

CY2020



# Waste Tire Program Annual Report to the General Assembly

Henry County Landscaping Project  
City of New Castle  
Photo by Donny Atha



**KENTUCKY ENERGY &  
ENVIRONMENT CABINET**

**Commonwealth of Kentucky  
Energy and Environment Cabinet  
Department for Environmental Protection  
Division of Waste Management  
[eec.ky.gov/environmental-protection/waste](http://eec.ky.gov/environmental-protection/waste)**

## TABLE OF CONTENTS

ENERGY AND ENVIRONMENT CABINET MANDATE.....	1
HISTORY & PURPOSE OF THE FUND .....	1
REVENUE.....	2
EXPENDITURES .....	3
COUNTY GRANTS.....	4
WASTE TIRE MANAGEMENT PROGRAM.....	5
MARKET DEVELOPMENT .....	6
MARKET DYNAMICS .....	13
FUTURE OF THE FUND .....	14
CREDITS & ACKNOWLEDGEMENTS.....	17
ACRONYMS.....	35

## FIGURES AND PHOTOGRAPHS

Figure 1: Waste Tire Trust Fund Revenues .....	3
Figure 2: Waste Tire Trust Fund Expenditures.....	4
Figure 3: 2020 Kentucky Waste Tire Markets.....	8
Photo 1: Letcher County waste tire collection event .....	11
Photo 2: Caldwell County Elementary poured-in-place playground .....	12
Photo 3: RMA paving project, Simpson County .....	14
Photo 4: RMA paving project, Hardin County .....	15

## APPENDICES

Appendix A: Fiscal Year 2020 Waste Tire Grants .....	19
Appendix B: Calendar Year 2020 Crumb Rubber/Tire-Derived Products Grants .....	24
Appendix C: Calendar Years 2018 to 2020 Rubber-Modified Asphalt Grants .....	26
Appendix D: Waste Tire Statistics History by Area Development District .....	27

## ENERGY AND ENVIRONMENT CABINET MANDATE

This report has been prepared as required by KRS 224.50-872. The purpose of this report is to provide information relevant to the Commonwealth's waste tire program. Specifically, it includes information pertinent to expenditures and revenues, effectiveness in developing markets, benefits of the fee in funding the Energy and Environment Cabinet's (EEC) implementation of the waste tire program, and recommendations for program improvements.

*KRS 224.50-872 states, "The cabinet shall report to the General Assembly no later than January 15 each year on the effectiveness of the waste tire program in developing markets for waste tires, the amount of revenue generated and the effectiveness of the fee established in KRS 224.50-868 in funding the cabinet's implementation of the waste tire program, to include any waste tire amnesty program established by the cabinet as provided for in KRS 224.50-880(1)(b), whether the fee should be extended, comparative data on the number of waste tires generated each year, the number disposed of, the number of orphan tire piles, and the cost of tire disposal by counties in the Commonwealth."*

## HISTORY & PURPOSE OF THE FUND

In 1990, the Kentucky General Assembly passed House Bill 32 creating the waste tire control program and establishing the Waste Tire Trust Fund (WTTF) to eliminate existing, and prevent future waste tire piles. The original program imposed a \$1.00 fee on retailers of new motor vehicle tires sold in Kentucky, created requirements for tire accumulation and storage, and resulted in the removal of many tires from the environment. However, hundreds of thousands of tires continued to be stockpiled in anticipation that future waste tire markets would develop. In 1994, the General Assembly extended the program an additional four years, adding a prohibition on open burning of waste tires.

In 1998, the General Assembly repealed the waste tire control program and created a program with a renewed approach. The revised statute retained the \$1.00 fee collected on new motor vehicle tires, the WTTF, and registration requirements for accumulators of waste tires. New additions to the waste tire management program included financial assurance requirements for accumulators, processors, and transporters of waste tires, grants for projects that manage waste tires, and reporting requirements for the EEC regarding the effectiveness of the program. This fee, collected from consumers by retailers, is paid monthly to the Department of Revenue (DOR). The EEC uses the fee to implement the waste tire program, which includes waste tire collection events (WTCE), cleanups, and grant funding to manage and develop markets for waste tires. The program has been extended during each General Assembly regular session since 2002 and the tire fee was increased from \$1.00 to \$2.00 in 2018. Additional revenue generated from the increased fee may not all be allocated to the waste tire program. In 2020, KRS 224.50-868 was revised to extend the tire program to June 30, 2024.

In 2011, House Bill 433 established the Waste Tire Working Group (WTWG), a Division of Waste Management (DWM) committee. This committee is tasked to discuss and research topics in waste tire management, and to make recommendations to the EEC in efforts to improve Kentucky's programs. The committee is charged to convene twice annually, and its meetings are open to the public. The WTWG consists of two ex-officio members of DWM's Recycling and Local Assistance (RLA) Branch, and six appointed members. The six WTWG committee members are appointed by the governor in accordance with KRS 224.50-855.

Current membership of the WTWG:

Director, DWM or Designee.....	Byron J. Bland, RLA (ex-officio)
Manager, RLA Branch or Designee: .....	Gary Logsdon, Manager, RLA (ex-officio)
Kentucky Department of Agriculture Representative: .....	Harlan Hatter
Kentucky Solid Waste Coordinator Representative: .....	Pending appointment
Kentucky Solid Waste Coordinator Representative: .....	Pending appointment
Mayor Representative.....	Pending appointment
County Judge/Executive Representative: .....	Shane Gabbard (Jackson Co.)
Private Retail Tire Sales Representative: .....	Pending appointment

The WTWG last met on November 4, 2019. This meeting provided updates and new information on the status of WTCEs, rubber-modified asphalt (RMA), and crumb rubber, including a presentation on pour-in-place walking paths and playground surfaces. A planned meeting for spring 2020 was cancelled due to COVID restrictions, and a remote meeting is planned for early 2021.

## REVENUE

Precise data on statewide replacement tire sales are not readily available, but by reviewing national sales totals and population, gasoline consumption and vehicle registration statistics, it is estimated that Kentuckians annually purchase approximately 3.6 million new replacement tires<sup>1</sup>. Over the past two years, Kentucky has received an average of \$6.04 million per year from the motor vehicle retail tire fee, or approximately 86 percent of the money that could be collected. Figure 1 illustrates tire fee receipts, as well as the other revenue generated from the WTTF for the past five years.

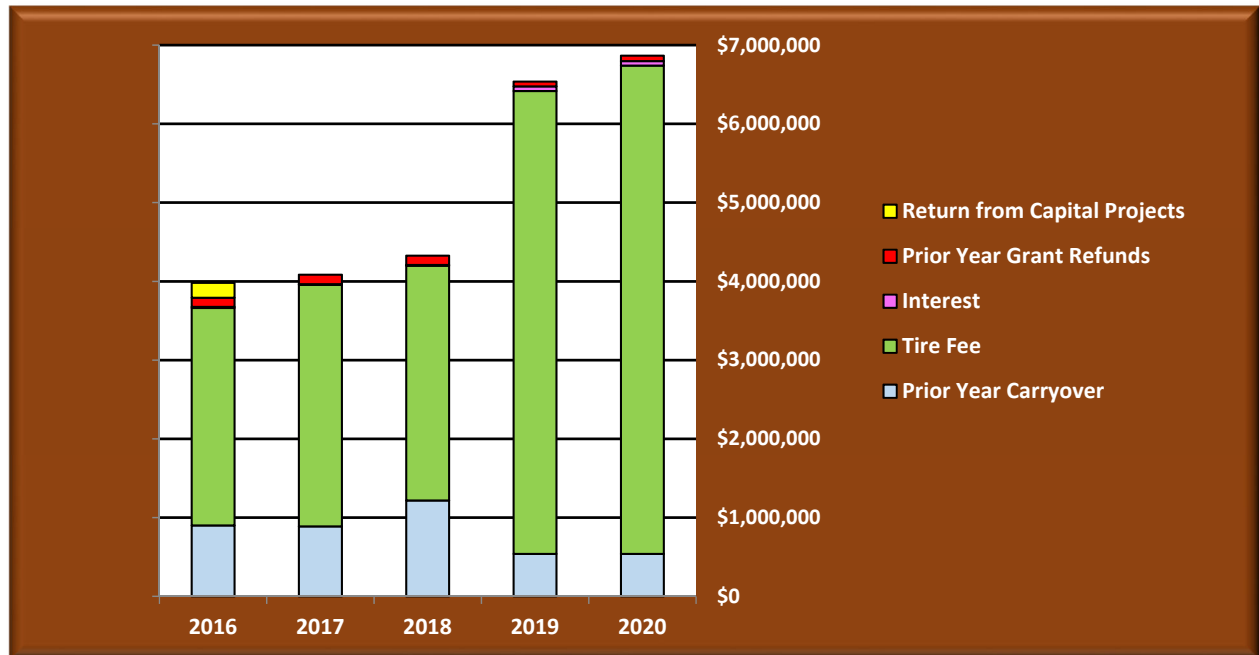
There are several possibilities for why not all of the fees are being collected, including:

- *Not all retailers collect and remit the proper amount of tire fees;*
- *Fees are not paid by some trucking companies when large quantities of tires are purchased through fleet sales from wholesale companies;*

---

<sup>1</sup> *Tire dealers are anything but average*, Modern Tire Dealer, January 1, 2018, [www.moderntiredealer.com/uploads/stats/facts-section-2018-1.pdf](http://www.moderntiredealer.com/uploads/stats/facts-section-2018-1.pdf)

- *DOR is paid a flat annual fee of \$50,000. Insufficient resources and a lack of incentive to monitor non-paying entities could be reduced by paying DOR a percentage of collections, reflective of several states with similar programs; and*
- *The tire fee may be collected with other taxes and fees. Some fees may be inadvertently misallocated to the wrong fund's ledger. This has occurred in at least one other state, and was detected when their collection mechanism changed.*



*Figure 1: Waste Tire Trust Fund Revenues*

## EXPENDITURES

A waste tire is most commonly measured in 20-pound units or Passenger Tire Equivalents (PTEs), which is the approximate average weight of a passenger automotive tire. A light truck tire weighs approximately 30 pounds, or 1.5 PTEs, while a medium truck tire, such as a tractor trailer tire, weighs roughly 110 pounds, and is 5.5 times heavier than an automotive tire, or 5.5 PTEs. Conversion of tire units into a uniform weight basis (100 PTE = 1 ton) allows comparison of waste tire generation to markets that are tracked in tons. This average weight has historically varied from 17 to 23 pounds based on the sizes of tires used in the operating vehicle inventory. Actual data are limited, therefore 20 pounds is used in this report for mathematical uniformity.

During 2020, the EEC expended waste tire funds to conduct WTCEs, providing monies directly to counties for the removal of waste tires, and for remediation of tire dump sites. Collection events held by the EEC recycled 798,480 PTEs, costing \$1,394,545.32. The EEC also spent \$16,558.17 to clean up 6,640 PTEs collected from a tire dump site. Figure 2 includes this total as “Collection Events/Site Cleanups.”

In addition, the EEC provided direct grants to counties totaling \$457,010 that were used to recycle or dispose of 266,912 PTEs in 2020. Figure 2 includes this total as “County Grants.”

Kentuckians generated 53,900 tons (5.39 million PTEs) of waste tires in calendar year 2020, thus the state and counties handled 14.9 percent of the PTEs generated. The private sector handled the remaining 85.1 percent of waste tires. Figure 2 provides a five-year synopsis of expenditures for the WTTF.

