



2019 U.S. Scrap Tire Management Summary

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About the U.S. Tire Manufacturers Association

The U.S. Tire Manufacturers Association (USTMA) is the national trade association for tire manufacturers that produce tires in the U.S. USTMA members operate manufacturing facilities in 17 states, employ nearly 100,000 workers and generate annual sales of over \$27 billion. USTMA members are committed to sustainability throughout the lifecycle of a tire, from development through end of life.

USTMA began its scrap tire program in 1990 under the auspices of the Scrap Tire Management Council. USTMA works with all stakeholders, including states, U.S. EPA and the industry to develop markets, reduce scrap tire stockpiles and implement state regulations that foster sustainable scrap tire markets. USTMA supports sustainable and circular scrap tire markets.



USTMA Sustainability Vision

- USTMA members share a common vision on sustainability which includes: Promoting tire safety; advancing worker safety; reducing greenhouse gas emissions throughout a tire's useful life; improving environmental footprints over time; minimizing the health, and environmental impacts of tire materials; and ensuring scrap tires enter sustainable markets.
- Specifically, ***USTMA members have the goal that all scrap tires enter sustainable end use markets.***
- USTMA's 2019 *Scrap Tire Management Summary* report measures our progress towards meeting our sustainability vision.

U.S. Scrap Tire Generation 2019

Tire Class	Millions of Tires	Market %	Average Weight (lbs)	Weight (thousands of tons)
Light Duty Tires	268.2	88.4%	22.5	3017.5
Passenger tire replacements ¹	222.6	73.3%		
Light truck tire replacements ¹	32.5	10.7%		
Tires from scrapped vehicles ²	13.1	4.3%		
Commercial Tires	35.3	11.6%	120.0	2117.4
Medium, wide base, heavy truck replacement tires ¹	18.9	6.2%		
Tires from scrapped trucks and buses ²	16.36	5.4%		
Total tires hauled	303.5	100.0%	33.8	5134.9
Used tires culled	40.1	13.2%	33.5	670.8
Net scrap tires	263.4			4464.0

¹ Factbook 2020: U.S. Tire Shipment/Activity Report for Statistical Year 2019, U.S. Tire Manufacturers Association.

² Earlier USTMA Scrap Tire Management Summary reports used Ward's Motor Vehicle Facts and Figures, scrapped vehicle data to calculate the number of scrapped vehicles. Ward's discontinued publishing this data in 2014 creating the need for a new approach. For the 2019 Scrap Tire Management Summary report, USTMA utilized the ratio of vehicles scrapped to vehicles sold for years 2000-2014 and applied that ratio to 2019 vehicle sales to produce the number of scrapped vehicles. USTMA estimated the split between cars and trucks/buses based on the average of split from Wards for 2002 -2012. This data assumes 2 tires scrapped from light duty vehicles and 2.5 tires scrapped from trucks and buses. Source of vehicle scrapped data, US DOT Bureau to Automotive Statistics, Table 4-58: Motor Vehicles Scrapped (May 21, 2017) https://www.bts.gov/archive/publications/national_transportation_statistics/table_04_58. Source of vehicle retail sales in the United States from 1978 to 2019 data, Wards Motor Vehicle Facts and Figures .

U.S. Scrap Tire Disposition 2019

Market or Disposition	Thousands of Tons	Millions of Tires	% change 2017-2019
Tire-Derived Fuel	1646.83	100.48	-5.2%
Cement Kilns	816.47	49.82	1.3%
Pulp & Paper	481.68	29.39	-4.3%
Industrial Boilers	348.68	21.27	-18.4%
Ground Rubber	1089.00	66.45	7.5%
Civil Engineering	226.00	13.79	-28.5%
Exported	138.00	8.42	25.6%
Electric Arc Furnace	40.00	2.44	2.2%
Reclamation Projects	61.30	3.74	39.3%
Agricultural	10.00	0.61	40.8%
Baled Tires/market	10.00	0.61	-31.5%
Punched/ Stamped	20.00	1.22	-11.1%
Other	131.88	6.62	14.3%
Total to Market	3373.01	205.81	-1.1%
Generated	4464.00	272.37	6.6%
% to Market/Utilized	75.6%	75.6%	N/A
Land Disposed	680.00	41.49	5.1%
% Managed (includes Markets, Baled and Landfill)	90.8%	90.8%	N/A

