance, and most importantly collection sites. Figure 11 shows the growth in these three areas from 2002 thru year to date 2007.

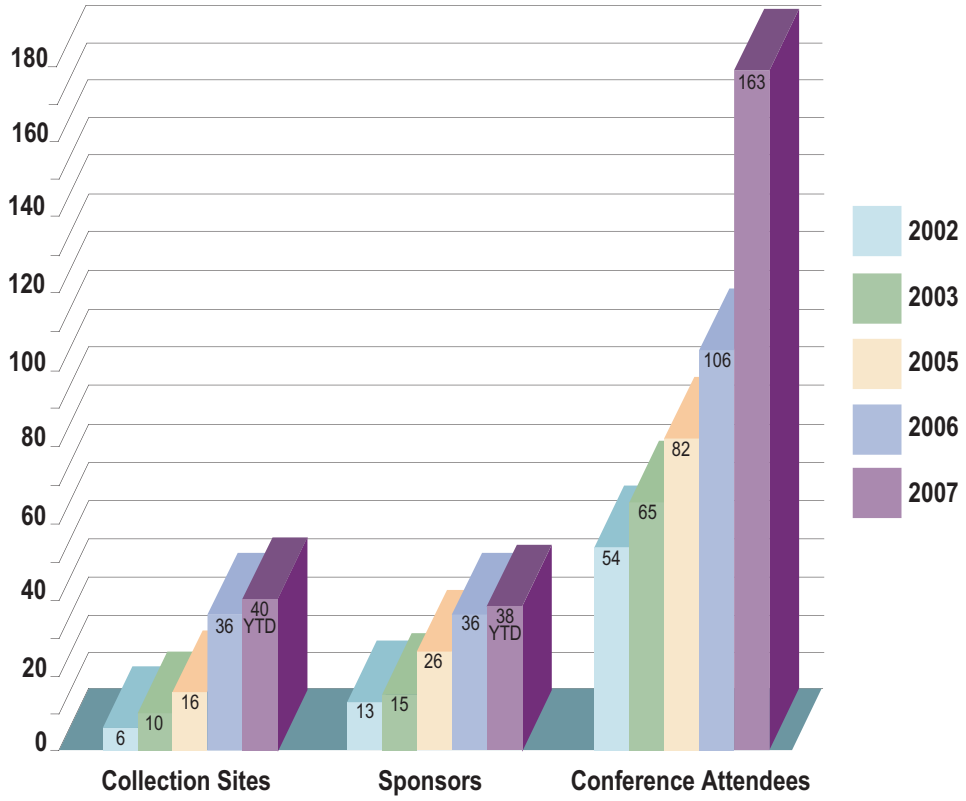


FIGURE 11: CARE GROWTH PARAMETERS

ISSUES AND CONCERNS

While there are many obstacles to overcome, perhaps the single largest barrier is that of market outlets for nylon 6,6. This was the case in the late 90's when Evergreen Nylon Recycling and later Polyamid 2000 first operated and is once again a challenge. There are several factors that are different this time around, the most notable of which is the price of oil. However, CARE is working diligently with partners to find new outlets for these materials. Some of the projects underway include:

1. Spending more time in the plastics sector to get the word out.

2. Moving forward with Phase 2 of the procurement project.

3. Identifying and facilitating dialog on new processing technologies which produce higher purity feedstocks.

4. Consideration of model legislation to restrict the landfill disposal of PC carpet or to require recycling.

Your help in this area can increase our odds for success. Please contact CARE with ideas, suggestions or leads.

In summary, investments are being made, external forces are positive, but we know **the single most important requirement for driving the diversion of post-consumer carpet is the creation of demand for products that contain post-consumer carpet as a key ingredient.** The way to make this happen is to get our economics right and the word out. CARE is spending a significant effort in terms of facilitating information exchange and developing economic models based on honest and frank dialog in addition to opening a dialog with the plastics marketplace.

CARE ACCOMPLISHMENTS IN 2006

Overall, despite a slower than anticipated reported growth in diversion, CARE accomplished much in 2006. By all measures 2006 saw improvements in every area including total diversion. Some of the key accomplishments are listed below:

- Total diversion in 2006: 261M pounds, up 16% over 2005, but missing our 300M pound forecast. (Note: this number includes reporting that came in too late to be incorporated in the official analysis.)

- The StarNet/CARE partnership continues to expand both in terms of education and promotion as well as a growing network of StarNet member firms implementing a reclamation program.

- CARE continued to expand our annual sponsorship base in terms of new participants. This year we welcomed 15 new sponsors.
    - BlackWolf Industries
    - CarpetCycle
    - Columbia
    - Constantine
    - Leigh Fibers
    - Masland
    - MDM Fiber
    - P2AD (GA DEP Program)
    - Pencilbox Inc.
    - Project Consultants & Associates, Inc.
    - QuickSilver Recycling
    - Resource Commercial Flooring Network
    - Sportexe
    - Textile Rubber & Chemical
    - Tricycle

- Increasing attendance at our annual conference in May 2006.

- Another dramatic increase in attendance at our fall entrepreneur meeting in Orlando. About 50% of the entrepreneur participants at the October conference were new to CARE since the 4th Annual CARE Meeting in May 2006.

- Completion of Phase 1 of the government Procurement Project. This project is focused on development of specifications for use by federal, state and local procurement agencies in an effort to direct public funds toward the use of products containing post-consumer carpet.

- A very successful presence at GreenBuild 2006 in Denver. CARE co-hosted a 20x20 foot booth with the CRI and NYCORE. This allowed CARE to get our message out to the more than 14,000 attendees.

- The Carpet America Recovery Effort was been selected as one of the "25 Environmental Champions for 2005" in a survey conducted by Interiors & Sources magazine.

- CARE hired its first fulltime Operations Manager – Jeremy Stroop.

- Launch of our revamped and award winning CARE website with the help of Tricycle Inc. The new site has received much positive feedback.