A potentially substantial cost for the EEC is the cleanup of facilities after tire fires occur at sites where responsible parties are unable to remediate these sites. Tire burning results in releases of hazardous substances into the environment. Cleanup of a post-fire site is a significantly greater cost than removing the same volume of tires at a typical dump site. Regular compliance inspections of permitted waste tire accumulators can minimize the risk and magnitude of tire fires.

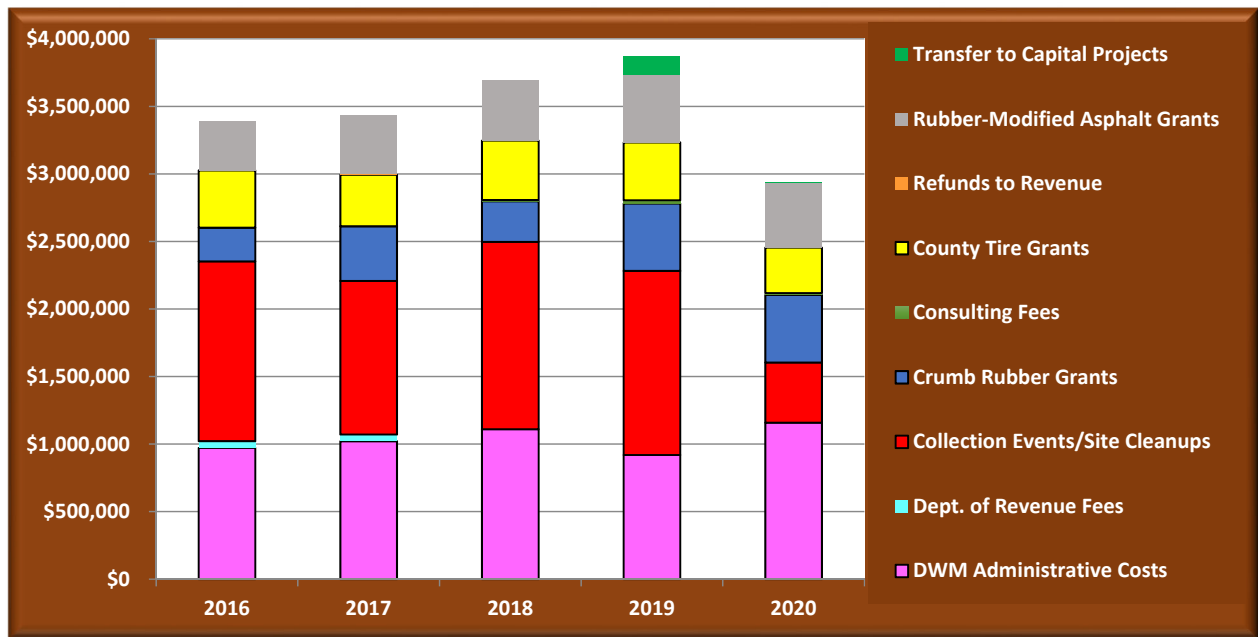


Figure 2: Waste Tire Trust Fund Expenditures

## COUNTY GRANTS

WTTF receipts are used by the EEC to fund several programs, assisting in the management of waste tires. These programs include WTCEs, direct grants to counties, crumb rubber/tire-derived products (CR/TDP) grants, rubber-modified asphalt (RMA) grants, and tire dump site cleanups.

The WTCE program, formerly referred to as “tire amnesty,” was established in 1998 as part of the EEC’s continuing effort to clear waste tires from Kentucky’s landscape. WTCEs are conducted in rotating, three-year cycles for each of Kentucky’s 120 counties. Each county provides a suitable location and assists with logistics for a three day waste tire drop-off event, open to private citizens

or businesses with the exception of tire dealers or automotive scrap yards. The EEC contracts for removal and delivery of recovered tires to a processor where they are recycled into products (usually tire-derived fuel or ground rubber).

Counties are also provided an annual Direct Grant to manage waste tires. This grant pays for transportation and recycling or disposal. The EEC increased the annual direct tire grant amount to counties from \$3,000 to \$4,000 in 2015. See Appendix A for details on the most recent cycle of Direct Tire Grants.

The CR/TDP Grant funds the purchases of tire-derived materials or products for landscaping projects, pour-in-place playgrounds, walking trails, horse trailer or stall mats, tree wells, and other products utilizing recycled Kentucky tires. See Appendix B for details on the most recent cycle of CR/TDP Grants.

RMA Grants pay for the application of RMA, requiring counties to fund the installation of an equivalent area of standard asphalt on a similar road. The performances of the standard and RMA paving are monitored and compared over a five-year period. The purpose of this grant is to encourage recycling of Kentucky tires, demonstrate the benefits of RMA, collect performance data for the different types of asphalt, and create opportunities for county governments and paving contractors to gain experience working with RMA.

In addition to the structured grants and programs above, the EEC also funds the cleanup of illegal tire dump sites in specific cases where a responsible party is either unknown or incapable of paying for cleanup.

## **WASTE TIRE MANAGEMENT PROGRAM**

Since 1998, the RLA waste tire program has funded the removal and disposal of approximately 28.5 million PTEs at a cumulative cost of \$32 million. These tires have been collected from all 120 Kentucky counties.

The EEC originally scheduled WTCEs in the spring of 2020 for the Cumberland Valley, Kentucky River and Big Sandy Area Development Districts (ADDs). Events were scheduled in the Northern Kentucky, KIPDA and Purchase ADDs for the fall of 2020. However, the COVID pandemic caused EEC to postpone most of the spring events until the fall. After developing a specialized COVID safety protocol, all 2020 events were completed on a revised schedule in late summer and fall. These events garnered a total of 798,480 PTEs at an overall cost of \$1,394,545.32. WTCEs scheduled for 2021 include Pennyryle, Green River, Barren River and Bluegrass ADDs. WCTE historic charts for each ADD from the inception of the program to most recent events are included in Appendix D. These historic charts show a general downward trend of total tires collected over time, which is likely a result of this program helping to reduce the stockpiles of waste tires across the Commonwealth.



The EEC awarded \$444,000 to 111 counties in 2020 Direct Tire Grants. The counties spent \$242,363.36 to dispose of or recycle 191,774 PTEs. In addition, counties spent \$82,298.87 of their own money toward waste tire remediation. Counties returned \$206,583.54 of unspent state grant funds. This totals \$526,298.87 of both state and county funding for an average cost of \$1.69 per PTE.

## MARKET DEVELOPMENT

The WTTF helps support the continued removal of waste tires from the environment to prevent fires and reduce breeding grounds for mosquitoes. The EEC has removed waste tires from the environment, funded CR/TDP grant projects, and assisted in developing markets for waste tires. The U.S. Tire Manufacturers Association has placed emphasis on the importance of waste tire cleanups in relation to threats borne by mosquitoes carrying the Zika virus. Waste tires are a haven due to their ability to retain heat, collect water, and offer protection from predators.<sup>2</sup>

The statewide recycling rate for tires was 76.3 percent for 2020 compared to 76.6 percent for 2019. This figure is slightly above the 75.8 percent national average in the U.S. for 2019<sup>3</sup>, the latest available national data. However, national recycling rates are declining and Kentucky's 2020 rate is comparable to 2019 national projections. The Commonwealth increased its recycling rate initially by working to increase the in-state tire derived fuel (TDF) market, but this market is being negatively impacted in Kentucky, and nationally, by decreased solid fuel usage in general, increased competition from low cost natural gas, international manufacturing competition, and environmental regulations unfavorable to coal and other solid fuels like TDF. The EEC has expanded and broadened its market development efforts, using grants to encourage the use of ground rubber in several major applications. It is appropriate for the EEC to consider additional efforts to increase the reuse percentage in the future through the diversification of markets. TDF is expected to remain one of the largest end-uses of waste tires for the foreseeable future. Ground tire rubber is considered a higher-end market than TDF, because properties of the original tire are carried forward to the new product rather than use of a one-time energy value of the waste tire as TDF. Additional market development efforts for civil engineering application of tire-derived aggregate (TDA) in highway, landfill, foundation backfill, and similar projects could enhance market diversification, offsetting the potential for additional future declines in TDF markets.

TDF applications include use in boilers at paper mills, cement kilns, and utilities that use processed tires as a supplemental energy resource, displacing a small percentage of coal usage. These facilities are required to operate in full compliance with all applicable federal, state, and local environmental regulations. The largest ground rubber applications include playground safety cushioning, colored landscape mulch, and athletic fields. Rubber-modified asphalt is a smaller but growing application for ground rubber.

---

<sup>2</sup> *Recycling Today*, October 3, 2016, Recycling Today Staff, [www.recyclingtoday.com/article/rubber-manufacturers-tire-piles-declined/](http://www.recyclingtoday.com/article/rubber-manufacturers-tire-piles-declined/)

<sup>3</sup> 2017 US Scrap Tire Management Summary, U.S. Tire Manufacturers Association, July 18, 2018



The EEC has conducted the following to gather information about the Commonwealth's waste tire recycling markets, generation, and other data required for this report:

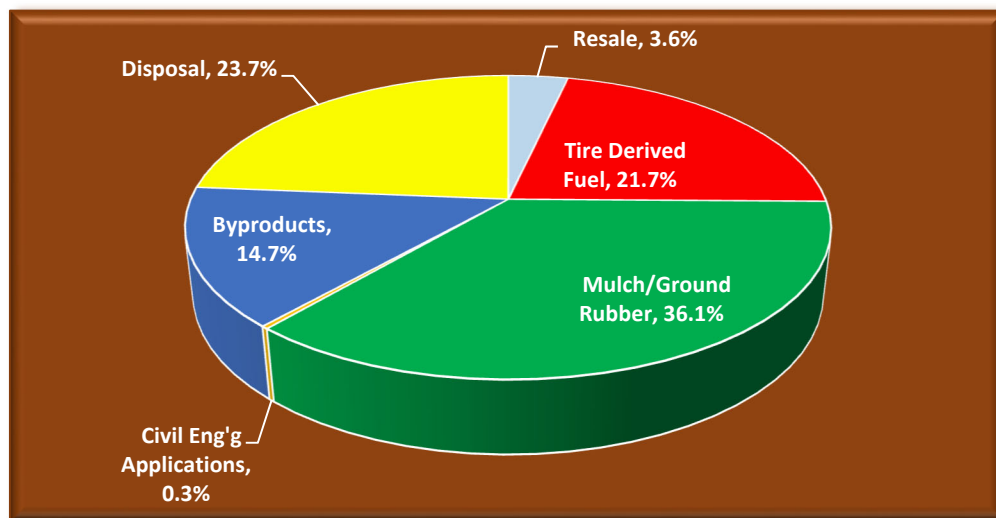
- Obtained recycling market information from each major in-state processor;
- Compiled total tonnage of disposal of waste tires and processing wastes from each landfill;
- Separated tires collected in Kentucky from those collected out-of-state based on processor records and knowledge;
- Identified and contacted out-of-state processors believed to collect tires from Kentucky and/or supply TDF to end users in Kentucky; and
- Contacted users of the tire products to verify receipt of processed tires and landfill owners to verify disposal amounts.

