



Waste Permits Division

2019 Scrap Tire Annual Report Summary

Scrap Tire Program Background

The Texas Commission on Environmental Quality (TCEQ) Waste Permits Division regulates the management of used and scrap tires in Texas under the authority of Texas Health and Safety Code Sections (§) 361.011, 361.112, and 361.1125. The tire regulations in Title 30, Texas Administrative Code Chapter 328, Subchapter F, outline regulatory requirements and standards related to used and scrap tire management activities. Owners or operators of regulated scrap tire management activities are required to obtain a TCEQ Scrap Tire Registration to ensure the safe management of scrap tires to protect human health and the environment.

Regulated Tire Management Activities

Regulated management activities include used and scrap tire transportation, processing, recycling, utilization, storage, and land reclamation projects using tires (LRPUTs).

Reporting Period and Requirements

Scrap tire transporters, as well as owners or operators of scrap tire facilities and scrap tire storage sites, must submit an annual report to the TCEQ and include information related to their tire management activities during the calendar year. The annual report for the preceding calendar year is due on or before March 1 on a form prescribed by the TCEQ. Scrap tire generators and owners or operators of LRPUTs are not required to submit an annual report.

Transporters

Scrap tire transporters must report the following information using the Scrap Tire Transporter Annual Activity Report form (TCEQ-10311):

- **tires collected from generators**—number and type (passenger, truck, off-the-road) of whole used tires and scrap tires, and weight of tire pieces and shreds *collected*, listed by generator name and address; and
- **tires delivered to destination or end-use facility**—number and type of whole used tires and scrap tires, and weight of tire pieces and shreds *delivered*, listed by destination or end-use facility name and address.

Scrap Tire Facilities and Scrap Tire Storage Sites

Owners or operators of scrap tire facilities and scrap tire storage sites must report the following information using the Scrap Tire Facility and Scrap Tire Storage Site Combined Annual Activity Report form (TCEQ-10305):

- **tires received** — number and type of whole used tires and scrap tires, and weight of tire pieces and shreds *received* from generators, transporters, or other tire facilities;

- **tires processed or stored** — number and type of whole used tires and scrap tires, and weight of tire pieces and shreds *processed and stored* at scrap tire facilities and scrap tire storage sites; and
- **tires delivered to destination or end-use facility** — number and type of whole used tires and scrap tires, and weight of tire pieces and shreds *delivered*, listed by destination or end-use facility name and address.

Number of Active Registrations by Type

According to agency records, the total number of active scrap tire registrations in 2019 was 12,075. The numbers of each type of activity by registered entities are detailed in *Table 1. Number of Active Registrations by Type*. A single registration may include more than one type of tire handling activity.

Table 1. Number of Active Registrations by Type

Type of Registered Entity	Number of Registrations
Generator	11,522
Transporter	405
Scrap Tire Facility—Processing	107
Scrap Tire Facility—Recycling	7
Scrap Tire Facility—Energy Recovery	8
Scrap Tire Storage Site	12
Land Reclamation Project Using Tires	14

End-Use or Disposition

The summary findings were compiled from the 134 Scrap Tire Transporter Annual Activity Reports and 71 Scrap Tire Facility and Scrap Tire Storage Site Combined Annual Activity Reports received by March 1, 2020. The discrepancy in the number of reports received and the number of registered entities is due to owner or operators failing to comply with notifying the agency when they go out of business or move and failing to submit timely annual reports.

Based on the findings, approximately 44.8 million used and scrap tires were managed in Texas in 2019. For this report, the TCEQ considers one scrap tire unit equivalent to weigh 20 pounds, regardless of size. The main use or disposition avenues in Texas for whole used and scrap tires include the following broad categories: tire-derived fuel source, landfill disposal, crumb rubber production, other beneficial use, use in LRPOT, and other recycling. The breakdown of the different types of end-uses and their corresponding number of scrap tire units utilized is presented in *Table 2. End-use Types and Quantities of Tires Used in 2019*. The total number of tires for each broad category over a five-year period are shown in *Table 3. End-use Types by Year from 2015 to 2019*, and the percentages for each broad category over a five-year period are shown in *Figure 1. End-use Types by Year from 2015 to 2019*. A discussion for each end-use type begins on page 4.

Table 2. End-use Types and Quantities of Tires Used in 2019

End-Use or Disposition	Approximate Scrap Tire Units Utilized or Disposed	Percent of Utilization
Tire-Derived Fuel	16,335,234	36%
Landfill	9,220,752	21%
Crumb Rubber	6,526,925	15%
Other Beneficial Use	3,116,038	7%
LRPUT	5,115,955	11%
Other Recycling	4,470,128	10%
Total	44,785,032	100%

