

**Division of Solid and Infectious Waste Management**

# **Scrap Tire Management in Ohio Report to the General Assembly**

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A scrap tire site before Ohio enacted scrap tire laws and regulations

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**August 2007**

Ted Strickland, Governor  
Chris Korleski, Director

## **Executive Summary**

This report to the General Assembly on Ohio's Scrap Tire Program is required by Ohio Revised Code (ORC) Section 3734.87. Prior reports to the General Assembly published in April 1999 and December 2003 documented the start of Ohio's Scrap Tire Program. This third report expands on the successes documented by the two earlier reports.

Pages 5 to 12 following this executive summary give an overview of the Scrap Tire Program, and then five attachments are used to provide details on Ohio's Scrap Tire Program. Attachment 1 provides data on the scrap tire regulatory program, including scrap tire recycling and enforcement. Financial details of the scrap tire fund are in Attachment 2. Attachment 3 provides specifics on the scrap tire cleanup program. A list of recommended legislative changes to continue building on the success of the Scrap Tire Program is presented in Attachment 4. Scrap tire grants and loans managed currently by the Ohio Department of Natural Resources (ODNR) and originally by the Ohio Department of Development are included as Attachment 5.

### **National Recognition of Ohio's Scrap Tire Program**

During 2006, Ohio's Scrap Tire Program was recognized by both environmental professionals and the tire industry. The National Registry of Environmental Professionals presented Ohio's Scrap Tire Program with an award as a top national abatement project. The Rubber Manufacturers Association (RMA) rated Ohio's Scrap Tire Program as one of the three most improved state scrap tire programs and ranked Ohio seventh out of the 50 states. RMA evaluated states for increased scrap tire recycling, diversion of scrap tires from landfills and scrap tire dump cleanups.

### **Expenditures of Scrap Tire Funds on Target**

Ohio EPA continues to meet the spending objectives of ORC Sections 3734.82 and 3734.821. Since state fiscal year (SFY) 2002, Ohio EPA has transferred \$1 million per year to ODNR for the scrap tire grant fund per ORC Section 3734.82(G)(2). ODNR is focusing the scrap tire grant funding on expanding and diversifying scrap tire markets in Ohio, with a current focus on tire-derived-fuel. Facilities in Ohio have now completed test burns and developed the handling equipment needed to combine tire-derived-fuel with conventional fuel. Additional test burns at other Ohio facilities are planned for next year.

### **Increases in Scrap Tire Recycling**

The increase in scrap tire recycling in Ohio from an estimated 33 percent in calendar year (CY) 1987 to a reported 53 percent by CY 1997 was documented in the initial report. The recycling rate of 90 percent for Ohio's scrap tires in CY 2005 exceeds the national recycling rate for other commodities such as: glass, plastic, paper and cardboard. This is a major success for Ohio's environment and economy.

### **Reductions in Scrap Tires Stockpiled in Open Dumps**

In July 2006, a significant milestone was reached with the removal of the final unburnt scrap tire from Ohio's largest scrap tire site (the Kirby site in Wyandot County) and the beginning of the final phase of the Kirby cleanup to remove the massive amount of fire residuals buried on site after the August 1999 scrap tire fire. As of July 1, 2006, more than 19 million scrap tires and 38,000 tons of solid waste had been removed from the Kirby site. If the tons of solid waste are

converted to passenger tire equivalents (PTEs) at 20 pounds per PTE, the total quantity removed from the site exceeds 22.8 million scrap tires.

Ohio's scrap tire fund has also been used to remove an additional 13 million scrap tires from 29 other scrap tire sites as of July 1, 2006. Although Ohio EPA has successfully completed the cleanup of the known large scrap tire sites (sites with more than 250,000 scrap tires) and many smaller sites, more than 60 smaller sites remain to be cleaned up. Ohio's scrap tire fund has been and remains a very effective enforcement tool. Many responsible parties have decided to clean up their sites once the enforcement process was started because the responsible parties realized that the state would clean up the site and seek cost recovery through the Ohio Attorney General's Office (AGO). Funding for the Scrap Tire Program must remain in place to give teeth to the enforcement program.

As the Kirby scrap tire cleanup neared completion and other large sites were cleaned up, funds became available to clean up some of the many small sites in local communities. This included the cleanup of eight sites with under 2,000 tires without cost recovery as allowed by Ohio Revised Code (ORC) Section 3785(E). This section of the law existed since the law was enacted in 1993 but higher priority cleanups had consumed all available funding from 1997 until October 2005.

### **Improvements in 2002 and 2007 Fine Tune the Original Scrap Tire Rules**

In March 2002, the original 1996 scrap tire rules were revised and adopted to fine tune Ohio's successful Scrap Tire Program. The scrap tire rules are scheduled for revision in 2007 and Ohio EPA anticipates further refining of the Scrap Tire Program. The regulatory program has created a structure in which the vast majority of scrap tires are recycled rather than open dumped or accumulated based on ill-defined or speculative markets. An active enforcement program is needed to keep open dumping minimized and recycling maximized.

### **Continuation of the Scrap Tire Program is Recommended**

The rapid spread of West Nile Virus (WNV) through Ohio since the summer of 2002, the continuing presence of WNV and other mosquito-borne diseases in Ohio, and the continuing problem of open dumping of scrap tires in alleys, vacant lots, and isolated country roads all emphasize the need for continuing the scrap tire program in Ohio. Eliminating mosquito breeding sites by cleaning up scrap tire dumps, further reducing open dumping of scrap tires, enforcing proper storage procedures, and using effective mosquito control is critical to protecting public health.<sup>1</sup>

Ohio's scrap tire laws and regulations are meeting or exceeding expectations and significantly reducing Ohio's scrap tire dumping problem. Continuation of the scrap tire fee is essential to sustaining the success of this program. After completion of the Kirby cleanup in SFY 2008, the agency will consider the possibility of reducing the scrap tire fee to its original \$0.50 per new tire. Future changes in the scrap tire law should focus on reducing the continuing problem of open dumping of scrap tires caused by tire dealers failing to use registered scrap tire transporters. Stiffer penalties for both unregistered scrap tire transporters and the tire dealers using unregistered scrap tire transporters are needed.

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<sup>1</sup> Combating West Nile Virus, The Plan for the State of Ohio, March 2002, describes the first step in mosquito management as the reduction or removal of prime mosquito breeding sites. When breeding sites cannot be removed, control through the use of mosquito larvicides is recommended.

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## Introduction

This third report to the General Assembly provides a brief summary of the Scrap Tire Program from its start in October 1993, a current status of the scrap tire industry in Ohio, and suggested changes for the future of the program. An initial Ohio Scrap Tire Program report to the General Assembly, submitted in April 1999, covered the start of Ohio's Scrap Tire Program from the passage of legislation on October 29, 1993, the adoption of scrap tire rules on March 1, 1996, and the initiation of scrap tire dump cleanups funded by Ohio's scrap tire fee in 1997. The second report in 2003 focused on the key Scrap Tire Program events between April 1999 and December 2003 as shown in Table 1, and on additional data from scrap tire facility and transporter annual reports as shown in Table 2. Both Tables 1 and 2 have been updated to provide new data through the date of this report.

Ohio's Scrap Tire Program has been recognized both by environmental professionals and the tire industry for its outstanding achievements. The National Registry of Environmental Professionals presented its 2006 abatement award to Ohio for the Kirby abatement effort and Ohio's overall cleanup program. The Rubber Manufacturers Association (RMA) ranked Ohio's scrap tire program as number 7 out of the 50 states and as one of the top three state programs with the most improvement in the past two years. This ranking is found in RMA's "U.S. Scrap Tire Markets Report 2005" published in November 2006.

Both state fiscal years (SFY) and calendar years (CY) are used in this report. Annual report data from scrap tire facilities are for calendar years and any data for recycling rates and numbers of tires will be in terms of calendar years. Most other dates are tied to funding availability and will be in state fiscal years (Ohio's SFY 2006 was July 1, 2005, to June 30, 2006).

<b>Year</b>	<b>Month</b>	<b>Event</b>
1987	March	Survey report, "Used Tire Recovery in Ohio" published.
1993	October	Scrap tire laws enacted.
1996	March	Scrap tire regulations adopted.
1997	September	First state-funded scrap tire cleanup initiated.
1998	November	State funded cleanups exceed 5 million tires from 4 sites.
<b>1999</b>	<b>April</b>	<b>Initial report to the General Assembly submitted.</b>
1999	August	Kirby tire fire occurred.
2000	June	State funded cleanups exceed 10 million tires from 6 sites.
2001	September	Scrap tire fee increase enacted.
2002	March	First revisions to scrap tire regulations adopted.
2002	October	State funded cleanups exceed 15 million tire from 8 sites.
2003	October	State funded cleanups exceed 20 million tires from 9 sites.
<b>2003</b>	<b>December</b>	<b>Second report to the General Assembly submitted.</b>
2004	October	State funded cleanups exceed 25 million tires from 12 sites.
2005	October	Environmental civil penalty of \$20M assessed in Kirby trial.
2006	January	State funded cleanups exceed 30 million tires from 22 sites.
2006	June	Kirby cleanup completed with the removal of all unburnt tires.
2006	June	Kirby totals 19 million tires and 38,727 tons of solid waste.
2006	June	Removal of Kirby burnt tires and fire residuals started.
<b>2007</b>	<b>August</b>	<b>Third report to the General Assembly submitted.</b>

The first report showed the initial impact of the Scrap Tire Program on the recycling of scrap tires in Ohio. The initial report and subsequent reports have used baseline data from a 1987 survey report, "Used Tire Recovery in Ohio." In the 1987 survey report, Ohio EPA had estimated that only 33 percent of scrap tires were recycled, 20 percent were properly disposed and the remaining 47 percent were unaccounted for and presumed to be open dumped. The first set of annual reports received by Ohio EPA from a regulated scrap tire industry for CY 1997 showed that recycling had jumped to 53 percent, proper disposal remained the same at 20 percent, storage accounted for 16 percent, and only 11 percent were unaccounted. By CY 2001, recycling had increased to 85 percent, proper disposal had dropped to 15 percent, and scrap tire transporter reports were accounting for the expected generation of scrap tires in Ohio. By CY 2005, Ohio's recycling rate had reached 90 percent and proper disposal had decreased to 10 percent. These numbers include all Ohio generated tires and out-of-state tires delivered to Ohio facilities.

Numbers and percentage of tires listed throughout this report since CY 1997 are from annual calendar year reports submitted to Ohio EPA by all registered scrap tire transporters and all licensed scrap tire facilities. It is estimated that these reports capture almost all scrap tires generated in Ohio. Local government officials report that they continue to deal with scrap tires being open dumped in small numbers in many locations, such as: alleys, vacant lots, and roadsides, but no state-wide accurate totals exist. Many of these open dumped tires are included in the numbers reported by Ohio's scrap tire transporters as they are hired by local governments to haul the tires cleaned up from the open dump sites.

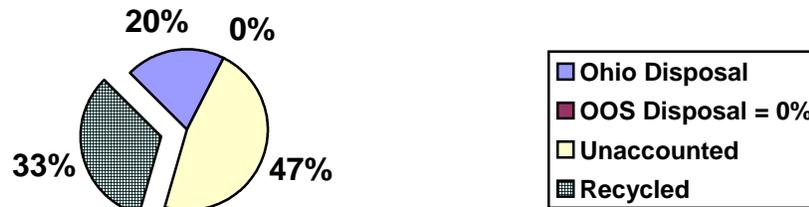
In CY 2005, Ohio scrap tire facilities recycled 90 percent of the 10.6 million tires they received. Only 10 percent of Ohio's tires were disposed with 7 percent going to Ohio's scrap tire monofills and 3 percent going to out-of-state disposal facilities. Only 80 thousand tires were brought in from out-of-state for disposal and 800 thousand tires were brought in to Ohio for recycling. Flowing in the other direction, Ohio exported 3.6 million tires to out-of-state recyclers and 400 thousand tires for out-of-state disposal. This data is displayed in Table 2 and Figures 1 and 2.

<b>Table 2. Ohio Scrap Tire Facility Recycling Trends (Percent)</b> <b>(For tires generated in Ohio only)</b>				
<b>Source</b>	<b>Unaccounted</b>	<b>Disposal Out-of-State</b>	<b>Monofill (Ohio Disposal)</b>	<b>Recycling</b>
<i>1987 Survey Report</i>	47	0	20	33
1997 Annual Reports*	11	0	20	53
	* Storage of 16 per cent of the 1997 tires is not shown in this table. These tires were recycled the next year.			
2001 Annual Reports	0	2	13	85
2005 Annual Reports	0	3	7	90

**Figure 1. Comparison of 1987 Survey Report to 2005 Annual Report Data**

**Recycling increases from 33 percent to 90 percent**

**1987 "Used Tire Recovery in Ohio"**



Note: "OOS disposal" is out-of-state disposal.

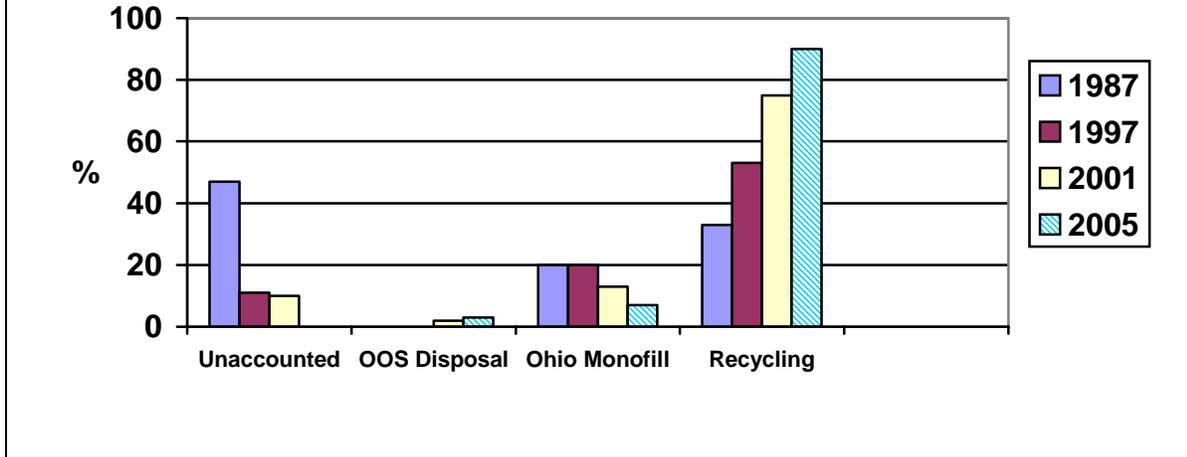
**2005 Annual Report Data**



A recycling rate of more than 90 percent for Ohio's scrap tires exceeds the national recycling rate for glass, plastic, paper and cardboard, and is a major success. The recycling rate for scrap tires should continue to increase because a recycling infrastructure now exists in Ohio. The scrap tire recycling infrastructure consists of registered scrap tire transporters, licensed scrap tire recycling facilities, the scrap tire regulations and developing markets. The Ohio Department of Natural Resources (ODNR), Division of Recycling and Litter Prevention, continues to focus the scrap tire grants on increasing recycling through market development. ODNR manages the scrap tire grant program, which is funded with \$1 million per year from the scrap tire fee. Information on ODNR grants is included in Attachment 5.

