

A REPORT TO THE VIRGINIA GENERAL ASSEMBLY

WASTE TIRE PILE CLEANUPS IN VIRGINIA - 2003

December 1, 2003

Virginia Department of Environmental Quality

WASTE TIRE PILE CLEANUPS IN VIRGINIA - 2003

EXECUTIVE SUMMARY

Introduction

Chapter 101 of the 2003 Acts of the Assembly included a provision that increased the Virginia tire recycling fee from \$0.50 to \$1.00 for a 3 year period, with all additional revenue dedicated for the removal and recycling of tires from waste tire piles. It also required the Virginia Department of Environmental Quality (DEQ) to submit a report by December 1 of each year to the Chairman of the Senate Committee on Agriculture, Conservation and Natural Resources and the Chairman of the House Committee on Agriculture, Chesapeake and Natural Resources on the use of these funds and the progress in cleaning up tire piles. This report is submitted to fulfill this requirement.

Waste Tire Piles

Since 1993, DEQ has documented 1,076 tire piles containing 23,923,801 tires across Virginia. Previous efforts cleaned up 698 of the piles, with 378 remaining. Many of the remaining piles are located in challenging terrain and will be expensive to clean up. Coupled with the threat of tire fires and concerns about mosquito infestation and the West Nile virus, the 2003 General Assembly provided extra resources to be used to remove and recycle tires from waste tire piles.

New Cleanup Initiatives and Progress

DEQ has developed 2 additional strategies to facilitate cleanups: one aimed at larger piles, where contractors process tires on-site; and the second in which smaller piles are transported to fixed-based processors. From October 2002 through September 2003, both strategies have resulted in the following tire piles being cleaned up using funds from the Waste Tire Trust Fund (WTTF), created to accept funds collected from the tire recycling fee:

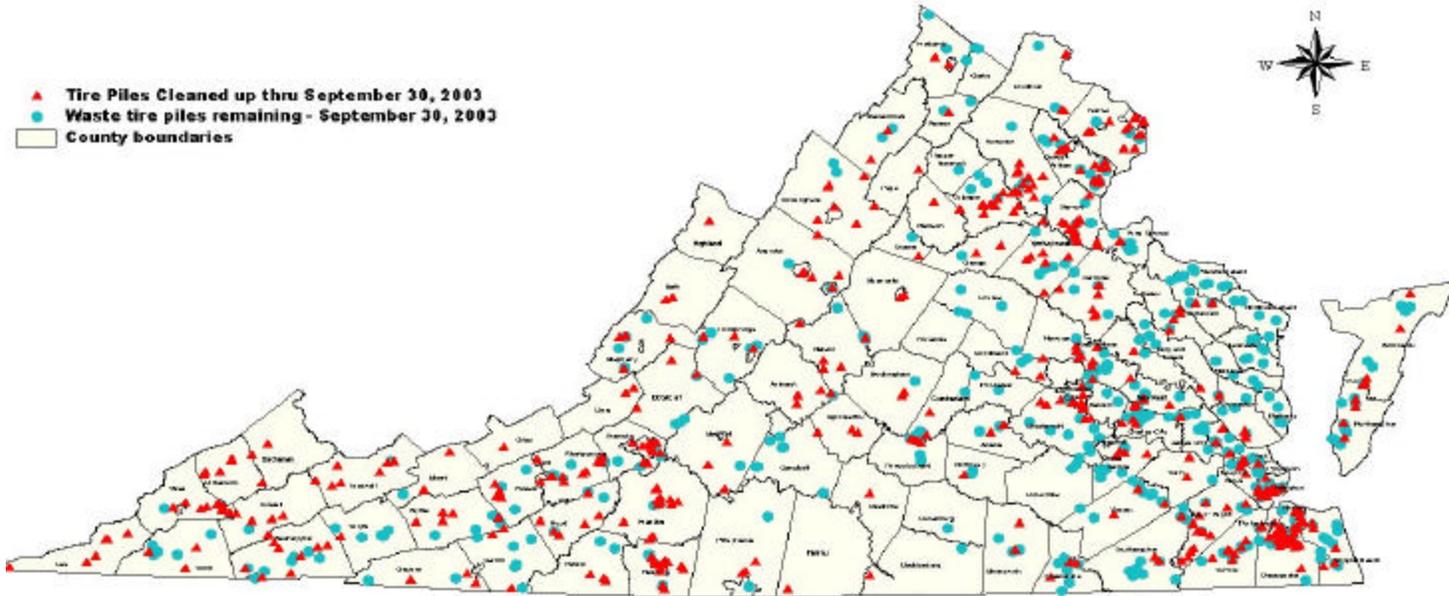
7 large piles	1,625,945 tires	\$1,323,950
10 small piles	31,100 tires	\$ 25,575

Financial Management

DEQ has adjusted its internal data management systems to track the new revenue and costs associated with the tire pile cleanups. Since the increased tire recycling fees will not accrue to the Waste Tire Trust Fund until mid-December 2003, no information about the amount of funds generated by the July 1, 2003 fee increase was available at the time of this report