Based on this analysis, a brief summary of Kentucky's major markets in 2019 compared to 2018 national markets shows:

- TDF is one of the largest Kentucky markets at 21.7 percent, below the national average of 36.8 percent in 2019.<sup>3</sup> Total TDF usage in Kentucky rebounded in 2020 and remained strong compared to many other regions of the country. Increased usage by East Kentucky Power Cooperative (EKPC) was attributed to improved operating and economic conditions in 2020, and is expected to remain strong in 2021. The Owensboro Municipal Utility (OMU) power boiler and New Page paper mill historically used TDF but both have been closed permanently due to competitive and economic factors. Cemex has continued to use TDF steadily. Large TDF users typically utilize both in- and out-of-state waste tires, so large swings in volume are not always reflected in the calculation of TDF as a percentage of the market for Kentucky generated tires;
- Kentucky's ground rubber applications became Kentucky's largest market in 2020 at 36.1 percent, significantly above the national average of 24.4 percent, for a range of applications including landscape mulch, playground cushioning, synthetic turf infill, and ground rubber;
- Kentucky's civil engineering applications used less than one percent compared to the national average of eight percent. This market segment offers substantial opportunity for growth, but will require technical and educational efforts;
- Limited but stable volume in reselling used tires;
- Limited exporting to other countries; and
- Landfill disposal of tires generated in Kentucky increased from 23.4 percent in 2019 to 23.7 percent in 2019 due to lower cumulative markets.

---

<sup>3</sup> U.S. Tire Manufacturers Association, 2019 Summary



*Figure 3: 2020 Kentucky Waste Tire Markets*

Kentucky has transitioned from no in-state markets in 2000 to a point where potentially all TDF produced in Kentucky could be consumed in constructive applications. The EEC is involved in several initiatives to encourage TDF market growth, providing both grant funding and technical assistance. There are several success stories in this field, a few mentioned below:

- In 2001, Kentucky spent \$454,276 on capital equipment to assist OMU in using TDF. Although their contractual obligation expired in 2004, OMU continued to use TDF. Its consumption since 2016 has been limited by power generation equipment outages, as well as economic and other operational factors. Their boiler using TDF was permanently shut down in 2019 due to a major scheduled maintenance expense and poor economics, but the cumulative consumption of TDF to date has greatly exceeded the contractual obligation. In 2001, TDF production in Kentucky was an estimated 1.1 million tires, all shipped out of state because there were no in-state users. In 2020, TDF users in Kentucky consumed about 3.7 million PTEs, almost 2 million of which were produced from tires generated in Kentucky. Some TDF still crosses into and out of Kentucky based on regional markets and transportation logistics.
- Kosmos Cement, recently purchased by Eagle Materials, has been using whole tires as TDF for over 10 years, and has also added the use of tire chip TDF to become one of the two largest in-state users. The company uses a unique tire machine, similar to a baseball pitching machine, to toss whole tires into the center of the kiln for a more efficient burning. The reinforcing wire in the tire is incorporated into the clinker. Compliance air emission testing revealed no significant change in emissions from using waste tires and coal as opposed to only coal. In fact, nitrogen oxide emissions, a major greenhouse gas (GHG), were reduced by 37 percent when using TDF with coal.<sup>4</sup> By increasing the use of tire

<sup>4</sup> *Cement Kiln Burns Scrap Tires*, The Courier-Journal, November 26, 2012

chips, in addition to whole tires, Kosmos may further increase its capacity for recovering the energy from tires, so additional growth is possible, but is dependent on competitive economics. An automated whole tire feeding system could improve economics and allow increased whole tire usage.

- Another progressive company using TDF is EKPC. The EEC submitted a letter in support of EKPC's petition to the Public Service Commission (PSC) during 2012 to use the Fuel Adjustment Clause for TDF, which was granted in 2013. Use of the provision allows for quicker recovery of TDF cost from the electrical customer and makes the use of alternative fuels more economical. EKPC has become one of the largest TDF users, potentially using up to 4 million PTEs per year to provide two to four percent of its energy requirements. The operating rates for this efficient, environmentally sound fluidized bed boiler can be impacted by low-cost natural gas boilers. EKPC has made changes to allow additional TDF usage depending on availability of the high quality TDF required in the facility.

The use of TDF helps further the use of coal as it makes the fossil fuel more environmentally friendly. According to the United States Environmental Protection Agency (EPA), GHG emissions can be reduced as a co-benefit of the use of secondary materials. Specifically, TDF combustion results in slightly lower GHG emissions per British Thermal Unit (BTU) than coal, and when considering emissions related to extraction and processing of coal, this difference becomes even more significant. Similarly, TDF combustion generates a slightly lower volume of particulate matter per BTU compared to coal.<sup>5</sup> Therefore, the use of TDF to reduce certain pollutants may make the long-term use of coal more viable.

Substituting TDF for coal would also help avoid an estimated 0.246 lbs/million BTUs of particulate matter associated with the extraction and processing of the coal. Multiplying the 2020 use of 37,100 tons of TDF with coal in Kentucky by these factors shows a savings of nearly 13,000 tons of carbon dioxide and 147 tons of particulate matter not emitted each year. The use of TDF to reduce certain pollutants makes the long-term use of coal more viable.

The ground rubber market has remained steady over time. Since 2004, the Commonwealth has awarded 633 grants totaling over \$9.4 million, primarily to schools and municipalities, for projects using crumb rubber or other tire-derived products. Initially, common uses for this grant funding included crumb rubber spread on athletic fields to increase turf life and on playgrounds to reduce injuries. In October 2014, NBC News presented a story about possible health threats associated with the use of crumb rubber on athletic fields, and later presented a similar story on concerns with the use of crumb rubber mulch on playgrounds. A premise of these studies is that exposure to crumb rubber and playground mulch may result in exposure that could result in adverse health effects. In light of these concerns, and out of an abundance of caution, the EEC has not provided

---

<sup>5</sup> 76FR15494, 40 C.F.R. Part 241, EPA, Identification of Non-Hazardous Secondary Materials that Are Solid Waste, Final Rule, March 21, 2011, *Federal Register*

grant funding for loose shredded or crumb rubber on playgrounds and athletic fields as part of its grant portfolio since 2014.

### **Recycled Tire Crumb Rubber**

In 2016 the EPA, Centers for Disease Control (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR), and Consumer Product Safety Commission (CPSC) initiated the Federal Research Action Plan (FRAP) on Recycled Tire Crumb Used on Playing Fields and Playgrounds to address concerns raised by the public about the potential health risks associated with the use of crumb rubber on athletic fields. Previous, but limited studies have not shown an elevated health risk. The study consists of two parts: Part 1 - tire crumb rubber characterization, and Part 2 – exposure characterization study. On July 25, 2019, EPA released the Part 1 report with plans to release the Part 2 report at a later date. The results of Part 1 included the following: a range of chemicals were observed for both metals and organics, chemical concentrations were similar to other published studies, and both air emissions of most organic chemicals and bioaccessibility of metals were low. Part 2 will include data to characterize potential human exposures to chemicals found in the tire crumb rubber material along with results from a biomonitoring study to be conducted by CDC/ATSDR. The exposure characterization portion of the study was completed in 2018. The CDC determined it needed to conduct a more robust biomonitoring study to investigate potential exposure to constituents in tire crumb rubber with field activities/data collection scheduled to begin in spring of this year (2020). As a result of the COVID pandemic, initiation of the biomonitoring study has been temporarily postponed.

Concurrently the DWM is reviewing research reports and field/laboratory studies that are being conducted on an international level similar to the one EPA is coordinating in the United States. CR/TDP grants were still made available to entities for other applications, including landscaping, park/trail benches, picnic tables, and solid poured-in-place surfacing for hiking trails and playgrounds.



*Photo 1: Letcher County waste tire collection event  
Photo by Donny Atha*

Manufacturing of ground rubber and mulch from Kentucky tires increased from an essentially nonexistent product in 1998 to 2.16 million PTEs in 2020. Liberty Tire Recycling, LLC, in Union County, manufactures a large quantity of colored mulch for retail outlets including Lowes, Home Depot, and Walmart. Dalton Tire Recycle, in Boyd County, produces ground rubber for playgrounds and horse arenas. Porter's Tire and Auto Service, in Carter County, initiated crumb rubber and rubber mulch production in 2013.



*Photo 2: Caldwell County Elementary poured-in-place playground  
Photo by Lisa Evans*

Ground tire rubber used in RMA is emerging as an important market. The EEC promotes this type of asphalt as an additional option to increase scrap tire recycling and has offered the RMA grant since 2016. This grant is applied as a reimbursement to county or urban-county government recipients for paving a segment of roadway with RMA. The recipients must match the grant by paving an equal portion of the roadway, or a similar roadway, using the same volume of traditional asphalt. The two sections are then assessed over a five year period to determine the performance of RMA compared to standard asphalt.

Since the RMA grants were initiated, the WTTF has funded 27 different road projects reimbursing \$2,229,029.36 to counties for RMA paving. In 2020, \$482,749 was paid to reimburse six grant projects, which expended approximately 3,100 tires. This grant is expected to continue in 2021, and could possibly be expanded to include additional pavement processes, contingent on sufficient funding. Appendix C includes grant recipient information. All RMA projects have passed tests in 2020 to meet existing Kentucky Transportation Cabinet (KYTC) standard specifications. These tests, which compared RMA surfaces to conventional asphalt surfaces of similar area, included compaction density, asphalt content, voids, rutting, and performance grade (resistance to hot and cold weather under load).



Market diversity is a critical component of successful waste tire management programs. Kentucky has developed diverse product markets, producing TDF and ground rubber products, representing approximately 58 percent of Kentucky's waste tire generation. However, developing civil engineering markets for shredded tires could further enhance the diversity of Kentucky's markets, providing constructive applications for shredded tires that are currently landfilled. Additionally, when considering possible new areas for growth in waste tire markets, it should be noted that in 2015, Kentucky ranked third in the U.S. for car and truck production.<sup>6</sup> The Commonwealth could consider assisting the three major Kentucky automotive manufacturers in using waste tire ground rubber in molded automotive parts to expand this important potential application.

## MARKET DYNAMICS

Due to the volatile nature of the scrap tire market, it is not uncommon for tire processors to quickly accumulate more tires than they can reasonably manage during peak times, processing equipment outages, or changes in product markets. When shredded tires are improperly stored, specifically in large, deep compacted piles, the possibility of auto-ignition exists. When a large pile of whole or shredded tire material ignites, it is extremely difficult to extinguish. Permitted tire processors are required to have a bond equal to \$1.00 per on-site PTE, with a minimum of \$10,000. A common problem with this system is that facilities often bond for the minimum amount, then accumulate well over 10,000 tires, resulting in circumstances where their bond is inadequate to cover a required cleanup. In addition to stronger enforcement of the bonding requirement, a solution for consideration could be realized by funding remediation of tire fires to include a statutory increase in the amount of the bond required. The bond amount in KRS 224.50-862 could be increased from \$1.00 per tire to \$1.50 to cover cleanup costs. Similar to other states, the legislature could consider requiring an actual cost estimate for closure to determine the amount of financial assurance requirement.

A potential problem for tire processors is the maturation of national TDF markets, reflecting a general downturn in U.S. manufacturing, and reduction in coal usage. Unlike many states, Kentucky's TDF market remains robust and has ongoing potential to continue as a major use of waste tires for the Commonwealth. However, use of all solid fuels, including coal and TDF, is expected to decline in the foreseeable future. Continuing efforts to further diversify markets are critical to maintaining a high rate of constructive utilizations of waste tire resources.

---

<sup>6</sup> *Auto Jobs & Economics*, Auto Alliance, [www.autoalliance.org/auto-jobs-and-economics/state-facts](http://www.autoalliance.org/auto-jobs-and-economics/state-facts)





*Photo 3: RMA paving project, Simpson County  
Photo by Byron J. Bland*

## **FUTURE OF THE FUND**

The waste tire program exemplifies the EEC's mission of protecting human health and the environment by encouraging waste reduction, reuse, and recycling. The WTTF supports statewide WTCEs, remediates large tire piles, provides direct grants to counties, and promotes market development for TDF and ground rubber. If the waste tire fee is not extended, program funds will not be available to Kentucky businesses involved in tire processing, and remediation would be negatively affected.