**Figure 2. Ohio's Scrap Tire Recycling Trends**

OOS = Out of State



As Ohio's recycling rate has increased, the need for monofill disposal has decreased as shown in Figure 2. Liberty Tire Services of Ohio now has a scrap tire recycling facility located at its scrap tire monofill disposal facility in Stark County. Virtually the only tires going into this monofill are tires that cannot be recycled and shipped back out as products.

### Scrap Tire Abatement Summary

Ohio's program for cleaning up scrap tire dumps has overcome a major setback caused by the August 1999 arson fire at the Kirby scrap tire dump. Funds from both the scrap tire fee and the solid waste fee were used to cover \$3.7 million of fire-related emergency expenses during SFYs 2000 and 2001. These expenses were in addition to the \$2.2 million that the U.S. Environmental Protection Agency expended during the initial fire-fighting response. With the support of the Governor and the General Assembly, the scrap tire fee was increased from \$0.50 per tire to \$1.00 per tire to cover the fire-fighting expenses and to accelerate the cleanup of the Kirby site and other scrap tire sites. More than 19 million tires have been removed from the Kirby site in six years rather than the 15 years forecast based on the original \$0.50 per tire fee. Also, during this time, state funding was used to clean up 29 additional sites containing 14 million scrap tires. Please see Attachment 3 for details. Additionally, local and private funding removed more than 10.8 million tires from at least 169 sites since Ohio EPA began implementing Ohio's scrap tire law. Most of these cleanups would not have occurred if Ohio had not adopted scrap tire laws.

The rapid spread of West Nile Virus (WNV) through Ohio during the summer of 2002 and the continued presence of WNV and other mosquito-borne diseases emphasize the need for continuing the Scrap Tire Program in Ohio. Scrap tires provide a prime breeding environment for mosquitoes that carry the West Nile Virus and other diseases. Eliminating these breeding

sites by cleaning up open dumps, enforcing proper storage procedures and using effective mosquito control at scrap tire facilities remain critical to protecting public health.<sup>2</sup>

### **Implementation, Administration and Enforcement of the Scrap Tire Program**

The scrap tire regulatory program has continued to make progress as summarized in the following paragraphs, with additional detail included in Attachment 1. The regulatory program is encouraging effective management of scrap tires by the private sector. A business infrastructure of scrap tire transporters and facilities has developed to provide recycling markets for the majority of Ohio's scrap tires. The number of registered scrap tire transporters has declined from 80 to 65 with 13 of the transporters currently based outside of Ohio. As transporters decide to get out of the business, their routes are picked up by other transporters. The number of scrap tire facilities remains constant at 40, with several recycling facilities increasing their capacity to process higher volumes of scrap tires or produce higher quality products. Four mobile scrap tire recovery facilities are licensed and provide on-site shredding at cleanup sites or provide backup capacity for fixed scrap tire recovery facilities undergoing maintenance and repair.

The scrap tire industry has evolved through a transition period as expected with any new regulatory program. Existing facilities that failed to adjust their operations to comply with the scrap tire rules were the subject of enforcement actions that either resulted in facility compliance or closure of the facilities. Two facilities have been closed through court action for failure to comply with the rules. The first facility, the Warsing site in Coshocton County, was cleaned up with money from Ohio's scrap tire fee, and a court judgment to close the facility included an assessed civil penalty and cleanup cost recovery. The second facility, the Kirby site in Wyandot County, is being cleaned up with money from Ohio's scrap tire fee. A court judgment to recover costs and an assessed \$20 million civil penalty against the owners of the site was obtained by the Ohio AGO on behalf of Ohio EPA. None of the assessed civil penalties has been paid.

One registered and licensed facility, Junk Tire in Meigs County, was abandoned by the owner and was cleaned up using the financial assurance which the owner had established for the facility. A registered and licensed facility, Adriatic Recycling in Mahoning County, failed to close in accordance with procedures in the Ohio Administrative Code (OAC) and was cleaned up using Ohio's scrap tire fee. Enforcement actions are continuing to recover the cost of the cleanup from the owners and the bonding company. A registered and licensed facility, American Scrap Tire Recovery in Ashtabula County, failed to maintain its financial assurance and was ordered to close by Director's Final Findings & Orders. This enforcement action is ongoing. The remaining scrap tire facilities are handling both Ohio's current generation of scrap tires and the scrap tires coming from the cleanups of scrap tire dumps.

The positive value of the scrap tire regulations was demonstrated in an unfortunate way in June 2004 and April 2006. A major tire processing facility, Liberty Tire Services in Franklin County, had fires caused by equipment failures in those years. Both fires were contained and extinguished in hours with minimal environmental impact because the facility was using proper storage procedures in accordance with the OAC. Without proper fire lanes and small storage

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<sup>2</sup> Combating West Nile Virus, The Plan for the State of Ohio, March 2002, describes the first step in mosquito management as the reduction or removal of prime mosquito breeding sites. When breeding sites cannot be removed, control through the use of mosquito larvicides is recommended.

piles as required by the OAC, these fires would have burned much longer and produced significant environmental damage.

Three positions in the Division of Solid and Infectious Waste Management (DSIWM) Scrap Tire Unit provide 2.5 full-time equivalents to the scrap tire program. Additional DSIWM Central and District Office staff charge only a portion of their time to the scrap tire program. This additional support equals about 7.5 full-time equivalents. These employees also implement other solid waste programs and charge the balance of their time to those programs. In addition, local health departments, if they are approved by Ohio EPA to enforce solid waste regulations, help implement the scrap tire program with funding provided through scrap tire facility license fees and solid waste fees. Solid waste management districts (SWMD) and solid waste management authorities (SWMA) continue to play an important role in the scrap tire program by providing funding from their solid waste fees to local health departments and, in many cases, also fund cleanups of local scrap tire dumps. The SWMDs and SWMAs also provide leadership in recycling education and business development that support the recycling of scrap tires and other materials, including paper, cardboard, plastic, steel, aluminum and glass.

In March 2002, Ohio adopted revised scrap tire rules to refine the existing program. A second revision to the scrap tire rules has been drafted for adoption in 2007 to further refine the original rules. The scrap tire regulatory program is working well and has created a structure in which scrap tires are recycled, rather than open dumped or stockpiled based on ill-defined or speculative markets. The scrap tire laws and regulations need to remain in effect to protect the gains Ohio has made in recycling scrap tires. States that have rescinded their scrap tire laws have experienced a rapid return to former practices of open dumping and stockpiling of scrap tires.

### **Expenditure of Moneys from the Scrap Tire Fee**

On September 5, 2001, the Ohio Revised Code which authorized the scrap tire fee was amended in response to the expenses incurred responding to the arson fire at the Kirby scrap tire dump. This section addresses both the original and amended ORC financial requirements.

Ohio EPA continues to meet the spending objectives of ORC 3734.82 and 3734.821. Spending for implementation, administration and enforcement of the scrap tire provisions has remained, on average, below the \$750,000 annual limit set by ORC 3734.82(G)(1). Funds that are not spent on scrap tire program administrative expenses are added to the money used for the cleanup of scrap tire dumps.

The increase in the scrap tire fee from \$0.50 per tire to \$1.00 per tire was conditioned in ORC 3734.821<sup>3</sup> such that at least 65 percent of the additional revenue must be used at the Kirby scrap tire site. That goal was exceeded during SFY 2002 through SFY 2006 and will be exceeded again in SFY 2007 and 2008. The spending of more than 100 per cent in SFY 2007 is possible because of unspent prior year revenues from the tire fee which were accumulated in anticipation of the high cost of removing the buried fire residuals from the Kirby site.

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<sup>3</sup> ORC 3734.821: *Beginning on the effective date of this section and ending on June 30, 2011, at least sixty-five per cent of the moneys collected under division (A)(2) of section [3734.901](#) [3734.90.1] of the Revised Code and deposited in the state treasury to the credit of the scrap tire management fund created in section [3734.82](#) of the Revised Code shall be expended for clean-up and removal activities at the Kirby tire site in Wyandot County.*

<b>Table 3. Expenditures at the Kirby Scrap Tire Site From Increased Fee</b>				
State Fiscal Year	Revenue from Additional \$0.50	Kirby Tire Removal Contracts	Kirby Fire Residual & Security Contracts	Kirby Total as Percent of Additional Revenue
2000	0	\$1,315,845	\$1,748,945	Not Applicable
2001	0	\$1,000,000	\$1,946,988	Not Applicable
Additional Kirby revenue started September 2001 (SFY 2002)				
2002	\$3,050,919	\$1,727,500	\$534,964	74%
2003	\$3,266,489	\$2,245,354	\$478,819	83%
2004	\$3,399,486	\$2,647,900	\$665,901	97%
2005	\$3,298,291	\$2,569,754	\$582,556	96%
2006	\$3,630,497	\$2,394,187	\$678,064	85%
<i>2007 Estimated</i>	<i>\$3,500,000</i>	<i>0</i>	<i>\$7,618,514</i>	<i>218%</i>
<i>2008 Estimated</i>	<i>\$3,500,000</i>	<i>0</i>	<i>\$2,609,828</i>	<i>75%</i>
<i>2009 Estimated</i>	<i>\$3,500,000</i>	<i>0</i>	<i>0</i>	<i>0%</i>
Total 02-09	\$27,145,682	\$11,584,695	\$13,168,646	91%
Grand Totals	\$27,145,682	\$13,900,540	\$16,864,579	113%

The above table does not include any money used to reimburse the solid waste fund. Emergency spending to deal with the August 1999 arson fire at the Kirby scrap tire dump included the expenditure of all money in the scrap tire management fund and \$3,775,603 from the solid waste fund during SFYs 2000 and 2001. The initial payback to the solid waste fund of \$1.5 million was completed in SFY 2002 and the balance of \$ 2,275,603 was transferred in SFY 2003. These actions are in accordance with the temporary law language in the SFY 2002-2003 budget bill.<sup>4</sup>

With the transfer of money from the scrap tire fee to the solid waste fund completed, Ohio EPA was able to resume cleanups of tire dumps other than the Kirby site. Cleanups started in SFY 2002 and SFY 2003 at three additional sites were completed by the end of SFY 2004. In SFY 2004, the cleanup of scrap tire dumps accelerated based on funding available from the scrap

<sup>4</sup> Notwithstanding division (G)(4) of 3734.82, not later than March 1, 2002, the Director of Environmental Protection shall certify to the Director of Budget and Management the amount expended from the Solid Waste Fund (Fund 4K3) during fiscal years 2000 and 2001 for emergency expenses incurred as a result of the Kirby tire fire. In fiscal years 2002 and 2003, the Director of Environmental Protection shall request the Director of Budget and Management transfer up to one-half of the certified amount during 2002 and the balance of the certified amount during 2003 from the Scrap Tire Management Fund (Fund 4R5) to the Solid Waste Fund (Fund 4K3).

tire fee. Cleanup of the last known scrap tire dump containing more than 1 million tires started in SFY 2004 and was completed in July 2005. Cleanups are also complete at 5 smaller sites where work began in SFY 2005 and at 16 sites where removal began in SFY 2006. Additional details of the management of the scrap tire fund are presented in Attachment 2, while Attachment 3 provides details of the scrap tire abatement program.

In SFY 2002, Ohio EPA made the first transfer of \$1 million per year to the Ohio Department of Natural Resources (ODNR) for the scrap tire grant fund per ORC 3734.82(G)(2)<sup>5</sup>. In prior years, this \$1 million per year had been transferred to the Ohio Department of Development (ODOD). Details of the scrap tire grant program are in Attachment 5. ORC 3734.82(H)<sup>6</sup> was implemented for the first time in SFY 2006 when revenue from the scrap tire fee reached the specified threshold for revenue sharing between ODNR and Ohio EPA. As a result, an additional \$70,000 was transferred to ODNR for future scrap tire grants.

As stated earlier, the scrap tire law and regulations are having a positive impact on Ohio's scrap tire problem. Ohio EPA's suggestions for improvements in the law are included as Attachment 4. A potential reduction in the scrap tire fee could be considered after completion of the Kirby fire residual cleanup.

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<sup>5</sup> During each fiscal year, request the director of budget and management to, and the director of budget and management shall, transfer one million dollars to the scrap tire grant fund created in [section 1502.12](#) of the Revised Code for the purposes specified in that section;

<sup>6</sup> If, during a fiscal year, more than seven million dollars are credited to the scrap tire management fund, the director, at the conclusion of the fiscal year, shall request the director of budget and management to, and the director of budget and management shall, transfer one-half of those excess moneys to the scrap tire grant fund.

# Attachment 1

## Scrap Tire Regulatory Program

The original regulations adopted in March 1996, based on the October 1993 laws, continue to provide a sound basis for the scrap tire program. The regulations were revised in March 2002 and a number of small changes were incorporated. Minor revisions have been drafted and should be effective in 2007.

The March 2002 revisions fine-tuned the existing program. The most significant change was an expansion of the types of beneficial uses approved by rule. With the publication by the American Society for Testing and Materials (ASTM) of Method 6270, Standard Practice for Use of Scrap Tires in Civil Engineering Applications, the need for detailed project plans to determine the appropriate use of tire chips was eliminated in many cases. Two specific uses now approved by rule are the use of tire chips as a gravel substitute around building foundations and in home septic systems. While each of these uses individually only consumes 800 to 1,000 scrap tires per home or septic system, statewide this represents a potential market for millions of tires based on the number of new homes being built each year and the number of septic systems being installed or replaced each year.

Ohio EPA's guidance document #0599, "Use of Shredded Tires in Landfill Construction," finalized in March 2005 based on a first draft in 2002, provides guidelines on how to construct landfill leachate systems using tire-derived chips in place of sand and gravel. Extensive coordination between Ohio EPA, the landfill operators and the scrap tire facility operators went into the development of this document. Several states requested copies of this document while it was in the development stage. Since it was finalized, additional states and U.S. EPA have requested copies. U.S. EPA Regions 6 and 9 are working on solutions to scrap tire open dumping south of the U.S.-Mexico border using Ohio EPA's guidance document as a model for their program.