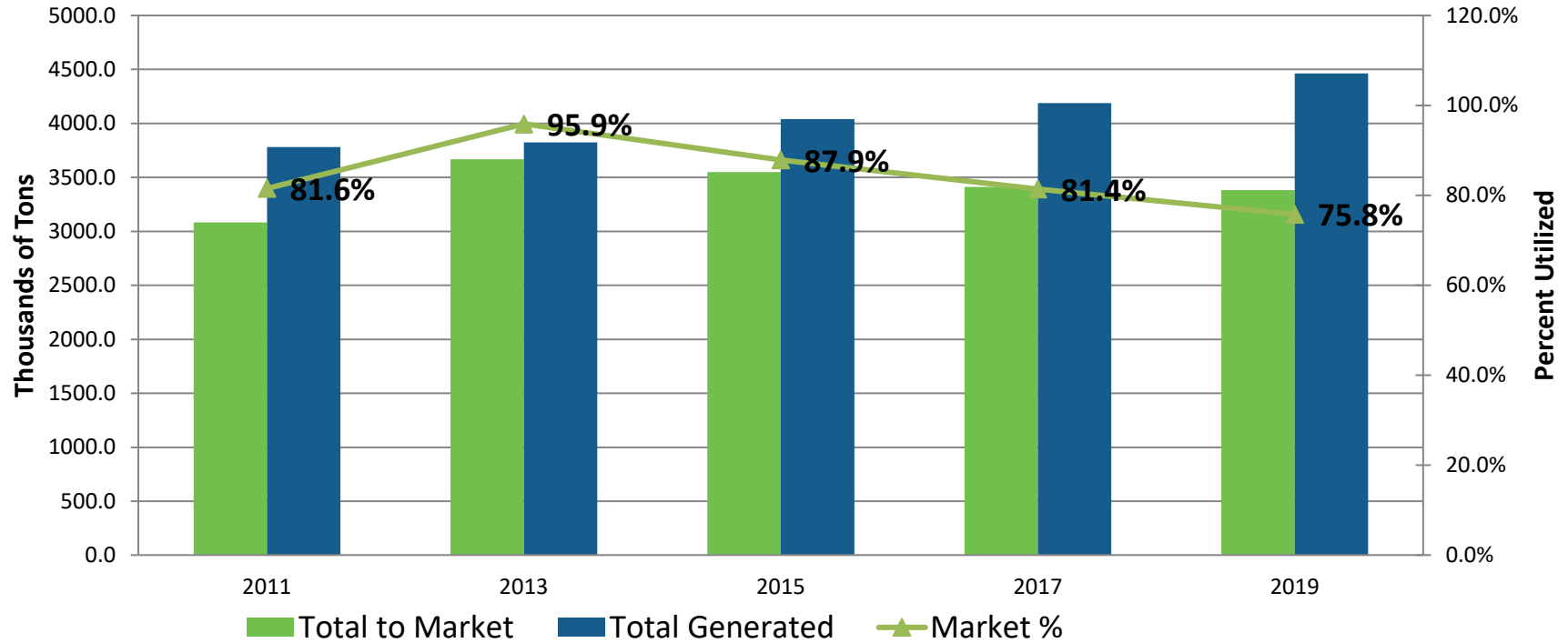
U.S. Scrap Tire Market Summary (2011 – 2019)

Market or Disposition (1000s of tons)	2011	2013	2015	2017	2019
Tire Derived Fuel	1427.03	2120.29	1922.67	1736.34	1646.83
Ground Rubber	1093.50	975.00	1020.75	1013.332	1089
Land Disposed	491.65	327.78	451.40	646.78	680
Civil Engineering	294.99	172.00	274.92	315.98	226.00
Exported	302.48	245.84	102.07	109.83	138.00
Reclamation Projects	54.29	49.17	52.54	44	40.00
Electric Arc Furnace	65.55	65.56	26.00	39.15	61.30
Baled Tires/market	1.92	30.00	9.19	14.59	10.00
Punched/ Stamped	1.90	1.90	41.20	22.50	10
Agricultural	7.10	7.10	7.10	7.10	20
Baled/no market	32.78	No data	No data	No data	No data
Used Tires ¹	n/a	n/a	n/a	n/a	n/a
Other			94.86	108.45	138.2
Total to Market	3083.76	3666.85	3551.30	3411.26	3373.01
Generated ²	3781.00	3824.26	4038.80	4189.19	4464.00
% to Market/Utilized	81.6%	95.9%	87.9%	81.4%	75.6%
% Managed (incl. baled and landfilled tires)	95.4%	104.5%	99.1%	96.9%	90.8%

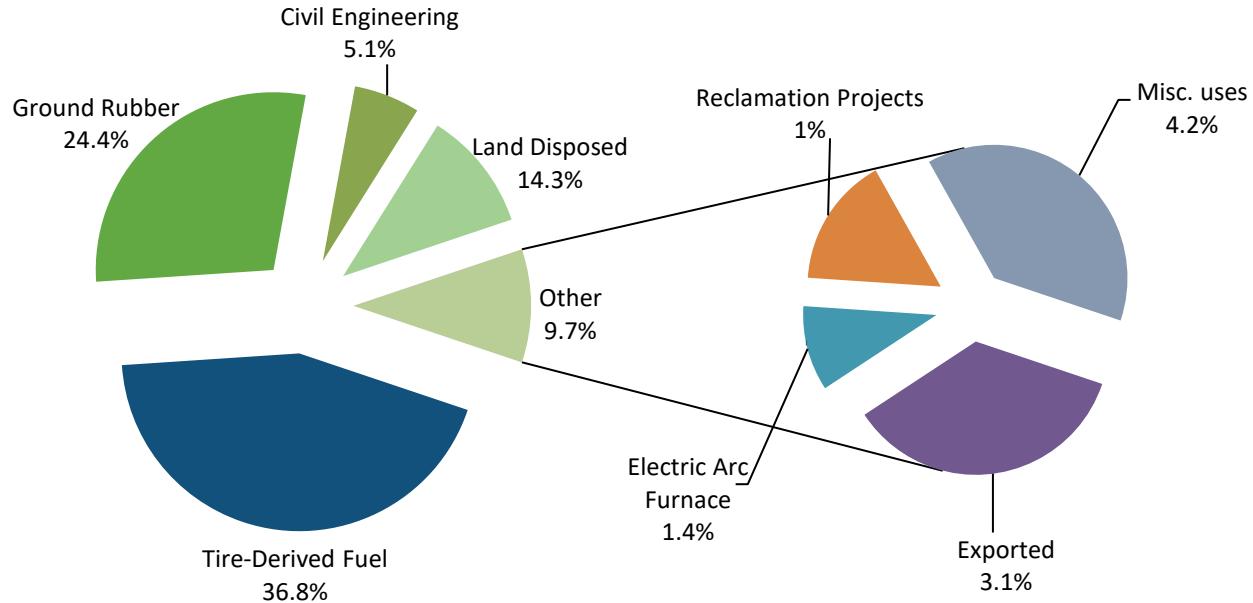
¹The U.S. Scrap Tire Management Summary began tracking tires culled from scrap tire collection entering domestic passenger and light truck used tire markets in 2009 by including used tires as a market for scrap tires. The U.S. Scrap Tire Management Summary now subtracts used tires from the total tires hauled to calculate total net scrap tire generation, a practice that began with the 2011 edition.