A total of 38 states have mandated tire fees<sup>7</sup>. These fees are collected in different ways, but 32 of the 38, add a fee to retail tire sales. Some state fees are as low as \$0.25, but most are in the \$1 to \$2 range. A total of five states charge a fee per vehicle registration, ranging from \$1.50 to \$5.00 per vehicle. Hawaii's fee is collected by an importer.

---

<sup>7</sup> <https://www.tirebuyer.com/education/tire-disposal-fees-collected-by-tirebuyer>



*Photo 4: RMA paving project, Hardin County  
Photo by B.J. Bland*

Over the years there have been several examples of states that discontinued their tire fee programs with negative results. Washington state and Missouri have since re-instated their tire fee to address these problems. Oregon, Wisconsin, Idaho, and Texas are examples of states that discontinued waste tire fees, and experienced problems such as increased stockpiles, decreased monitoring of processors and haulers, and decline in waste tire recycling markets leading to lower tire recycling rates.<sup>8</sup>

In addition to the repercussions discussed above, the following impacts could happen in Kentucky as a result, if the fee were to expire:

- Counties would not receive the \$4,000 annual grant to clean up abandoned waste tires;
- Rural areas would be impacted by abandoned waste tires on farms and roadsides;
- Counties might be unable to rely on the Commonwealth for tire pile remediation; and
- Market development would likely cease.

---

<sup>8</sup> *Waste Tire Management Program Closure-Precedents/Experience in Other States*, Terry Gray, TAG Resource Recovery, Inc, Houston, TX 2011

The waste tire program faces many challenges, common to similar programs throughout the country:

- It is probable that some retailers collect disposal fees and stockpile waste tires until a WTCE is conducted in their area, or otherwise mismanage their waste tires.
- Individuals have chosen to retain their waste tires to avoid additional fees charged by tire retailers for waste tire disposal, taking these tires out of the recycling stream. Some of these tires may later be mismanaged, burdening counties with continued waste tire management issues.

It has been reported that some tire retailers charge higher tire disposal/recycling fees to discourage individuals from leaving waste tires with the retailer, compared to the average \$1.50 to \$2.00 fee. As an alternative, this situation could be improved by requiring the disposal price to be included separately and alongside the sale price and tire fee, or list the actual statewide average disposal rate on a notice and allow the free market to manage the situation.

Many tires collected by registered waste tire transporters are still being legally disposed in landfills rather than being recycled. It is less capital intensive to cut or shred and landfill a tire, than to install equipment required to produce a recyclable product. Some states have corrected this problem by banning all tire material, including cut or shredded tires, from landfills except for pre-approved construction applications within landfills.

Statewide coverage by reputable tire processing facilities is essential for the free market to work. Long transportation distances translate into higher costs that keep tire recycling from being economically feasible.

Aligning the reporting schedule of the WTTF within the state budget cycle of two fiscal years, could improve the efficiency of the report. A revision to KRS 224.50-872 from annually to a two year reporting cycle would become necessary.

KRS 224.50-868(3) authorizes the DOR to collect the waste tire fee. The statute requires up to \$50,000 per year be transferred to DOR for collection of this fee. This neither provides enough money (estimated cost of \$75,000 to employ one person annually) nor incentive for DOR to enforce the collection. States incorporating a specific percentage to be awarded to the collection agency have higher collection rates than Kentucky.

***In conclusion, the Energy and Environment Cabinet strongly recommends that the General Assembly extend the waste tire fee and continue the waste tire program.***

## CREDITS & ACKNOWLEDGEMENTS

### **Commonwealth of Kentucky**

Governor Andrew G. Beshear

### **Energy and Environment Cabinet**

Secretary Rebecca W. Goodman

Deputy Secretary John Lyons

### **Department for Environmental Protection**

Commissioner Anthony R. Hatton, P.G.

Deputy Commissioner Amanda LeFevre

This annual report is intended to provide a concise set of facts and measurements to support environmental decisions.

We welcome your questions and comments to the contacts below:

### **Division of Waste Management**

Director Tammi Hudson, P.E.

300 Sower Boulevard, Second Floor

Frankfort, KY 40601

Phone: 502-564-6716

Email: [waste@ky.gov](mailto:waste@ky.gov)

[eec.ky.gov/Environmental-Protection/waste](http://eec.ky.gov/Environmental-Protection/waste)

We acknowledge the contributions of the management, staff, and consultants of the Division of Waste Management:

*Byron “BJ” Bland*

*Jenny Carr*

*John W. Brown*

*Donny Atha*

*Gary Logsdon*

*George Partridge*

*Grant White*

*Lisa Evans*

*Terry A. Gray*

*Ty Collins*

*Edited by: Program Planning and Administration Branch staff*

*The Kentucky Division of Waste Management does not discriminate on the basis of race, color, religion, sex, national origin, sexual orientation or gender identity, ancestry, age, disability, or veteran status. The division provides, on request, reasonable accommodations necessary to afford an individual with a disability an equal opportunity to participate in all services, programs, and activities. Contact the division to request materials in an alternate format.*

January 2021



## **APPENDICES**

- Appendix A: Fiscal Year 2020 Waste Tire Grants**
- Appendix B: Calendar Year 2020 Crumb Rubber/Tire-Derived Products Grants**
- Appendix C: Calendar Years 2018 – 2020 Rubber-Modified Asphalt Grants**
- Appendix D: Waste Tire Statistics History by Area Development District**

## Appendix A: Fiscal Year 2020 Waste Tire Grants

COUNTY	AWARD	FUNDS USED	FUNDS RETURNED	NUMBER OF PTE's
Adair Co.	\$4,000.00	\$4,012.66	\$0	1,658
Allen Co.	\$4,000.00	\$4,131.00	\$0	2,071
Anderson Co.	\$4,000.00	\$6,174.50	\$0	2,663
Ballard Co.	\$4,000.00	N/A	N/A	N/A
Barren Co.	N/A	N/A	N/A	N/A
Bath Co.	\$4,000.00	N/A	N/A	N/A
Bell Co.	\$4,000.00	\$4,000.00	\$0	2,000
Boone Co.	\$4,000.00	N/A	N/A	N/A
Bourbon Co.	N/A	N/A	N/A	N/A
Boyd Co.	\$4,000.00	\$2,087.00	\$1,913.00	768
Boyle Co.	\$4,000.00	N/A	N/A	N/A
Bracken Co.	\$4,000.00	N/A	\$4,000.00	N/A
Breathitt Co.	N/A	N/A	N/A	N/A
Breckinridge Co.	\$4,000.00	\$4,344.00	\$0	1,597
Bullitt Co.	\$4,000.00	\$2,118.50	\$2,751.75	437
Butler Co.	\$4,000.00	\$3,918.70	\$81.30	1,350
Caldwell Co	\$4,000.00	N/A	N/A	N/A
Calloway Co.	\$4,000.00	\$6,790.00	\$0	24,480
Campbell Co.	\$4,000.00	\$16,105.70	\$0	7,687
Carlisle Co.	\$4,000.00	N/A	N/A	N/A
Carroll Co.	\$4,000.00	N/A	N/A	N/A
Carter Co.	\$4,000.00	N/A	N/A	N/A
Casey Co.	\$4,000.00	\$4,339.06	\$0	1,793
Christian Co.	\$4,000.00	\$5,899.50	\$0	3,633
Clark Co.	\$4,000.00	N/A	N/A	N/A
Clay Co.	\$4,000.00	N/A	N/A	N/A
Clinton Co.	\$4,000.00	N/A	N/A	N/A

COUNTY	AWARD	FUNDS USED	FUNDS RETURNED	NUMBER OF PTE's
Crittenden Co.	\$4,000.00	\$1,000.00	\$3,000.00	700
Cumberland Co.	\$4,000.00	\$2,800.00	\$1,200.00	2,530
Daviess Co.	\$4,000.00	\$2,829.60	\$1,170.40	2,475
Edmonson Co.	\$4,000.00	N/A	N/A	N/A
Elliott Co.	\$4,000.00	\$1,782.50	\$2,217.50	969
Estill Co.	\$4,000	\$4,500	\$0	800
Fayette Co.	\$4,000.00	\$4,000.00	\$0	2,291
Fleming Co.	\$4,000.00	N/A	N/A	N/A
Floyd Co.	\$4,000.00	\$4,035.00	\$0	1,345
Franklin Co.	\$4,000.00	\$2,350.00	\$1,650.00	1,000
Fulton Co.	NA	N/A	N/A	N/A
Gallatin Co.	\$4,000.00	\$4,139.14	\$0	1,292
Garrard-Lincoln	\$8,000.00	\$7,052.50	\$947.50	5,053
Grant Co.	\$4,000.00	\$6,241.56	\$0	1,357
Graves Co.	\$4,000.00	\$7,515.00	\$0	6,500
Grayson Co.	\$4,000.00	\$5,120.90	\$0	2,693
Green Co.	\$4,000.00	\$1,651.00	\$2,349.00	326
Greenup Co.	\$4,000.00	\$6,575.00	\$0	4,259
Hancock Co.	\$4,000.00	\$4,005.80	\$0	2,043
Hardin Co.	\$4,000.00	N/A	N/A	N/A
Harlan Co.	\$4,000.00	\$17,050.00	\$0	9,900
Harrison Co.	\$4,000.00	N/A	N/A	N/A
Hart Co.	\$4,000.00	\$4,000.00	\$0	1,622
Henderson Co.	\$4,000.00	\$6,060.00	\$0	6,000
Henry Co.	\$4,000.00	N/A	N/A	N/A
Hickman Co.	\$4,000.00	N/A	N/A	N/A
Hopkins Co.	N/A	N/A	N/A	N/A
Jackson Co.	\$4,000.00	N/A	N/A	N/A



COUNTY	AWARD	FUNDS USED	FUNDS RETURNED	NUMBER OF PTE's
Louisville-Jefferson Co.	NA	N/A	N/A	N/A
Jessamine Co.	\$4,000.00	\$8,410.00	\$0	4,440
Johnson Co.	\$4,000.00	N/A	N/A	N/A
Kenton Co.	\$4,000.00	\$4,150.00	\$0	2,000
Knott Co.	\$4,000.00	N/A	N/A	N/A
Knox Co.	\$4,000.00	\$3,274.00	\$726.00	1,487
LaRue Co.	\$4,000.00	N/A	N/A	N/A
Laurel Co.	\$4,000.00	N/A	N/A	N/A
Lawrence Co.	\$4,000.00	\$4,012.00	\$118.50	1,348
Lee Co.	\$4,000.00	N/A	N/A	N/A
Leslie Co.	\$4,000.00	\$4,000.00	\$0	1,106
Letcher Co.	\$4,000.00	N/A	N/A	N/A
Lewis Co.	\$4,000.00	N/A	N/A	N/A
Livingston Co.	\$4,000.00	\$4,200.00	\$0	4,100
Logan Co.	\$4,000.00	\$4,002.15	\$0	1,990
Lyon Co.	\$4,000.00	\$6,904.30	\$0	2,365
Madison Co.	N/A	N/A	N/A	N/A
Magoffin Co.	\$4,000.00	\$4,000.00	\$0	3,000
Marion Co.	\$4,000.00	N/A	N/A	N/A
Marshall Co.	\$4,000.00	\$4,500.00	\$0	2,224
Martin Co.	\$4,000.00	N/A	N/A	N/A
Mason Co.	\$4,000.00	N/A	N/A	N/A
McCracken Co.	N/A	N/A	N/A	N/A
McCreary Co.	\$4,000.00	\$4,065.00	\$0	694
McLean Co.	\$4,000.00	N/A	N/A	N/A
Meade Co.	N/A	N/A	N/A	N/A
Menifee Co.	\$4,000.00	\$4,260.00	\$0	2,363
Mercer Co.	\$4,000.00	\$4,314.00	\$0	2,004