The newest proposed revision to the scrap tire rules incorporates references to the new Ohio Fire Code 1301: 7-7-25, Tire rebuilding and tire storage, which deals with the storage of all tires, both new and scrap tires. Ohio EPA worked with the Ohio Fire Marshal to ensure consistency between the Ohio Fire Code and the Scrap Tire Regulations on the storage of scrap tires.

The newest proposed revision also addresses more clearly the issue of used tires as scrap tires, storage of scrap tires in racks, and financial assurance for processed tires while stored at a scrap tire recovery facility. All of these rule changes continue to address the public health and safety threats posed by the handling and storage of scrap tires. These proposed revisions were filed with the Joint Committee on Agency Rule Review (JCARR) in August 2007, and will follow the formal rule making process of ORC 119.

### Compliance Assistance

All regulatory programs need to include a compliance assistance effort. This includes an essential outreach program to the regulated entities as well as a public education effort. Central Office and District Office staff frequently give presentations on Ohio's Scrap Tire Program at various conferences and meetings throughout the state. Staff routinely provide technical assistance to local health districts and to other local and state agencies. Recent public awareness efforts include a documentary of the McMaster's scrap tire project prepared in CY

2004; a similar Kirby project documentary is nearing completion. Staff also routinely communicate with U.S. EPA, representatives of the tire industry, and colleagues from other state scrap tire programs to share information, monitor developing industry trends, and monitor recent court decisions that could impact Ohio's scrap tire program.

Ohio EPA provides easy access to information about the scrap tire program on its Web site at [www.epa.state.oh.us/dsiwm/pages/tire\\_docs.html](http://www.epa.state.oh.us/dsiwm/pages/tire_docs.html). Ohio EPA also maintains a toll-free hotline (1-877-371-2621) to allow individuals to anonymously turn in tire dumps and to make inquiries about scrap tire issues. The Agency also issues news releases to publicize scrap tire enforcement cases and this hotline.

Staff provided extensive input into U.S. EPA's recently published Scrap Tire Cleanup Guidebook (Pub. EPA 530-R-06-001) to share lessons learned during Ohio's scrap tire abatement efforts with other states and industry. The value of Ohio's input to this manual was recently underscored when Ohio's scrap tire program was the recipient of the 2006 Remediation Award by the National Registry of Environmental Professionals in recognition of overall program accomplishments and the Kirby remediation project.

### **Scrap Tire Transporters**

The number of Ohio registered scrap tire transporters has declined from 80 to 65 businesses since CY 1994. Each year a few businesses decide to stop transporting scrap tires and new businesses begin transporting scrap tires. A consolidation process is occurring, based on market conditions, but transporters continue to provide the volume of tires needed by the larger scrap tire recyclers both in Ohio and in neighboring states.

Currently, 13 of the registered transporters are based outside Ohio. These transporters are either associated with a scrap tire facility in a neighboring state or are a regional scrap tire transporter. Regional transporters generally hold contracts with chains of tire dealers and collect tires throughout a multi-state region. These transporters are based in all five neighboring states plus Illinois and Tennessee. Ohio businesses are also active in other states such that Ohio imports scrap tires from the neighboring states, while these out-of-state transporters often export Ohio tires. In recent years, Ohio has become a net exporter of scrap tires with more than four million Ohio tires going to out-of-state destinations and just under one million out-of-state tires coming to Ohio destinations. Most of these scrap tires are transported to out-of-state recycling businesses rather than to out-of-state landfills for disposal.

Unregistered scrap tire transporters are still identified too frequently and remain a major source of open dumping of the scrap tires they cannot sell as used tires. Supplying used tires to tire dealers remains one of the prime incentives for unregistered transporters to continue to operate. Continuing efforts are being directed at educating tire dealers that (1) used tires are always scrap tires for the purposes of transportation, (2) the tire dealers should only accept used tires from registered scrap tire transporters, and (3) the tire dealers can only legally use Ohio registered scrap tire transporters to remove scrap tires from the tire business location. Attachment 4 contains suggested changes to the ORC to more effectively deal with unregistered scrap tire transporters.

Annual reports submitted by the scrap tire transporters from CY 1997 through 2005 show a steady increase in the number of tires collected each year. The number of tires reported is adjusted by subtracting tires from major cleanups to arrive at the number of current generation scrap tires. The current generation of scrap tires are those tires that were removed from service and discarded during the current year. The current generation of scrap tires averages, on a national basis, one tire per person per year which is about 12 million tires per year in Ohio. This

number counts each semi-truck tire, large off-the-road tire and passenger tire as one tire and does not account for the vast difference in sizes of the tires. The majority of this report is in passenger tire equivalents (PTEs) which converts these tires as one PTE equals 20 pounds. For example, a semi-truck tire converts to 5 PTEs at 100 pounds divided by 20 pounds. Reports from the tire industry show that 84 percent of all tires are passenger car tires, 15 percent are semi-truck tires, and 1 percent are large off-the-road tires. Using PTEs, the expected current generation of 12 million tires becomes approximately 20 million PTEs as shown in the table below.

Units	Passenger tires	Semi-truck tires	Off-the-road tires	Total tires
Percent	84%	15%	1%	100%
Tires	10,080,000	1,800,000	120,000	12,000,000
PTEs	10,080,000	9,000,000	1,080,000	20,160,000

In CY 1997, the first year for Ohio's annual reports listed 7,001,862 current generation passenger tire equivalents (PTEs), which was significantly below the 20 million PTEs expected based on Ohio's population. By CY 2000, the number of tires collected had doubled to 14,066,945 PTEs. This exceeds 70 percent of the 20 million PTEs expected, and showed a significant increase in only three years. By CY 2005, the number of Ohio tires collected had grown to 17,754,444 PTEs after correction for known cleanups. This exceeds 89 percent of the 20 million PTEs expected which given the accuracy of the reports is a good indication that the vast majority of tires are accounted for. The high number for CY 2004 was the result of several factors: (1) funding was made available to Ohio's solid waste management districts to perform and publicize tire amnesty days, (2) an escalated enforcement effort inspired many people to clean up their properties, and (3) storage piles of tire shreds at licensed scrap tire facilities were reduced sharply as the shreds were used for construction of landfill expansions.

Calendar Year	Current Generation	Major Cleanups	Total Ohio PTEs
1997	7,001,862	2,093,438	9,095,300
1998	8,644,775	3,254,425	11,899,200
1999	11,638,833	3,066,667	14,705,500
2000	14,066,945	1,796,655	15,863,600
2001	14,155,455	836,519	14,991,974
2002	16,468,231	4,855,001	21,323,232
2003	18,508,585	4,829,878	23,338,463
2004	23,803,805	4,801,253	28,605,058
2005	17,754,444	4,045,369	21,799,813

## **Scrap Tire Facilities**

A total of 40 scrap tire facilities are currently licensed in Ohio. Nineteen of these facilities are scrap tire recovery facilities that produce usable materials from the scrap tires. Sixteen are scrap tire collection facilities that provide convenient, local drop off locations for scrap tires to individuals and small businesses. One facility is licensed as a scrap tire storage facility to provide additional flexibility in storing scrap tires but functions as a scrap tire collection facility. The final four facilities are scrap tire disposal facilities, including three scrap tire monofills in Stark County and one scrap tire monocell in Pike County. One monofill and the monocell no longer accept scrap tires but maintain operating licenses.

Four of the recovery facilities mentioned above are mobile scrap tire recovery facilities licensed in Ohio. The primary purpose of these mobile facilities is to temporarily locate at scrap tire open dumps during cleanup operations. Shredding tires prior to transport can result in more efficient use of trucks and associated cost savings. For example, a truck that can hold 15 tons of whole tires can hold more than 20 tons of two-inch tire shreds. Mobile recovery facilities also serve as backup processing systems for fixed recovery facilities when the fixed equipment is down for maintenance and repairs.

In CY 2005, scrap tire collection facilities received less than one percent of Ohio's tires. This is an important one percent since these tires come from individuals and provides individuals with easier access to proper scrap tire management. Individual access to collection facilities helps reduce open dumping. These tires are then transferred to scrap tire recovery facilities. Ohio's scrap tire recovery facilities received 90 percent of the tires while Ohio's disposal facilities received only 7 percent of the tires and the remaining 3 percent were disposed out of state.

## **Scrap Tire Enforcement**

Scrap tire enforcement represents a significant portion of the solid waste workload for both Ohio EPA and the Ohio Attorney General's Office (AGO). In SFY 2005, scrap tire enforcement cases were 50 percent of Ohio EPA's solid waste administrative enforcement cases, and 47 percent of the solid waste enforcement cases being handled by the Ohio AGO. These enforcement cases have resulted in 13 orders being issued to the responsible parties and four judgments against the responsible parties. The only judgment issued against the State was successfully appealed. A record judgment was obtained in the Kirby scrap tire case with assessment of a \$20 million civil penalty and a \$20 million cost recovery judgment.

The judgments obtained are establishing important case law that will aid in future enforcement actions. Several of the judgments have provided for civil penalties and cost recovery after cleanups are complete; however, there is little possibility of actually seeing any money from these judgments. The responsible parties have generally filed for corporate and personal bankruptcy. In many enforcement cases, the bankruptcy occurred years before the enforcement action was initiated. The property on which the tires are located is generally valued at a small fraction of the cost of the scrap tire removal. Liens are being placed on the property in an effort to recover some of the costs of cleanup when the property is sold.

Cost recovery cannot be used as a measure of success in a scrap tire program. Cost recovery rates in other states have historically been less than 10 percent of the costs incurred to clean up open dumps. Scrap tire dumps were frequently operated by people with little or no assets other than the truck they use to haul scrap tires. Such open dump operators often used the money from collecting the tires to cover living and other expenses rather than using the money to recycle the scrap tires. Failed scrap tire processing facilities often operated until their debts far

exceeded their assets, then the companies and all of the owners filed for bankruptcy, and abandoned their scrap tire stockpile.

The important measure of success is in the reduction in the threat to public health and safety by removing mosquito-breeding sites and by eliminating the fire hazard posed by scrap tire dumps. Since CY 2002, more than 650 WNV cases in humans have been confirmed in Ohio and have resulted in 45 deaths. While these cases cannot be tied directly to tire piles, the large mosquito populations at untreated scrap tire sites serve as a reservoir for mosquito-borne diseases such as WNV. Birds passing through these infected sites can become infected when bitten by a mosquito and can then transfer the disease to other mosquitoes that feed on the bird at other locations. The measure of success for the environment is the reduction in the potential for the pollution to air, surface water and ground water due to open burning of scrap tires.

<b>Table 1-3 Judgment and Cost Recovery - - Referred to Ohio Attorney General</b>				
<b>Site</b>	<b>Type</b>	<b>Due Date</b>	<b>Balance Due</b>	<b>Received</b>
Warsing, Coshocton County	Cost Recovery	12/15/2000	\$2,353,425.98	\$0
Elyria #1, Lorain County	Judgment	11/29/2002	\$125,000.00	\$0
Vasi, Lorain County	Cost Recovery	05/26/2003	\$419,101.27	\$0
Szabo, Lorain County	Judgment	12/15/2004	\$50,000.00	\$0
Frontier Insurance Company	Cost Recovery	1/13/2005	\$70,000.00	\$0
Benedict, Morrow County	Cost Recovery	10/03/2005	\$139,959.21	\$0
Rader, Morrow County	Cost Recovery	11/04/2005	\$452,365.75	\$0
Harr, Scioto County **	Cost Recovery	11/08/2005	\$492,914.26	\$45,135.68
Timco, Harrison County	Judgment	12/30/2005	\$1,107,200.00	\$0
Kirby, Wyandot County	Judgment	12/30/2005	\$20,000,000.00	\$0
Kirby, Wyandot County	Cost Recovery	12/30/2005	\$11,700,944.98	\$0
Kirby, Wyandot County	Cost Recovery	12/30/2005	\$1,400,000.00	\$0
Kirby, Wyandot County	Cost Recovery	12/30/2005	\$4,396,368.71	\$0
Kirby, Wyandot County	Cost Recovery	12/30/2005	\$1,754,451.31	\$0
Kirby, Wyandot County *	Arson Penalties	5/10/2004	\$15,940,624.00	\$1,311.00
* Total penalties assessed against four arsonists	TOTAL		\$60,402,355.47	\$46,446.68
	Judgment		\$37,222,824.00	\$1,311.00
** Bankruptcy Chapter 7	Existing Cost Recovery		\$23,179,531.47	\$45,135.68
<b>Potential Referrals to the Ohio Attorney General</b>				
Gray, Jackson County	Cost Recovery	3/27/2006	\$6,495.36	\$0
Metzler, Guernsey County	Cost Recovery	3/30/2006	\$18,696.70	\$0
Keller, Auglaize County	Cost Recovery	4/27/2006	\$94,830.39	\$0
	Future Cost Recovery		\$120,022.45	\$0

Local health departments have been active with both education campaigns and enforcement efforts to rid Ohio of the numerous small scrap tire accumulations that exist in many neighborhoods. The removal of more than 10.8 million tires from 169 sites using private and local funding has been documented. It is probable that additional tires have been cleaned up without being reported to Ohio EPA.

## Attachment 2

### Scrap Tire Management Fund

Ohio's scrap tire fee, as shown in the far right column of Table 2-1, has generated the expected revenue. From SFY 1995 through 2001, the original scrap tire fee of \$0.50 per tire generated an average of \$3,500,000 per year. The scrap fee was increased to \$1.00 per tire on September 5, 2001, and collections since SFY 2002 have averaged \$6,955,353 per year.

Through SFY 2006, the fee has generated a total of \$60,821,771. This revenue has been shared by four agencies. To cover its costs of collecting the scrap tire fee, the Ohio Department of Taxation (DOT) retained four percent of the scrap tire fees until June 30, 2005, when DOT requested a reduction to two percent (\$2,245,370 to date). The Ohio Department of Development (ODOD), and now the Ohio Department of Natural Resources (ODNR) have received a total of \$11,750,136 for scrap tire grants and loans. The balance, \$46,829,200, has been used by the Ohio EPA to clean up scrap tire dumps and administer the program. The Ohio Department of Administrative Services (DAS) charges two percent of the cleanup contract payments to cover award of the contract and any revisions to the contract. The DAS cost is included in the cleanup costs and are not reported separately. Projections of the fee revenues through SFY 2011 are also provided in Table 2-1.

