



# PROJECT YELLOWSTONE

Multi-company partnership diverts plastic bottles from landfills

BY MELISSA MCGUIRE

Yellowstone National Park has been a leader in recycling innovation with programs that have significantly reduced the park's dependency on area landfills. Unfortunately, like many recyclable materials collected in America, most plastics collected in Yellowstone were being sold overseas, made into new plastic products, then sold back to the U.S. However, a new and unique recycling partnership – Project Yellowstone – formulated with Universal Textile Technologies (UTT), Four Corners Recycling, CPE and the United Soybean Board (USB) – has been established to remedy this problem while creating multiple benefits.

Under the guidelines, Project Yellowstone will reduce and ensure the reuse of plastic bottles that go into landfills, create and protect jobs for the American workforce, and help Yellowstone National Park meet its recycling goals. UTT has committed to purchase the recyclable plastic bottles generated by Yellowstone's three-and-a-half million annual visitors and convert them into a non-woven fleece material that is used to manufacture high-performance backing for carpet and select synthetic turf products.

"Yellowstone was created as the world's first national park in 1872," said Jim Evanoff, an environmental protection

specialist with Yellowstone National Park. "We have an obligation to set the example for promoting sound environmental stewardship practices that will serve as a model for future generations. This new partnership not only diverts plastics from landfills, it dramatically decreases the fuel and other resources used to transport materials around the planet."

UTT began exploring the possibility of utilizing bio-based technology to replace existing petrochemicals used in the production of high-performance backing systems. Through this exploration, the company was led to the United Soybean Board (USB) New Uses Committee, result-



Universal Textile Technologies purchases the recyclable plastic bottles generated by Yellowstone National Park's three-and-a-half million annual visitors and converts them into a material used to manufacture carpet backing.

ing in a new and dynamic partnership with America's farmers. Through this partnership, the industry's first high performance backing system, BioCel, was introduced and has become a standard in the specified commercial carpet industry.

"UTT is one of the pioneers in bio-based technology," said Doug Giles, director of marketing. "We began in 2002 by integrating soy-based technology to replace petroleum-based polyols in our chemistry. Our biggest issue was how to replace petroleum-based products while supporting the American economy. Now, with the help of partners like the United Soybean Board and Yellowstone National Park, we've been able to tie our sustainable efforts into our carpet backings technology: BioCel, EnviroCel and EnviroCel Home."

The high-performance carpet backings utilize recycled plastic bottles combined with naturally renewable soybean-based polyols, derived from U.S. soybeans and recovered materials.

The eco-friendly backings are made from domestically grown soybeans replacing a portion of the petroleum-based polyols found in regular polyurethane backing. UTT uses soybean oil, stabilized by removing gums and waxes, and converts it into a polymer. This polymer becomes an integral part of carpet backings and synthetic turf that helps lock the turf and carpet fibers into place.

Project Yellowstone will promote the reuse of discarded plastic bottles while demonstrating the unlimited potential organizations can realize when they work toward a common goal. The Georgia Tech

Research Institute has provided third-party verification for the project.

"The partnership between Universal Textile Technologies and Yellowstone National Park is a great example of a model system that can help increase the demand for recycled content in American-made products," said Werner Braun, president, Carpet and Rug Institute. "Eventually, Yellowstone will have the opportunity to purchase carpets that have the recycled content from the plastic

helps support the U.S. economy by creating American jobs, not to mention the economy boost generated by the creation of BioCel, EnviroCel and EnviroCel Home.

This past summer, John McIntosh, vice president of sales, Signature Crypton Carpet – a partnership between Signature and Michigan-based Crypton Super Fibers – was invited to testify before the U.S. Senate Agriculture Committee to discuss how Signature and UTT are turning farm products into carpet backing.

"We take 43 tons of plastics out of the park each year, plastics that were being sent overseas," McIntosh said. "Signature Crypton Carpet has since developed a signature line of products called the Yellowstone Collection that is inspired by the park. Fifty cents of each yard sold goes back to the Yellowstone Foundation."

McIntosh told the committee members these new ventures have helped the 12-year-old company grow its work force, even during these difficult economic

times, and expand from its traditional market of health care into the elder care market and now the government market.

"It is displacing foreign-based petrochemicals with the use of rapidly renewable resources grown right here in the United States," McIntosh said. "It's an environmentally friendly, cost-neutral solution for our customers. We changed the chemistry without changing the performance. In fact, we are actually seeing improvements in performance."

McIntosh explained the federal government could set an example with its

Continued on page 54



bottles collected from the park, bringing the recycling story full circle. By buying the plastic from Yellowstone and keeping it in the states, UTT helps keep revenue in our country."

#### BIOCEL SETS THE STANDARD

The BioPreferred program was established as part of the 2002 Farm Bill. It requires federal agencies to purchase bio-based products over their petroleum-based counterparts, as long as the bio-based materials are reasonably available, reasonably priced and comparable in performance. The use of soy-based products