²In 2005 and 2007, annual scrap tire generation estimates were based on state-provided data. Now, these estimates are based on a calculation of replacement market tires sold and vehicles scrapped, a practices that began with the 2009 edition.

U.S. Scrap Tire Market Trends 2011 - 2019

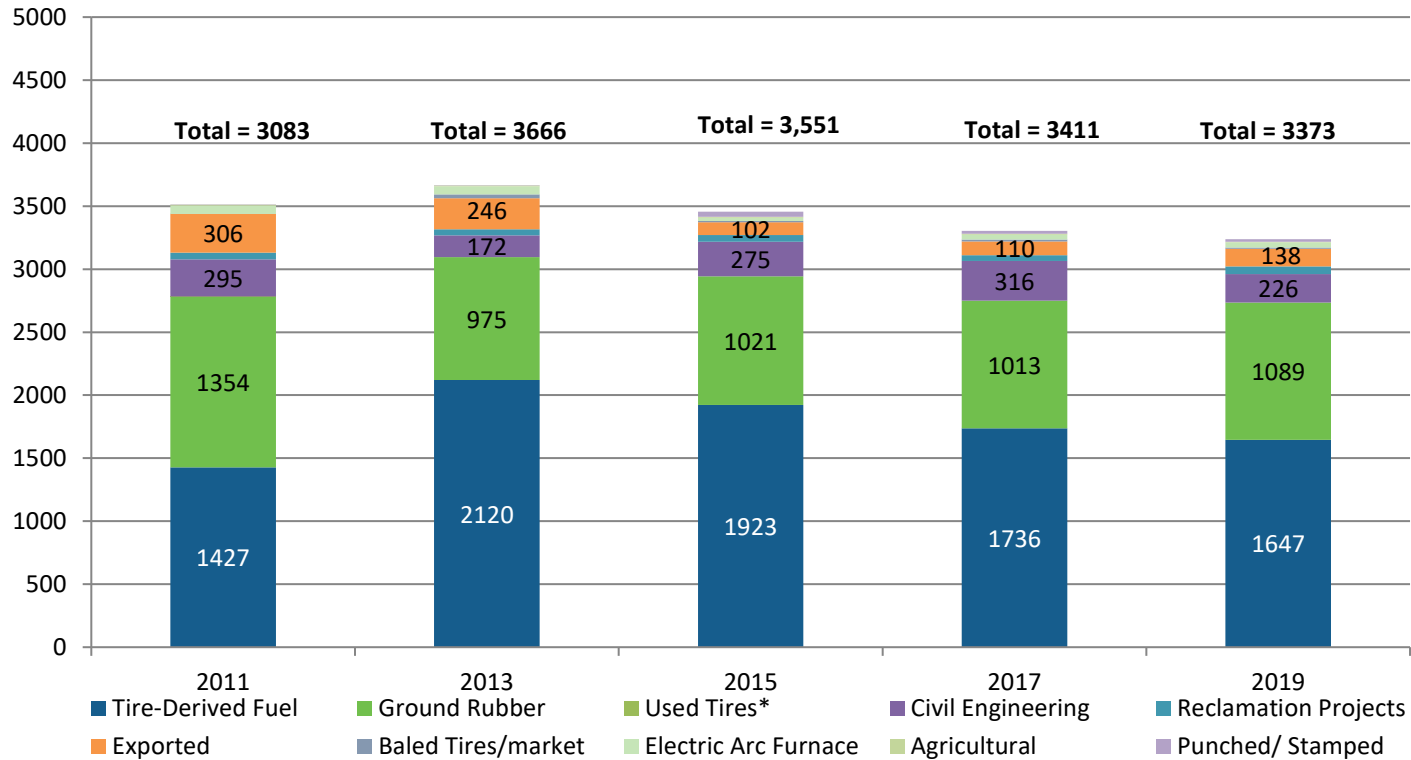


U.S. Scrap Tire Disposition 2019



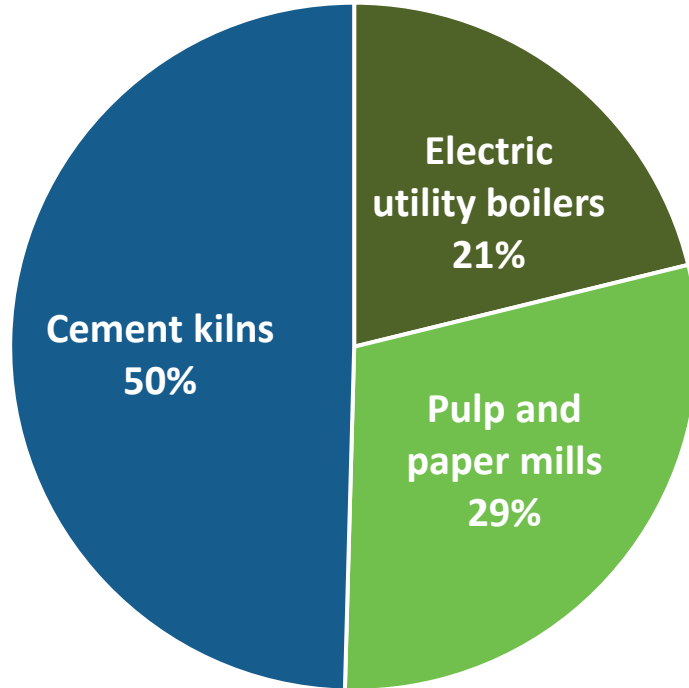
Total annual generation = 4,464 thousand tons

U.S. Scrap Tire Market Trends 2011 – 2019



*The USTMA Scrap Tire Management Summary report began tracking tires culled from scrap tire collection entering domestic passenger and light truck used tire markets in 2009 by including used tires as a market for scrap tires. The USTMA Scrap Tire Management Summary report now subtracts used tires from the total tires hauled to calculate total net scrap tire generation, a practice that began with the 2011 edition.