Additional details on how ODOD and ODNR used the funds are included in Attachment 5. Additional detail on how Ohio EPA has utilized the scrap tire fee is shown in the following paragraphs, charts and tables in Attachments 2 and 3.

Table 2-2 summarizes Ohio EPA's expenditures from the Scrap Tire Management Fund. The Kirby cleanup costs are tracked separately from all other scrap tire cleanup costs because Ohio Revised Code 3734.821 created a separate funding criteria for the Kirby site. In addition to scrap tire cleanup costs, Ohio EPA used the fund for administrative and enforcement expenses directly related to the scrap tire program. Two positions in the Division of Solid and Infectious Waste Management (DSIWM) Central Office charge all of their time to the scrap tire program. Additional DSIWM Central and District Office staff charge only a portion of their time to the scrap tire program because the balance of their time is spend on other solid waste programs. This additional support equals about 7.5 full-time equivalents.

Table 2-2 also shows the solid waste funds borrowed to fund actions related to the Kirby scrap tire fire and the reimbursement of those funds. Funds were borrowed in SFY 2000 and 2001 to cope with the expenses related to the Kirby tire fire after U.S. EPA had completed its emergency response effort. The Ohio EPA expenses were primarily related to controlling contaminated surface water runoff after U.S. EPA buried the fire residuals under a soil and clay covering. Since a scrap tire fire is capable of continuing to burn at a reduced rate in the absence of air, the pyrolytic combustion continued to produce oil for at least six months after the burning tires were buried. During two very wet years, large volumes of rain water penetrated the top of the buried fire residual piles, became contaminated with the pyrolytic oil, and flowed out at the base of the piles. This water was collected and treated on-site to prevent another fish kill and contamination of Sycamore Creek. By July 2001, a vegetative cover was established on the piles. Improved surface water controls and improved water treatment were implemented to reduce the costs of water treatment from almost \$2 million per year to about \$500,000 per year as shown previously in Table 3 on page 11.

<b>Table 2-1. Actual and Projected Revenue from the Scrap Tire Fee</b>				
State Fiscal Year	Revenue to OEPA Scrap Tire Fund	Revenue to ODOD or ODNR	Retained by Taxation (DOT)	Total Income
1994	\$153,843	0	\$6,410	\$162,247
1995	\$2,881,136	\$1,600,000	\$186,714	\$4,667,850
1996	\$2,560,852	\$ 981,136	\$147,583	\$3,683,668
1997	\$2,667,496	\$1,000,000	\$152,812	\$3,814,196
1998	\$2,363,262	\$1,000,000	\$140,136	\$3,497,792
1999	\$2,207,952	\$1,000,000	\$115,625	\$3,336,270
2000 *	\$2,698,037	\$ 549,365	\$129,896	\$3,377,298
2001 *	\$2,821,216	\$ 549,635	\$134,834	\$3,505,686
<b>Fee increased to \$1.00 per tire on Sept. 5, 2001, and funding moved from ODOD to ODNR</b>				
2002	\$5,101,835	\$1,000,000	\$244,073	\$6,345,908
2003	\$5,817,021	\$1,000,000	\$284,043	\$7,101,064
2004	\$5,798,972	\$1,000,000	\$277,509	\$7,076,480
2005	\$5,596,583	\$1,000,000	\$277,551	\$6,874,133
2006	\$6,160,995	\$1,070,000	\$148,184	\$7,379,179
<b>Projected</b>				
2007	\$6,160,000	\$1,000,000	\$148,000	\$7,308,000
2008	\$6,160,000	\$1,000,000	\$148,000	\$7,308,000
2009	\$6,160,000	\$1,000,000	\$148,000	\$7,308,000
2010	\$6,160,000	\$1,000,000	\$148,000	\$7,308,000
2011	\$6,160,000	\$1,000,000	\$148,000	\$7,308,000
<i>Scrap Tire Fee currently scheduled to sunset on June 30, 2011</i>				
<b>Total Actual thru SFY 2006</b>	<b>\$46,829,200</b>	<b>\$11,750,136</b>	<b>\$2,245,370</b>	<b>\$60,821,771</b>
<i>Total Projected for 2007 to 2011</i>	<i>\$30,800,000</i>	<i>\$5,000,000</i>	<i>\$740,000</i>	<i>\$36,540,000</i>
Grand Total = Total Actual (thru SFY 2006) + Total Projected (for SFYs 2007 to 2011)				
<b>Grand Total</b>	<b>\$77,629,200</b>	<b>\$16,750,136</b>	<b>\$2,985,370</b>	<b>\$97,361,771</b>

\* ODOD pass thru amounts for SFYs 2000 and 2001 were reduced from \$1 million per year due to Department of Taxation refunds of overpayments of the scrap tire fee in prior years.

By borrowing the funds from the solid waste account, Ohio EPA was able to simultaneously deal with the runoff from the fire residuals and continue to remove tires from the Kirby site. This was vital since only one quarter of the site was involved in the fire and a potential for an even bigger

fire remained at the Kirby site. Approximately five to seven million tires were involved in the fire, but another 15 to 20 million tires at the site were not involved in the fire. By June 2003, sufficient firebreaks had been established by the removal of more than 8.7 million PTEs; such that another fire of the same magnitude was unlikely to occur at the Kirby site. Tire removal operations then concentrated on removing the largest remaining piles. By the end of SFY 2006, all scrap tires were removed from the surface of the site and removal of the buried fire residuals began in June 2006. The fire residuals are being removed to a licensed landfill so that water treatment at the Kirby site can be discontinued when the removal of fire residuals is completed in SFY 2008.

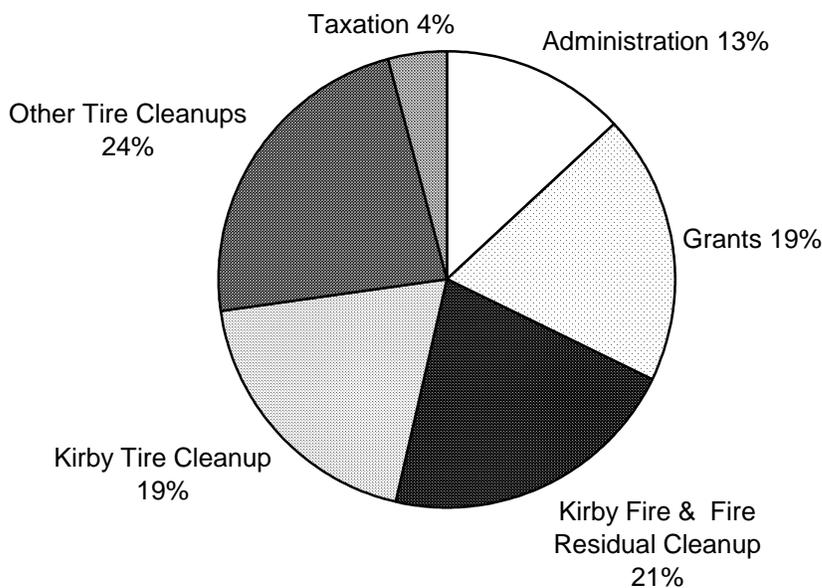
<b>Table 2-2 Scrap Tire Fee Revenue Utilization by Ohio EPA (Excludes DOT and ODNR funds)</b>						
SFY	Revenue to Scrap Tire Fund	Kirby Cleanup	All Other Tire Cleanups	Administration & Enforcement	Solid Waste Fund	Balance
1994	\$153,843	0	0	\$68,000	0	\$85,843
1995	\$2,881,136	0	0	\$329,317	0	\$2,637,662
1996	\$2,560,852	0	0	\$591,490	0	\$4,607,024
1997	\$2,667,496	0	0	\$651,086	0	\$6,623,434
1998	\$2,363,262	0	\$2,270,334	\$844,204	0	\$5,872,158
1999	\$2,207,952	\$21,976	\$4,980,527	\$781,578	0	\$2,296,029
2000 *	\$2,698,037	\$3,248,016	\$375,262	\$742,789	\$1,828,615	\$2,456,614
2001 *	\$2,821,216	\$2,980,793	0	\$789,186	\$1,946,988	\$3,454,839
Fee increased to \$1.00 per tire on Sept 5, 2001						
2002 *	\$5,101,835	\$2,289,728	\$191,418	\$626,965	(\$1,500,000)	\$3,948,563
2003 *	\$5,817,021	\$2,744,505	\$871,099	\$613,808	(\$2,275,603)	\$3,260,569
2004	\$5,798,972	\$3,327,322	\$1,847,874	\$634,341	0	\$3,250,004
2005	\$5,596,583	\$3,093,857	\$1,890,953	\$635,096	0	\$3,226,681
2006	\$6,160,995	\$3,072,251	\$1,530,137	\$854,567	0	\$3,930,721
<i>Projected Revenue and Expenses</i>						
2007	\$6,160,000	\$8,203,527	\$382,548	\$750,000	0	\$754,646
2008	\$6,160,000	\$2,609,828	\$2,350,000	\$750,000	0	\$1,204,818
2009	\$6,160,000	0	\$5,250,000	\$750,000	0	\$1,364,818
2010	\$6,160,000	0	\$5,250,000	\$750,000	0	\$1,524,818
2011	\$6,160,000	0	\$5,250,000	\$750,000	0	\$1,684,818
Actual Revenues and Expenses for SFY 1994 through 2006						
	\$46,829,200	\$20,778,448	\$13,957,604	\$8,162,427	\$ 0	\$3,930,721
NOTE: Balance at end of SFY 2006 is for Kirby fire residual removal in SFY 2007.						
<i>Projected Revenues and Expenses for SFY 2007 through 2011</i>						
	\$30,800,000	\$10,813,355	\$18,482,548	\$3,750,000	\$ 0	(\$2,245,903 )
Actual plus Projected Revenues and Expenses for SFY 1994 through 2011						
	\$77,629,200	\$31,591,803	\$32,440,152	\$11,912,427	\$ 0	\$1,684,818
SFY	Revenue to Scrap Tire Fund	Kirby Cleanup	All Other Tire Cleanups	Administration & Enforcement	Solid Waste Fund	Balance
* Solid waste funds were used in SFYs 2000 and 2001 to pay Kirby fire emergency response costs. These costs were paid back from scrap tire fee revenue in SFYs 2002 and 2003.						

The cleanup of other scrap tire dumps resumed in SFY 2002 once the Kirby situation had been stabilized. As detailed in Table 3-1, four tire dumps were completed in SFY 2003 and 2004. An additional five sites were cleaned up in SFY 2005. Fifteen more sites were started and completed in SFY 2006. Eight of the SFY 2006 sites were cleaned up under ORC 3734.83(E) which allows for cleanup of sites with under 2,000 tires without cost recovery if all the conditions listed in the law are satisfied. Details on the scrap tire cleanup program are discussed in Attachment 3.

The scrap tire fund is managed to ensure an adequate reserve to deal with unknowns. The balance shown in the right hand column of Table 2-2 reflects the management goal of having between \$1 million and \$2 million in reserve at all times for contingencies. Contingencies that may occur include unknowns such as the exact number of tires at a given site, the amount of solid waste that may be intermixed or hidden in the scrap tires and the amount of fire residuals buried at a site. Tires were often used to fill in a hole or gully and thus the location of the bottom of a tire pile is rarely known with any accuracy before tires are removed. Even the best scrap tire estimates are only accurate within plus or minus 25 percent.

Figure 2-1 summarizes the data in Table 3, page 11, for the Kirby tire cleanup and the Kirby fire and fire residual cleanup, the data from Table 2-1 for the Ohio Department of Taxation and the scrap tire grants, and the data from Table 2-2 for other tire cleanups and scrap tire program administration. Adding the three cleanup categories ( Other Tire Cleanups 24 per cent, Kirby Tire Cleanup 19 per cent, and Kirby Fire & Fire Residual Cleanup 21 per cent) together shows that 64 percent of the scrap tire fee is being used to clean up the abandoned scrap tire dumps in Ohio.

**Figure 2-1. Total Expenditures - SFY 1994 through SFY 2006**



## **Attachment 3**

### **Scrap Tire Abatement Program**

The state scrap tire abatement program, funded by the scrap tire fee, continues to focus on scrap tire sites in Ohio based on the priorities in ORC Section 3734.85(B). These priorities identify the sites that present the greatest threat to public health and safety, and the environment due to the size and/or location of the scrap tire piles. Starting in SFY 2006, the state-funded cleanups finally hit a turning point. The largest site in Ohio (the Kirby site) and two dozen other large sites were completed or nearing completion, and these large sites were no longer absorbing all of the money coming into the scrap tire fund. With this change, Ohio EPA increased its emphasis on requesting local health departments to follow up on scrap tire enforcement cases at the numerous small sites across the state. Ohio EPA also streamlined the process to refer these cases from the health department to Ohio EPA when escalated enforcement was needed.

Local-funded scrap tire cleanups, using funds generated at the local level, have dealt with many smaller sites where the site owner has failed to comply with Board of Health ordered cleanups. Local-funded and owner-funded cleanups have resulted in the removal of more than 10.8 million tires from at least 169 sites around the state. Most of these sites would not have been cleaned up without the passage of scrap tire laws by the Ohio General Assembly and the subsequent implementation and enforcement of regulations by Ohio EPA and local health departments.

The state-funded scrap tire abatement program continued to focus primarily on the Kirby scrap tire site in Wyandot County for SFYs 2000 through 2006. The Kirby site was the sixth state-funded scrap tire cleanup site. Five other large scrap tire sites, shown at the top of Table 3-1, were cleaned up while the owners of the Kirby site attempted to comply first with the scrap tire laws and then with a court ordered cleanup. Once the owners failed to make progress, the Wyandot Court of Common Pleas ordered the Kirby site to close and granted Ohio EPA access to the property to begin the cleanup.

Between July 1999 and June 2006, Ohio EPA's contractors removed 19,043,000 PTEs from the Kirby site using five separate contracts. In addition, separate contracts continued to provide for water treatment and site security at the Kirby site. Almost seven million dollars have been spent providing security, water treatment and ground water monitoring of the site since the arson fire in August 1999. These water-related expenses will end with the removal of all the buried fire residuals from the site.

The fire residual removal contract was awarded to Environmental Quality Management, Inc., Cincinnati, Ohio. Work began on removing the buried fire residuals in June 2006 under a \$3,265,903.87 contract. Initial work under this contract revealed that the soil and clay cover placed by U.S. EPA's contractors was significantly thicker than the estimated two feet. In many locations more than 10 feet of cover had to be removed before reaching the fire residuals. This extra soil cover resulted in a three-fold increase in the tonnage to be removed and in the total cost of this contract. Current estimate of the cost to complete the fire residual removal is \$9,695,500 and completion is expected by October 2007.

