



BRIDGESTONE

One Team,  ne Planet.

Your Journey, Our Passion

**Greer Tidwell
Carolinas Recycling and Zero Waste
March 23, 2016**

Wilmington, North Carolina

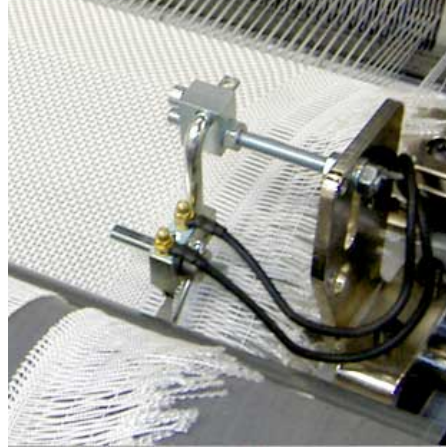
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Bridgestone Americas

Firestone Natural Rubber



Firestone Fibers and Textiles



Bridgestone Americas Tire Ops



Bridgestone Retail Operations



Firestone Building Products



Firestone Industrial Products



Successful factory life

REQUIRES TURNING

NEIGHBORS INTO FANS



Environmental Mission Statement

To help ensure a healthy environment
for current and future generations...

We, the Bridgestone group, are committed to continually working toward a sustainable society with integrity and in unity with our customers, partners, communities and the world around us.

Therefore, we are focused on three objectives.



**In harmony
with nature**

To contribute to biodiversity through habitat enhancement, and through environmental education and research.



**Value natural
resources**

To continually improve natural resource conservation through operational improvements and product design.



**Reduce CO₂
emissions**

To continually reduce emissions of Greenhouse Gases, including CO₂ from our products' complete life cycle.

The Bridgestone group's environmental mission covers all aspects of our business.



TEAMS: Total Environmental Advanced Management System
TEAMS unites the group under a progressive management system to help ensure a healthy environment.

One Team, One Planet.