U.S. Tire Derived Fuel Markets 2019

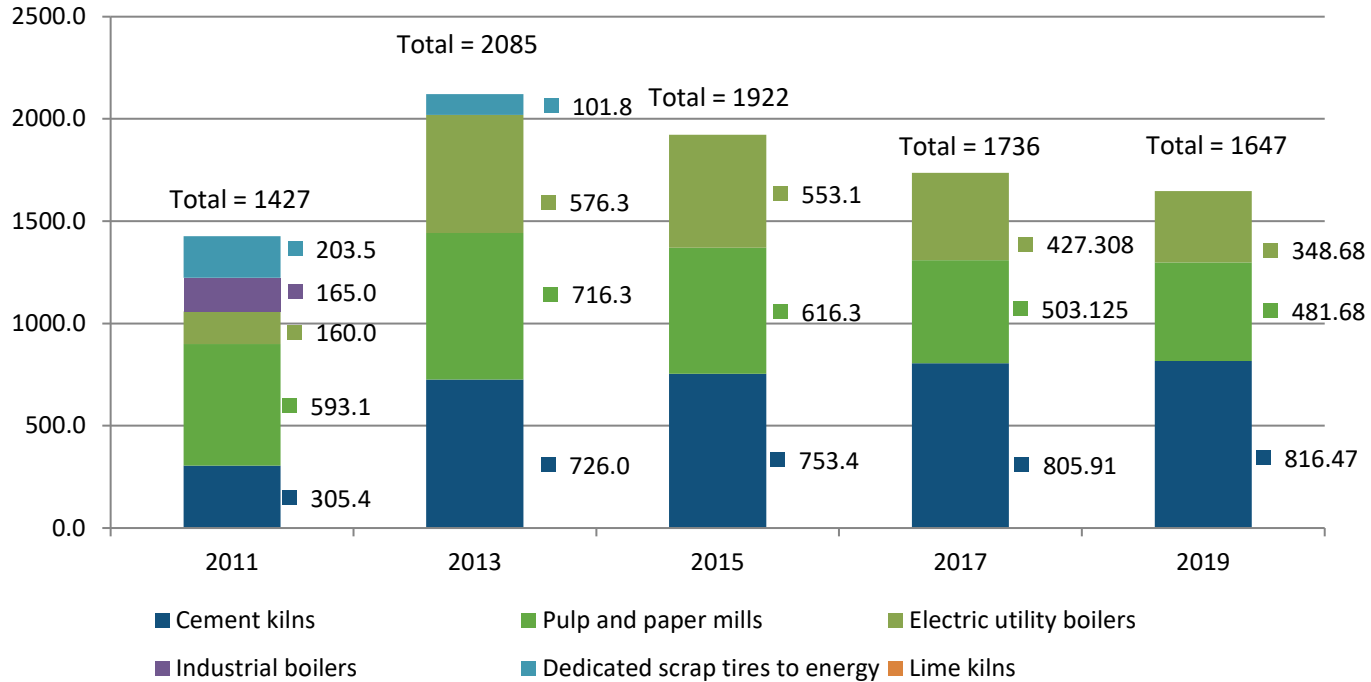


Did you know?

Total scrap tires diverted to TDF market:

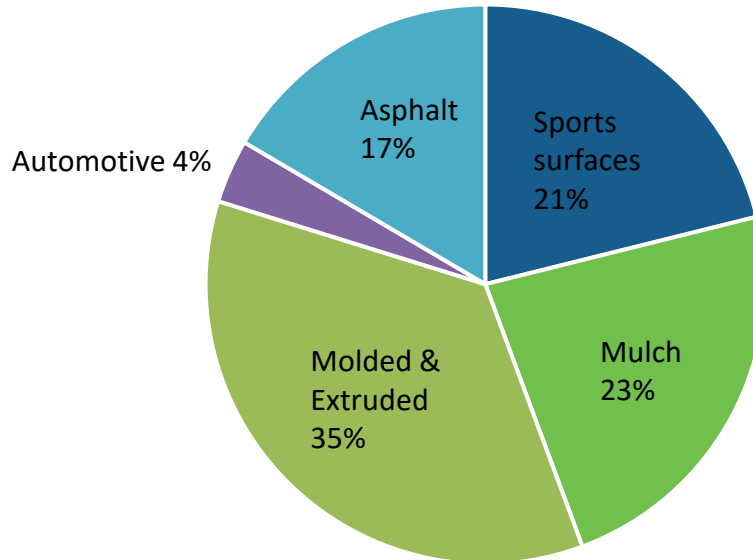
1,646,830 tons or over 100 million tires

U.S. Tire Derived Fuel Market Trends 2011 – 2019



U.S. Ground Rubber Markets 2019

(percent of total pounds of scrap tires consumed in market)



Did you know?