Additional funding, provided by a fee increase from \$0.50 to \$1.00 on each new tire sold in Ohio, allowed for the acceleration of the Kirby cleanup starting in SFY 2001. Completion of tire removal from the area outside of the tire fire area at the Kirby site occurred in June 2006.

<b>Table 3-1. State Funded Scrap Tire Cleanups – Completed Before SFY 2007</b>			
SFY	Scrap Tire Site	PTE	Cost
1998 & 1999	ReGenesis, Summit County	4,031,106	\$3,231,582
1998 & 1999	Seelig, Clark County	860,350	\$1,008,251
1999	Warsing, Coshocton County	2,173,200	\$2,421,021
1999	Willis, Lawrence County	125,591	\$321,500
1999	COGCO, Mahoning County	530,476	\$657,540
2000 & 2001	Kirby, Wyandot County (Contract # 1)	3,086,188	\$2,435,845
2002	Kirby, Wyandot County (Contract # 2)	2,956,154	\$2,123,346
2002 & 2003	Timco, Harrison County	484,309	\$307,443
2002 & 2003	Kays, Portage County	559,376	\$382,776
2003	Kirby, Wyandot County (Contract # 3)	3,001,872	\$1,849,417
2003	Vasi, Lorain County	574,232	\$420,298
2004	Kirby, Wyandot County (Contract # 4)	3,001,272	\$2,004,965
2005	McMaster, Portage County	1,050,024	\$1,565,572
2005	Adriatic Recycling, Mahoning County	176,402	\$140,681
2005	Benedict-Woosley, Morrow County	147,402	\$137,354
2005	Harr Tire Fire Site, Scioto County, tire & fire residuals	21,304	\$492,914
2005	Rader, Morrow County	504,291	\$452,366
2006	Parker, Summit County	964,399	\$792,736
2006	Keller, Auglaize County	99,333	\$94,830
2005 & 2006	Kirby, Wyandot County (Contract # 5)	7,016,678	\$4,913,664
2006	Kirby Fire Residual Contract	959,451	\$703,278
2006 *	West, Perry County	215,870	\$192,438
2006 *	Spring Grove, Columbiana County	26,678	\$35,333
2006 *	Monroe Fair Grounds, Monroe County **	9,865	\$26,919
2006 *	Metzler, Guernsey County	9,446	\$18,697
2006 *	J. Gray, Jackson County	2,824	\$6,495
2006 *	C. Gray, Belmont County	4,337	\$7,633
2006 *	Bogie, Warren County **	379	\$2,419
2006 *	Cloke, Warren County **	490	\$2,250
2006 *	V. Bressler, Henry County **	1134	\$6,588
2006 *	B. Bressler, Henry County **	1993	\$7,790
2006 *	Emig, Coshocton County **	5546	\$8,898
2006 *	Bowers, Coshocton County **	1359	\$3,237
2006 *	Red Sea, Coshocton County **	231	\$1,712
2006 *	Crestline Auto Salvage, Richland County	208,123	\$196,721
<b>TOTAL</b>	<b>29 SITES COMPLETED (Kirby ongoing)</b>	<b>32,811,685</b>	<b>\$26,974,509</b>

\* Cleanups completed under the Multiple Award Contract for SFY 2006-2007.

\*\* Under 2,000 tires consensual agreement sites (Total PTEs may exceed 2,000 since ORC Section 3745.85(E) specifies tires and not PTEs. Semi-truck tires are 5 PTEs each. Farm tires can exceed 10 PTEs each.)

Removal of the buried fire residuals to an appropriate landfill has started. The fee increase has enabled the Agency to complete the cleanup of 29 other priority scrap tire sites in Ohio, while accelerating the Kirby cleanup to completion eight years ahead of original predictions of a 15-year cleanup based on the \$0.50 fee.

The total number of PTEs cleaned up by Ohio has exceeded 32 million in only six years after the start of the cleanup program. In addition to the ongoing Kirby cleanup, 9.3 million PTEs were removed from the other 29 state-funded cleanups. Another 3.5 to 4.5 million tires are scheduled to be removed at the sites listed below in Table 3-2 on page 25.

SFY 2006 saw the initiation of a different concept in contracting for scrap tire cleanups. With the large sites completed, it no longer made sense to contract for each site individually. A single request for proposals was written to provide for all potential scrap tire cleanups during SFYs 2006 and 2007. This resulted in a Multiple Award Contract with Rumpke of Ohio being the low bidder for southern Ohio counties and Liberty Tire Services of Ohio being the low bidder for the rest of the state. This contracting approach provides the state a competitive price for these small cleanups. The price per tire for these cleanups will be higher than the price for the large sites since equipment mobilization costs are spread over fewer tires at each site. Often mobilization costs of up to \$5,000 exceed the cost to remove and process the 2,000 tires at a small site. Table 3-1 shows the sites cleaned up under the Multiple Award Contract.

As the Kirby scrap tire cleanup neared completion and other large sites were cleaned up, funds became available to clean up some of the many small sites in local communities. This included the cleanup of eight sites with under 2,000 tires without cost recovery as allowed by Ohio Revised Code (ORC) Section 3785(E). This section of the law existed since the law was enacted in 1993 but higher priority cleanups had consumed all available funding from 1997 until October 2005.

To date, three sites have been rejected by the Multiple Award Contract winners. All three of these sites have tires dumped on extremely steep, tall hillsides which will require significant manual labor and additional equipment to retrieve the tires to a position where the tires can be loaded into trucks. The request for bids for rugged terrain sites resulted in a separate contract award to Environmental Quality Management, Cincinnati, Ohio. The Rugged Terrain Contract can be extended to cover additional sites if sites are rejected by the Multiple Award Contract contractors. Table 3-2 shows the sites scheduled to be cleaned up under both the Multiple Award Contract and the Rugged Terrain Contract.

Cleanup costs per tire increase with the decreasing size of the scrap tire dumps. The cost per PTE for the 21 individual contracts, including the six Kirby contracts and all individual sites through the Keller site, was \$0.82 on the large scrap tire sites with millions of tires to be cleaned up. The new Multiple Award Contract has averaged \$1.04 per PTE for the 14 completed sites, West through Crestline, which are much smaller sites ranging from 216,000 PTEs to 231 PTEs. For the three rugged terrain sites in Columbiana County to be completed in the next year, the cost is projected to be \$1.66 per PTE. All three of these sites are small and extra labor and equipment will be needed to retrieve the tires from the deep ravines with very steep hillsides. Even these higher costs are very competitive with the prices being paid in other states for similar scrap tire cleanups.

<b>Table 3-2. State Funded Scrap Tire Cleanups - - Current Projects</b>				
<b>State Fiscal Year</b>	<b>Scrap Tire Site</b>	<b>Estimated Quantity</b>	<b>Estimated Cost</b>	<b>Contract Status</b>
2006 to 2008	Kirby, Wyandot County (Fire Residual Removal)	270,000 tons	\$9,695,500	Contract Award March 2006
2007 *	Rothwell, Guernsey **	2,734 PTEs	\$8,964	Complete
2007 *	Thacker, Jackson County **	10,944 PTEs	\$17,052	Complete
2007 *	LeJeune, Trumbull County **	896 PTEs	\$6,209	Complete
2007 *	Mercer, Jackson County	7,247 PTEs	\$11,159	Partial Completion
2007 *	Pillsbury, Perry County **	900 tires	\$2,700	Complete
2007 *	Long, Clermont County	750 tires	\$2,903	Complete
2007 ***	Moore, Columbiana County	50,000 tires	\$67,875	Contract Awarded
2007 ***	Vodrey, Columbiana County **	1,700 tires	\$10,052	Contract Awarded
2007 ***	BeaverKettle, Columbiana County **	500 tires	\$8,462	Contract Awarded
2008 *	Goss, Muskingum County	331,000 PTEs	\$439,491	Contract Awarded
	Estimated Total Cost		\$10,270,367	
* Multiple Award Contract				
** Under 2,000 tires consensual agreement sites				
*** Rugged Terrain Contract				

## Attachment 4

### Recommendations for Legislative Changes

#### Recommendations for Implementation

**Issue 1: Deletion of Submergence Facilities.** The law specifically requires rules governing scrap tire facilities for the storage/disposal of whole scrap tires by submergence in a body of water. In the 12 years since the scrap tire laws were passed, no one has submitted an application for a submergence facility. Only one submergence facility is known to exist. It is in Connecticut, has been abandoned, and is currently awaiting state-funded cleanup. Ohio EPA's experience with cleaning up submerged tires at the McMasters' scrap tire dump documents the high cost of removing scrap tires from under water. This high cost makes submergence facilities non-competitive in the market place. The recycling market for scrap tire derived material has grown so much since 1993 that two of the three scrap tire landfills have closed and the one remaining scrap tire monofill is only taking the tires that can not be processed at Liberty's Minerva scrap tire recovery facility. There is no need for extra disposal or storage capacity in Ohio.

**Recommendation:** The following language should be deleted (strikeout) from ORC 3734.01(CC), 3734.71(A) and 3734.72(A):

*3734.01(CC) "Scrap tire monofill facility" means an engineered facility used or intended to be used exclusively for the storage or disposal of scrap tires, ~~including facilities for the submergence of whole scrap tires in a body of water.~~"*

*3734.71(A) "Establish standards governing the location, design, construction, operation, and closure of scrap tire storage facilities; ~~, including, without limitation, standards governing facilities for the storage or disposal of whole scrap tires by submergence in a body of water.~~"*

*3734.72(A) "Establish standards governing the location, design, construction, operation, closure, and post-closure care of scrap tire monocell and monofill facilities, ~~including, without limitation, standards governing facilities for the storage or disposal of whole scrap tires by submergence in a body of water.~~"*

**Issue 2: Revision of Storage Limits Established in the ORC 3734.75 (D), 3734.76 (D), & 3734.85 (C).** Experience with scrap tire facilities that are not required to register with Ohio EPA has shown that some of the storage limits established in the scrap tire laws were set too high. The current storage limits create an unacceptable public health, public safety and environmental risk from mosquito-borne diseases and the smoke from tire fires.

The limits on the number of tires that can be stored at premises where tires are sold at retail are higher than is needed by new tire dealers and leads to excessive storage by used tire businesses. Used tire businesses are predominately located in low-income areas and storage of used tires, which are scrap tires, creates unnecessary health risks to these neighborhoods. Large numbers of tires stored outdoors create a breeding environment for disease-carrying mosquitoes. In addition, large numbers of tires stored outdoors or in buildings or trailers pose a significant risk of fires, which pose unacceptable health risks due to the large volume of dense smoke tire fires produce.

Outdoor storage of scrap tires at tire retailers should be reduced from the current maximum of no more than 1,000 scrap tires to no more than 500 scrap tires. This allows for reasonable display of tires available for sale while reducing the number of scrap tires to a number which can be either kept dry or properly treated to prevent mosquitoes from breeding in the tires. This also significantly reduces the time it would take to extinguish a fire when it occurs. Fires will occur because the outdoor storage of scrap tires is always going to be a tempting target for arsonists.

Indoor storage for tire retailers should also be reduced from the current unlimited storage to a maximum of 4,000 scrap tires. This is consistent with the amount allowed for tire retreaders in 3734.75(D)(2). This significantly reduces the health threat from a fire by allowing a fire to be extinguished in a shorter period of time. Four thousand scrap tires should be an adequate inventory for any used tire dealer.

The premises of a business that removes tires from motor vehicles in the ordinary course of business does not need a scrap tire storage pile of 2,500 square feet. A pile of this size can store 8,000 passenger tires and is a significant fire and mosquito breeding threat. Scrap tires should be promptly disposed as they are generated. No business should store more than a semi-trailer load which is a maximum of 1,500 passenger tires. This is an economic quantity of tires for transportation by a registered scrap tire transporter for recycling.

**Recommendation:** Specific changes to ORC 3734.75, 3734.76, and 3734.85 are:

*3734.75 (D)(1)(a) “No more than ~~one thousand~~ five hundred scrap tires are present at any time in an ~~unsecured, uncovered outdoor location;~~”*

*3734.75 (D)(1)(b) “~~Any number a total of no more than four thousand~~ scrap tires are secured in a building or a covered, enclosed ~~container, trailer, or installation~~ containers or trailers.”*

*3734.75 (D)(3) “The premises of a business that removes tires from motor vehicles in the ordinary course of business on which is located ~~a single scrap tire storage area that occupies not more than twenty-five hundred square feet~~ no more than five hundred scrap tires outdoors and one thousand five hundred scrap tires in a building or a covered, enclosed container or trailer.”*

*3734.76 (D)(1) should be replaced with language identical to 3734.75 (D)(1)(a) and (b).*

*3734.76 (D)(3) should be changed to be the same as 3734.75 (D)(3).*

*3734.85(C)(2)(a) and (b) should be changed to match 3734.75 (D)(1)(a) and (b).*

*3734.85 (C)(4) be changed to be the same as 3734.75 (D)(3).*

**Issue 3: Illegal Scrap Tire Transporters.** Activity by unregistered (illegal) scrap tire transporters continues to be a source of open dumping of scrap tires. Often these illegal transporters will sell some of the scrap tires as used tires and then open dump the remaining tires. Hauling scrap tires without registering with Ohio EPA is a felony per ORC 3734.90(F), and when proven guilty, the transporter “shall be fined at least ten thousand dollars, but not more than twenty-five thousand dollars, or imprisoned for at least two years, but not more than four years, or both.” However, local law enforcement has little incentive to enforce this law. If the vehicle used for the illegal transportation of scrap tires is impounded, the local government is faced with the cost to dispose of the scrap tires. Rarely is the vehicle worth enough to pay

towing and storage of the vehicle and the cost of disposing of a load of scrap tires when the transporter is unable to pay his fine.

**Recommendation:** Revise 3734.85 to allow Ohio EPA to pay for the recycling or disposal of the scrap tires in impounded vehicles. Provide for local law enforcement to sell the seized vehicles at auction and retain the money to pay for towing and storage expenses. Draft language concerning the seized vehicle needs to be developed by law enforcement agencies. The following change is needed for Ohio EPA to expend money from Ohio's scrap tire fund to recycle or dispose of the scrap tires in seized vehicles:

3734.85(B)(6) "Other accumulations of scrap tires that local law enforcement has seized while enforcing ORC 3734.83 and tires collected by local governments from open dump sites."

