

STATE OF WEST VIRGINIA



PROPOSAL FOR SCRAP TIRE COLLECTION AND DISPOSAL

By

West Virginia Solid Waste Management Board

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PROPOSAL FOR SCRAP TIRE COLLECTION AND DISPOSAL

INTRODUCTION

The ongoing accumulation of scrap tires at numerous "Tire Dumps" throughout the state of West Virginia has long been an environmental problem and an eyesore to visitors and state citizens alike. Tire durability (difficulty of disposing of) is the major cause of the problem and likewise places certain limitations on our ability to find a suitable solution.

Like many other states, West Virginia has recently begun to address the many complex facets which surround scrap tire disposal. Other more urgent issues related to jobs, health care and education have been in the forefront of government and legislative agendas. The recent increase in public awareness of environmental and health risks associated with abandoned scrap tires has refocused the attention of state government on taking corrective action to resolve this major problem area.

As is the case in most environmental waste issues, the most desirable solution to the scrap tire problem is 100 percent recycling which would protect natural resources and bring added value to the product life cycle. While such a goal is highly desirable, the rubber and metal content of tires and their vast numbers makes it extremely unlikely that it could be achieved.

There are a number of disposal alternatives for scrap tires which when used collectively can insure that existing scrap tire dumps and all future scrap tires are handled in a cost effective and environmentally prudent manner.

This Proposal for Scrap Tire Collection and Disposal addresses the whole tire problem in the state of West Virginia and attempts to incorporate a professional approach to presenting all identified possible solution alternatives. Additionally, what the West Virginia Solid Waste Management Board (SWMB) considers to be the best solution after considering all available facts and information is respectfully presented. It is hoped that this proposal will receive favorable consideration and expedient action by the West Virginia state legislature and approval by the Governor.

EXECUTIVE SUMMARY

West Virginia currently has two major areas of concern with regard to the ongoing task of insuring that all scrap tires are disposed of in a manner which protects both the environment and public health. These concerns rest with the two major sources of scrap tire generation: Illegal scrap tire dumps and the scrap tires generated annually from automobiles and other types of vehicles.

A closer examination of these two scrap tire sources shows that implementing an effective program to administer tires generated from vehicles on an annual basis is much easier to accomplish than cleaning up existing tire dumps with the myriad of problems which must be dealt with on a site specific basis. The West Virginia Solid Waste Management Board (SWMB) and the Division of Environmental Protection Office of Waste Management (DEP-OWM) have completed an extensive study of the scrap tire situation in West Virginia and have determined that while the problem may be large it is not insurmountable in terms of the logistics and associated cost required to achieve an effective solution.

The study included a statewide survey to identify as many existing scrap tire dumps as possible so that some estimate of the magnitude of the problem could be established. The study also included a survey of all adjacent state scrap tire programs to determine what programs were being used and the effectiveness of each one (The results of both surveys are included in the Exhibits section of this proposal). Using all of the information collected, the SWMB has developed the following proposal which provides for a three phase scrap tire collection and disposal program:

- Phase 1-A. Implement a statewide scrap tire collection system at a county and regional level to facilitate the efficient collection, disposal and tracking/auditing of all “off the rim” generated scrap tires. Program to include an assessment of \$3.00 per tire collected to cover total program costs.

- Phase 1-B. Establish an amnesty program whereby tire owners can turn in tires at authorized collection sites without incurring the \$3.00 assessment.

- Phase 2. Implement scrap tire open dump clean-up for each county in West Virginia on a per county bid basis (Use tire dump survey as a basis for bid evaluation). Major funding for dump clean-up to be derived from a portion of the scrap tire assessment funds.

- Phase 3. Conduct periodic scrap tire bounty programs whereby a one time bounty of .50 - .75 cents would be paid for each tire turned in at designated collection centers in each county.

All of the supporting data and/or information which supports this scrap tire proposal is contained in the sections following. While there are many areas to be considered with regard to achieving a solution to this problem (economic, environmental, regulatory, political, etc.) it is hoped that the “test of reasonableness” will be used to identify and implement the best possible solution for the scrap tire problem in West Virginia.