BRIDGESTONE



Environmental Mission: Reducing CO2 Emissions

Global goals – by 2020

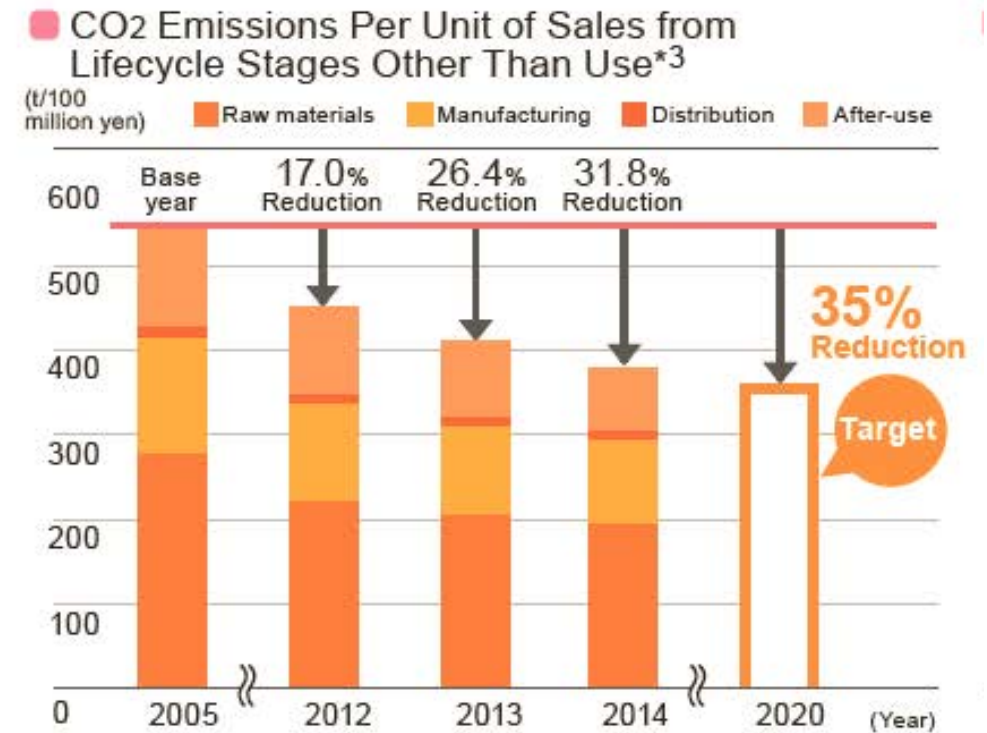


Reduce CO2 from entire products lifecycle by **35%** per sales



Improve **tire rolling efficiency** by **25%**, resulting in less fuel use and CO2 emissions while driving