**Issue 4: Scrap Tire Generators Using Unregistered Scrap Tire Transporters.** ORC 3734.83(F) implies the requirement for generators to use registered transporters but does not say it clearly enough for some prosecutors and law enforcement personnel. This paragraph was appropriate during the transition period when scrap tire transporters were first being registered. Now that we have a substantial number of registered scrap tire transporters, tire dealers continue to fail to check for proper registration or look the other way while scrap tires are removed from their storage area. This use of unregistered transporters contributes directly to open dumping of scrap tires. Generally the scrap tires that cannot be sold as used tires are open dumped.

**Recommendation:** Add the following as ORC 3734.83(G):

3734.83(G) "A generator of scrap tires who causes scrap tires generated by him to only be transported by a transporter registered in accordance with ORC 3734.83 is not liable under statute or common law in his capacity as the generator of the scrap tires for the action or omissions of the registered scrap tire transporter. A generator of scrap tires shall verify the status of the registered scrap tire transporter by reviewing the original Ohio scrap tire transporter registration certificate which the scrap tire transporter must have in his possession. A generator of scrap tires shall provide sufficient security to his scrap tire storage area to prevent the scavenging of scrap tires by unregistered scrap tire transporters."

**Issue 5: Shipment of Small Quantities of Scrap Tires.** Scrap tires frequently need to be transported between locations for reasons other than disposal or recycling. Scrap tires may be moved as part of litter cleanup activities, retreading operations, warranty adjustments and other business activities. Common carriers often move small quantities of scrap tires between specific destinations without taking ownership of the scrap tires. This contrasts significantly from scrap tire transporters who take ownership of the tires and have the option of delivering the scrap tires to any destination. Another contrast is that scrap tires are generally a small part of any given load for common carriers whereas the scrap tires are the primary load for scrap tire transporters. OAC 3734.83(D) lists several categories of transporters that do not have to register as scrap tire transporters and this list now needs to be expanded. Specific examples to be added to OAC 3734.83(D) are:

1. Litter cleanup of roadways and public property by the Ohio Department of Transportation, Ohio Department of Natural Resources, and local government agencies always involves picking up scrap tires as well as other litter.
2. Tire retreaders need to move scrap tires from their customers' business location to the retreading shop. The retreader does not take ownership of the scrap tire since

it will be returned to the customer for continued use after retreading is completed. At other times the customer may be a fleet operator and may haul his own tires to the retreader while these tires aren't technically scrap tires since they have not been discarded by the owner; however, the tires look like scrap tires.

3. Common carriers who deliver new tires to dealers routinely transport warranty adjustment tires back to the manufacturer for inspection or repair. Some of these scrap tires need to be retained as evidence for current or anticipated legal actions. The common carrier does not take ownership of these tires but treat them as another item to be delivered per their customer's direction.
4. Any generator of scrap tires who owns or operates multiple business locations may move scrap tires between these business locations to consolidate shipments tires.
5. Segregate loads of retreadable casings and bias-ply tires have a positive economic value and are often shipped across state lines to facilities seeking only these tires.
6. Individuals ordered to remove scrap tires from private property may be authorized by the ordering authority to transport scrap tires to a specified, licensed scrap tire facility without registering as a scrap tire transporter.

**Recommendation:** All 6 of the above examples would be covered by adding the following to ORC 3734.83(D):

3734.83(D) “. . . Divisions (A) and (C) of this section also do not apply to any person or government agency who transports scrap tires collected as part of a public property litter cleanup or a government or court ordered cleanup; any common carrier, whose business is not primarily related to scrap tires, transporting tires as freight to a specific destination for a customer without taking ownership of the scrap tires; any retreader transporting scrap tires from customer's business locations to the retreader's business location for the purpose of retreading the customer's tires for reuse by the customer; any generator of scrap tires who owns or operates multiple business locations and transports scrap tires only between these business locations to consolidate a shipment of scrap tires; any person transporting a segregated load of retreadable casings or bias-ply tires to a retreading business or bias-ply processing business; any person ordered to clean up property may also be given permission by the ordering authority to transport scrap tires from the property to a designated scrap tire facility without registering as a scrap tire transporter.”

**Issue 6: Additional Destinations for Scrap Tires from Scrap Tire Collection and Storage Facilities.** ORC 3734.70(B) and 3734.71(G) listed a limited number of destinations which these facilities can use. This list is overly restrictive and needs to be expanded.

**Recommendation:** Add the following to ORC 3734.70(B) and 3734.71(G):

3734.70(B)(7) “A premises operating without a license in accordance with 3734.75(D) or 3734.76(D) of the Revised Code.”

3734.70(B)(8) “A transporter holding a valid annual registration certificate issued under 3734.83 of the Revised Code.”

3734.71(G)(6) “A premises operating without a license in accordance with 3734.75(D) or 3734.76(D) of the Revised Code.”

3734.71(G)(7) “A transporter holding a valid annual registration certificate issued under 3734.83 of the Revised Code.”

**Issue 7: Delivery of Scrap Tires to Facilities Not Required to Register as a Scrap Tire Facility.** ORC 3734.83(E) states a scrap tire transporter is liable for the safe delivery of scrap tires until he delivers them to one of the listed destinations. These destinations are primarily facilities licensed per ORC 3734.81; however, ORC 3734.75(D) and 3734.76(D) state that licensing under ORC 3734.81 does not apply to certain facilities. Many of these facilities that are not required to have a license have a need to accept scrap tires for sale as used tires, as retreadable casings, or as raw material for processing.

**Recommendation:** Add the following to ORC 3734.83(E):

*3734.83(E) ". . . facility licensed under section 3734.81 of the Revised Code or operating without a license in accordance with 3734.75(D) or 3734.76(D) of the Revised Code; . . .*

**Issue 8: Exclusion from Registering as a Scrap Tire Collection Facility or Scrap Tire Storage Facility for Roadside, Public Property, and Community Tire Collection Events.**

Many local and state agencies routinely clean up tires from roadsides and public property while they are doing other litter cleanups. Also, local communities often sponsor community tire collection events which may last over several weekends. There is a need for these agencies to store small numbers of tires for limited time periods while they accumulate enough for a semi-trailer load which is 1,000 to 1,500 tires.

**Recommendation:** Add the following to ORC 3745.75(E) and ORC 3734.76(E) as a new paragraph (E)(3):

*(3) "Any political subdivision or any state agency, which conducts a roadside or public property litter cleanup operation or a community tire collection event and stores these scrap tires for less than thirty days or stores fewer than one thousand scrap tires in a building, enclosed trailer, or covered roll-off container if the tires are dry or properly treated for mosquito control."*

**Issue 9: Exclusion from Registering as a Scrap Tire Collection Facility or Scrap Tire Storage Facility.**

ORC 3734.76(D)(4) lists solid waste disposal facility but not solid waste transfer facility or construction and demolition debris (C&DD) landfill as facilities not required to obtain a scrap tire registration, permit, and license as a scrap tire facility. ORC 3734.75(D) does not list any of these facilities. These facilities may also receive incidental scrap tires mixed with loads of solid waste or C&DD.

**Recommendation:** Add the following to ORC 3745.75(D) and ORC 3734.76(D) as new paragraphs:

*3734.75(D)(5) "A solid waste transfer or disposal facility licensed under section 3734.05 of the Revised Code that stores tires in portable enclosed containers prior to the transfer of the scrap tires to a scrap tire transporter;"*

*3734.75(D)(6) "A construction and demolition debris landfill licensed chapter 3734 of the Revised Code that stores tires in portable enclosed containers prior to the transfer of the scrap tires to a scrap tire transporter."*

*3734.76(D)(9) "A construction and demolition debris landfill licensed chapter 3734 of the Revised Code that stores tires on the surface of the ground if the total land area on which scrap tires are actually stored does not exceed ten thousand square feet."*

**Issue 10: Continuation of the Scrap Tire Fee.** The initial scrap tire fee of \$ 0.50 per new tire sold in Ohio was created to clean up a legacy of years of open dumping, encourage development and growth of viable scrap tire markets, and effectively administer a scrap tire regulatory program. The fee was increased to \$1.00 per new tire sold in Ohio following a major scrap tire fire at the Kirby site in Wyandot County. The current scrap tire fee is authorized by ORC 3734.901(A)(1) and (A)(2) and is scheduled to sunset on June 30, 2011.

With the completion of the Kirby cleanup anticipated in SFY 2008, the Agency will consider the possibility of reducing the fee from the full \$1.00 per new tire fee. This fee could be reduced but should not be eliminated. A scrap tire fee needs to be continued to enable the continued administration of the scrap tire regulatory program and is needed to remove the burden of illegally dumped tires from local governments until we can change the law to effectively deal with illegal transporters as described in Issue 4 above.

**Recommendation:** Up to \$750,000 per year should continue to be used to administer the scrap tire regulatory program. A total of \$1,000,000 per year should be forwarded to the Ohio Department of Natural Resources for grants for scrap tire market development. Up to an additional \$500,000 may be forwarded to the Ohio Department of Natural Resources for grants to local scrap tire amnesty and cleanup events. The balance of funding received should be retained by Ohio EPA to clean up open dumped tires from sites referred for enforcement to Ohio EPA. Suggested revisions to ORC 1502.12, 3734.82 and 3734.901 are:

Add to 1502.12(A) ". . . market development activities for scrap tires and scrap tire amnesty and clean up events. The grants may . . . "

Add as 1502.12(C) "Projects that are eligible for grants under this section shall be scrap tire amnesty events and scrap tire cleanups sponsored by local solid waste management districts and solid waste management authorities."

Add to 3734.82(G)(2) ". . . in that section. In addition the director may request the director of budget and management to, and the director of budget and management shall, transfer up to an additional five hundred thousand dollars to the scrap tire grant fund created in section 1502.12 of the Revised Code for grants in accordance with section 1502.12(C)."

Delete 3734.82(G)(3), (H) and (I) and replace with the following simplified paragraph (G)(3):

Add as new 3734.83(G)(3) "After the actions in divisions (G)(1) and G(2) are completed, the director may expend up to the balance remaining from the current and prior fiscal years in the scrap tire management fund to conduct removal actions under 3734.85 of the Revised Code and to provide grants to boards of health under section 3734.042 [3734.04.2] of the Revised Code."

Revise 3734.901(A)(1) ". . . to make grants to promote research regarding alternative methods of recycling scrap tires to solid waste management districts and solid waste management authorities to fund scrap tire education, amnesty and cleanup events and loans to promote recycling . . . "

**Issue 11: Disposal of Unusable By-products and Scrap Tires Not Processable by a Scrap Tire Recovery Facility.** The fate of by-products and scrap tires that cannot be processed is not currently addressed in the law.

**Recommendation:** Add the following as 3734.73(G):

*(G) “Solid wastes from a scrap tire recovery facility, which were part of a scrap tire and were unusable at that scrap tire recovery facility, may be disposed at any solid waste facility. This includes whole tires that cannot be processed due to the tire’s size, construction, or contamination.”*

**Issue 12: Obtaining Lowest Costs for Scrap Tire Cleanups and Removal of Solid Wastes Open Dumped with an Accumulation of Scrap Tires.** Recent awards of contracts for scrap tire cleanups have had very few bidders and the cost of the cleanups have increased. In order to obtain increased competition and potentially lower prices, the pool of potential bidders needs to be expanded. Registered scrap tire transporters and environmental remediation firms with a demonstrated capability to handle scrap tires need to be added to this pool of potential bidders. Current contract and bonding provisions will be adequate to insure successful contract completion. The law is currently silent on the issue of removing other solid wastes that are at a scrap tire open dump. Director’s orders issued to the property owner always address all open dumping on the property and not just the scrap tires. Common practice has been to have the contractor remove all open dumped solid wastes mixed with the scrap tires while they are removing scrap tires from the property but not the solid waste dumped separately from the scrap tires. This results in a partial rather than a complete cleanup of an open dump.

**Recommendation:** Add the following to the fifth paragraph of 3734.85(A):

*“ . . . The director shall enter into contracts with the owners or operators of scrap tire storage, monocell, monofill, or recovery facilities for the storage, disposal, or processing of scrap tires removed through removal operations conducted under this section. In doing so, the director shall give preference to scrap tire recovery facilities. The director may award such contracts to scrap tire transporters or environmental remediation firms based on competitive request for proposals. Such removal operations may also include the removal of other solid wastes open dumped at the site of a scrap tire accumulation. . . .”*

**Issue 13: Accumulations of Not More Than 2,000 Tires.** ORC 3734.85(E) establishes criteria for the removal of these small accumulations of scrap tires without cost recovery if six conditions are met. These conditions should be modified for scrap tires open dumped prior to adoption of the scrap tire laws in October 1993. Prior to October 1993, the purchaser of property was not aware that a small accumulation of scrap tires was a liability. Many overly optimistic stories were being published about the potential value of scrap tires.

**Recommendation:** Add the following to 3734.85(E)(1) and (E)(2):

*“(1) The tires were placed on the property prior to October 1993, the tires were placed on the property after the owner acquired title to the property, or . . .”*

*“(2) The tires were placed on the property prior to October 1993, the owner of the property did not have knowledge that the tires were placed on the property, or . . .”*

# Attachment 5

## Scrap Tire Grant Program

### Introduction

In an effort to encourage recycling rather than disposal of scrap tires, the 120<sup>th</sup> General Assembly in passing Senate Bill 165 also established the Scrap Tire Loan and Grant Program fund to support or create markets for scrap tires and directed Ohio's Department of Development (DOD) to administer the fund. Effective July 1, 2001, Ohio Revised Code (ORC) 1502.12 transferred the administration of this program from Ohio DOD to the Ohio Department of Natural Resources, Division of Recycling & Litter Prevention (DRLP). One million dollars is allocated to the Scrap Tire Grant Fund annually. These funds are transferred annually from the Ohio Environmental Protection Agency.

ORC Chapter 1502.12 authorizes the Division of Recycling & Litter Prevention, with the approval of the Ohio Department of Natural Resources, to award grants to establish or expand private manufacturing facilities that utilize scrap tire material, develop civil engineering projects, or foster market development research. The Scrap Tire Grant (STG) addresses scrap tires generated and collected within the State of Ohio. Eligible applicants must be agencies of the state, which are defined in ORC Sections 343, 1502 and all applicable sections of the ORC. An agency of the state may be a municipal corporation, county, township, state college or university, solid waste management district or authority, park districts created under section 511.18 and 1545.04 of the ORC or a board of education or joint vocational school district. An agency of the state, as previously outlined, may apply on behalf of an Ohio business or non-profit organization, which for purposes of this grant program, are referred to as Cooperating Enterprises.