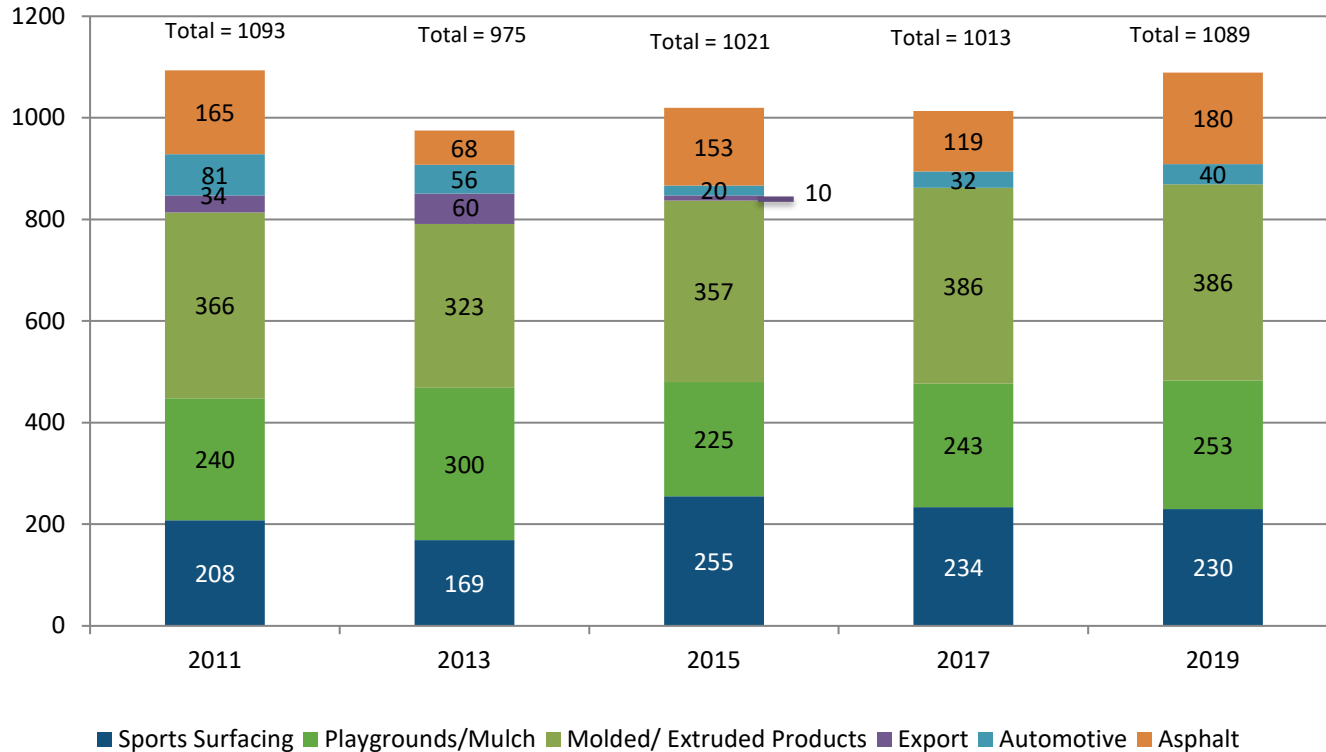
Total scrap tires diverted to ground rubber markets:

About 1,089,000 tons or over 66 million tires

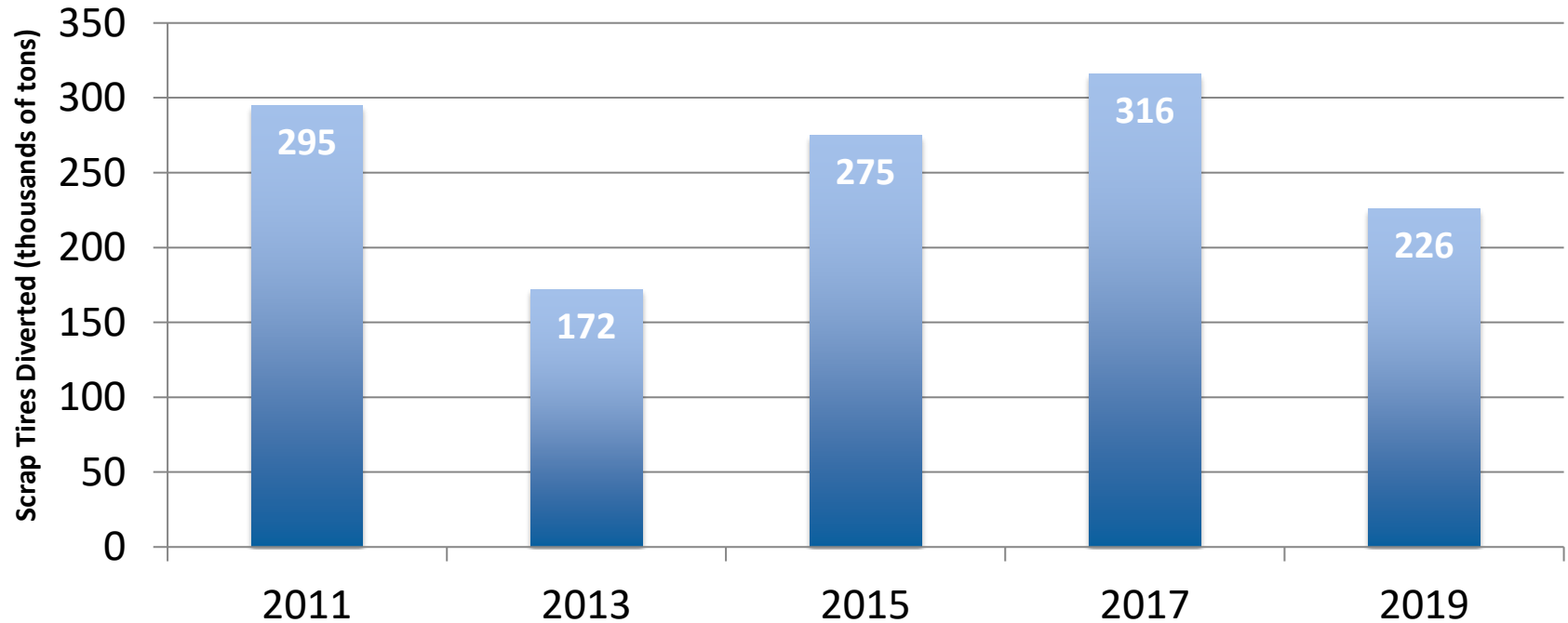
■ Sports surfaces ■ Playgrounds/ Mulch/ Animal Bedding ■ Molded/Extruded Products ■ Automotive ■ Asphalt

This value represents the weight of processed ground rubber (with wire, fluff and agglomerated rubber removed) that is consumed in ground rubber end-use markets. In contrast, the data represented in other areas of this report refer to the weight of whole tires diverted to all scrap tire markets, including ground rubber.