EXHIBIT A

Waste Tire Piles in Virginia - 10 Years Progress 1993 to 2003



Source:
Virginia Department of Environmental Quality
Virginia Department of Conservation and Recreation
Virginia Economic Development Partnership



FINAL: Thru September 30, 2003
Waste pile/waste tire status 2003.apr

WASTE TIRE PILE CLEANUPS IN VIRGINIA

I. INTRODUCTION

For decades, accumulations of waste vehicular tires have plagued Virginia as well as every other state in the Nation. Some tire piles date back to the 1930s, whereas many have their origins in the 1970s energy crunches, when waste tires were “saved” for their petroleum content (approximately 2 gallons each). By the 1980s, EPA estimated that over 2 billion tires were stockpiled across the nation. Unfortunately, recycling options were almost non-existent and new solid waste laws and regulations made these accumulations illegal. The dilemma was clear: the tires had to be removed but few options were available.

Accordingly, the States stepped in. In the late 1980s and early 1990s, all but two states enacted tire fees for the purposes of cleaning up tire piles, encouraging the establishment of waste tire processors, and developing markets for the resulting tire material. Prior to this time, tires from pile cleanups were simply landfilled; a major goal emerged to recycle or beneficially use such tires, instead of landfilling them.

In 1989, the Virginia General Assembly enacted a \$0.50 fee on the retail sale of replacement tires with the funds going into the Waste Tire Trust Fund (WTF). Using these funds, the Virginia Department of Environmental Quality (DEQ) was directed to “develop and implement a plan for the transportation and management of all waste tires in Virginia.”

The DEQ plan centered on several key concepts:

- determine the number, location and size of all tire piles in Virginia;
- establish more recycling opportunities for the tires, by first capturing “current flow” tires so no more tires would be stockpiled; and
- move the tire pile tires into these recycling opportunities, resulting in their beneficial use (vs. landfilling) and eliminating the danger of tire fires and mosquito infestations.

While the \$0.50 per tire fee enabled DEQ to make major headway in eliminating tire piles (see section II. below), it was clearly insufficient to complete the job, especially in light of the 2002 tire fire in Roanoke County. That fire burned over 3 million tires for almost 30 days and cost taxpayers over \$3 million to clean up. In addition, the West Nile virus was appearing in Virginia and mosquito- plagued tire piles were targets of concern.

In response, the 2003 General Assembly increased the tire recycling fee (SB 965) to \$1.00 per tire for a 3-year period and directed the increased revenue to be used for the removal and recycling of tires from waste tire piles. The legislation also required that DEQ report by December 1 of each year to the Chairmen of the Senate Committee on Agriculture, Conservation and Natural Resources and the House Committee on

Agriculture, Chesapeake and Natural Resources on the use of these funds and the progress in cleaning up tire piles. This report is submitted to meet this legislative requirement.

II. TIRE PILE CLEANUP INITIATIVES IN VIRGINIA

To document the tire pile problems in Virginia, DEQ undertook a year-long statewide field survey in 1993 to locate and document every tire pile in Virginia. The results: 955 tire piles containing over 22 million tires. The piles were located all across the state and ranged in size from 4,900,000 tires in the Sealton pile in King George County to 100 tires, the threshold size to be designated a "pile." In ensuing years, additional piles were discovered that brought the number of tire piles to 1,076 piles containing 23,923,801 tires.

Since the beginning of the statewide effort in 1993, DEQ has initiated several types of cleanups:

A. Demonstration Projects:

9 piles – 2,866,500 tires - \$1,619,009 expended from the WTTF

These projects were designed to determine contractor capabilities, methods needed in harsh terrains, locality participation and protection of critical piles. Ironically, a demonstration to stabilize the Roanoke County pile was slated to begin the week after the fire.

B. Regional Collection and Processing Projects:

73 piles – 1,739,014 tires- \$1,675,813 expended from the WTTF

These 15 regional projects were designed to establish collection centers for tire recycling at public landfills in Virginia. Many landfills had tires piled up awaiting a disposal solution; contractors were selected through competitive bid and these piles were cleaned up first. Today, 85 landfills collect tires for recycling as a result of this effort.

C. Cleanups by Owner:

481 piles – 1,663,939 tires – Costs Unknown

As a result of letters sent to pile owners after the 1993 survey and on-going contact by regional office staff, many pile owners have cleaned their piles on their own. Most of these piles are very small, averaging only 3,500 tires. While this effort is extremely helpful, few owners have cleaned up large piles on their own.

D. End User Reimbursement Program:

135 piles – 10,346,625 tires - \$5,590,562 expended from the WTTF

Authorized by the 1993 General Assembly as an addition to the basic program created in 1989, this program began in 1994 by paying \$30 per ton (equivalent to \$0.30 per tire) to the End User (producers of recycled rubber products, tire fuel burners, civil engineering applicators, etc.) of Virginia waste tire material.