### Scrap Tire Grant Program History (SFYs 2002 – 2006)

The Division of Recycling & Litter Prevention has funded 26 projects in Ohio as listed in Tables 5-1 through 5-5. Five additional projects were approved but not implemented and the funds were made available for other projects. Funded projects have assisted with the establishment of new reuse/recycling facilities for those tires generated in Ohio that have no viable market. The STG program prioritizes projects that utilize large volumes of scrap tires on an annual basis and that can be sustainable without additional government subsidy. The division believes the following type of projects (listed in priority order) would accomplish its mission.

- Burning of scrap tires/tire-derived fuel in Ohio EPA-approved facilities
- Beneficial use of scrap tires in civil engineering and other applications
- Recycling of scrap tires into high-value new finished products

In years past the grant program has established a base of scrap tire processors to supply future end use manufacturers. Since 2002, the Scrap Tire Grant and the Special Assistance Grant program have awarded \$5,882,711 to help private companies process or create an end use product for a reported 396,619 tons of scrap tire material. Currently, DRLP is seeking Ohio companies that are willing to forge new partnerships in order to achieve the goal of creating or expanding Ohio's scrap tire market. The 2007 Scrap Tire Grant Application Handbook was released in November 2006.

*Abbreviations used in this document include SWD (Solid Waste District), SWMD (Solid Waste Management District), and SWMA (Solid Waste Management Authority)*

## **2006 GRANT PROJECTS**

### **Ashtabula County SWD with Iten Industries, Inc.**

**Background:** The applicant was awarded a scrap tire grant \$251,632 for a \$901,632 project that involves the purchase of equipment to extrude and manufacture landscaping pavers made with scrap tire material. This project utilizes 1.03 million scrap tires per year. The company plans to hire three additional employees.

### **Boardman Township**

**Background:** The applicant was awarded a scrap tire grant \$100,000 for a \$200,000 civil engineering project that involves the use of scrap tire material as a base layer for a new parking lot. This project utilizes 1,500 scrap tires.

### **City of Northwood**

**Background:** The applicant was awarded a scrap tire grant \$100,000 for a \$203,500 paving project that involves the use of scrap tire material to pave a 1 mile section of East Broadway Avenue in the city. This project utilizes 1,040 scrap tires.

### **Cuyahoga County SWD with GroundScape Technologies**

**Background:** The applicant was awarded a scrap tire grant \$250,000 for a \$627,000 project that involves the purchase of equipment to expand current production of “playground safety material” and “landscape mulch” made with scrap tire material. This project utilizes 960,000 scrap tires per year. The company plans to hire 12 additional employees.

### **Diocese of Columbus, Department of Education with Bishop Hartley High School**

**Background:** The applicant was awarded a scrap tire grant \$100,000 for a \$685,000 civil engineering project that involves the installation of a new running track. This project will utilize 4,650 scrap tires. The school district plans to hire two additional employees.

### **Greene County with CEMEX (Fairborn Cement Plant)**

**Background:** The applicant was awarded a scrap tire grant \$350,000 for a \$2,438,000 tire-derived fuel project, including the purchase of equipment that blends scrap tire material with petroleum coke in the company’s cement kiln. This project utilizes 1.6 million scrap tires per year.

### **Lucas County SWMD**

**Background:** The applicant was awarded a scrap tire grant \$42,000 for a \$84,000 paving project that involves the use of scrap tire material to pave the Lucas County Recreation center parking lot. This project utilizes 445 scrap tires.

### **Northern Local School District with Sheridan High School**

**Background:** The applicant was awarded a scrap tire grant \$90,779 for a \$295,799 project to install a new running track made with scrap tire material. This project utilizes 3,225 scrap tires.

### **Summit/Akron SWMA with ARMEX, Inc.**

**Background:** The applicant was awarded a scrap tire grant \$34,000 for a research and development project to create more efficient scrap tire processing equipment. Results will focus primarily on energy savings. This project utilizes 500 scrap tires. The company plans to hire two additional employees.

### **Valley Local School District**

**Background:** The applicant was awarded a scrap tire grant \$33,574 for a \$67,148 project to resurface its existing running track with a material that has a higher scrap tire content. This project utilizes at least 400 scrap tires.

### **Wood County SWD**

**Background:** The applicant was awarded a scrap tire grant \$100,000 for a \$240,000 paving project utilizing scrap tire material to construct a double turn lane on US Route 6 and also pave the Tontogany Township Road access to the Wood County Landfill. This project utilizes 3,141 scrap tires.

## **2005 GRANT PROJECTS**

### **Auglaize County SWMD with Midwest Elastomers, Inc.**

**Background:** The applicant was awarded a 2005 market development grant \$150,000 for a \$300,000 project that involves the purchase of an additional processing line that will expand current production of 40 mesh scrap butyl rubber and “cast off treads” from a major Ohio tire manufacturer, to be used in industrial brake markets. This project will utilize 150,000 scrap tires per year. The company plans to hire 6 new employees

### **Ross, Pickaway, Highland, Fayette JSWMD with Glatfelter Corporation**

**Background:** The applicant was awarded a 2005 market development grant \$350,000 for a \$750,000 project that involves the purchase of equipment in order to burn tire-derived fuel in the plant’s #6 boiler. This project will utilize 1.6 million scrap tires per year.

### **Lucas County SWMD with Seneca Petroleum Company, Inc.**

**Background:** The applicant was awarded a 2005 market development grant \$150,000 for a \$300,000 project that involves the purchase of equipment to mill and produce ground tire rubber derived from scrap tires, to be used in, asphalt cement for the paving industry. This project will utilize 200,000 scrap tires per year. The company plans to hire two new employees.

### **Montgomery County SWMD and ENSR International**

**Background:** The applicant was awarded a 2005 market development grant \$75,000 for a \$150,000 research project to determine the proper mixture of the tire-derived fuel and coal in

Wright Patterson Air Force Base's existing coal stoker boiler (1 of 6 at the base). The purpose of the research was to perform a test burn, which would have led to the use of 33,000 scrap tires. The grant funds were returned to the division, as the project was not completed due to unanticipated market conditions.

### **Solid Waste Authority of Central Ohio with Liberty Tire Services, LLC**

**Background:** The applicant was awarded a 2005 market development grant \$350,000 for a \$700,000 project that involves the purchase of a crumb rubber production system (cracker mill) to create tire-derived fuel and playground surfacing feedstock. This project will utilize 1.2 million scrap tires per year. The company plans to hire 11 new employees.

## **2004 GRANT PROJECTS**

### **Cuyahoga County SWD with GroundScape Technologies, LLC**

**Background:** The applicant was awarded a scrap tire grant \$275,000 for a \$700,000 project to purchase and install an automated coating and feed system, palletizing and bagging system and auxiliary equipment. The project will allow the company to accept and process one million scrap tires per year that will in turn be used to manufacture rubberized mulch products.

### **Montgomery County SWMD with Composite Technologies Corporation**

**Background:** The applicant was awarded a scrap tire grant \$75,000 for a \$165,500 project applicable to research necessary to produce rubberized mats and landscape pavers comprised of crumb rubber. The project would have allowed the company to accept and process 100,000 scrap tires per year. The grant funds were returned to the division, as the project was not completed due to unanticipated market conditions.

### **Tire Amnesty Grants with SWMDs and SWMAs**

**Background:** The division allocated \$520,000 for the Tire Amnesty Grant (TAG) to financially assist local communities that establish and operate programs to provide opportunities for residents to economically and environmentally manage scrap tires. TAG was made available to design and establish tire amnesty drop-off and collection drive projects to collect scrap tires in Ohio. Eligible applicants were Ohio solid waste management districts and solid waste management authorities. Grantees continue to ensure that the tires collected as a result of their TAG project will be used as feedstock for a viable and technologically proven scrap tire end-use market or beneficial use as designated by Ohio EPA. Projects include scrap tire collection drive(s) or a drop-off effort during a limited and specified period of time. The projects are either being coordinated solely by a district or authority or with the assistance of an Ohio EPA licensed and registered scrap tire transporter or processing facility. Under the parameters of the Tire Amnesty Grant program, acceptable scrap tires include passenger, light truck, semi-truck and agricultural tires. The maximum grant award amount per solid waste management district or solid waste management authority was \$10,000. Grant recipients were announced during May 2004, with a grant period operating between July 1, 2004 and June 30, 2005. Forty-four of Ohio's 52 Solid Waste Districts and Authorities were awarded \$431,137 to address a projected 428,340 tires.

### **Stark-Tuscarawas-Wayne JSWMD with Liberty Tire Services of Ohio, LLC**

**Background:** The applicant was awarded a scrap tire grant \$360,000 for a \$742,460 project to purchase and install a “Rasper” scrap tire shredder. The project will allow the company to accept and process 1.4 million scrap tires per year that will in turn be provided as tire-derived fuel and a base product for crumb rubber manufacturing operations. Once completed, the project will create 12 new jobs.

### **Summit/Akron SWMA with University of Akron**

**Background:** The applicant was awarded a scrap tire grant \$100,000 to purchase tire-derived material for the installation of a football practice field with artificial turf and crumb rubber cushioning. The project utilized 142 tons of scrap tire material.

## **2003 GRANT PROJECTS**

### **Montgomery County SWMD with Appleton Papers, Inc.**

**Background:** The applicant was awarded a scrap tire grant \$231,100 to help fund a \$470,200 project to purchase and install a tire-derived fuel feed system, retrofit two existing boilers and pay for costs associated with the test burn process. The project would have allowed the company to utilize 10,000 tons per year (one million passenger tire equivalents per year) of scrap tire material. The grant funds were returned to the division, as the project was not completed due to unanticipated market conditions.

### **SouthEastern Ohio JSWMD with Campbell Scrap Tire Company**

**Background:** The applicant was awarded a scrap tire grant \$200,000 to help fund a \$700,000 project to purchase and install a scrap tire shredder. The project will allow the company to process an additional 10,274 tons per year (over one million PTE per year) of tire-derived fuel and civil engineering application material. Once completed the project will create 13 new jobs.

### **Summit/Akron SWMA with Akron Thermal, LP**

**Background:** The applicant was awarded a scrap tire grant \$340,750 to help fund a \$691,500 project to purchase and install a tire-derived fuel feed system, retrofit a boiler and pay for costs associated with the test burn process. The project will allow the company to utilize an additional 10,000 tons per year (one million PTE per year) of tire-derived fuel material.

### **Johnstown – Monroe Local School District with Johnstown High School**

**Background:** The applicant was awarded a scrap tire grant \$25,000 to help fund the resurfacing of a running track using scrap tire material. The project utilized rubber material from 500 scrap tires.

## **2002 GRANT PROJECTS**

### **Brown County SWMA with Rumpke Consolidated Companies, Inc.**

**Background:** The applicant was awarded a scrap tire grant \$295,854 to help fund a \$591,708 project to purchase a scrap tire shredding system. The company anticipates processing 1.5 million scrap tires per year. The shredded material is being utilized as tire-derived fuel within the regional area and for civil engineering applications (lining material) at the Rumpke Landfill

located in Brown County. The company originally sited the equipment at its facility in Georgetown, Ohio, but has transferred the shredder to its Hamilton County, Ohio, facility. Two individuals were employed as a result of this project.

**Cuyahoga County SWD with GroundScape Technologies, LLC**

**Background:** The applicant was awarded a scrap tire grant \$250,000 to help fund a \$700,000 project to purchase and install a packaging system and material handling equipment. The company processed 1,090,000 scrap tires per year to produce landscaping and playground surface material. The landscaping material can be produced in a variety of colors and provides many of the same attributes as wood-based mulch. The playground surface material is marketed as providing greater cushion and reducing the potential of injury as a result of surface impact. The grant-funded processing equipment has been purchased and installed.

**Hamilton County SWMD with Cinergy Power Generation Services, LLC**

**Background:** The applicant was awarded a scrap tire grant \$35,000 to help fund a \$75,000 project to conduct a test burn, to determine the feasibility of utilizing tire-derived fuel in the company's Miami Fort facility. The utility originally projected that it would process 60,000 scrap tires during the research phase of this project. The grant funds were returned to the division, as the project was not completed due to unanticipated market conditions.

**Solid Waste Authority of Central Ohio with Crane Plastics Manufacturing, Ltd.**

**Background:** The applicant was awarded a scrap tire grant \$36,885 to help fund a \$655,000 project to begin research on an extrusion process that will produce a newly designed railroad tie. The company anticipated utilizing approximately 1,500 scrap tires during the research and development stage. The grant funds were returned to the division, as the project was not completed due to unanticipated market conditions.

**Summit/Akron SWMA with Akron Thermal, LP**

**Background:** The applicant was awarded a scrap tire grant \$310,000 to help fund a \$750,000 project to purchase and install a tire-derived fuel feed system, which will complement the company's existing boiler system. The company anticipates processing 1,095,000 scrap tires per year. Once in operation, the feed system will give Akron Thermal LP the capability to accept scrap tires from the Greater Akron and Greater Cleveland areas and expand its customer base. The test burn phase of the project has been completed and the company is burning tire-derived fuel.