Table 3. End-use Types by Year from 2015 to 2019

Year	TDF	Landfill	Crumb Rubber	Other Beneficial Use	LRPUT	Other Recycling	Total
2015	11,304,815	8,028,398	5,474,750	3,665,649	2,453,323	1,472,688	32,399,623
2016	10,163,036	6,703,075	6,666,800	3,050,573	2,813,327	5,043,321	34,440,132
2017	13,558,237	10,720,825	7,806,881	5,615,488	4,103,046	1,944,520	43,748,997
2018	15,599,449	13,875,682	9,816,961	3,045,214	1,956,872	1,595,695	45,889,873
2019	16,335,234	9,220,752	6,526,925	3,116,038	5,115,955	4,470,128	44,785,032

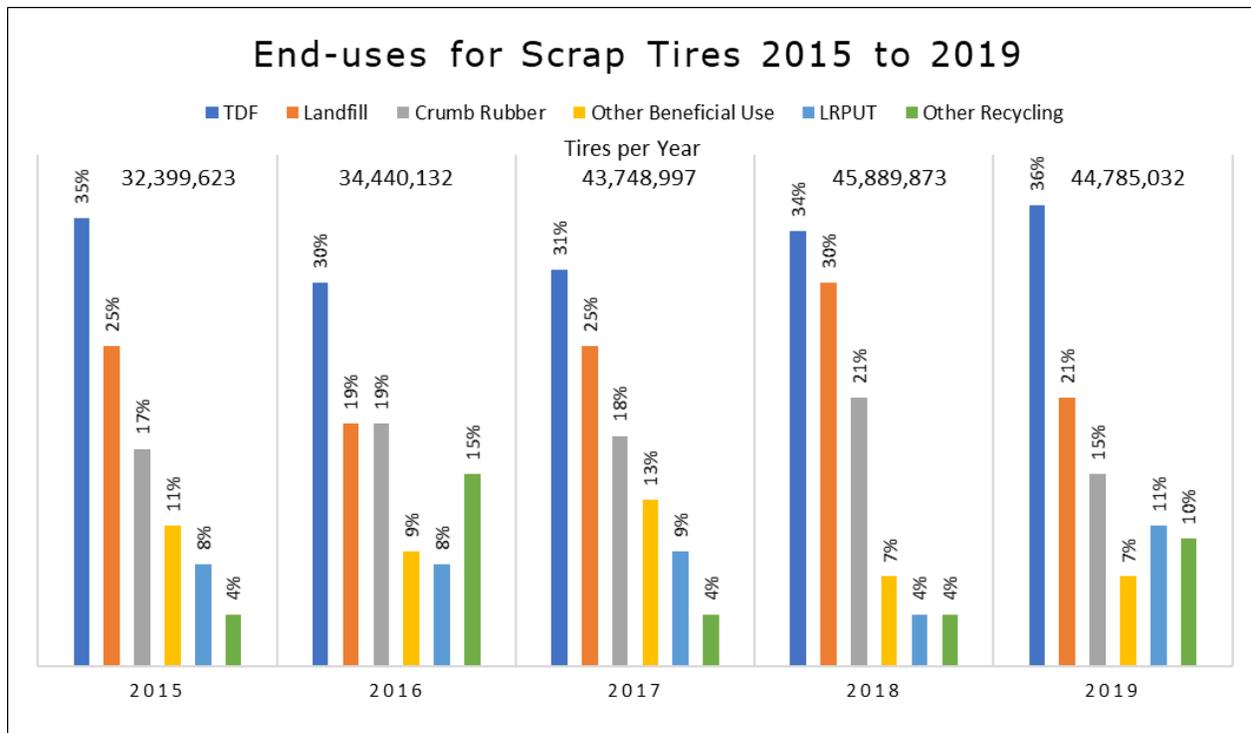


Figure 1. End-use Types by Year from 2015 to 2019

Tire-derived Fuel

The highest use of used and scrap tires was for energy recovery and use as a fuel source. Approximately 16.3 million (36%) of the used and scrap tires were used as tire-derived fuel at six of the eight energy-recovery facilities with active registrations located in Texas. An additional 64,935 tires were transported outside the state for use as tire-derived fuel.

Landfill Disposal

Approximately 9.2 million (21%) of the used and scrap tires were disposed in municipal solid waste landfills. The TCEQ regulations specify that tires be split, quartered, or shredded before they are disposed of in a landfill. Scrap tire storage or processing activities at a landfill are authorized through the landfill’s municipal solid waste permit. In 2019, there was a significant decrease in the number of tires disposed in landfills. The decrease can be attributed to more tires used in LRPUTs and other recycling.

Crumb Rubber

Approximately 6.5 million (15%) of the used and scrap tires were recycled to produce crumb rubber. To produce crumb rubber, steel and tire cord are removed and the tire shreds are ground to a granular consistency either with the aid of cryogenic or mechanical means to reduce the size of the particles. Rubberized asphalt is the largest market for crumb rubber. Crumb rubber can be blended into asphalt and used in various roadway projects. Crumb rubber is also used as an infill for synthetic turf fields.

Other Beneficial Uses

Approximately 3.1 million (7%) of the used and scrap tires were utilized for other beneficial use of tires. Beneficial uses included construction rings (tire ring base for traffic barrel drums), agriculture uses (e.g. stall mats, water and feed troughs), and production of tire mulch for landscaping.