SITUATION ANALYSIS

West Virginia generates approximately 1.8 million scrap tires annually. This estimate is based on a generally accepted industry scrap tire generation rate of one tire per person per year. In order to properly design an efficient collection system, it is imperative to know where the scrap tires are generated. There are two methods by which one can determine where they are generated. The first method is simply to identify population and household concentrations within the State. Since automobile ownership and/or use is ubiquitous, the generation of waste tires will therefore correlate directly with the number of people residing in a certain area. The second method by which one can determine where waste tires will be generated is to identify the number of tire dealers in each county. Since they are in the business of selling and changing tires, this is where they will come off the rim and this is where the waste tire will be generated. If one were to analyze the scrap tire generation rate by applying these two methodologies to West Virginia counties, fifteen counties would account for 57.5% of the scrap tires generated in the state and 64.7% of the State's 422 tire dealers; thirty-two counties would account for 85.8% of the tires generated statewide and 84.6% of the tire dealers. Information on the location of tire dealers was supplied by the West Virginia Tire Dealers Association. Exhibit **A** depicts the thirty-two counties. These counties include almost all of wastesheds A, G and H, the northern portion of wasteshed B and the eastern portion of wasteshed E.

SCRAP TIRE PILE OPEN DUMPS

The SWMB and the DEP-OWM recently completed a scrap tire pile survey. Preliminary results from this survey revealed that there are approximately six million scrap tires in seventeen of the largest piles ranging in size from as few as 5,500 scrap tires to as many as 2 million scrap tires.

MAJOR NUISANCE TIRE PILE SITES

RANK	COUNTY	EST. NO. OF TIRES
1	Marion	2,000,000
2	Putnam	1,300,000
3	Wood	863,465
4	Wirt	500,000
5	Logan	333,333
6	Logan	311,111
7	Ritchie	300,000
8	Berkeley	175,000
9	Hardy	150,000
10	Hardy	60,000
11	Wirt	33,333
12	Wirt-Ritchie	16,667
13	Kanawha	13,889
14	Upshur	13,000
15	Hancock	11,667
16	Monongalia	11,111
17	Randolph	5,556
	TOTAL TIRES	6,098,132

SCRAP TIRE AUDIT/TRACKING

Currently, tire dealers are not required to keep and maintain records regarding the source and disposition of scrap tires. It is not known exactly how many scrap tires are generated annually nor is it known who collects the scrap tires or where they are taken. This situation creates opportunities for individuals to improperly dispose of scrap tires. Some states require that tire dealers, haulers and processors keep records of their shipments. Generally, these records include a contact person, the name and address of the company receiving the tires and the quantity of tires shipped. This aids in both preventing illegal activity and aids in investigations once any laws have been disobeyed.

WASTE TIRE MANAGEMENT IN NEIGHBORING STATES

The SWMB conducted a survey of the states of Kentucky, Maryland, North Carolina, Ohio, Pennsylvania and Virginia regarding scrap tire management legislation. Exhibit **B** lists the survey questions and detailed responses provided by these states.

All of the states contacted except Kentucky currently have a waste tire management program. North Carolina goes a step further by requiring each county to establish and manage a current-generation scrap tire management program.

Funding for the waste tire management programs vary from state to state. All states charge a fee at the retail level, except for Pennsylvania, which receives appropriations from their general fund and Ohio, which imposes a fee at the wholesale level. Ohio and Virginia collect fifty cents per tire, while Kentucky and Maryland collect one dollar per tire. Kentucky has had problems collecting the fee because of exemptions provided to certain generators. North Carolina charges a two percent fee on tires smaller than twenty inches in diameter and one percent for larger tires.

Of the six states, North Carolina's program is the oldest, it began on January 1, 1990. The Pennsylvania program began on December 16, 1996.

The states all vary on the method of tire disposal being used. In Pennsylvania by law, tires must go for reuse or recycling, with the majority going to tire-derived-fuel (TDF) facilities. In Kentucky, 80% of the tires collected are disposed in Illinois where they are burned as fuel. North Carolina and Virginia still allow tires to be shredded and disposed of in landfills as a disposal option. Maryland sends a majority of their scrap tires to three in-state cement plants.

All of the states, except Kentucky, require dealers, haulers and processors to participate in an audit/tracking system to monitor the movement of scrap tires. The systems range from a simple system in Pennsylvania with weigh slips being collected at the processors, to a more complex system in Maryland where all scrap tire facilities (processing) and scrap tire haulers are regulated by their Department of Environment.

In all of the states, fees are collected and submitted to each states' treasury, except Pennsylvania which receives funds from appropriations. All funds are sent to the states'

environmental departments. North Carolina uses 68% of the money to fund county scrap tire management programs to dispose of tires that are currently being generated.

All six states stated if more funds were available more tires could be collected and processed. The Ohio response indicated that if more tires were collected it might be unable to recycle the additional tires because of a lack of markets. In Kentucky, 80% of the tire retailers are exempt from paying the fee which creates a problem of having sufficient funds to abate waste tire piles. Maryland was the lone exception where their tire fee will be eliminated beginning in FY 2001.