COUNTY	AWARD	FUNDS USED	FUNDS RETURNED	NUMBER OF PTE's
Metcalfe Co.	\$4,000.00	\$4,431.50	\$0	1,993
Monroe Co.	\$4,000.00	N/A	N/A	N/A
Montgomery Co.	\$4,000.00	N/A	N/A	N/A
Morgan Co.	\$4,000.00	\$3,205.50	\$794.50	1,553
Muhlenberg Co.	\$4,000.00	\$2,607.75	\$1,392.25	1,428
Nelson Co.	\$4,000.00	\$22,000.00	\$0	16,905
Nicholas Co.	NA	N/A	N/A	N/A
Ohio Co.	\$4,000.00	\$3,630.00	\$370.00	2,000
Oldham Co.	\$4,000.00	\$3,131.00	\$869.00	1,039
Owen Co.	\$4,000.00	N/A	N/A	N/A
Owsley Co.	\$4,000.00	N/A	N/A	N/A
Pendleton Co.	\$4,000.00	\$3,024.25	\$975.75	2,193
Perry Co.	\$4,000.00	N/A	N/A	N/A
Pike Co.	\$4,000.00	N/A	N/A	N/A
Powell Co.	\$4,000.00	\$4,254.50	\$0	1,152
Pulaski Co.	\$4,000.00	\$4,467.32	\$0	185
Robertson Co.	\$4,000.00	N/A	N/A	N/A
Rockcastle Co.	\$4,000.00	\$4,017.25	\$0	1,492
Rowan Co.	\$4,000.00	\$4,000.50	\$0	1,967
Russell Co.	\$4,000.00	\$1,873.08	\$2,126.92	774
Scott Co.	\$4,000.00	\$3,380.00	\$620.00	1,108
Shelby Co.	\$4,000.00	\$6,000.00	\$0	6,000
Simpson Co.	\$4,000.00	\$3,950.08	\$49.92	889
Spencer Co.	\$4,000.00	N/A	N/A	N/A
Taylor Co.	\$4,000.00	N/A	N/A	N/A
Todd Co.	\$4,000.00	\$3,150.00	\$850.00	2,600
Trigg Co.	\$4,000.00	N/A	N/A	N/A
Trimble Co.	\$4,000.00	\$4,088.00	\$0	1,493

COUNTY	AWARD	FUNDS USED	FUNDS RETURNED	NUMBER OF PTE's
Union Co.	\$4,000.00	\$9,060.00	\$0	7,169
Warren Co.	\$4,000.00	N/A	N/A	N/A
Washington Co.	\$4,000.00	\$4,938.05	\$0	1,333
Wayne Co.	\$4,000.00	\$2,601.00	\$1,399.00	1,075
Webster Co.	\$4,000.00	\$4,418.76	\$0	5,699
Whitley Co.	\$4,000.00	N/A	N/A	N/A
Wolfe Co.	\$4,000.00	\$5,713.62	\$0	2,361
Woodford Co.	\$4,000.00	N/A	N/A	N/A
<b>TOTALS</b>	<b>\$440,000.00</b>	<b>\$322,575.23</b>	<b>\$204,670.54</b>	<b>190,988</b>

## Appendix B:

### Calendar Year 2020 Crumb Rubber/Tire-Derived Products Grants

COUNTY	APPLICANT	LOCATION	PROJECT	AWARD
Allen	Project C.A.M.P. Inc. dba Center for Courageous Kids	Project C.A.M.P. Inc., dba Center for Courageous Kids	Poured-In-Place Walking Path/Nature Trail	\$80,062
Bracken	City of Augusta	Appleman Park	Park Benches and Picnic Tables	\$6,994
Caldwell	Caldwell County Board of Education	Caldwell County Elementary School	Poured-In-Place Playground	\$14,172
Daviess	Daniel Pitino Shelter, Inc.	Daniel Pitino Shelter, Inc	Poured-In-Place Playground	\$26,700
Garrard	City of Lancaster	Kendyl and Friends Playground, Lancaster Campus	Poured-In-Place Playground	\$16,850
Grayson	Grayson County Board of Education	Clarkson Elementary School – Playground & Basketball Court	Park Benches, Picnic Table	\$1,287
Greenup	City of Flatwoods	Flatwoods City Park	Park and Trail Benches, Picnic Tables	\$4,716
Hancock	Hancock Board of Education	South Hancock Elementary School	Poured-In-Place Playground	\$34,000
Lawrence	Lawrence County Fiscal Court	Lawrence County Soccer Complex	Park Benches and Picnic Tables	\$5,159
Lincoln	Lincoln County Fiscal Court	William Whitley House Historic Site	Park Bench and Picnic Tables	\$5,823
Logan	Russellville Independent Schools	Russellville Primary Academy	Poured-In-Place Playground	\$34,850
Madison	Berea Independent Schools	Berea Community Elementary School (Kendyl and Friends)	Poured-In-Place Playground	\$34,850

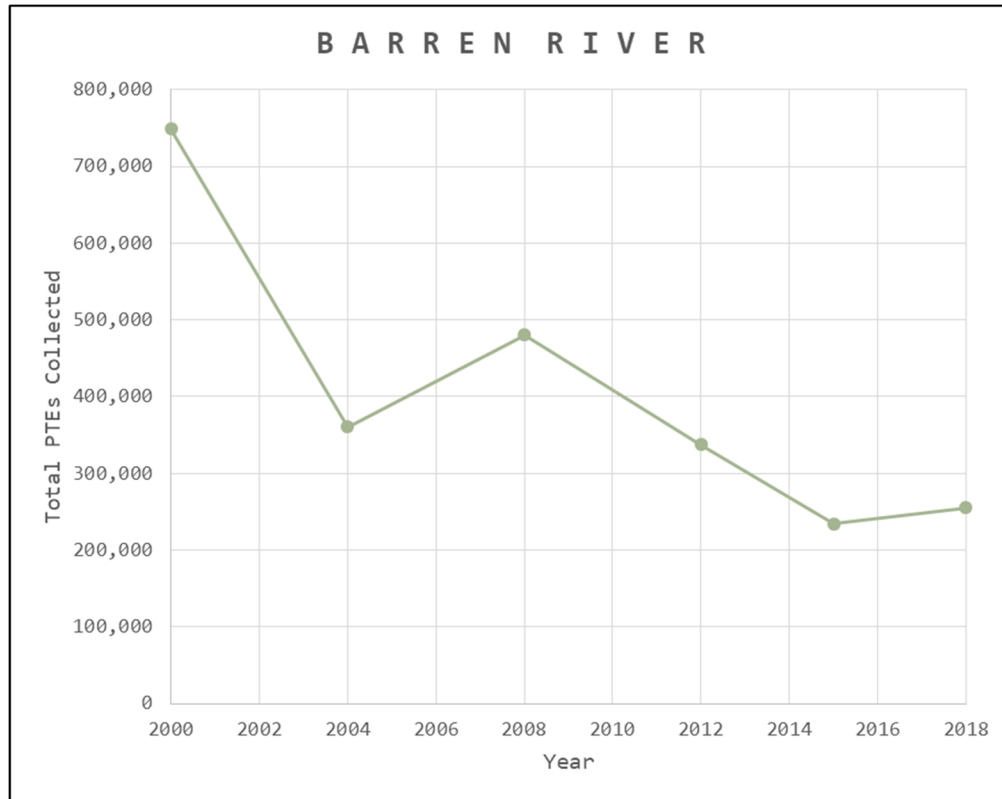
COUNTY	APPLICANT	LOCATION	PROJECT	AWARD
Magoffin	Magoffin County Fiscal Court	Lloyd M. Hall Community Center and Magoffin County Horse Arena	Picnic Tables	\$8,890
Menifee	Menifee County Board of Education	Menifee Central	Poured-In-Place Playground	\$53,900
Montgomery	Mt. Sterling/Montgomery County Parks and Recreation	Easy Walker Park	Poured-In-Place Playground	\$33,300
Perry	City of Hazard	The Greenway, Triangle Park, Amphitheater	Park and Trail Benches, Picnic Tables, Wheelchair Accessible Picnic Tables	\$16,792
Taylor	Taylor County Board of Education	Taylor County School District	Poured-In-Place Track Surfacing	\$11,500
Trigg	Kentucky Department of Parks	Lake Barkley State Resort Park (Horse Stalls & Scenic Shoreline Walking Trail)	Horse Stall Mats and Park Benches	\$6,323
Union	Union County Fiscal Court	Moffitt Lake Recreation Area	Poured-In-Place Playground	\$28,432
Warren	City of Bowling Green Parks and Recreation	Roland Bland Park	Poured-In-Place Playground	\$75,400
			<b>TOTAL</b>	<b>\$500,000</b>