CARE will continue to expand and evolve its strategy and programs as market dynamics change and this new industry begins to evolve.

CARE also publishes a quarterly newsletter with a growing distribution that now exceeds 1,200. This communication tool allows CARE to share the latest developments and information with all CARE stakeholders in a short, easy to read/scan format with links for more in depth information if desired.
Past editions are archived on the CARE web site as well.

NEW INITIATIVES AND CHANGES IMPLEMENTED SINCE 2002

- **Reorganized CARE from standing committees to project focused**
- **Conducted 2 strategy exercises**
- **Major changes to the annual survey and how it is conducted**
- **CARE website developed and enhanced**
- **Quarterly Newsletter implemented**
- **Sponsorship program created (annual and meeting)**
- **Annual conference initiated (grown each year)**
- **Fall entrepreneur meeting (as requested by entrepreneur community)**
- **CARE Recycler of the Year Award created**
- **CARE Person of the Year Award created**
- **Implemented an annual goals process**

CARE ANNUAL GOALS

In 2006 CARE implemented an annual goals process. The official 2006 goals approved by the Board of Directors were as follows. After each goal is an analysis of progress against that goal.

1. Achieve a 90% increase in diversion rate over 2005

- Due to a number of reasons as outlined earlier in this narrative, CARE failed to report a 90% increase. The actual increase, based on both the official reported number plus additional pounds that came in too late to be included was 16%. Details may be found in the Survey Analysis section of Part A.

2. Secure a formal agreement with a national retailer/alliance

- Still in evaluation with initial client – program moving forward. Not ready to release their name yet.
- 2nd client has conducted initial trials with a CARE recycler
- Opened dialog with CCA Global
- StarNet/CARE Partnership is strong and expanding
- Initial discussions with the Resource Commercial Flooring Network

3. Identify two new "value added" applications for PCC

- Brand new application identified – architectural precast panels (MDM Fibers)
- A major molding application now being developed by a CARE Sponsor
- Expanding PowerBlock (existing PVC based product)

4. Expand outreach to facility managers

- First presentation at Connections in Vegas Sept 22, 2006

5. Complete Phase 1 of the procurement project

- Phase 1 complete. Board approved initiation of Phase 2

6. Increase the active involvement of states in CARE

- Initiated efforts thru CRI Government Issues Committee. Texas engaged and willing to support efforts of CARE, but not willing to go through the time consuming protocol to sign the MOU. Review with NERC (10 NE states) conducted on Sept 28th. States update T/C held on August 3rd and expected to occur periodically. Major

review held with EPA in DC and Region 8 while in Denver. Pennsylvania engaged via NSF 140 and we expect to expand into CARE.

7. Secure 5 new sponsors for CARE

- 15 new sponsors were added in 2006:

BlackWolf Industries	P2AD (GA DEP Program)	Tricycle
CarpetCycle	Pencilbox Inc.	
Columbia	Project Consultants & Associates, Inc.	
Constantine	QuickSilver Recycling	
Leigh Fibers	Resource Commercial Flooring Network	
Masland	Sportexe	
MDM Fiber	Textile Rubber & Chemical	

Precast concrete panels containing PC carpet made with MDM Fiber technology.

8. Determine strategy to prevent/account for double accounting in CARE Annual Survey

- A methodology was developed working with Weston Solutions, our survey provider, in collaboration with Ron Greitzer (collector and CARE Board member). See Section A for details.

9. Update/review CARE resources guide for Products and Recovery

- A new product exhibition booklet was created for GreenBuild 2006 which has photos and contact information for all commercially available products containing PC carpet. Progress on the original goal has been slow for two reasons: 1) there are very few products to work with and information flow has been extremely slow and 2) this is a lower priority versus other efforts.

10. Secure first external grant

- Working in collaboration with GaTech, CARE is partnering in a $53K NSF grant to study the concept of synergy. The effort will look across multiple industries in terms of sight sortation and reverse logistics to secure a flow of post-consumer materials. CARE has terminated its original effort working with an external grant writer due to lack of progress.

TABLE 6: 2007 BOARD APPROVED CARE GOALS

1. Achieve a 50% increase in landfill diversion*

- *Find 3 additional viable applications for PCC*
- *50 collectors of PCC nationwide actively collecting*
- *Achieve the goals of the procurement project*
- *Secure a formal agreement with a regional retailer*
- *At least 10 reps from State governments at the CARE conference*
- *Complete demonstration project(s) banning curb side pickup*
- *Establish a partnership with IFMA*

2. Hire a full time Executive Director

- *Achieve $100,000 in new sustainable funding for CARE*
- *Secure 5 new CARE sponsors*
- *Broaden the BOD membership*

3. Put in place a color coding system for identifying fiber type and PVC backing that is universally accepted

**The 2007 diversion rate goal could be in jeopardy because the factors leading to the 2006 slowdown have not been resolved as of May 2007. • Bullets indicate action items to acheive goals.*

CARPET RECLAMATION NETWORK

The first step in carpet reclamation is collections. When CARE was created in 2002, there were 5 known carpet reclamation sites, Figure 12. At the beginning of 2006 that number had grown to 12 and by the end of 2006 we reported 37 centers on the map. Figure 13 is a map of the US highlighting the reclamation and collection sites that are on line at this time. The network has grown significantly in the last 12 months. In addition, interest continues to grow in adding collection points. While it is still true that there is no simple and routine way to recycle carpet, the ability and options to do so are increasing and the geographical options are expanding. Business models vary from location to location. It is also known that commercial glued down carpet is also the most difficult material to handle for a variety of reasons. Efforts are underway to address this issue. The good news is residential carpet represents between 65-70% of all carpet sold and provides much better yields and productivity per square yard. Most important is that locations and ability to recycle post-consumer carpet continues to expand.