The six states surveyed all responded that their scrap tire programs have been successful to varying degrees. The primary success was the cleanup of illegal tire piles in each state with most states using scrap tires as tire derived fuel (TDF).

Three states, Ohio, Pennsylvania and Maryland, did not report any major problems with their scrap tire programs. Virginia has had problems in selecting an initial program design with four different plans being looked at between 1990 and 1994. North Carolina has problems of out-of-state tires being received at county collection facilities; consequently, several county programs are without adequate funding. Kentucky has the most problems with its waste tire management program because it has insufficient funds, no manifest system and little incentive to waste tire generators to dispose of tires properly.

Four states, Ohio, Pennsylvania, Maryland and North Carolina, would not make any major changes to their scrap tire programs. Virginia would like to increase their tire tax to \$1.00 per tire and direct more funds to tire pile abatement. Kentucky would like to develop legislation to ensure a proper program to manage scrap tires in their state.

All of the states, except Kentucky and North Carolina have marketing support and agencies to assist in finding end-uses for scrap tires. Three states, Ohio, Pennsylvania and Virginia issue grants to end users. Virginia's End User Program is not a grant program but direct payments to end users of Virginia waste tire material.

SCRAP TIRE RECYCLING, DISPOSAL AND TDF FACILITIES IN ADJACENT STATES

The table included in this section identifies 21 sites within 100 miles of the West Virginia border that either recycle, monofill or use tire derived fuel from scrap tires. The table identifies the name of the facility, its location, its distance from West Virginia, and the approximate number of scrap tires used or processed annually. It should be noted that Capitol Cement in Martinsburg will be conducting a test burn of scrap tires in some of their kilns. The test will burn 100,000 scrap tires. If no problems are encountered in the test burn, Capitol will revamp the feed systems on its kilns and on October 1, 1998, will begin burning 60,000 - 70,000 tires per month. Capitol will gradually increase its scrap tire burn rate until it reaches 300,000 scrap tires per month by March 1, 1999. If this occurs as scheduled, Capitol will theoretically have the capacity to utilize all scrap tires generated annually in West Virginia with additional capacity remaining to burn the scrap tires in tire piles situated throughout the state. Theoretically, all scrap tires in tire piles in West Virginia could be utilized at the Capitol site within a four year period. There are two other existing facilities in West Virginia; one is a scrap tire monofill in Nicholas County, the other is a scrap tire recycling facility in Marion County which utilizes scrap tires to construct building blocks. There are also two scrap tire monofills proposed for development; one would be sited in Lewis County, the other in Preston County.

FACILITIES PROCESSING OR UTILIZING SCRAP TIRES

Maryland			
Company	City	Distance	No. of Tires
C. Dawes and Sons Trash Co.	Laurel	80 miles	50,000
Emanuel Tire Company	Baltimore	75 miles	2,500,000
Greenwall Farm	Hagerstown	7 miles	25,000
Tread-Shread, Inc.	Accokeek	78 miles	73,000
ESSROC Material, Inc.	Lime Kiln	28 miles	1,000,000
Independent Cement Company	Hagerstown	7 miles	79,000
Lehigh Portland Cement	Union Bridge	45 miles	1,400,000
Hartford Waste-to-Energy	Joppa	87 miles	470,000
Pennsylvania			
Baker Rubber	Chambersburg	30 miles	2,500,000
Recycling Technologies	Hanover	52 miles	3,500,000
Mahantango Enterprises	Liverpool	90 miles	1,000,000
Milton Grove: WMX	Elizabethtown	80 miles	800,000
Kentucky			
Dalton Tire Recycling	Ashland	5 miles	
Virginia			
Enversion Kinetics	Waterford	15 miles	35,000
Resource Recycling	Lorton	80 miles	610,000
Ohio			
American Landfill	Waynesburg	35 miles	1,000,000
Dave Campbell Scrap Tires	Zanesville	45 miles	250,000
Ecology Systems, Inc.	Youngstown	25 miles	320,000
Garro Tread Corp.	Ravenna	50 miles	175,000
JGS Recovery Systems, Inc.	Niles	40 miles	50,000
Unnatural Resources	Leetonia	20 miles	175,000

PROBLEM DESCRIPTION - SCRAP TIRE COLLECTION AND DISPOSAL

The ability to dispose of scrap tires in an environmentally sound manner is a significant problem for West Virginia and the entire United States. It is estimated that there are in excess of three billion scrap tires stockpiled and/or in dumps across the nation. In addition to these existing tire stockpiles (dumps), approximately 240 million “new” scrap tires are generated each year, of which approximately 1.8 million are generated in West Virginia.