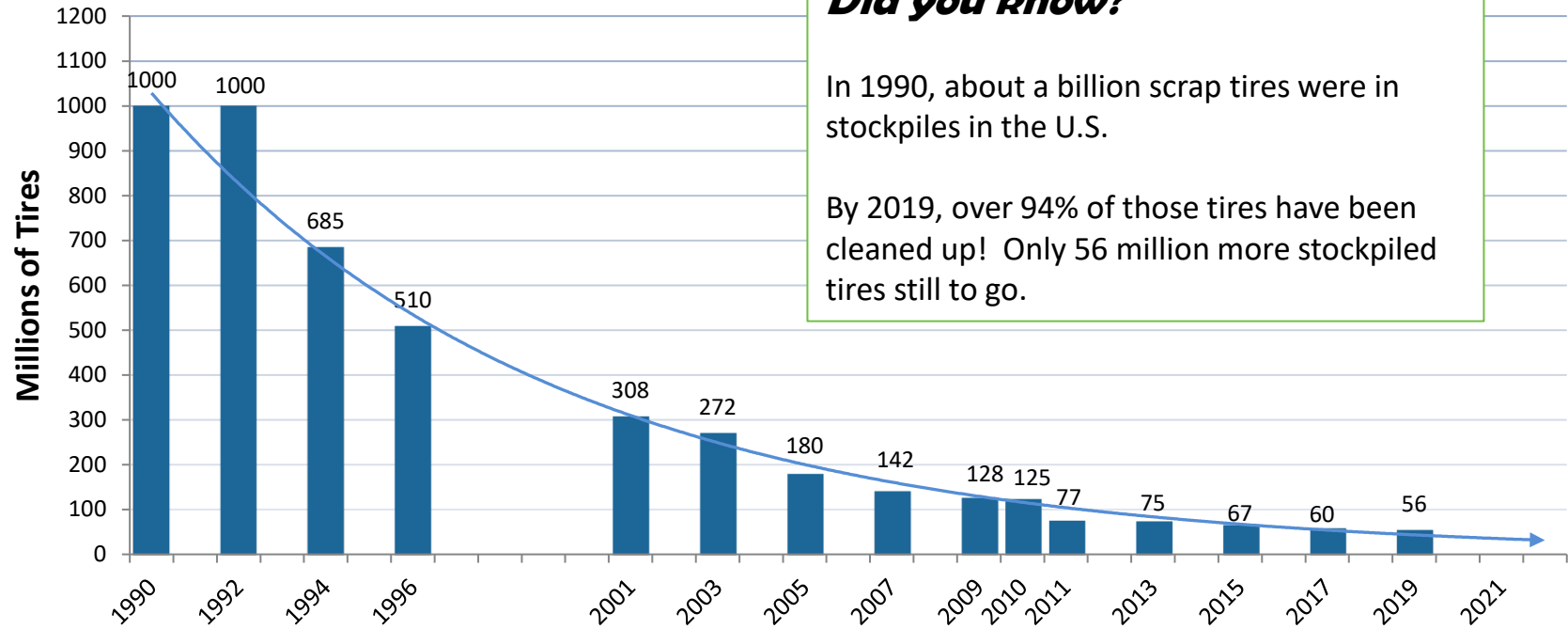
U.S. Ground Rubber Market Distribution 2011 - 2019