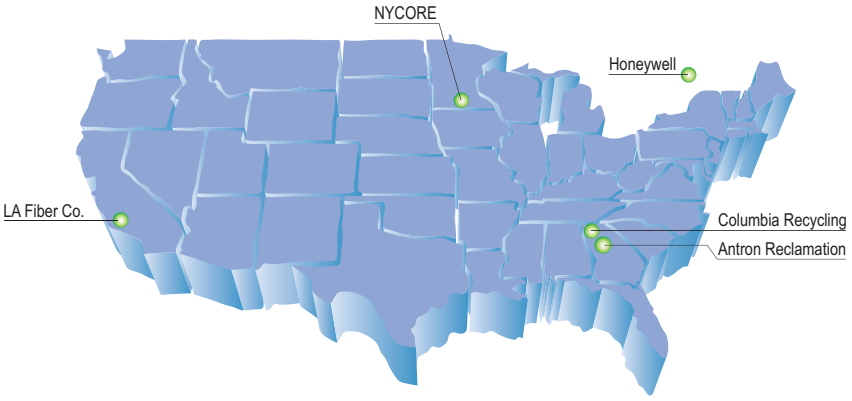


FIGURE 12: RECLAMATION CENTERS IN 2002

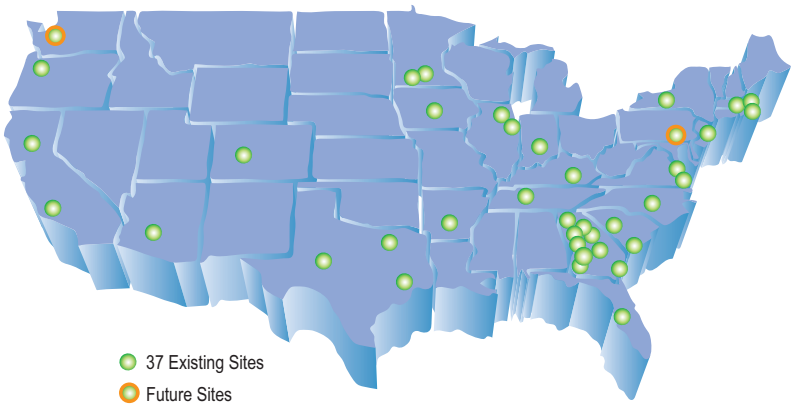


FIGURE 13: RECLAMATION CENTERS END 2006

As of 01/08/07. Visit the CARE website for the latest updates and contact information.

2006 4th ANNUAL CARE CONFERENCE - CALLAWAY GARDENS, PINE MT. GA

CARE held a very productive annual meeting at Callaway Gardens in Georgia the first week of May 2006. Our attendance at the meeting was 105, up again from the previous year. A full set of speaker's slides and information may be found on the CARE web site. CARE's Recycler of the Year Award went to Champion Polymer Recycling, a division of Infiltrator Systems, Inc. CARE also honored Ronald Greitzer, president of Los Angeles Fiber Company, as the 2006 CARE Person of the Year. Ron continues to hold the distinction as the largest known recycler of post-consumer carpet in the world.

FIGURE 14: CHAMPION POLYMER RECYCLING ACCEPTS 2005 CARE RECYCLER OF THE YEAR AWARD (L-R) FRANK HURD, JACK JOHNSON, BRYAN COPPES, BOB PEOPLES

FIGURE 15: RON RONALD GREITZER (R), PRESIDENT OF LOS ANGELES FIBER COMPANY, RECEIVES THE CARE PERSON OF THE YEAR AWARD FROM CARE EXECUTIVE DIRECTOR, BOB PEOPLES

CARE ENTREPRENEUR MEETING 2006

CARE hosted the 3rd invitation only entrepreneur forum in Orlando, Florida in October 2006. The purpose of the meeting was to connect entrepreneurs, discuss common barriers and develop suggestions to overcome those barriers. This year saw a significant number of new recyclers join the group. As a result, new materials covering the basics of collection and recycling were introduced. Response was once again overwhelmingly positive. The event was sponsored by the Southern Waste Information Exchange (SWIX) through funding provided by the Florida Department of Environmental Protection along with Champion Polymer Recycling, Shaw Industries and The Mohawk Group.

WEB STATISTICS

In June of 2006 CARE went live with a brand new web page design giving the site a new look and feel consistent with modern day web design. The redesigned site was produced in partnership with Tricycle Inc. In using Tricycle's cutting edge design and creative talents, CARE now has an easy to use, well organized site that has received across the board accolades from our users. Thanks to the support of Jonathan Bragdon, Tricycle CEO, CARE is now able to provide even better information access to all our stakeholders.

Below you will find three graphs which show our historical growth in terms of webpage activity (Figure 16) since 2002, activity for 2006 (Figure 17) and the most visited webpages in 2006 since the redesign in June 2006 (Figure 18).