LRPUTs

Approximately 5.1 million (11%) of the used and scrap tires were used for land reclamation at locations authorized by the TCEQ. Approved projects restore land to its approximate natural grade to prepare or reclaim the land for reuse.

Other Recycling

Approximately 4.5 million (10%) of the used and scrap tires were recycled to recover wire and steel. A tire is considered recycled when it can no longer be used and has been collected, separated, or processed and returned to use in the form of raw materials in the production of new products.

Scrap Tire Management Program Funding

There is no dedicated funding for the scrap tire management program. There is no application fee for obtaining a scrap tire registration. Presently, the scrap tire management activities operate under a free-market system. Tire dealers set their own fees to cover their administrative and tire disposition costs.

The cleanup of tire sites is addressed using financial assurance funds posted by the registration holder (for registered tire storage sites) or through supplemental environmental projects, administered by the TCEQ Office of Compliance and Enforcement and/or the Office of Legal Services.

TCEQ Scrap Tire Program Activities

Registered Scrap Tire Generators

In 2019, the Scrap Tire Program mailed letters to registered scrap tire generators requesting the status of their scrap tire management activities. The responses were:

- 700 registered generators cancelled their registration;
- 666 registered generators confirmed their business was still active and kept their registration active;
- 142 registered generators confirmed their business was still active and requested an amendment to update registration information;
- Over 3,000 letters were returned; and
- Over 7,500 registered generators did not respond.

The TCEQ Scrap Tire Program continues to accept responses from generators. Generators can submit a response by downloading the Scrap Tire Registration Status Update form (TCEQ-20588) from the TCEQ Used and Scrap Tire Management webpage.

Five-Year Plan for Scrap Tire Management

The TCEQ Scrap Tire Program published a five-year plan focused on scrap tire management in Texas. The *Five-Year Plan for Scrap Tire Management in Texas* is a comprehensive approach to address challenges facing scrap tire management in the state. The plan outlines a strategy for proper handling, storage, use, and disposal of scrap tires, identifies scrap tire management challenges, and establishes goals to improve scrap tire management in Texas. This inaugural five-year plan focuses on five subjects selected based on program priorities:

- annual reporting;
- registered scrap tire generators;
- unauthorized sites;
- developing and coordinating partnerships; and
- resources for the public and local governments.

The plan is available on the TCEQ Used and Scrap Tire Management webpage.

TCEQ Compliance Monitoring and Enforcement

The TCEQ regional offices monitor scrap tire management activities in the state and evaluates compliance with TCEQ rules. The TCEQ Office of Compliance and Enforcement conducts enforcement action(s) against violators. The existing provisions for administrative and civil penalties for violating the Texas Health and Safety Code, Chapter 361 and corresponding TCEQ rules are in Texas Water Code, Chapter 7. TCEQs' efforts focus on ensuring proper management of scrap-tire related activities, including the prevention of unauthorized disposal of tires.

Scrap Tire Management Challenges

The TCEQ has made significant efforts towards addressing scrap tire management issues and in reducing the number of unauthorized stockpiles of scrap tires in Texas. Registration and regulatory requirements are designed to facilitate the safe management of tires in the state and minimize any adverse impacts to human health and the environment.

Ongoing challenges and opportunities that offer direction for future progress include:

- funding cleanup efforts for existing and newly created tire stockpiles;
- expanding existing markets or developing new markets and end-users, including transportation-related uses;
- minimizing illegal dumping of scrap tires; and
- improving compliance with TCEQ scrap tire regulations.

Unauthorized Scrap Tire Sites in Texas

The TCEQ maintains a list of known unauthorized scrap tire sites in the state. The locations of these sites are shown in *Figure 2. Unauthorized Scrap Tire Sites in Texas*, along with information on the approximate quantity of tires. The number of tires at such sites ranges from a few hundred to a few million, for a total of approximately 11.7 million tires across 111 sites.

In 2019, approximately three million tires were removed from 14 unauthorized sites, with cleanup continuing at eight sites.

Unauthorized scrap tire sites can broadly be categorized as:

- New, generally small, unauthorized scrap tire piles that are reported to the TCEQ; and
- Legacy, generally large, well-documented scrap tire piles that may have been registered at one time.



Protecting Texas by
Reducing and
Preventing Pollution

Texas Commission on Environmental Quality
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April 2020

Unauthorized Scrap Tire Sites in Texas

Total Number of Tires
11,751,174

Legend: Approximate Number of Tires

- 0 - 7,299
- 7,300 - 299,999
- 300,000 - 999,999
- 1,000,000 - 2,449,999
- 2,450,000 - 5,000,000

0 50 100
Miles



This map was generated by the Waste Permits Division of the Texas Commission on Environmental Quality. This product is for informational purposes and is not intended for legal, engineering, or surveying purposes. For more information concerning this map, contact the Waste Permits Division at (512) 239-2335.

Figure 2. Scrap Tire Sites in Texas