

# SOUND SURFACES



Morgan Hill Community Park opted to be environmentally conscious when it re-surfaced its tennis court using materials made of recycled rubber and soybean oil.

# From turf to courts, recycling is going underfoot.

By Caroline Tamer

You can see it in Hollywood where the red carpet for celebrity arrivals at this year's Emmy Awards was made from 95,000 recycled plastic bottles. And former vice president Al Gore's documentary on global warming, *An Inconvenient Truth*, just won him a Nobel Peace Prize. Even the three "Rs" once translated as reading, writing and arithmetic have evolved into "reduce, reuse and recycle."

Americans seem to be embracing being "green" now more than ever. In fact, nine out of 10 Americans are concerned about the future of the environment, according to a 2006 poll by Global Market Insite.

Cognizant that millions of Americans look to their local parks as a prime accessible, low-cost place to participate in sports, public park officials are taking these concerns very seriously by teaming with companies and organizations that share the same sense of environmental stewardship. When renovating or constructing sport surfaces, there are a host of ways to incorporate recycled materials into the process and thus limit environmental damage.

If you think the useful life of that flat tire or those smelly worn-out sneakers is over, think again. These are among the "post-consumer waste" items being recycled and used in sport surfaces at parks around the country.

At the Redding Soccer Park in Redding, Calif., all four fields are made of thousands of recycled tires. The fields feature rubber infill, which incorporates a total of about 1.2 million pounds of recycled rubber, or approximately three pounds per square foot.

Typically there are 25 pounds of rubber in an average tire.

With natural grass sometimes a costly option, recycled tires have increasingly found their way into athletic surfaces as a greener alternative that also affords greater performance. According to Jim Dobmeier, president and founder of A-Turf, the company contracted for the Redding project last year, playing surfaces are in great demand and the natural grass just can't hold up to the constant pounding.

"Recycled rubber significantly adds to the overall resilience of the synthetic field system, absorbing much of the impact that would otherwise be absorbed by the athlete," says Dobmeier. "Also, this rubber is both weather- and wear-resistant, thus it takes much of the abuse that comes with the intense use these fields are designed to withstand. The end result is an extended life."

"Now that this category of surfacing has been created, people are seeing the value of raising the money, putting the capital investment in there, and then having a surface for 15 years that you can use virtually endlessly," he explains.

Now more than ever, tires which once sat in landfills are enjoying a useful afterlife. According to the Environmental Protection Agency, from 1990 to 2003 the total number of scrap tires going to market increased from 11 million (24.5 percent) of the 223 million generated to 233 million (80.4 percent) of the 290 million generated.

The process is pretty simple: tire collectors provide tires to facilities that cut the tires into scrap. These strips of tire then go to rubber processors who separate the metals and fiber from the rub-

ber, then grind and package it for use in the marketplace. The recycled rubber is 20 to 25 percent cheaper per pound than colored virgin rubber.

California is among some states encouraging use of recycled tires. The California Integrated Waste Management Board (CIWMB) created the Tire-Derived Product Grant Program for public entities, private schools and community housing development organizations to promote markets for the use of recycled tires and decrease adverse environmental impacts created by unlawful disposal and stockpiling of waste tires.

"As a responsible municipality, we encourage the use of recycled material," says Kim Niemer, director of Community Services for the City of Redding. "In our case, the synthetic turf is resource-friendly on a lot of fronts."

Additionally, when you have a climate where there is a lot of rain creating soggy grounds, the synthetic turf "really extends the playing season significantly," she says. "So we are affording our community and our children play through the winter that would not be the case with natural grass."

Reducing waste has been a priority for Nike, a shoe company that has found new game in old sneakers through its Reuse-A-Shoe program. Worn-out athletic shoes (of any brand), which would have ordinarily wound up in landfills, are collected through a variety of recycling programs and sources. The output from that, along with scrap material from the manufacturing of Nike product is collectively called Nike Grind material.