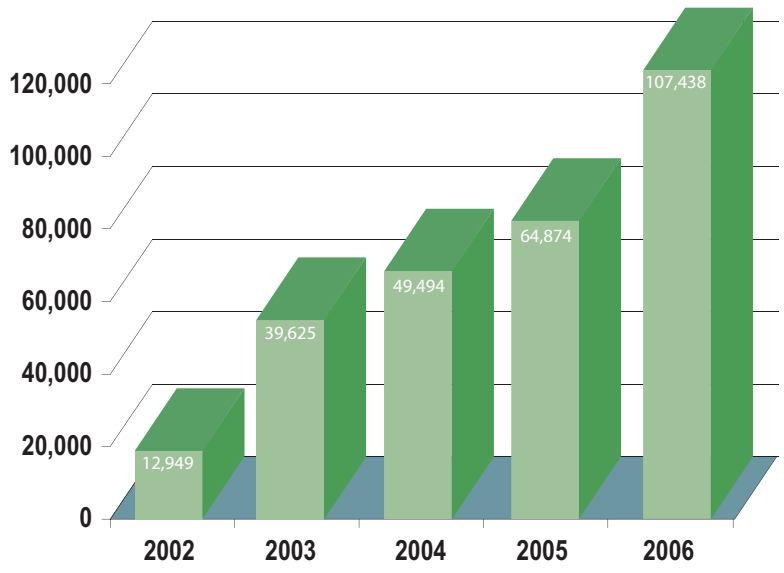


FIGURE 16: WEBSITE HISTORICAL STATISTICS

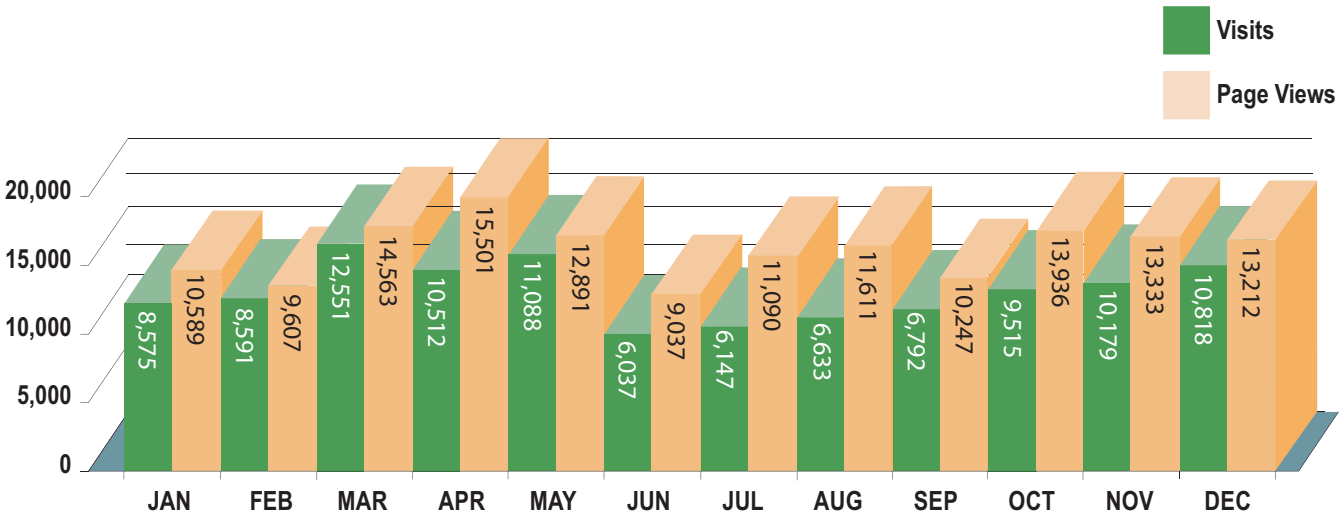


FIGURE 17: WEBPAGE ACTIVITY IN 2006

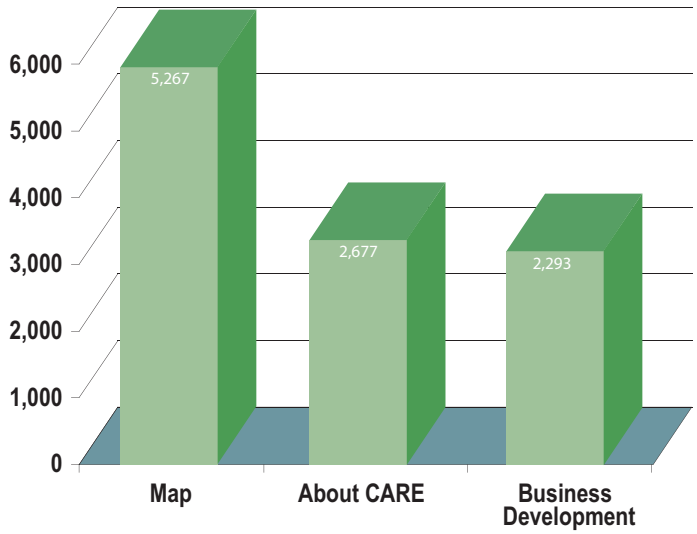


FIGURE 18: TOP THREE PAGES VISITED JUNE - DECEMBER IN 2006

CRI SEAL OF APPROVAL PROGRAM

Proper cleaning and maintenance is essential to preserving a carpet's life and appearance. That is, reducing the environmental footprint. However, not all cleaning products clean equally well. To make sure carpet cleaning products deliver expected results and to help customers identify those products, the Carpet and Rug Institute's Seal of Approval program tests chemicals and equipment and certifies those that meet demanding performance standards.

Independent testing showed that some cleaning solutions and spot removers clean no better than water and can even leave a sticky residue that attracts soil at a faster rate. There are also big differences in the soil removal and moisture capture capacity among extractors, some of which are designed for deep cleaning, others for interim cleaning, and still others for light appearance cleaning.

Effective cleaning has cost-saving, environmental and health-related benefits. Preserving and even extending a carpet's life saves residential, commercial and institutional users from spending money on premature replacement and reduces the amount of carpet going to landfills.

In addition, carpet serves as a trap for allergens and other particles that fall to the floor. Removing them with vacuums that keep dirt and dust within the canister helps improve air quality. Likewise, using extractors that effectively recover water and cleaning detergents from the carpet minimizes the possibility of mold growth, which can occur when dirt and moisture remain in the carpet.

All of these efforts come with the benefit of extending the life of your carpet, and most importantly, reducing the environmental footprint that comes with the premature replacement of carpet. This program is so powerful, a number of mills have independently elected to tie their warranty performance to the use of Seal of Approval products beginning in January 2007.

C&A / TANDUS

Carpet Recycling: In the early 90's, C&A, a Tandus Company, developed patented technology to "close-loop" recycle post consumer carpet and manufacturing waste into new recycled content floor coverings. The company has an active buy-back program, FLOORE, that offers customers financial incentives to return and recycle their old vinyl-backed carpet. To date, more than 115 million pounds of reclaimed vinyl and vinyl-backed carpet has been recycled in the program. Carpet samples can also be returned and recycled in C&A's Retrieve sample recovery program. All C&A products are 100% recyclable and the company's sustainable warranty provides customers a guarantee that all carpet returned will be recycled in its entirety and that no portion will be land filled, incinerated (including waste-to-energy) or disposed of in any other way.