### Appendix C: Calendar Years 2018 – 2020 Rubber Modified Asphalt Grants

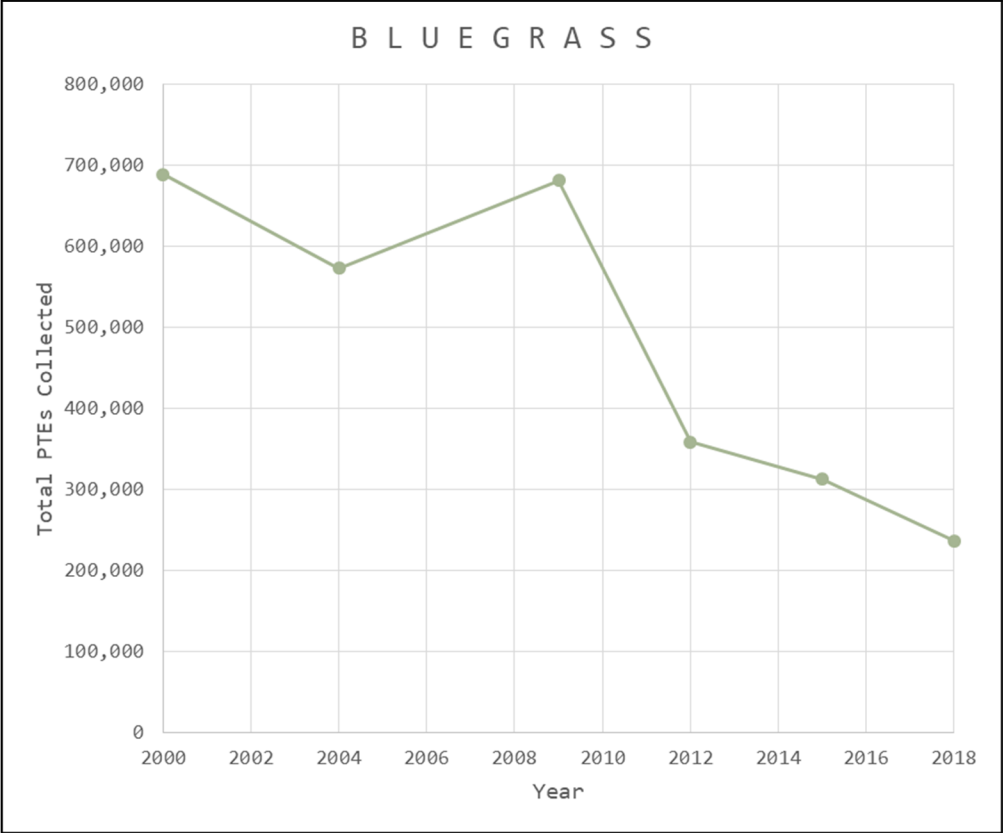
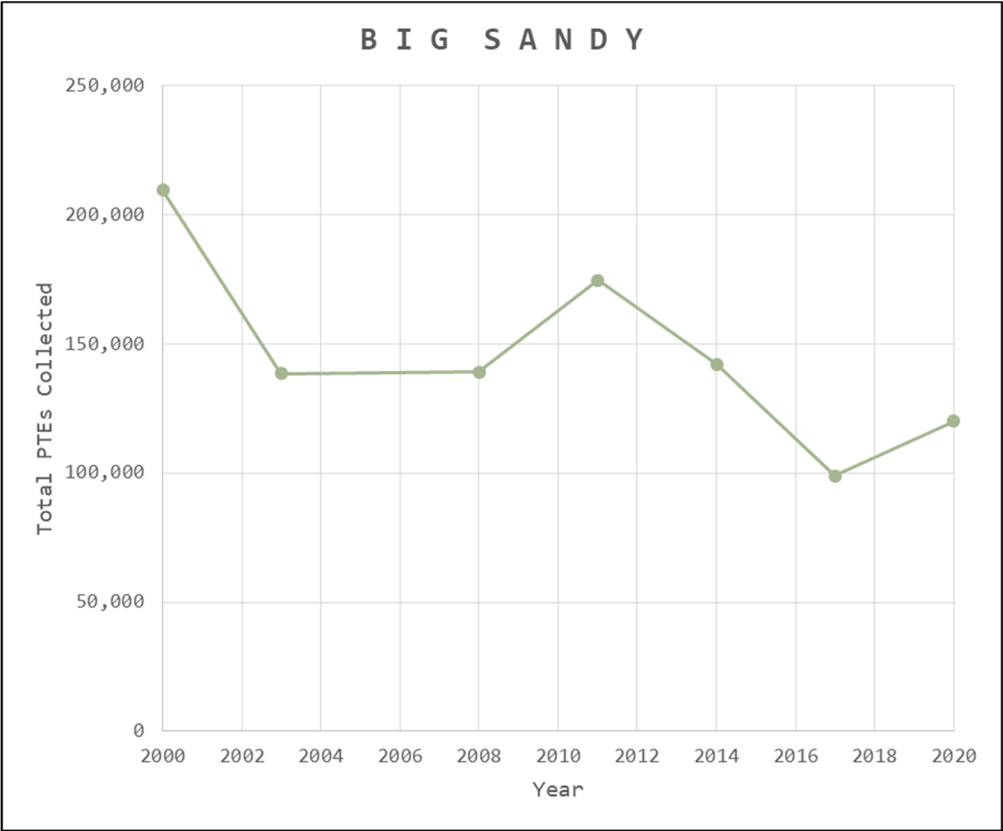
COUNTY	APPLICANT	LOCATION/ROAD	SURFACE TYPE	AWARD
<b>CY2018 Grant Cycle</b>				
Adair	Adair Co. Fiscal Court	West Egypt, Snake Creek Roads	Thin Overlay	\$83,572.50
Bracken	Bracken Co. Fiscal Court	Dover Road, Fronks Lane	Thin Overlay	\$68,998.00
Green	Green Co. Fiscal Court	J. T. Ward Road	Chip Seal	\$73,946.00
Hart	Hart Co. Fiscal Court	Hatcher Valley Road	Thin Overlay	\$46,931.50
Jefferson	Louisville Metro Government	South 4 <sup>th</sup> Street	Thin Overlay	\$88,080.00
Marion	Marion Co. Fiscal Court	Helm School House Road	Chip Seal	\$34,500.00
Taylor	Taylor Co. Fiscal Court	Pike's Ridge Road	Thin Overlay	\$57,500.00
<b>CY2019 Grant Cycle</b>				
Clark	Clark Co. Fiscal Court	Verna Hills Subdivision	Thin Overlay	\$108,900.00
Fayette	LFUCG	Southland Dr.	Thin Overlay	\$98,851.50
Hardin	Hardin Co. Fiscal Court	Cecilia Smith Road	Thin Overlay	\$89,618.03
Hopkins	Hopkins Co. Fiscal Court	Old Morganfield Road	Thin Overlay	\$102,960.00
Pulaski	Pulaski Co. Fiscal Court	Thurman Road	Thin Overlay	\$101,490.00
<b>CY2020 Grant Cycle</b>				
Calloway	Calloway Co. Fiscal Court	Samuel 1.06/ 1.14	Chip Seal	\$56,100.00
Simpson	Simpson Co. Fiscal Court	Loving Chapel / 2.24	Thin Overlay	\$85,830.00
McLean	McLean Co. Fiscal Court	Troutman Hills /2mi	Thin Overlay	\$85,000.00
Butler	Butler Co. Fiscal Court	Region Rd 2.5 mi	Thin Overlay	\$101,430.00
Green	Green Co. Fiscal Court	Happyville Rd .5mi	Thin Overlay	\$39,875.00
Hardin	Hardin Co. Fiscal Court	Thomas Rd 3.692mi	Thin Overlay	\$115,514.00

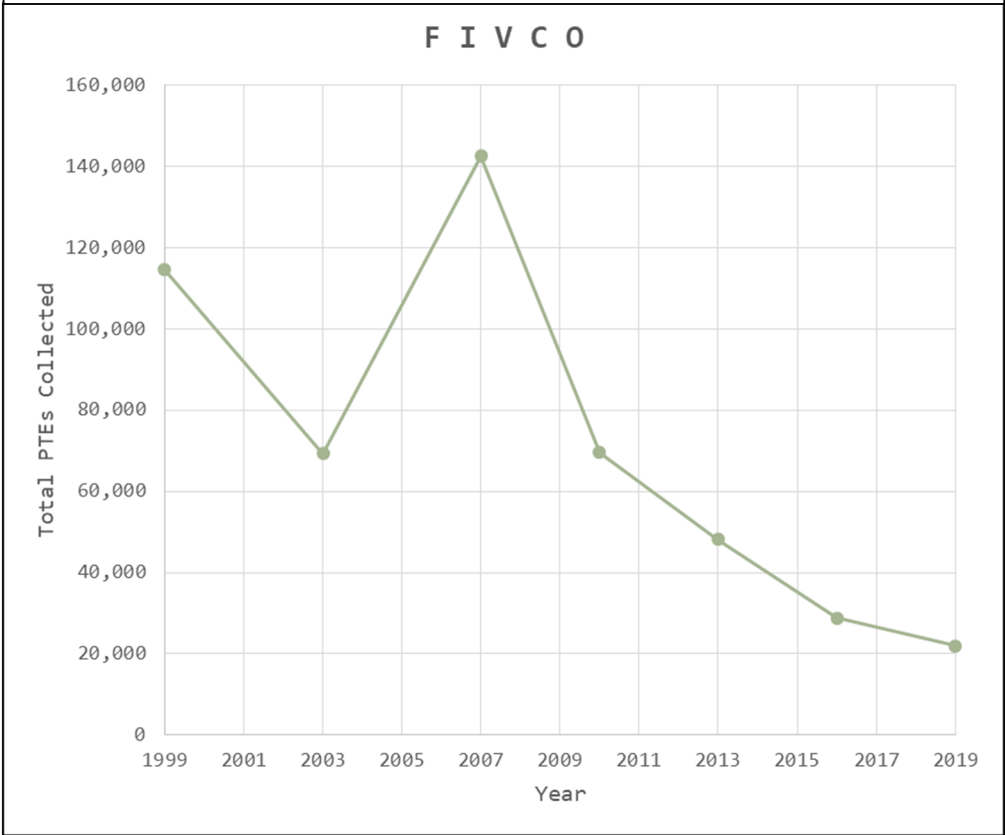
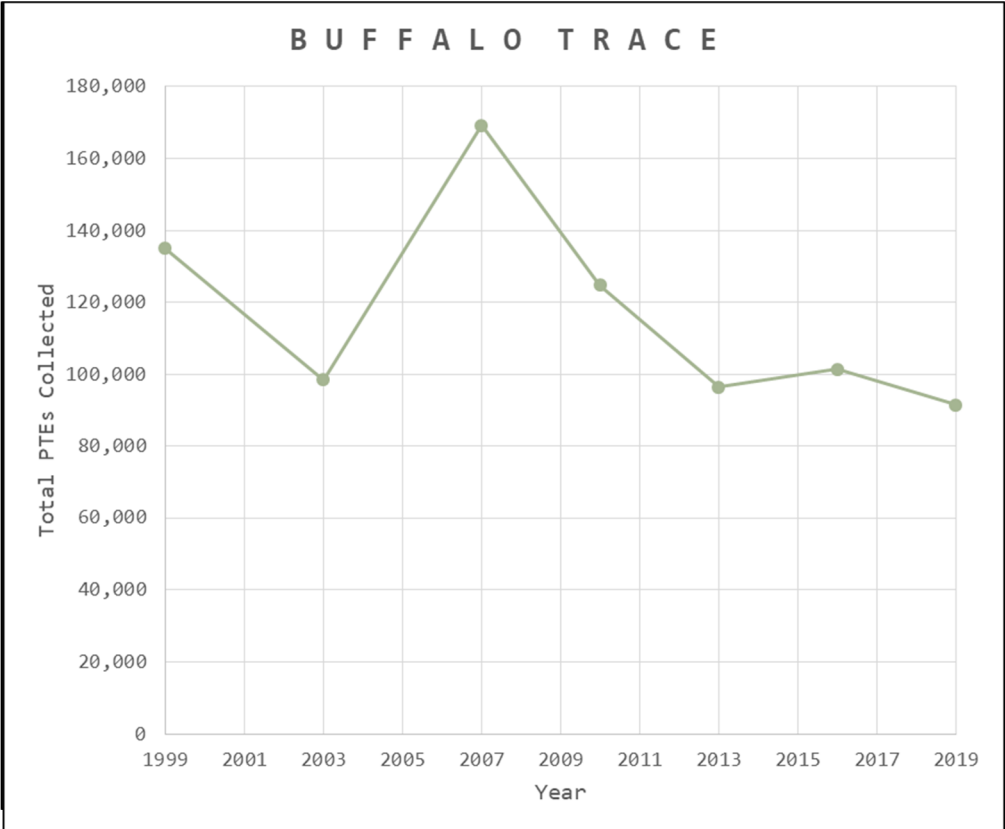
## APPENDIX D:

