



Department of  
**Environment &  
Conservation**



## **Bridgestone Americas-Warren County: Sustainable Inside and Out**

Through its dedication to Corporate Social Responsibility (CSR), Bridgestone Americas, the U.S. subsidiary of Bridgestone Corporation, and the world's largest tire and rubber company, has a rich history of serving its communities.

The Warren County plant, owned and operated by Bridgestone Americas Tire Operations in Morrison, Tennessee, is a brilliant example of how, after more than 115 years, Bridgestone is still committed to its heritage of serving the local community and ensuring a healthy environment for future and current generations.

Driving into the Warren Plant, one of the first things someone would notice are the bluebird boxes on poles in the fields to the left and right. "Sometimes sparrows take up residence in the boxes," said Michael Mallner, Senior Environmental Engineer for the Warren Plant. "Since those are invasive species, I have to gently remove them."

Michael has worked at the Warren Plant for less than 2 years but is already deeply invested in the many projects onsite.

One of the most impactful projects that supports Bridgestone's mission in Warren County has been its investment in the Bridgestone Environmental Education Classroom & Habitat (BEECH), a certified wildlife habitat. At this hands-on environmental learning center, thousands of Warren County students in grades Pre-K to 5<sup>th</sup> grade learn grade-specific science curriculum that supports Tennessee's standards.

  


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- **Member since 2007**
  - **Employs 1,000+**
  - **Established in 1990**



“There are plenty of opportunities for hands-on experiments without leaving Bridgestone property,” Michael said. There are fields planted with milkweed to draw monarchs during their migrations as well as plots of American Chestnut trees to measure responses to the American Chestnut blight.

Several dozen acres of the property are planted with classic prairie grassland species. “This area of Tennessee was once covered in prairie lands. We’re hoping to recover at least a portion of that.”

“We make a few tires here, too,” Michael said, smiling. The technical combinations of natural and synthetic rubber compounds used in making high quality tires of all types leads to several recycling challenges. One of the most interesting solutions to a particular rubber material involves a foreign shoe company.



Bladder rubber is the remaining material from a completely cured out and formed tire. Bladder rubber is ideal for shoe soles in hotter parts of the world. Because of the rubber chemistry intended for tires, the bladder rubber from the Warren Plant is used to make high-end sandals in Pakistan, where regular shoe rubber tends to melt



due to the hot conditions. “If you look at the heel of one of the shoes,” Michael explained, “you’ll see the same pattern as on one of our curing bladders, but the front of the sole is embossed with a pattern that makes that less obvious.”

Before it becomes cured or hardened, most of the rubber material wastes are recycled back into the manufacturing process. The bladder rubber is one of the few rubber materials that leave the facility to be recycled into another product.

The manufacturing of tires is a very energy intense process. The Warren Plant recently reduced their energy footprint with two key projects. In 2016, 3,400 fluorescent light fixtures were replaced with energy-efficient LED installations. The original fixtures used 234 watts each, while the new LED fixtures use only 144 watts each. This is an energy efficiency improvement of ~35 percent. More recently, 4 out of 5 banbury mixing motors, the “cake-mixers” for the rubber compound that makes up the tires, were replaced with more efficient motors. That equated to over 2 million kWh annual reduction representing over 1,700 tons of CO2 reduced.

Bridgestone America’s Warren Plant is an exceptional example of how our Tennessee Green Star Partners are committed to sustainability, invested in their local community and their natural environment.

The [Tennessee Green Star Partnership](#) is a voluntary environmental leadership program designed to recognize industries in the state, which are committed to sustainable practices. If you are interested in joining Bridgestone America’s Warren Plant, and other sustainable industries in Tennessee by becoming a member, please contact us.