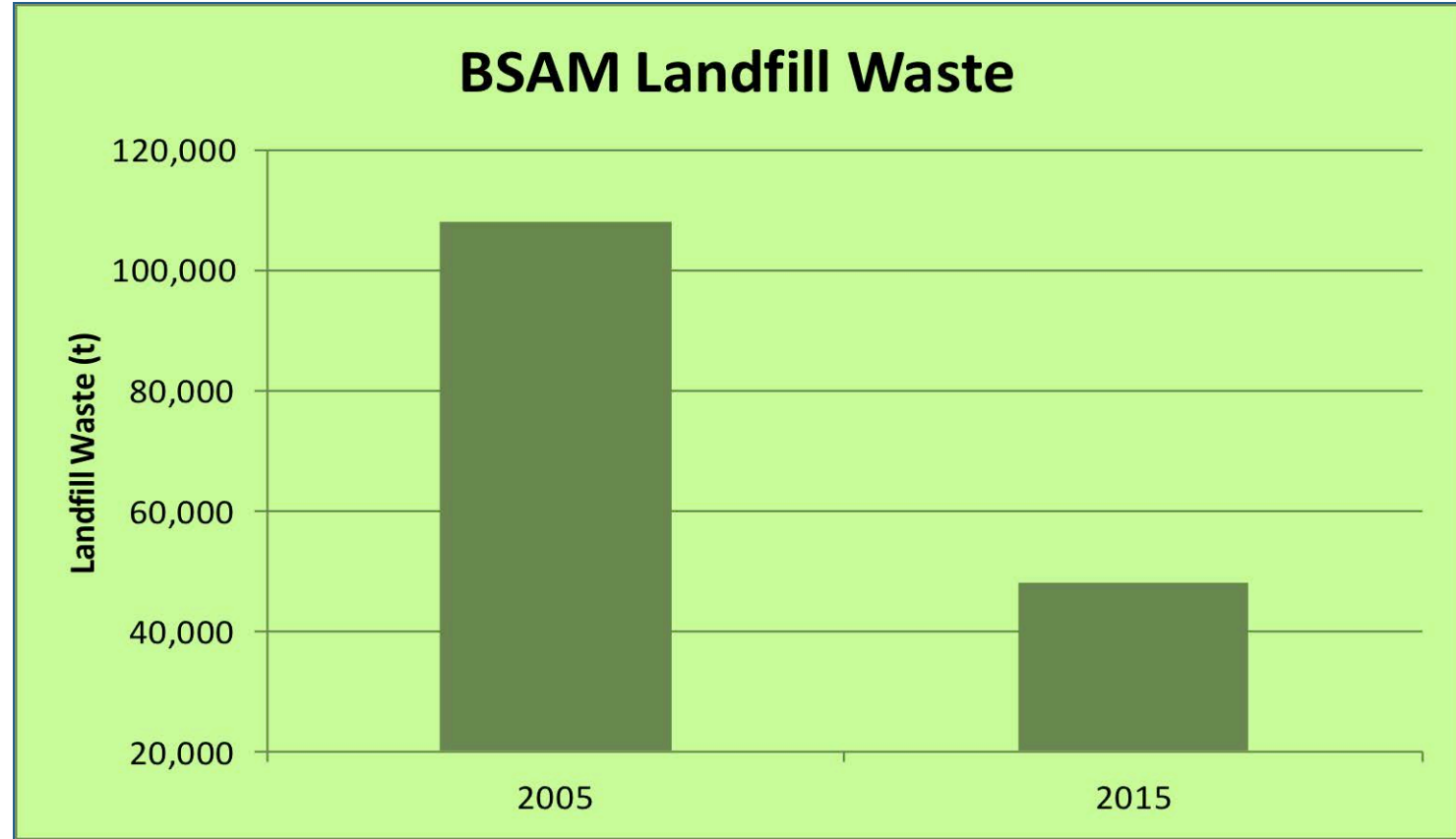
Bridgestone's Global CO2 Progress



*3 Because we refined past data, the data above differ slightly from both Environmental Report 2014 and CSR Report 2014. Includes CO2 emissions reduction activities and exchange rate fluctuations of sales.



Zero Waste



Equivalent to 4,000
garbage trucks per year



Buffalo National River Cleanup, AR. Laura Timby



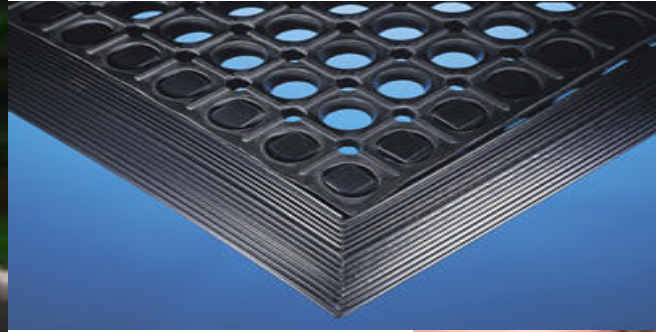
Vision: WASTE FREE Tire Industry

- ✓ 100% of used tires returned to our stores get a beneficial next use.
- ✓ Provide Free scrap tire recycling for river cleanups RIVER NETWORK

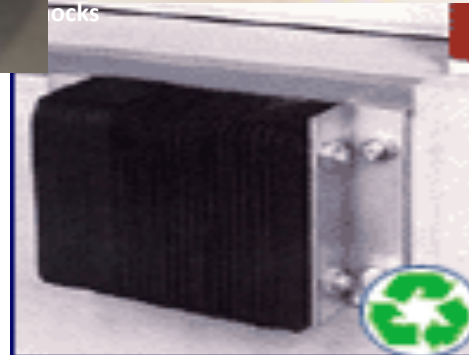
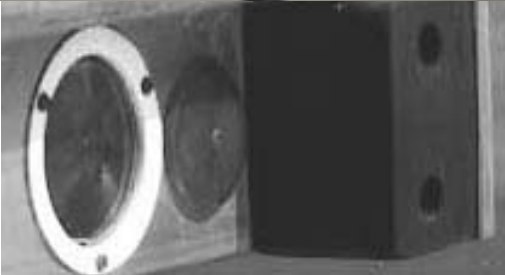
**>126,000 Tires recycled
from 500+ events**

One Team,  One Planet.

“What do you do with all those scrap tires?”