All of these efforts have helped expand the number of Virginia tire processors from two to ten, with seven more in neighboring states. End Users, the ultimate “recycler” of the material, currently number twelve in Virginia and six in other states. This infrastructure primarily handles “current flow” tires (approximately 7 million tires per year) but is essential for an effective pile cleanup program.

By 1996, DEQ had completed the Demonstrations and Regional Projects and turned its focus to tire pile clean up efforts by requesting the Virginia Waste Management Board to increase the reimbursement rate to \$50 per ton for tires originated from tire piles. The result was immediate; within 5 months, 4 piles containing almost 1,000,000 tires had been cleaned up. In October 2002, the Board increased the rate to \$75 per ton effective immediately and to \$100 per ton, effective July 1, 2003. In each case, a sharp increase in pile cleanups was noted, particularly at larger piles where economies of scales attracted on-site cleanup contractors. DEQ plans to retain the rate at \$100 for the foreseeable future, while monitoring the cleanup level that ensues.

To date, a total of 698 piles containing 16,616,078 tires have been cleaned up at a cost of \$ 8,885,384 to the Waste Tire Trust Fund. This leaves a total of 378 piles containing an estimated 3,209,306 tires. While this number may seem low, some of the most challenging and expensive cleanups remain. A GIS-based map in Exhibit A shows the locations of piles that have been cleaned up and piles that remain to be cleaned up.

III. NEW CLEANUP INITIATIVES

With increased resources provided by the 2003 General Assembly, DEQ plans to continue tire pile cleanups primarily through the Reimbursement system complemented with some additional focused initiatives.

A. Strategies for Large Piles

As a result of the tire fire in Roanoke County in 2002, DEQ created a plan to address the 5 largest remaining piles. This plan sought to eliminate all of these piles since they posed the most threat to the environment if ignited. The Roanoke fire was also the basis for requesting the increase in the Reimbursement rate for

tires from piles. To date, 4 of these piles have been cleaned up while the 5th, in Caroline County, is being prepared for a multi-bid cleanup project which should be completed in late 2004. In addition to those listed in the plan, 3 other large piles have been cleaned up during this period.

B. Strategies for Small Piles

The average size of remaining piles is 8,500 tires. While several piles in the 50,000 to 100,000 range remain, most are small, with many in the 200-750 range. Due to their smaller size and the fact that many of these piles are difficult to access, most of these piles are not of interest to private clean up contractors. Accordingly, DEQ appealed to the tire processors located in Virginia to accept pile tires at little or no cost (based on \$100 to their End User) if delivered to their location. All ten have agreed.

Next, DEQ sent letters to all pile owners informing them of the service and offering assistance. A small amount of financial assistance for loading and hauling, site access, derimming, etc. may be offered by DEQ to pile owners on a case-by-case basis to complete these cleanups. This initiative began in November 2003 and many positive responses have been received. This strategy is critical to achieving the goal of cleaning up all remaining small piles.

C. Cleanups Accomplished

The strategies above have resulted in the following pile cleanups from October 2002 through September 2003:

<u>Pile</u>	<u>Location</u>	<u># Tires</u>	<u>\$ WTTF Expenditures</u>
Keeling*	Roanoke Co.	52,000	\$ 57,756
Ivyland	Roanoke Co.	57,145	\$182,842
Crewe	Charles City Co.	472,200	\$347,562
Slaughter	Washington Co.	423,700	\$317,775
Sam's	Prince William Co.	339,600	\$152,865
Stables	Nottoway Co	95,400	\$ 75,650
Kidd	Middlesex Co.	185,900	\$189,500
10 small piles	Misc.	<u>31,100</u>	<u>\$ 25,575</u>
Totals - 17 piles		1,657,045	\$1,349,525

* Represents the few tires not burned in the fire.

IV. FINANCIAL MANAGEMENT

As specified in the 2003 enabling Legislation, all additional funds from the fee increase "shall be used for the removal and recycling of tires from waste tire piles." DEQ has established a revised accounting system to track both the increased revenue and the expenditures on tire pile clean ups.

A. Receipts

The tire fee increase occurred on July 1, 2003. However, tire retailers remit the fee quarterly, with a 30 day remitting period. Consequently, the first record of the increase of funds into the Waste Tire Trust Fund will not be received by DEQ until mid-December. Consequently, at the time this report was prepared, no additional funds resulting from the July 1, 2003 fee increase have been received by DEQ.

B. Expenses

Between October 2002 and September 2003, DEQ expended \$1,349,525 from the WTTF to facilitate the removal of 1,657,045 tires from 17 tire piles.

V. CONCLUSIONS

For over 10 years, DEQ has been using a number of approaches to clean up the 1,076 tire piles that litter the Virginia landscape. To date, 698 piles have been eliminated. With additional resources provided by the fee increase that went into effect on July 1, 2003, DEQ is ready with additional strategies to remove all remaining piles.