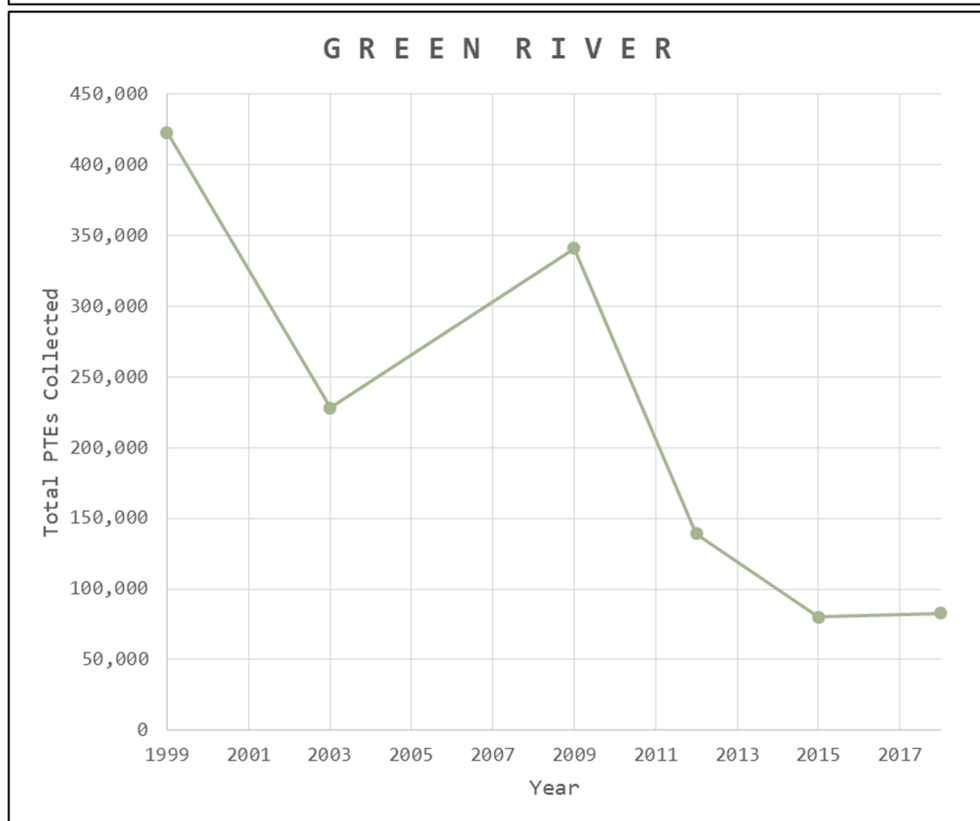
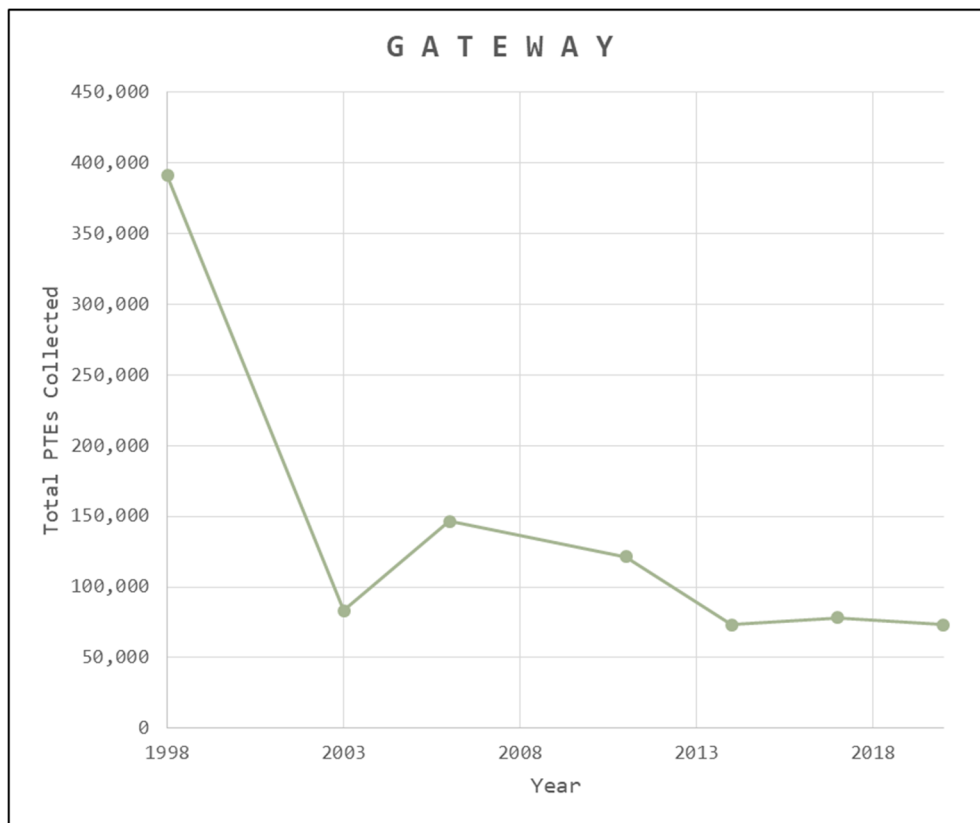
### Waste Tire Statistics History by Area Development District

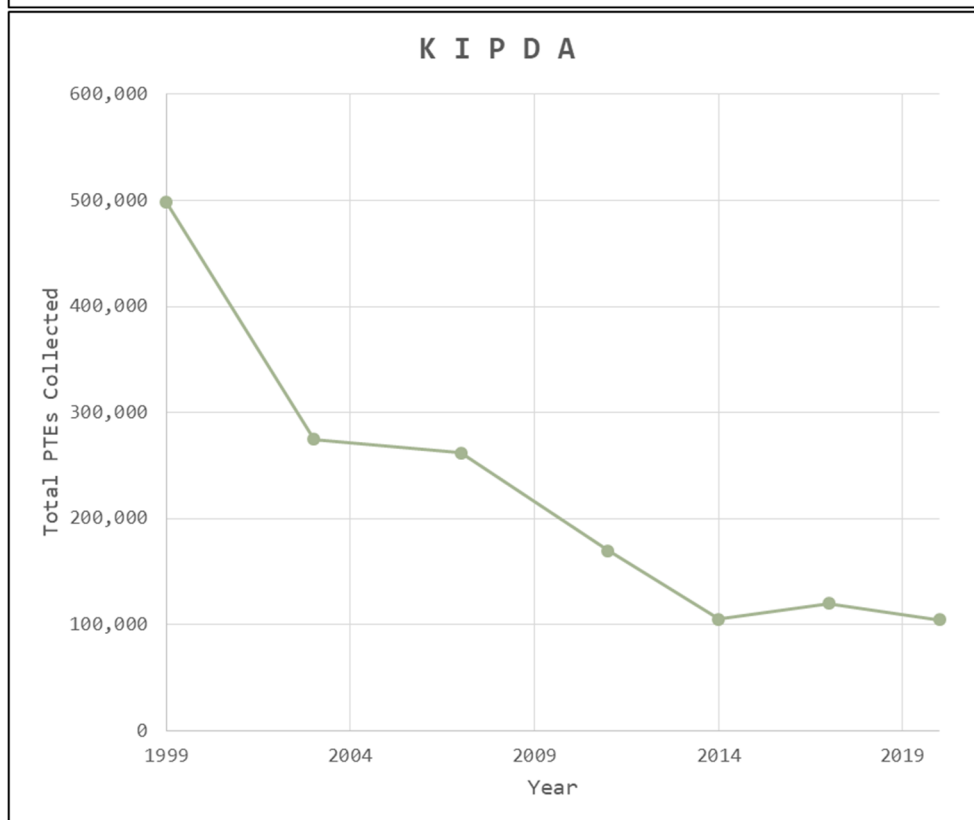
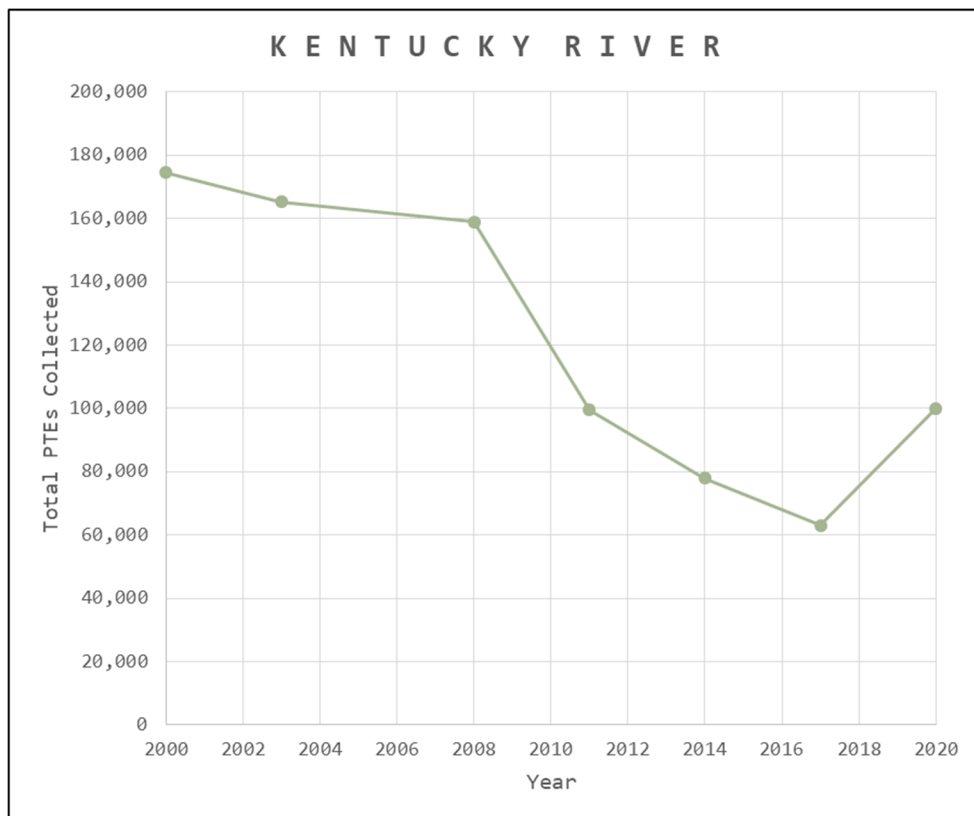