rocks



EVERY DAY IS A NEW DAY

- ✓ EACH MATERIAL
- ✓ EACH LOCATION
- ✓ EACH MONTH

Our Journey : Waste Down, Recycle Up

~~1. Double Down on waste reduction-~~

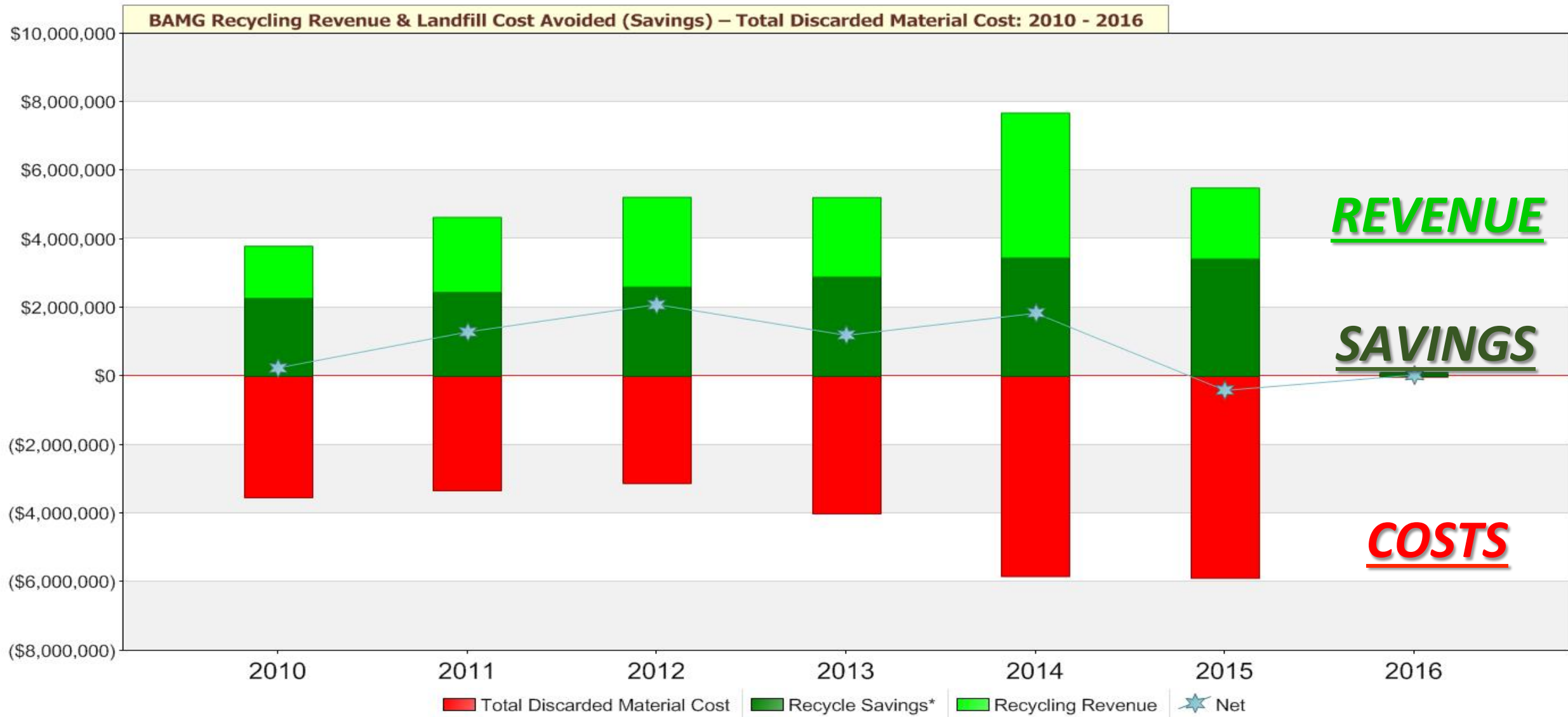
We are manufacturers it's what we do...

2. Recycling is Good

3. Extra Effort to find Recycling
Cheaper than Landfill

4. Bundle financial impacts and see if
we can get to ZERO LANDFILL at
Better then Breakeven

FINANCIALS of Waste Down, Recycle Up



DATABASE for DISCARDED MATERIALS



VERSION 2.0

General Information

Wilson, NC

Active



Recycling



➤ [Materials Recycled or Disposed, Vendors, Data](#)

➤ [Scrap Tire Inventory - Woodridge](#)

Recycling

Wilson, NC



Recycling / Disposal Records

- [List of Facility Records](#)
- [Add a New Record](#)
- [Import a Spreadsheet of Records](#)
- [Vendor Data Rollup](#)
- [Material Groups Data Rollup](#)
- [Comparison with Existing Perf. Indicator Values](#)



Data Reports - All Facilities

- [Vendor List](#)
- [Vendor Data Rollup](#) (SBU, BU, DIV)
- [Material List](#)
- [Distinct Material List / Material Group](#)
- [Material Groups Data Rollup](#) (SBU, BU, DIV)
- [Search](#)