U.S. Civil Engineering Markets 2011 - 2019



U.S. Stockpiled Scrap Tires 1990 - 2019

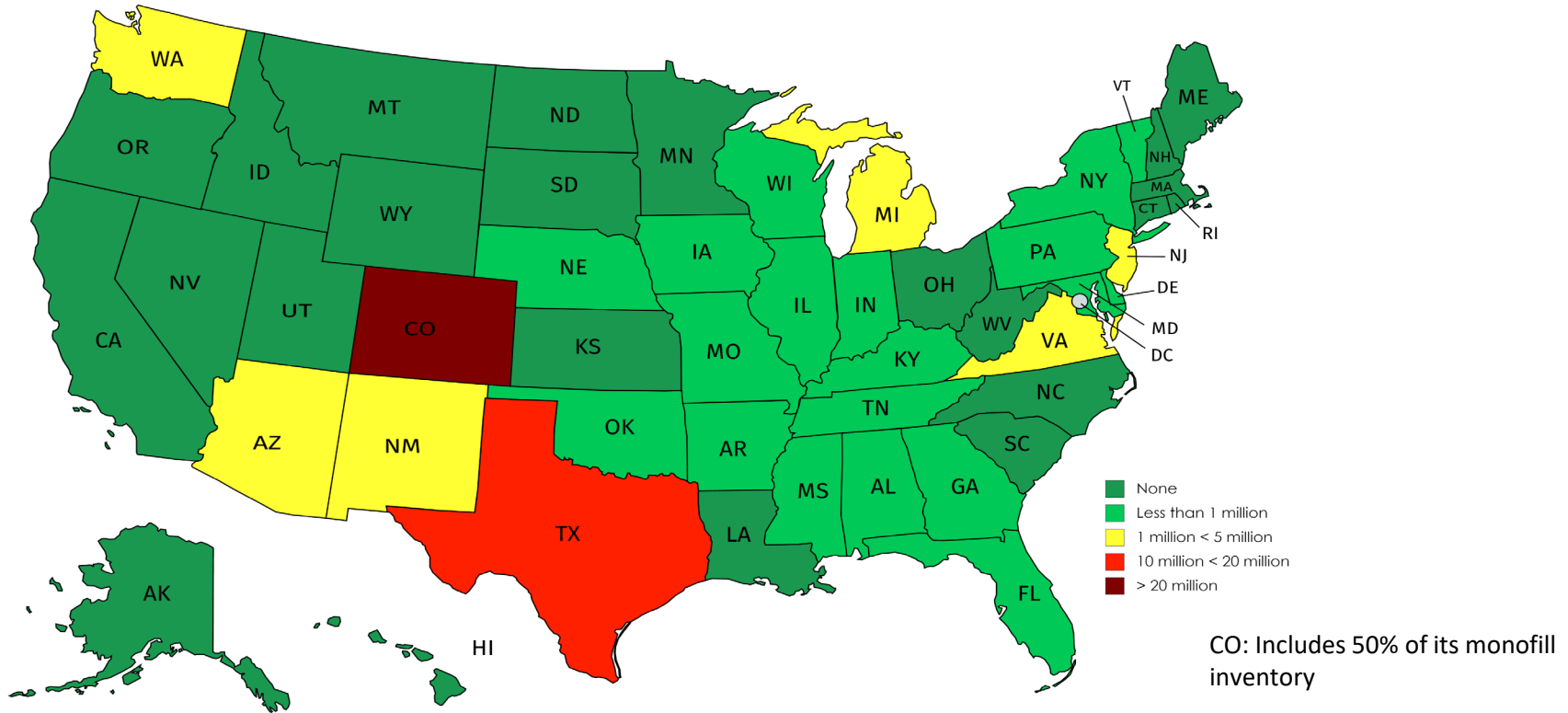


Did you know?

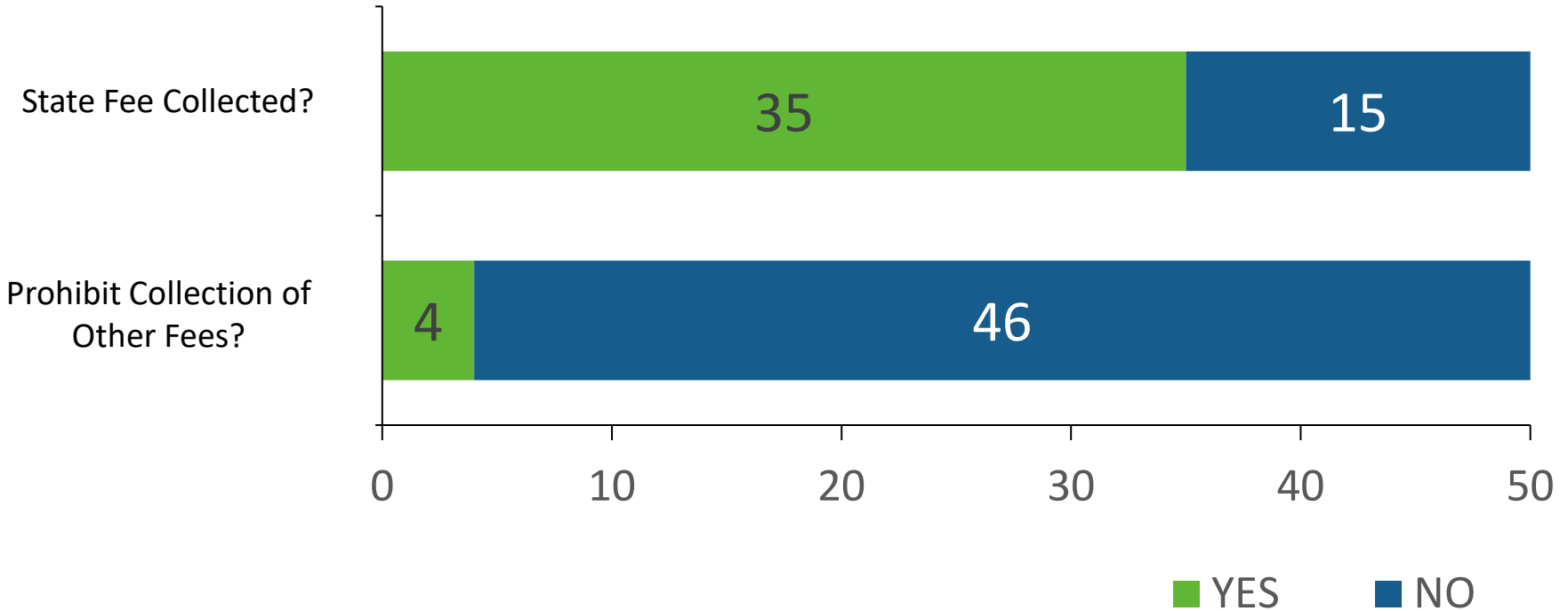
In 1990, about a billion scrap tires were in stockpiles in the U.S.

By 2019, over 94% of those tires have been cleaned up! Only 56 million more stockpiled tires still to go.