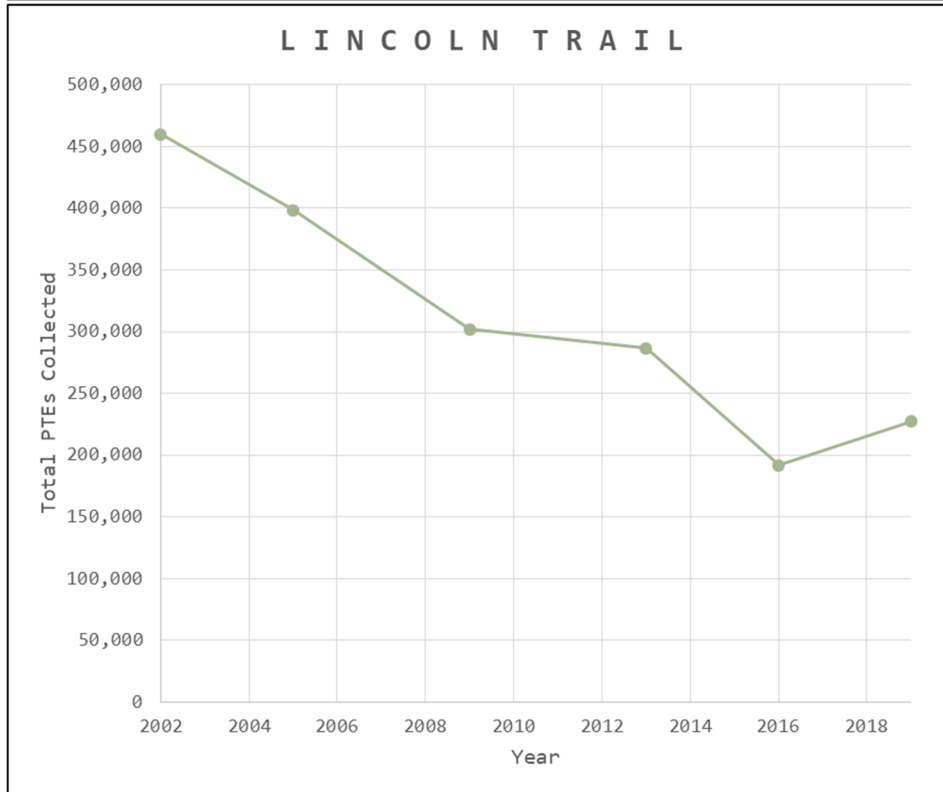
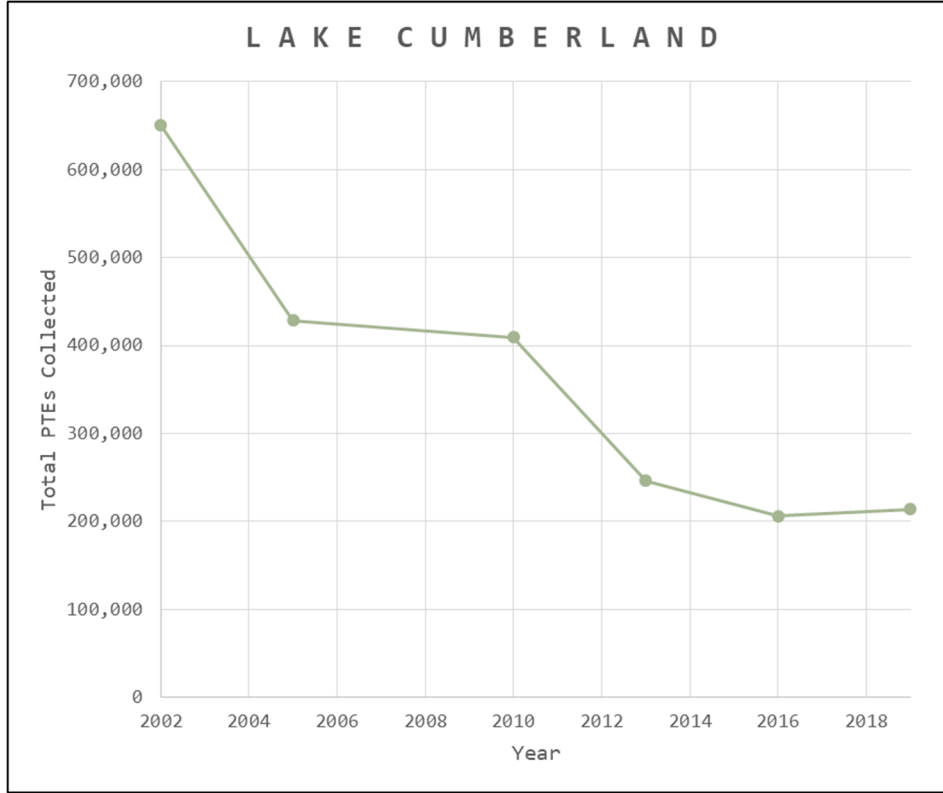


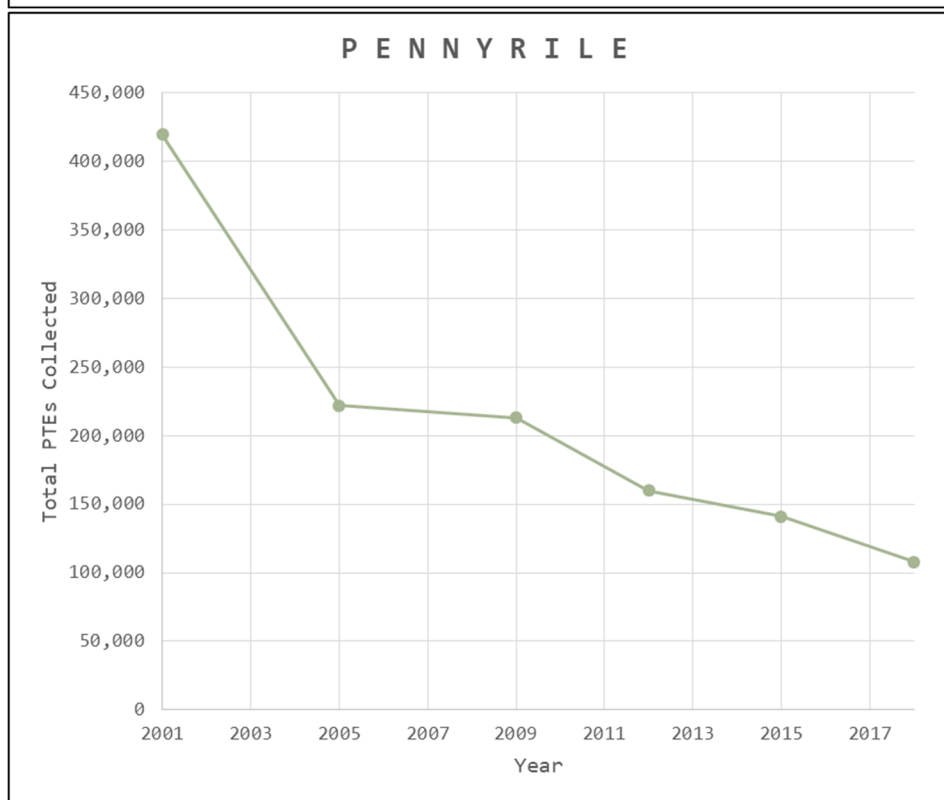
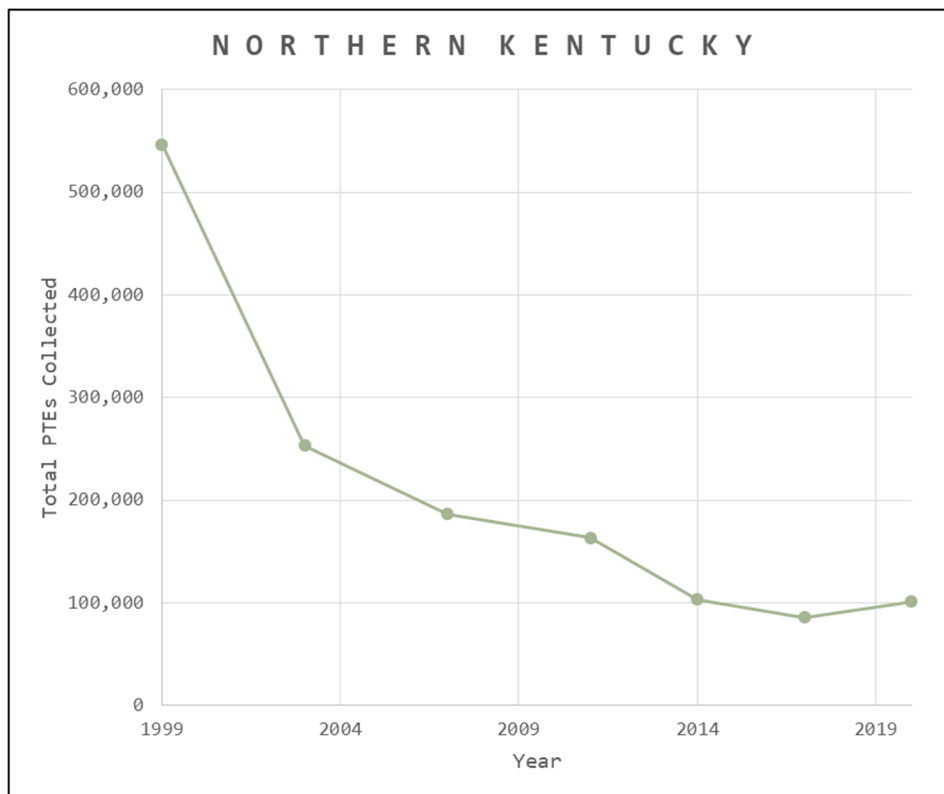


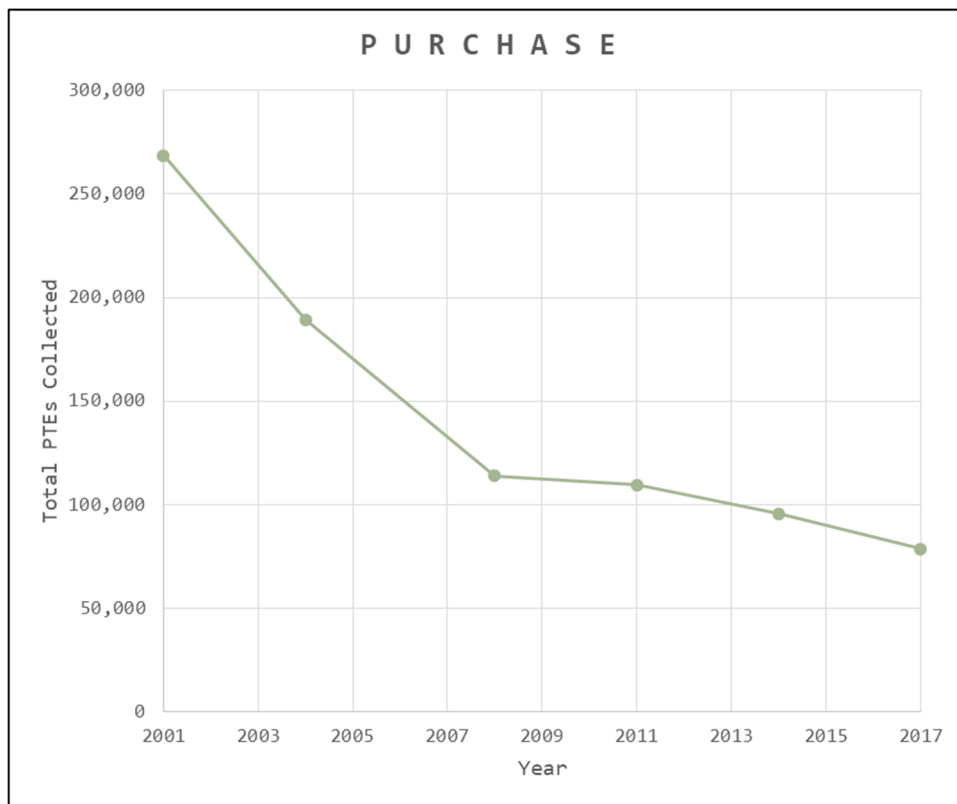














## ACRONYMS

<b>ADD</b>	Area Development District
<b>ATSDR</b>	Agency for Toxic Substances and Disease Registry
<b>BTU</b>	British Thermal Unit
<b>CDC</b>	Centers for Disease Control
<b>CPSC</b>	Consumer Product Safety Commission
<b>CR/TDP</b>	Crumb Rubber/Tire-Derived Products
<b>DOR</b>	Department of Revenue
<b>DWM</b>	Division of Waste Management
<b>EEC</b>	Energy and Environment Cabinet
<b>EKPC</b>	East Kentucky Power Cooperative
<b>EPA</b>	U.S. Environmental Protection Agency
<b>FRAP</b>	Federal Research Action Plan
<b>GHG</b>	Greenhouse Gas
<b>KYTC</b>	Kentucky Transportation Cabinet
<b>OMU</b>	Owensboro Municipal Utility
<b>PSC</b>	Public Service Commission
<b>PTE</b>	Passenger Tire Equivalent
<b>RLA</b>	Recycling and Local Assistance
<b>RMA</b>	Rubber-Modified Asphalt
<b>TDA</b>	Tire-Derived Aggregate
<b>TDF</b>	Tire-Derived Fuel
<b>WTCE</b>	Waste Tire Collection Event
<b>WTTF</b>	Waste Tire Trust Fund
<b>WTWG</b>	Waste Tire Working Group

**Kentucky Division of Waste Management  
300 Sower Boulevard, Second Floor  
Frankfort, KY 40601  
Report an Environmental Emergency,  
24 hours to Environmental Response Team  
502-564-2380 or 800-928-2380**