Wilson, NC - Material / Vendor Lists

- [Materials Recycled or Disposed](#)
- [Recycling / Disposal Vendors Used](#)

Materials Discarded = Materials Recycled + Materials Disposed

Materials Recycled: All materials externally recycled including, but not limited to: metal; rubber; used oil; batteries; fluorescent lamps; computer monitors; recycled Scrap Finished Products; etc. Materials recycled include anything that is beneficially used, recycled or used to recover energy, including fuel blending. It does not include materials combusted for waste destruction, or items discarded from the plant but used for original purpose, such as used equipment or fill dirt.

Materials Disposed: Materials, including Scrap Finished Products that are landfilled or incinerated. Do not include air emissions, wastewater or surface water discharges. Exclude: Materials Requiring Disposal, a subset of materials disposed which are required by regulation to be disposed instead of recycled, such as asbestos, PCB-containing materials, and medical wastes. (Materials Requiring Disposal will NOT be counted in Materials Disposed calculation).

Bridgestone Wilson, NC Tire Plant: UL certified Zero Waste to Landfill



1st tire 1974

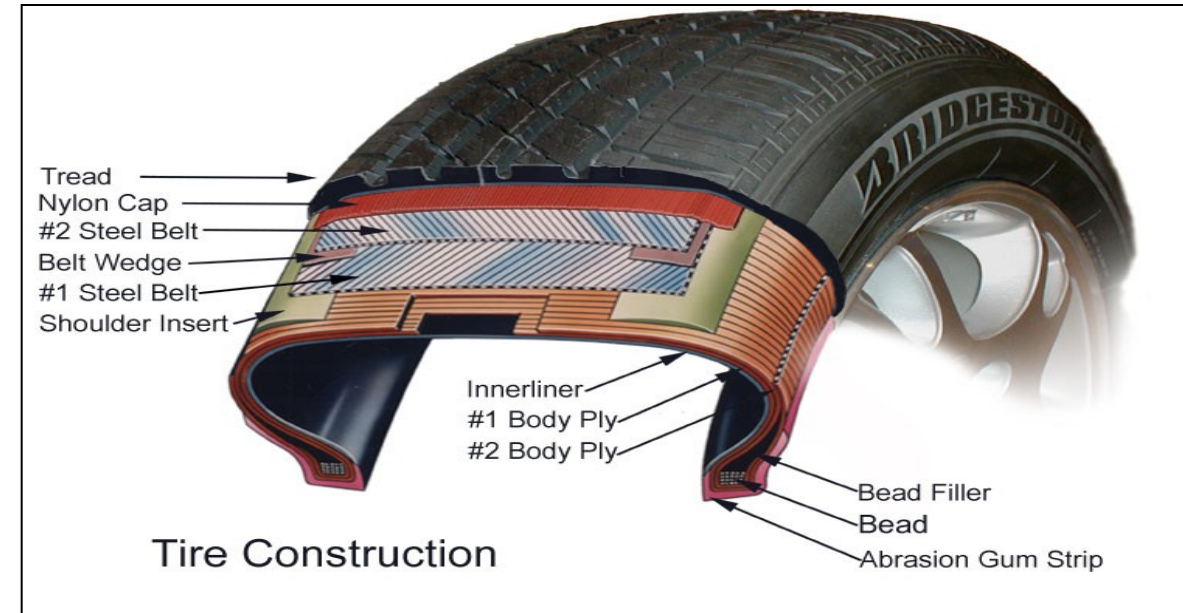
Over 2000 Great People

Making over 30,000 tires per day!

NOW Recycling 100% of plant waste

Many Complex Materials in Tire Manufacturing

- Uncured rubber with wire
- Partial cured rubber
- Uncured rubber
- Oils, Sludges
- Pigments and carbon black
- Metal
- Plastics
- Packing material (supersacks, wax paper, shrink plastic, cardboard, plastic belts, wood, etc)
- Lamps and ballast
- Batteries
- Cafeteria and restroom trash



SCRAP WIRE
= EASY



RUBBER WITH WIRE
= DIFFICULT!