**Table 5-1. 2002 Scrap Tire Grants with Estimated Impact in Tires per Year**

<b>Applicant</b>	<b>Cooperating Enterprise</b>	<b>Grant Funds</b>	<b>Initial Year (tires/yr.)</b>	<b>Annual (tires/year)</b>
Brown County SWMD	Rumpke Recycling	\$295,854	1,500,000	1,500,000
Cuyahoga County SWMD	GroundScape Technologies	\$250,000	1,090,000	1,090,000
Hamilton County SWMD	Cinergy Power	\$35,000	60,000	0
Solid Waste Authority of Central Ohio	Crane Plastics	\$36,885	1,500	0
Summit/Akron SWMA	Akron Thermal	\$310,000	1,095,000	1,095,000
<b>2002 Grant Total</b>		<b>\$927,739</b>	<b>3,746,500</b>	<b>3,685,000</b>

**Table 5-2. 2003 Scrap Tire Grants with Estimated Impact in Tires per Year**

<b>Applicant</b>	<b>Cooperating Enterprise</b>	<b>Grant Funds</b>	<b>Initial Year (tires/yr.)</b>	<b>Annual (tires/year)</b>
Summit/Akron SWMA	Akron Thermal	\$340,750	1,000,000	1,000,000
Montgomery County SWMD	Appleton Papers	\$231,100	1,000,000	0
SEO-JSWMD	Campbell Scrap Tire	\$200,000	1,027,400	1,027,400
Johnstown-Monroe Local School Dist.	Johnstown HS	\$25,000	500	500
<b>2003 Grant Total</b>		<b>\$771,850</b>	<b>3,027,900</b>	<b>2,027,900</b>

**Table 5-3. 2004 Scrap Tire Grants with Estimated Impact in Tires per Year**

<b>Applicant</b>	<b>Cooperating Enterprise</b>	<b>Grant Funds</b>	<b>Initial Year (tires/yr.)</b>	<b>Annual (tires/year)</b>
Cuyahoga SWMD	GroundScape Technologies	\$275,000	1,000,000	1,000,000
Stark-Tusc-Wayne JSWMD	Liberty Tire Services of Ohio	\$350,000	1,400,000	1,400,000
Montgomery County SWMD	Composite Technologies	\$75,000	100,000	0
Ohio SWMDs and SWMAs	Tire Amnesty Grants	\$431,137	335,000	0
Summit/Akron SWMA	University of Akron	\$100,000	14,200	0
<b>2004 Grant Total</b>		<b>\$625,000</b>	<b>2,849,200</b>	<b>2,400,000</b>

**Table 5-4. 2005 Scrap Tire Grants with Estimated Impact in Tires per Year**

<b>Applicant</b>	<b>Cooperating Enterprise</b>	<b>Grant Funds</b>	<b>Initial Year (tires/yr.)</b>	<b>Annual (tires/year)</b>
Auglaize County SWMD	Midwest Elastomers	\$150,000	150,000	150,000
FHPR JSWMD	Mead Westvaco Corporation	\$350,000	1,600,000	1,600,000
Lucas County SWMD	Seneca Petroleum Company	\$150,000	200,000	0
Montgomery County SWMD	ENSR International	\$75,000	33,000	0
SWACO	Liberty Tire Services	\$350,000	1,200,000	1,200,000
<b>2005 Grant Total</b>		<b>\$1,000,000</b>	<b>3,183,000</b>	<b>2,950,000</b>

**Table 5-5. 2006 Scrap Tire Grants with Estimated Impact in Tires per Year**

<b>Applicant</b>	<b>Cooperating Enterprise</b>	<b>Grant Funds</b>	<b>Initial Year (tires/yr.)</b>	<b>Annual (tires/year)</b>
Butler County SWMD	Rumpke Consolidated Co. Inc.	\$350,000	1,000,000	1,000,000
Ashtabula County SWD	Iten Industries, Inc.	\$251,632	1,030,000	1,030,000
Boardman Township	Boardman Township	\$100,000	1,500	0
City of Norwood	City of Norwood	\$100,000	1,000	0
Cuyahoga County SWD	GroundScape Technologies	\$250,000	960,000	960,000
Diocese of Columbus	Bishop Hartley High School	\$100,000	4,600	0
Greene County	CEMEX Fairborn Cement Plant	\$350,000	1,600,000	1,600,000
Lucas County SWMD	Lucas County Engineer	\$42,000	400	0
Northern Local Schools	Sheridan High School	\$90,779	3,200	0
Summit/Akron SWMA	ARMEX Inc.	\$34,000	500	500
Valley Local School Dist.	Valley High School	\$33,574	400	0
Wood County SWD	Wood County Engineer	\$100,000	3,100	0
<b>2006 Grant Total</b>		<b>\$1,451,985</b>	<b>4,604,700</b>	<b>4,590,500</b>

**Table 5-6. Summary of ODNR Scrap Tire Grants**

<b>State Fiscal Year</b>	<b>Number of Grants</b>	<b>Total Grant Dollars</b>	<b>Initial Year PTE Estimates</b>	<b>Projected Annual PTEs</b>
2002	3	\$927,739	3,746,474	3,525,500
2003	3	\$771,850	4,181,500	2,832,700
2004	4	\$625,000	2,100,000	2,216,400
2005	4	\$1,000,000	2,700,000	2,700,000
2006	12	\$1,451,985	4,604,700	4,590,000
<b>TOTAL</b>	<b>26</b>	<b>\$4,776,574</b>	<b>17,332,674</b>	<b>15,864,600</b>

Several businesses have received multiple grants.

Akron Thermal received grants in 2002 and 2003.

GroundScape Technologies received grants in 2002, 2004, and 2006.

Liberty Tire Services received grants in 2004 and 2005 for two different facilities.

Rumpke Recycling received grants in 2002 and 2005 for two different facilities.

Projects approved but not implemented are not included in the number of grants.

The above numbers are from grant proposals and used PTEs rather than tons of tires.

Using final report numbers and looking at tons rather than PTEs provides a more accurate picture of the impact of the grant program. Scrap Tire Grant funded projects take 31,850 tons of scrap tires material out of the waste stream annually for feedstock material in end use projects. Each year, an additional 34,627 tons of scrap tires are used in other scrap tire material markets such as tire-derived fuel. NOTE: End use and processed scrap tire tonnages only reflect those projects that recycle or reuse scrap tires on an annual basis. One-time use project tonnages were not factored in.

All 2005 and 2006 grantees submitted projected annual tonnages. Final report tonnages to include all 2005 and 2006 Scrap Tire Grant projects are not yet available. Combined projected and reported tonnages for manufacturers of scrap tire end products equal 82,750 tons annually. Additionally, a combined projected and reported 54,058 tons of scrap tire material are being processed but are being used by other markets such as tire-derived fuel.

**Table 5-7. Department of Development Scrap Tire Loans/Grants - SFYs 1995 to 2001**

Date	Borrower	Ohio County	Amount	Status	Purpose Of Loan
6/5/95	National Feedscrew & Machining, Inc.	Stark	\$250,000	Disbursed	Machinery & equipment
9/5/95	Ottawa/Sandusky/Seneca Joint Solid Waste Management District	Ottawa, Seneca, Sandusky	\$125,000	Disbursed	Demonstration project
3/4/96	FIFO Manufacturing Company	Vinton	\$40,000	Disbursed	Machinery & equipment
7/8/96	C & E Coal, Inc.	Cuyahoga	\$250,000	Disbursed	Machinery and equipment
8/26/96	Ashland County Solid Waste Dist. I	Ashland	\$175,000	Disbursed	Demonstration project
10/7/96	Renewable Energy Products, Inc.	Stark	\$250,000	Disbursed	Machinery & equipment
3/2/98	NFM/Welding Engineers, Inc.	Stark	\$800,000	Disbursed	Machinery & equipment
7/27/98	Ashland County Solid Waste Dist. II	Ashland	\$481,000	Disbursed	5 running tracks
9/28/98	Elida Local Schools	Allen	\$159,315	Disbursed	3 Facilities - resurfacing projects
11/9/98	CFLP Solid Waste District	Licking	\$85,676	Disbursed	Rebuild a running track
12/7/98	Avon Local Board of Education	Lorain	\$52,506	Disbursed	Running track
12/7/98	Ottawa/Sandusky/Seneca Joint Solid Waste Management District	Sandusky	\$250,000	Disbursed	Road construction/resurfacing
1/4/99	Lucas County Solid Waste Management District	Lucas	\$500,000	Disbursed	Pave Lucas County Recreation Center parking area
1/25/99	Newark Catholic High School	Licking	\$126,949	Disbursed	Running track and rubberize walkways
1/25/99	Cloverleaf Local Schools	Medina	\$113,032	Disbursed	Track, rubberized sports areas & walkways
1/25/99	Columbus Grove Local Schools	Putnam	\$79,250	Disbursed	Running track
2/22/99	North Fork Local School District	Licking	\$94,740	Disbursed	Running track & resurfacing other sports areas
2/22/99	Lima City Schools	Allen	\$194,500	Disbursed	Running track and football field
2/22/99	Pleasant Local Schools	Marion	\$144,240	Disbursed	Running track
3/29/99	New Bremen Local Schools	Auglaize	\$102,868	Disbursed	Running track
2/22/99	Western Reserve Local School District	Mahoning	\$115,250	Disbursed	Running track
3/29/99	Warren Local School District	Trumbull	\$215,900	Disbursed	Running tracks, tennis courts & a basketball court
3/29/99	C & E Coal, Inc. II	Columbiana	\$250,000	Disbursed	Mobile shredder

**Table 5-7 (Continued) Department of Development Scrap Tire Loans/Grants - SFYs 1995 to 2001**

Date	Borrower	Ohio County	Amount	Status	Purpose Of Loan
3/29/99	Tri-Valley Local Schools	Muskingum	\$67,736	Disbursed	Running track
3/29/99	Firelands Local School District	Lorain	\$100,000	Disbursed	Running track
3/29/99	Jefferson Local Schools / West Jefferson High School	Madison	\$180,000	Disbursed	Running track, jump/pole vault areas, tennis courts
3/29/99	Smithfield Township Board of Trustees	Jefferson	\$194,001	Disbursed	Road improvements
4/26/99	American Scrap Tire Recyclers, Inc.	Ashtabula	\$190,000	Disbursed	Scrap tire shredding equipment
4/26/99	Northridge Athletic Boosters of Licking County, Ohio, Inc.	Licking	\$90,028	Disbursed	Improve a track & associated field event sites
4/26/99	Ravenna City School District	Portage	\$250,000.00	Disbursed	Construct football field, track and nature trails
4/26/99	Summit/Akron Solid Waste Management Authority	Summit	\$406,829.50	Disbursed	Surface tracks at three area schools
4/26/99	Brecksville-Broadview Heights City Schools	Cuyahoga	\$66,103	Disbursed	Running/walking track & playgrounds
4/26/99	Franklin Monroe Local Schools	Darke	\$64,450	Disbursed	Running/walking track
4/26/99	Johnstown-Monroe Local Schools	Licking	\$147,503	Disbursed	Resurface parking lot & running/walking track
4/26/99	Licking Valley Local School District	Licking	\$76,500	Disbursed	Resurface a running/walking track
4/26/99	Perry Local Schools	Allen	\$92,250	Disbursed	Running/walking track
3/31/00	Ridgewood Local School District	Coshocton	\$52,631	Disbursed	Running/walking track
5/9/00	Otsego Community Sports Complex, Privately Funded	Wood	\$52,631	Disbursed	Athletic complex at Our Lady of the Elms School
5/12/00	Marion Local School District	Mercer	\$52,631	Pmt. Rqstd.	Construct an all-weather, running/walking track
5/12/00	Muskingum County Community Center. - NOT GOING FORWARD	Muskingum	\$52,631	Agreement Terminated	Scrap tires as fill for an engineered parking lot
5/13/00	Washington-Nile Local School District	Scioto	\$52,631	Disbursed	Surface a track, 4 tennis courts & 2 playgrounds
5/13/00	Tiffin City Board of Education	Seneca	\$52,631	Disbursed	Install synthetic field and track surfaces

**Table 5-7 (Continued) Department of Development Scrap Tire Loans/Grants - SFYs 1995 to 2001**

Date	Borrower	Ohio County	Amount	Status	Purpose Of Loan
5/13/00	Summit/Akron Solid Waste Auth. (Our Lady of the Elms Project)	Summit	\$52,631	Disbursed	Construct a running/walking track
5/15/00	Lorain City Schools	Lorain	\$52,631	Disbursed	Replace an existing running track
5/15/00	Lucas County	Lucas	\$52,631	Agreement	Build a french-drain, back-filled area using scrap tire chips
5/16/00	Continental Local Schools	Putnam	\$52,631	Disbursed	Running track and 4 tennis courts
5/18/00	United Local School District	Columbiana	\$52,631	Disbursed	Renovate a 6-lane 1/4 mile running/walking track
5/18/00	Columbiana Exempted Village Schools	Columbiana	\$52,631	Disbursed	Running/walking track
5/18/00	Fairborn City Schools	Greene	\$52,631	Disbursed	Replace a cinder track, reconstruct 2 existing tracks
5/18/00	Crooksville Exempted Village School	Perry	\$52,631	Disbursed	Construct an 8-lane 1/4 mile running/walking track
5/19/00	Mahoning County	Mahoning	\$52,631	Agreement	Backfill around an 8-inch PVC sewer pipe
5/19/00	East Canton Community Sports Complex Committee	Stark	\$52,631	Disbursed	Construct a regulation size running/walking track
5/19/00	Newton Falls Exempted Village Schools	Trumbull	\$52,631	Disbursed	Construct an 8-lane all-weather track
5/29/00	Howland Local School District	Trumbull	\$52,631	Disbursed	Track, surface school playgrounds & a walking path
5/29/00	Louisville City School District	Stark	\$49,637	Disbursed	Build a school/community track, crumb dressing on high-traffic grass areas
11/1/00	Ashtabula County Parks Board Project Cancelled	Ashtabula	\$32,000	Agreement Cancelled	Resurface the Western Reserve Greenway Trail
11/6/00	Crestview Local School District	Ashland	\$23,000	Agreement	Resurface an elementary playground
11/7/00	Parkworks, Inc.	Cuyahoga	\$108,000	Disbursed	Build school playgrounds with rubberized surface
11/7/00	Durable Corporation	Huron	\$73,000	Disbursed	Machinery to process scrap into saleable product

**Table 5-7 (Continued) Department of Development Scrap Tire Loans/Grants - SFYs 1995 to 2001**

Date	Borrower	Ohio County	Amount	Status	Purpose of Loan
11/7/00	Children's Hospital, Center for Injury Research & Policy	Franklin	\$150,000	Disbursed	Resurface 14 high-use playgrounds in low-income, inner-city Columbus neighborhoods
11/7/00	Clark County Combined Health District	Clark	\$27,000	Agreement	Tire chips as alternative fill for leaching lines for 6 residential septic system projects
11/7/00	North Central Local Schools	Williams	\$72,000	Disbursed	Build a track, fencing, storm sewers & seeding, infrastructure drainage excavation, fees
11/7/00	Henry County Commissioners	Henry	\$90,000.00	Disbursed	Buy machinery & equip. and a poll barn for equip. storage and tire processing
11/7/00	Ripley Union Lewis Huntington School District	Brown	\$102,999	Disbursed	Playground surface, new track & field center
11/7/00	Vinton County High School	Vinton	\$100,000	Disbursed	Build a new running/walking track
11/7/00	Wayne County Rubber, Inc.	Wayne	\$135,000	Cancelled	Purchase and house a tire press
12/5/00	Ridgemont Local Schools	Hardin	\$60,000	Disbursed	Build a track and field, crumb dressing for new playing field
	<b>Total Number of Grants &amp; Loans</b>	<b>Total Grant &amp; Loan Amount</b>			
	<b>67</b>		<b>\$8,750,625</b>		

Note: Total dollar amount of grants and loans exceeds the amount shown in Table 2-1 since loan amounts that were repaid were returned to the ODOD fund and reused for additional grants and loans.