Nike has teamed up with sports sur-



PHOTOS COURTESY OF NIKE

facing companies to incorporate Nike Grind into their standard product lines, creating surfaces using the most innovative methods and advanced recycling technology.

Once the shoes are collected, each is

cut into three pieces that are fed through grinders and purified to create the different types of Nike Grind—rubber from the outsole, foam from the midsole and fabric from the upper material. To date, about 20 million pairs

of athletic shoes worldwide have been processed through the Reuse-A-Shoe program.

With partners, including Atlas Track, Connor Sport Court, FieldTurf, Playtop and Rebound Ace, Nike Grind has

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Nike Grind material is produced from old athletic shoes. They are sorted (left page) before processing. The finished product is put into bales (above).

found uses in nearly every type of sports flooring system including indoor and outdoor basketball courts, tennis courts, athletic fields, running tracks, fitness rooms and playgrounds.

“We partner with companies who share the same vision for positive environmental and community impact, and they’ve worked over the years to incorporate the different types of Nike Grind into their standard product ranges,” says Simon Lofts, senior corporate responsibility manager for Nike Grind.

The companies try to incorporate an average of 10 to 20 percent Nike Grind by weight into surfaces, which translates into approximately 2,500 pairs of recycled athletic shoes for a basketball or tennis court.

Nike takes it a step further by working with their partners to bring Nike Grind surface donations to underserved communities, in association with their community investment program, Let Me Play. Since the program began in 1993, Nike has contributed to more than 250 sport surfaces in communities around the world.


Ground rubber has also played an integral role in the recycling efforts within the tennis court construction industry. The cushioned surfacing uses ground recycled rubber with acrylic

binder on asphalt and concrete tennis court pavements. For asphalt tennis courts that are badly cracked and deteriorated, the existing asphalt can be milled in place and recycled as a part of the base course for the reconstruction of the new tennis court surface.


“For years the tennis construction industry had opted to remove deteriorated asphalt from the tennis court disposing of this material in landfills and

other areas,” says David LaSota, National Tech Advisor to the United States Tennis Association (USTA). “More and more tennis court contractors in the United States are accepting the grinding and reuse of the deteriorated asphalt as part of the new pavement section during the reconstruction process, due to increased costs of material disposal and savings in stone base course materials resulting from the use of ground


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asphalt as part of the pavement base. While saving costs, they are also protecting the environment through recycling.”

When Morgan Hill Community Park, located just outside of San Jose, Calif., was faced with badly cracked asphalt pavement tennis courts, they looked for resurfacing materials that would have “green” characteristics. It took two weeks, including a great amount of time devoted to pavement repair, to resurface four courts with ProBounce by NGI Sports. But according to the park and recreation agency, the installation was quicker, cost considerably less than demolition or a post-tension concrete overlay and, in the end, was environmentally sound.

The surfacing that Morgan Hill chose has a coating made from soybean oil, which replaces environmentally unfriendly solvent- and petroleum-based asphalt pavements that consume high amounts of energy and heat to produce and install. Unlike petroleum, soybean oil is easily and readily replenished without harm to the environment.

Recycled materials also contribute to the function of court surfacing. John Graham, managing director of DecoTurf, a surfacing manufacturer, says “if you want a tennis surface with the highest percentage of recycled materials, you need a cushioned surface.” Agencies should also look for products that use

recycled material that includes different forms of rubber to create the cushion and recycled fibers that account for some of the color.

The USTA, which operates the US Open at one of the country’s largest public tennis facilities, and promotes play in public parks through its Tennis in the Parks (TIP) grant program, reviews hundreds of designs and concepts of tennis facilities each year from parks and other public facilities.

According to Virgil H. Christian, Jr., director of community tennis development for the USTA, “More parks are requesting from their contractors to recycle and reuse materials.”

And education is key. Knowledge is power. The bottom line is that environmentalism has not only become fashionable, but a necessity for the well-being of future generations. Public park and recreation facilities must continue to heed the call. **P&R**

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