Continuous Communication & Employee Involvement

- TV monitors
- Monthly meetings to share purpose, results, challenges

Wilson PRIDE

Wilson Plant
July 2011
Vol. 9

**GARBAGE
RECYCLING
TRASH
WASTE TO
LANDFILL**

No matter what
you call it – we
have to get it
under control

Eco Ideas



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Wilson Green
2nd Quarter 2013

On April 22, we celebrated Earth Day with our vendors who use our by-products and waste to make their own products. Additionally, we planted trees at Gate 6 entrance, using rubber mulch to finish the planting.



On May 21, we received the City of Wilson Pretreatment Compliance GOLD Award for our 6th consecutive year! Congratulations!



On June 5, we celebrated the Environmental World Wide Day! We had students working on projects at the habitat. We also had Waste Management and Budd working together as they did a great job cleaning the collection pond.



For the first half of 2013 we can say it has been pretty busy with good results so far.

1. No **NOV's** (Notice of Violation) for non-compliance.
2. One CAR, which is already closed.

Environmental CAR Corrective Actions



Wilson Green

pg. 1 of 2

Apr – June 2013

TEAMWORK KAIZEN to improve price paid for 'pin vents'



Wilson Green

4th Quarter 2013



We are # 1

Facility Certified by UL on ZWLF Zero Waste Landfill

We made it possible! A lot of good news for the Environmental Program during 4Q 2013. We have to work even harder to have a better 2014!

On October 21st through Oct 23rd our Corporate Audit Team was onsite to perform an Air Quality Performance check. We found a couple of opportunities for improvement and a few good ideas to share with other Bridgestone sites.

On October 28th through 30th we had our second ISO 14001 Surveillance audit. We did very well, with zero findings and zero recommendations. Great work everyone! 🎉

On October 29th, 2013 we hosted the UL audit team from the Environmental division of Under Writers Laboratories, who performed a detailed audit and verification of our Zero Waste to Landfill program. During the audit we did have two non-conformities. These non-conformities were closed a couple of weeks after the audit. At the conclusion, we received recognition from UL as the First Plant Ever to achieve this certification! Congratulations and Well done!

I would like to offer special recognition and thanks to the Waste Control Department, lead by Larry Stancil (Bridgestone), and Ralph Wilhelm (Waste Management) and their teams. Their hard work and support made this accomplishment possible!