Products: C&A's ethos and ER3 product lines have been third party certified as Environmentally Preferable Products (EPP) by Scientific Certification Systems. Ethos is the first and only carpet made from post consumer Polyvinyl Butyral (PVB), a non-chlorinated vinyl film recovered from windshield and safety glass recycling and ER3 modular tile and ER3 cushion products are produced from recycled carpet. Ethos and ER3 modular tile products were certified as Platinum/EPP and ER3 cushion was certified as Gold/EPP to the Sustainable Carpet Assessment Standard /

C&A / TANDUS CONT.

NSF-140. Additionally, products were certified to the California Gold Sustainable Carpet Standard and received equivalent ratings. The recycled content in these product lines have also been third party certified. The recycled content of ethos products ranges from 30 to 52%, depending on style, and includes a minimum of 30% post consumer content. ER3 products contain between 30 to 50% recycled content and include 10% post consumer content.

While more than doubling its production, C&A has achieved significant reductions in energy, water, waste, air and greenhouse gas emissions during the last 10 years. Diesel fuel used in commercial boilers was replaced with 100% bio diesel. Recycling waste vegetable cooking oils and grease from local restaurants, has allowed C&A to use a waste stream normally destined for the landfill as a fuel for manufacturing. Not only is bio diesel non-toxic and biodegradable, it reduces air and greenhouse gas emissions and lessens C&A's dependence on imported oil. Greenhouse gases and their effect on climate change have also been reduced by purchasing renewable energy and energy certificates, planting trees in C&A's ReGreen program, and offering customers the option to off-set the greenhouse gas emissions associated with the life cycle of their carpet.

C&A manufactures high-performance modular tile and six-foot structured back carpeting for the commercial market. As part of Tandus, C&A works in tandem with sister brands Monterey and Crossley to provide customized interiors solutions for its customers.

INTERFACE

Interface diverted 16.4 million pounds of material from landfills in 2006 through its ReEntry® carpet reclamation program. Nearly 100 million pounds of material have been diverted from landfills through ReEntry since 1995.

The amount of reclaimed material that was recycled increased from 71% to 84% in 2006 and material going to energy capture and conversion processes decreased by 13.7%, while 2% of reclaimed products were repurposed.

Interface reclaims vinyl backed tile products as feed stock for its GlasBac ® RE recycled vinyl tile backing products, all of which are third party certified to be Environmentally Preferable Products (EPP) by Scientific Certification Systems. In 2006, Interface manufactured 509,000 square yards of GlasBac RE, bringing the total square yards manufactured to more than 2.8 million since 2000.

Realizing that nearly 50% of a carpet tile is vinyl backing that is petroleum and energy intensive, Interface launched a new multimillion dollar carpet backing process called Cool BlueTM. It will increase Interface's use of traditional feed stocks while adding new waste materials into the mix that were previously restricted due to technological constraints. Cool Blue will increase growth volumes in the GlasBac RE business, and provide opportunities for Interface to further advance on the path to sustainability by further unhooking its processes from the well head.

Early projections for Cool Blue show potential for diverting more than 20 million pounds of plastics from landfills annually and the possibility of disconnecting up to 60% of the raw material requirement for the manufacture of GlasBac RE from the oil well in 2006, thereby eliminating virgin vinyl from the GlasBac RE line.

INTERFACE CONT.

Cool Blue helped Interface win the 2005 Environmental Business Journal (EBJ) Technology Merit Award, as well as the 2006 Annual Environmental Award in the waste management category from the GA chapter of the Air and Waste Management Association. And because it is partially powered by landfill gas, Interface also received the U.S. EPA's Landfill Methane Outreach Program's (LMOP's) 2005 Energy Partner of the Year Award.

INVISTA

INVISTA began offering carpet recycling services in 1991 and opened the first nationwide carpet reclamation program that recycles all types of carpet.

INVISTA's nationwide carpet reclamation program is open to all dealers and end-users. INVISTA will provide containers and trailers for transport, or customers can deliver post-consumer carpet directly to the facility. The program will accept any used carpet and installation scraps that do not include contaminants or hazardous substances including ALL fiber types, ALL carpet construction types, and from ANY manufacturer; NO carpet accepted by the Calhoun facility will be sent to the landfill. Recycled material from the program may be used in new carpet, carpet cushion, filtration devices, automotive parts, packaging materials and furniture.

INVISTA was the first fiber manufacturer to achieve Environmentally Preferable Product (EPP) certification for Antron® carpet fiber in 2002. Antron® fiber is currently the only carpet fiber certified as EPP. EPP certification is awarded annually by Scientific Certification Systems, a third party certifier of environmental claims. Scientific Certification Systems has repeatedly concluded that Antron® fiber meets its comprehensive EPP requirements in the areas of product manufacturing, resource conservation, end-of-life responsibility, social responsibility, and product performance.

Because end-users, architects, designers and commercial dealers want to recycle, INVISTA has made its program more flexible in hopes that more people can take advantage of this environmentally-preferable option. Dealers and end-users interested in recycling should contact their Antron® fiber consultants for more information. Please visit www.antron.net or call 1-877-5-ANTRON.

J&J / INVISION

J&J / Invision is committed to a leadership role in protecting the environment. The following are examples of our efforts to reduce pollutants and minimize our environmental impact on air, water, and land.

Through EnAct®, our environmental action initiative, we are now offering a postage-paid sample return program. This allows clients to return unwanted carpet samples to J&J / Invision at no cost to the client. We will recycle or reuse all returned samples.