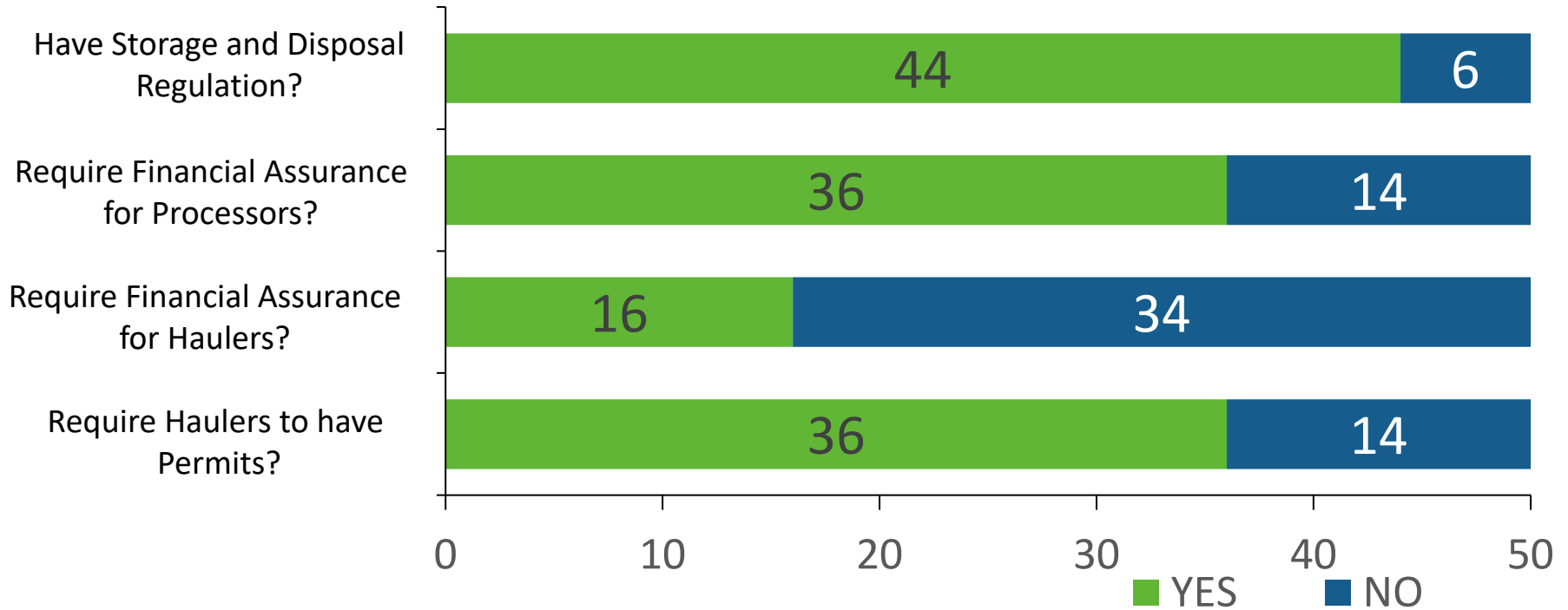
Stockpiled Tires Remaining in the U.S.



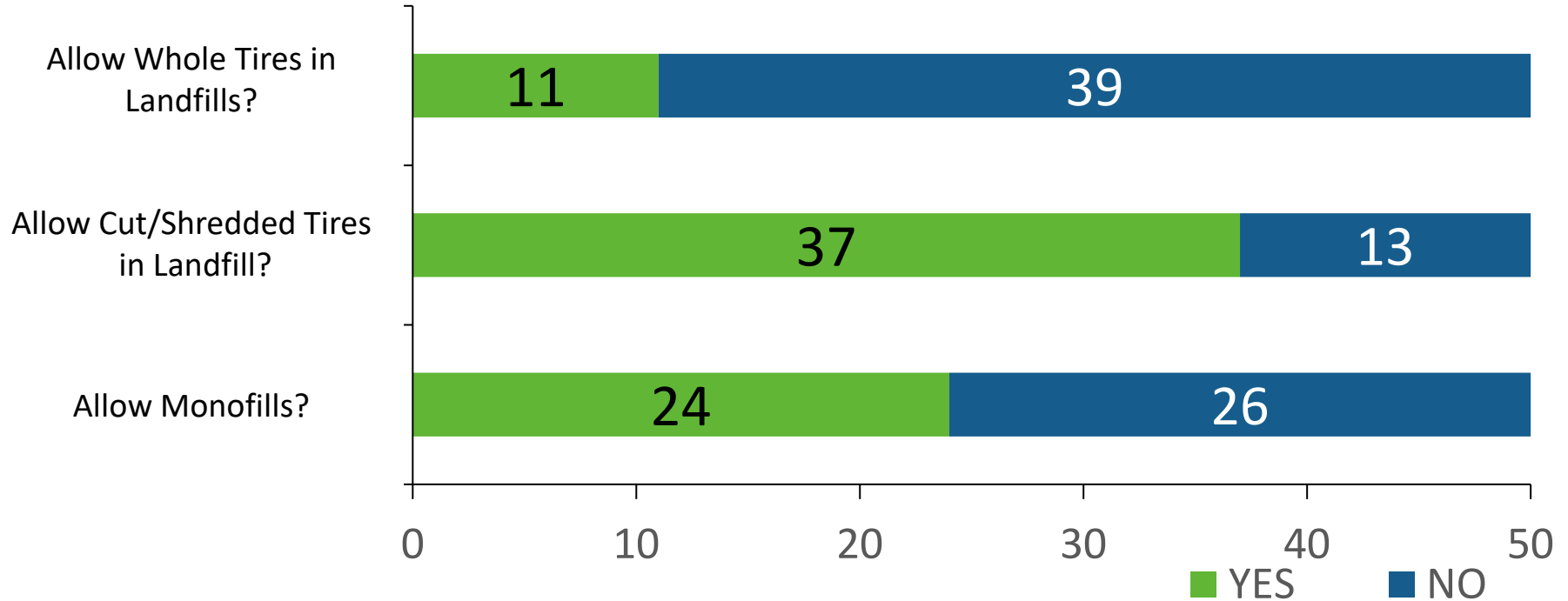
Overview of Current State Programs



Overview of Current State Programs



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Overview of Current State Programs