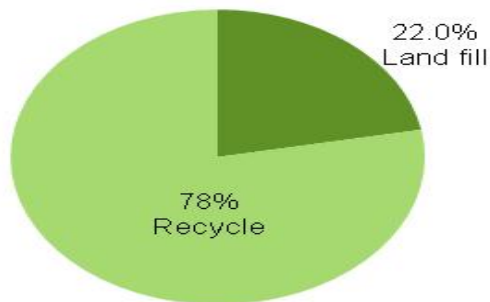
Wilson Green

1 of 2

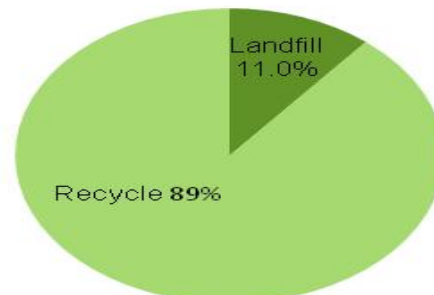
Oct-Dec 2013



2011

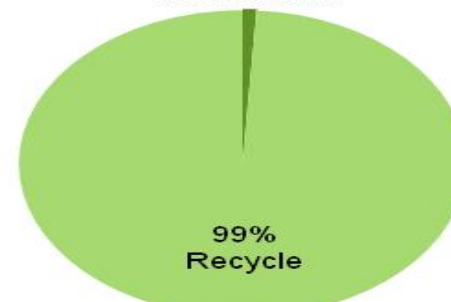


2012



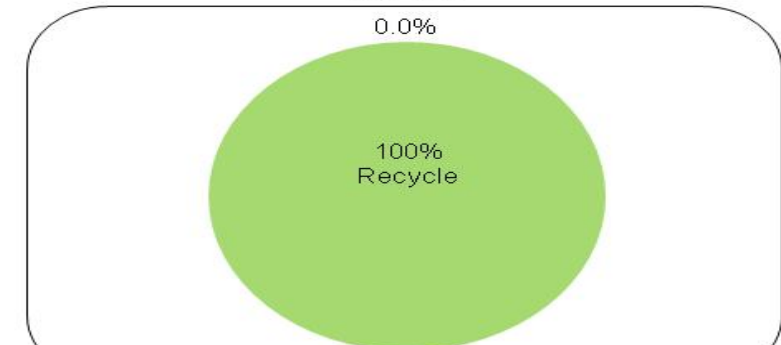
2013

1.0% Landfill

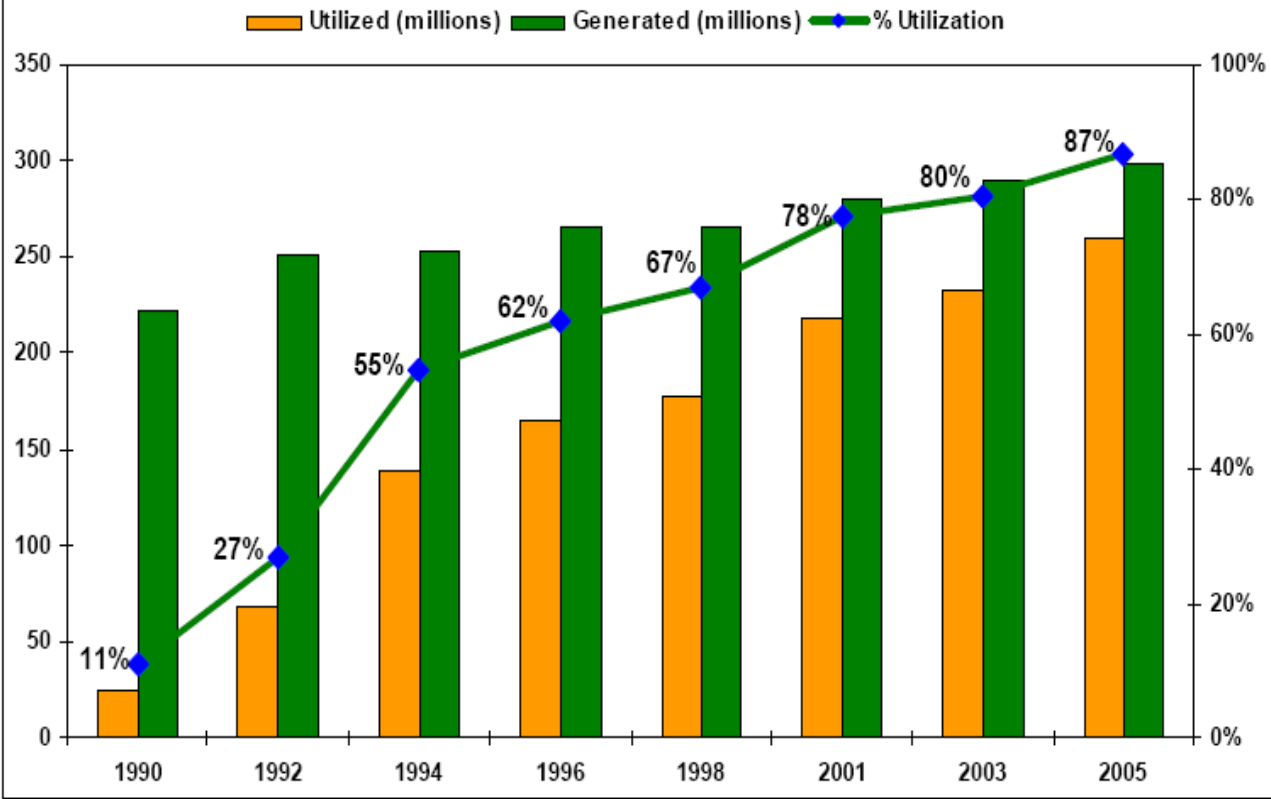


2014

0.0%

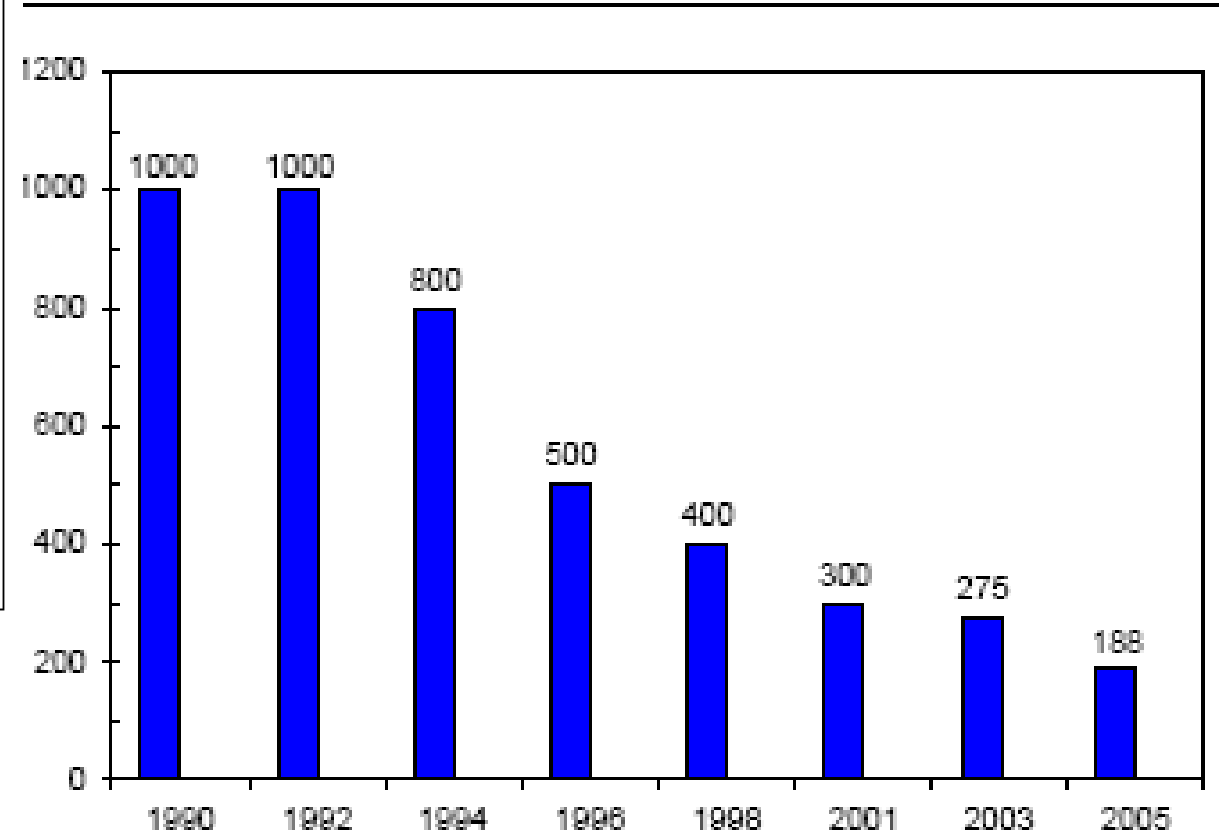


Nationwide: PROGRESS Tire Recycling and Stockpile



**Recycling U. S. Used Tires
THEN 10% NOW >90%**

Source: Rubber Manufacturers Association



**Cleaning up U. S.
Used Tire Stockpiles, Now <75M**



Old Tires for New Flowers Ciénega de Flores, Mexico



BRIDGESTONE

TIRES4WARD

PUTTING OLD TIRES TO GOOD USE



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*Follow the triangle &
ye shall be reborn!*



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