J&J / Invision provides paper simulations (Virtual Sampling) of running line and custom products. While we are more than willing to tuft actual samples, we find that printing the product image on paper is an efficient way to narrow down sample requests. For example, after viewing seven paper simulations, the client may choose only four samples to have tufted versus the original seven.

J&J / INVISION CONT.

J&J / Invision continues its involvement in the creation of the Sustainable Carpet Assessment Standard. We anticipate that the draft standard will be balloted and accepted as a national standard recognized by the American National Standards Institute (ANSI), thus providing an easily understood comparison and measurement tool for sustainable carpet.

We are pleased to offer ColorLoc® Plus, a revolutionary new stain resistant technology. This patented technology allows most stains and spills to be removed simply by cleaning with cold water. ColorLoc® Plus provides several environmental benefits – lifecycle costs are reduced (cleaner carpet stays on the floor longer), the overall environmental impact is lowered and since no chemical agents are necessary, it provides improved quality of the effluent water. All products featuring this technology are CRI Green Label Plus certified.

MILLIKEN FLOOR COVERING 2006

With an eco-heritage spanning more than a century, Milliken continues to reduce its impact on the Earth through each phase of the product life cycle.

Design and Material Selection. Milliken conducts Life Cycle Analysis on all carpet products to ensure sustainable material selection and high performance. Milliken applies principles of green chemistry to offer products for healthier interiors that demonstrate its Respect for the Earth philosophy. All products are PVC-free, chlorine free and 100% recyclable. All Milliken Floor Covering modular products, including those developed specifically for residential and hospitality markets, are certified to the new pre-eminent green carpet standard—Sustainable Carpet Assessment Draft Standard NSF 140. Notably, all products with ESP backing meet the very stringent California Platinum Environmentally Preferable Products (EPP) certification. All modular carpet is engineered to be 100% renewable.

Zero Waste Manufacturing. Milliken Floor Covering has achieved zero waste to landfill from carpet manufacturing each year since 1999. The industry's only Cleaner and GreenerSM/Health & ClimateCare Program certified manufacturer operates with 80% of the methane harvested from the local landfill. Milliken follows California Climate Action Registry and Design for the Environment protocols.

Milliken has a passion for trees and its forests sequester millions of tons of carbon dioxide each year. The company's Trees for All lowers greenhouse gas impacts, shelters wildlife and improves communities. This tree-based initiative includes an online click and plant for customers, supply chain partnerships, and Making the Shade, collaboration with the Georgia Forestry Commission to promote safer playgrounds. To accelerate CARE's sustainable activities, Milliken & Company donated carbon dioxide credits in 2006 to provide a new funding stream for the organization.

Installation. Bio-based TractionBack®, a patented modular carpet installation system, eliminates adhesives and related landfill waste. The friction coated backing adheres directly and securely even in high traffic areas, while lifting easily to access underflooring or to replace damaged tiles. Eliminating adhesives addresses one of the top five environmental health risks identified by the

MILLIKEN CONT.

U.S. EPA—Indoor Air Quality (IAQ).

Extending Product Life. Comfort Plus cushion backing extends carpet life up to 50% by absorbing wear, protecting the carpet face and ensuring better appearance and longer performance. It reduces fatigue and improves thermal insulation, cutting energy costs. All Comfort Plus backed modular carpet is available with ES (engineered for Sustainability) backing, which contains up to 35% recycled content based on total product weight. Recycled content is 89% Post-Industrial, 10% Post-Consumer, and 1% rapidly renewable resources.

Reclamation. Milliken's No Carpet to Landfill Pledge provides customers with environmentally responsible alternatives to landfill. Old carpet is evaluated at the end of its useful life to determine the highest environmental value recovery possible: 1) Rejuvenating modular carpet through the unique Earth Square® closed loop renewal process is the first and highest level of consideration. 2) Donation through a national non-profit promoting reuse provides another form of renewal. 3) Closed-loop recycling that reclaims components into new products is the third line of response.

MANNINGTON

Mannington has long driven investment and research into reducing manufacturing waste and increasing efficiency. By evaluating all our products and processes against our corporate goal of becoming a net use of waste, we have been able to make significant company-wide improvements that get us closer to that goal each year. And by implementing ISO 14001 in both our Georgia carpet and New Jersey commercial resilient facilities, we have proven that our entire process exceeds stringent environmental standards.

ArtCraft carpet tile, introduced in 2003, has been a great success both for its colorful aesthetic and smart re-use of 100% post-production yarn. The next innovative improvement was adding ArtWorks. ArtWorks includes a dominant high recycle color to the ArtCraft look, and is available with our Infinity RE backing. Artcraft, Artworks, and over 20 other exciting tile products use the Infinity RE backing system with pre and post -consumer recycle content. The minimum is 10% post-consumer recycle content, most of which is reclaimed carpet through LOOP, our nation-wide carpet reclamation system. Mannington continues to be the only company able to reuse carpet into Relay, the first hard-surface flooring to contain 40% recycled content – specifically recycled carpet. Up to now it's been pre-consumer gobbling up our plant streams. Let's see what we have to say next year as we continue our work to divert post-consumer materials from landfill.

In the coming years, we will continue to invest and research new technologies and processes to increase recycled content and reduce waste. And we will continue to work with organizations like CARE who are working to improve environmental performance in our industry. Because after all, actions speak.

MOHAWK INDUSTRIES

ReCover: Mohawk reclamation system introduced in May of 2006 to reclaim Post Consumer carpet nationally, has now reclaimed over 2,000,000 pounds of Post Consumer carpet after a just a few months of operation. In 2007, the volume of reclamation is expected to increase by double digit percentages.

MOHAWK CONT.

ReCover uses Mohawk's internal logistics to move Post Consumer waste to the appropriate recycling facilities that provides the maximum value. The combination of Mohawk Logistics with our recycling partners lowers recycling costs in order to more efficiently meet CARE's goals.

Encycle Tile Backing: Encycle is a new generation of 100% thermoplastic tile backing. From the face to the backing components, Encycle was engineered for Deconstruction and ease of recycling. With Life Cycle Analysis as the basis of Development, Encycle was engineered with flexibility in mind. The Encycle system allows no Post Industrial waste to leave manufacturing, as all waste is transformed into new Encycle backing. Encycle uses 30% less materials than traditional tiles, in order to minimize Petroleum based raw materials.

When Post Consumer Encycle tiles are ready for recycling, tile components do not need separation, as the entire structure can be "Thermally re-activated", to make into new Encycle backing, no matter which nylon is used in the face fiber. This breakthrough makes recycling much easier in that the carpet constituents do not need expensive separation.

Today, Encycle tile contains 60% Post Industrial recycled content, from primarily Coal combustion products, but very shortly, Encycle will contain Post Industrial Carpet content from Encycle manufacturing process. Additionally, Encycle employs a thermoplastic Bio-Based component, giving Encycle additional environmental benefits.

After Encycle tiles have served their original purpose, Mohawk will facilitate CARE goals by taking back Encycle tiles where they will be "thermally reactivated", kept out of Landfills, and turned into new Encycle tiles. This closed Loop recycling process is consistent with CARE's goals of creating products which can easily acquire a second, third, or fourth life.

U2 Next Generation Unibond Backing system: Unibond has been a high performance commercial broadloom product for decades, but it was difficult to recycle. Although it had a long life, the end of life alternatives were very few and it was difficult to recycle. Now Mohawk Industries has developed U2, a new generation Unibond, and like Encycle, it has been engineered to be deconstructed and recycled into a closed loop material system.

Again, just like Encycle, U2 is a 100% thermoplastic carpet composite which can be "thermally reactivated" and be made into new U2 carpets. The recycling efficiency is very high, in that this product does not need separation into individual components; all components can be recycled into new U2 backing.

U2 has the potential of zero net internal industrial waste as all manufacturing U2 wastes can be recycled into new U2 backings.

At the end of its life, Mohawk Industries will collect and recycle all Post Consumer U2 into new backing in a closed loop system.

Presently U2 contains Pre Consumer and biobased components.

SHAW

Shaw Industries serves residential and commercial flooring needs with carpets, rugs, and hard surface floorcovering products. Shaw is the largest carpet manufacturer in the world with revenues exceeding $5 billion annually. Shaw developed and introduced a sustainable carpet tile backing, EcoWorx, in 1999 that has replaced 100% of Shaw's PVC carpet tile sales and has driven double-digit growth in carpet tile production. This led to a prestigious Presidential Green Chemistry Award in 2003. Shaw continued to develop this new technology with the introduction of EcoWorx broadloom backing in 2006. These backings offer sustainable thermoplastic recycling as they replace more traditional backings.

Shaw is committed to reducing carpet landfill volume through recovery and recycling of carpet fiber and backing. Shaw Fibers is the largest producer of nylon 6 carpet fiber in the world. The EcoSolution Q commercial nylon 6 program has guaranteed 25% recycled content since 1996. Shaw's nylon recycling capabilities took a major step forward when it reopened the Evergreen Nylon Recycling facility in February of 2007. The original Honeywell/DSM joint-venture closed in late 2001.

In 2006 Shaw began to build a national carpet collection system to provide feedstock for Evergreen. Over the next 12 months Shaw will process over 100 million pounds of post-consumer nylon 6 carpet through Evergreen. The Shaw collection system makes it economical to collect an additional 200 million pounds of other post-consumer carpet types that find their way into downcycling markets. This 300 million pounds of carpet diverted from US landfills is largely pounds that have not been part of the CARE diversion numbers prior to 2006-2007. The system can be expanded as needed in the future.

Shaw opened the industry's first waste-to-energy plant in 2006. In partnership with Siemens, Shaw operates a 22,000 ton/yr. gasification facility associated with the Springdale Plant in Dalton, GA. Although WTE is a small part of the CARE plan, recovery of the energy embodied in clean-burning carpet waste is a necessary step in diverting carpet away from landfills and into higher value recycled uses. It may be an important means of lowering energy costs at Evergreen, and could be equally important to the collection network in states like California where cogeneration would be competitive. WTE efforts at Shaw are focused on clean-burning syngas from gasification. It's seen as a transitional technology in moving to sustainable carpet design and recycling.

Shaw remains optimistic about the opportunities for recycling carpet, but continues to stress the need for sustainable redesign of carpets that will build end-of-life value that will provide the right incentives to keep carpet out of US landfill, and put these materials back into the manufacturing cycle.

CONCLUSION

While the carpet recycling industry may not have achieved the forecasted growth for 2006, progress was still significant. Despite a number of external events that impacted our ability to acquire and/or move post-consumer carpet in the marketplace, a number of actions are underway to help expand outlets for PC carpet in 2007. In particular, we expect to see significant improvements, in the area of nylon 6,6 relative to thermoplastic applications. Additionally, outreach to audiences that can create a demand for products containing PC carpet content, is on-going.

CARE continues to operate in two ways. First is through open public dialog and education. Our annual spring conference, the fall entrepreneur meeting and presentations are the best examples of this activity. The second mode, and perhaps more important, is in a confidential consulting capacity. In this capacity we help companies who are interested in entering the carpet recycle field by providing information and counsel on the economics, business models, technology availability, technology assessments, markets, strategy development and confidential networking.

Like any other business endeavor, carpet recycling is subject to external forces beyond our control. While still an adolescent in terms of development, we believe a solid foundation has been laid. Global interest in sustainability and “green” has mainstreamed. And, our industry is well positioned for future growth. In fact, in the second half of 2007 we will see what can only be referred to as game changing programs released to the market. In effect, in one year from now, we will be operating in a whole new landscape.

CARE ANNUAL SPONSORS

SUSTAINABILITY LEADERSHIP

Interface FLOR® COMMERCIAL

GREEN SPONSORSHIP

J&J / INVISION

MILLIKEN®

The Mohawk Group

CORPORATE SPONSORSHIP

Antron® carpet fiber

AXSUN TECHNOLOGIES

BEAULIEU® of AMERICA

BLACK WOLF INDUSTRIES® MADE IN THE U.S.A.

CarpetCycle

COLUMBIA COLUMBIA RECYCLING CORP.

CONNECTICUT RECYCLING WORKS

CRI™ THE CARPET AND RUG INSTITUTE

CONSTANTINE BROADLOOM, MODULAR TILE & HARD SURFACES

DALTON-WHITFIELD REGIONAL SOLID WASTE MANAGEMENT AUTHORITY

ERCS carpetrecycling.com

Felplast, Inc.

Champion™ POLYMER RECYCLING

KRUSE Carpet Recycling

LOS ANGELES FIBER CO.

Leigh

MANNINGTON®

Masland™ contract

Material Innovations

MDMFiber™ WORKING TO IMPROVE YOUR PRODUCTS

NYCORE

PENCILBOX inc

Project Consultants & Associates, Inc.

PROPEX

QUICKSILVER "The Recycling Specialists"

ReSource®

ROYALTY carpet mills

P2AD POLLUTION PREVENTION ASSISTANCE DIVISION

Polychromix

Shaw™

SOLUTIA 6,6 Ultron®

STARNET The flooring project experts.

SOUTHEASTERN PLASTICS RECOVERY INC.

SPORTEXE® BRINGING QUALITY TO THE SURFACE

SWIX

APPENDIX 1

Carpet America Recovery Effort (CARE) Survey for 2006

The Carpet America Recovery Effort (CARE), a voluntary initiative to divert post consumer carpet waste from landfills, has contracted with Weston Solutions, Inc. (WESTON) to estimate the level of carpet recycling achieved in 2006. This survey is designed to help in that effort, and your response is very important to us. In addition, your responses will help identify ways in which CARE can help you make your business better. One of the reasons that WESTON was contracted to do this work is to preserve the confidentiality of the data you provide. WESTON will not release ANY company-specific data to CARE or any other entity without that company's permission. **Therefore, you can be assured that the answers you provide herein will remain confidential.**

Type of Company

Please select the type of company from the list below, based upon the descriptions provided. If your company performs more than one function, check all boxes that apply.

- ❑ Collector – A company that collects used carpeting from the point of generation and transports it to a sorting, processing or waste management facility (e.g. waste-to-energy facility).
- ❑ Sorting Facility – A facility that separates waste materials (including used carpeting) from a mixed waste stream. The end result of this process is used carpeting that is separated from other materials (typically in baled form).
- ❑ Processor – A company or facility that takes used carpeting (whether handled by a sorting facility or brought directly by a collector) and processes it for use as a feedstock in a manufacturing facility.
- ❑ Manufacturer – A company or facility that utilizes processed carpeting materials and transforms them into other products, or uses them as raw materials in a manufacturing process.

Quantity of Material Processed

Fill out the information requested below regarding quantity of material processed. If precise data is not available, please provide best estimates. NOTE: Quantitative data should be in tons and for calendar year 2006 only.

1. Tons of used carpet handled by your company (i.e. collected, processed, sorted and/or used in manufacturing) in 2006: _____
2. Of the used carpeting material received provide an estimate of the split between post-consumer (material recovered after being used at a residence or commercial establishment) and post-industrial (scrap material from a manufacturing facility):
   Post-consumer: _____% Post-industrial: _____ % (Must total 100%)
3. Indicate the percentage of post-consumer carpet that you handle by fiber type (must total 100%)

❑ N66: _____% ❑ N6: _____% ❑ PP: _____% ❑ PET: _____% ❑ Other: _____%

4. To the extent known, identify the geographic area from which material comes from. Describe the geographic area, or list the states:

   _____

   _____

5. Types of facilities to which your company sends material derived from carpeting after any processing, sorting or manufacturing performed at your facility – in other words, what types of facilities do you send material to after it leaves the doors of your facility? Indicate the types of facilities you send material to, and what percentage of your output goes to each. If you send material to a facility that performs multiple functions, use the category that represents the most "advanced" level of processing (e.g. if you send material to a facility that sorts, processes and manufactures, count that material in the Manufacturer category).

Sorting facility: _____% Processor: _____% Manufacturer: _____% Cement kiln: _____% Waste-to-energy facility: _____%
Landfill: _____% Other: _____%

6. To the extent known, please indicate the fraction of the output from your facility that is sent to customers in the U.S. versus customers overseas:
U.S. _____% Mexico: _____% Canada: _____% Europe: _____% Asia: _____% Other/Unknown: _____%

7. If you are a manufacturer, please indicate the end-products produced from used carpeting material at your facility:
❑ Carpet padding ❑ New carpet ❑ Raw material for carpet (e.g. monomers, fibers) ❑ Molded or extruded products
❑ Plastic pellets ❑ Injection-molded plastic parts ❑ Other (describe):_____

8. For the purposes of forecasting trends, please estimate the percentage increase or decrease in quantity of post-consumer carpet you expect to recycle in 2007 when compared with 2006: _____%

9. Indicate areas where CARE has provided, or should provide support that would help your business:

	Have Provided Support	Should Provide Support
Presentation to local governments:	❑	❑
Provide research on:	❑	❑
Separation technology	❑	❑
Processing equipment needs	❑	❑
i. Facilitate meetings with other carpet recycling resources	❑	❑
ii. Additional research on regional carpet recycling levels	❑	❑

Other (describe)_____
_____
_____

Company Information (Optional)

Company Name: _____

Address: _____
_____

Contact Name: _____ Telephone Number: _____

E-mail Address: _____

NOTE: *This information is optional and is only to be used for the purposes of follow-up if questions arise about responses provided. To be eligible for Amazon.com gift certificate, name and e-mail address must be provided.*