The disposal of scrap tires is complicated by the fact that many landfills have banned or are in the process of banning acceptance of scrap tires. This action has been taken for reasons of health and safety. Scrap tires have been banned from disposal in landfills in accordance with WV Code § 20-11-8(a). Scrap tires are bulky, the tires do not decompose and the piles become breeding grounds for rat and mosquito infestation. The tire piles also constitute a significant fire and pollution hazard to the citizens of West Virginia.

Scrap tire disposal is also hindered by the fact that alternative uses of the product such as playground equipment, erosion control, or shredding for use in asphalt or rubberized surfaces account for only a very small percentage of the total scrap tires generated each year in West Virginia and the U.S. Tires are made from a petroleum based compound and each tire contains more than 2.5 gallons of petroleum, with steel wire and polyester cord added for increased strength. As designed and engineered, tires are almost indestructible and pose perhaps the greatest environmental challenge to effective disposal.

The tire collection and disposal problem in the state of West Virginia is exacerbated by its mountainous terrain and rural distribution of its population. Tires are continuously being dumped over hillsides and in hollows across the state with little if any regard for the adverse impact they are having on the environment. Currently, West Virginia has no formal scrap tire collection and disposal program but controls the storing and disposal of tires through regulations established by the Department of Environmental Protection.

It is estimated that West Virginia currently has some six to eight million scrap tires

in illegal tire dumps and an annual “new scrap tire” generation of some 1.8 million tires. Most landfills in the state no longer accept scrap tires and so the problem is further complicated for the citizens of West Virginia in finding a legal way of disposing of unwanted tires. Having described the scrap tire problem in general and defined it for West Virginia in particular, it is of extreme importance to now focus attention on achieving a feasible and cost effective solution.

ALTERNATIVES CONSIDERED FOR SCRAP TIRE COLLECTION AND DISPOSAL

1. Select a statewide prime contractor for the collection and disposal of all annual scrap tire generation and/or clean up of all existing scrap tire piles in West Virginia (Selection to be made on bid basis). **
**Alternative recommended by the SWMB.
2. Establish a scrap tire processing center within West Virginia with related scrap tire collection system to process for recycling all annual scrap tire generation and existing scrap tire piles. Processing center and collection system to be private enterprise partially supported by grants and/or other state financial assistance.
3. Establish state wide scrap tire collection/disposal network with each county responsible for the collection and disposal of scrap tires within its borders. Each county program to be funded via grants for implementation and ongoing operation.
4. Establish a state wide scrap tire collection/disposal network provided by local and/or regional providers. (Selection to be made based on bids submitted.
5. Make individual tire dealers responsible for the collection/disposal of all scrap tires with each dealer reimbursed by state of West Virginia at a specified rate per tire collected and disposed of.

STAFF RECOMMENDATION

After a thorough analysis of all the information gathered and compiled regarding the scrap tire problem in West Virginia, the SWMB Staff makes the following recommendations for attaining a uniform and effective solution.

1. Implement a state wide scrap tire collection system at a county and regional level to facilitate a uniform and efficient way to collect, dispose and track/audit all scrap tires within the state (off-rim tires and tires in open dumps). System to be implemented by a private sector contractor selected by bid process. Funding to be provided by means of a \$3.00 per tire assessment to be collected at the retail level on all new tires sold at retail tire stores.
2. Establish an “Amnesty” Program for owners of scrap tires that would allow them to turn in scrap tires with out incurring the \$3.00 assessment. This program would provide for random amnesty periods on an ongoing basis to give incentive for scrap tire turn-in.
3. Implement that portion of the scrap tire collection/disposal system that deals with open tire dumps to provide for a “Per Dump” approach on a per county basis. This approach would allow open dumps to be prioritized for clean-up based on impact on public health and safety. The SWMB scrap tire dump survey could be used to establish a basis for evaluating clean-up bids. Funding for open tire dump clean-up would come from a portion of the scrap tire assessment funds (See scrap tire “Estimated Cost” exhibit).
4. Establish a “Scrap Tire Bounty” program whereby a one-time bounty of .50 - .75 cents would be paid for each scrap tire turned in at designated collection center(s) in each county. Program would not be continuous but would be used from time to time to insure “Total Tire Collection”. (Note: This program would not be implemented until all existing major open tire dumps have been eliminated).

Note: Please see Time Line Chart and Program System Flow Chart for details pertaining to event time sequence and scrap tire collection/disposal activity flow.

FINANCIAL ANALYSIS

Estimated Cost to Support A Scrap Tire Disposal Program

$\frac{.50}{\text{Local Collection Costs (flat fee)}}$	+	$\frac{.40}{\text{Administration \& Enforcement costs}}$	+	$\frac{.80}{\text{Transport Cost}}$	+	$\frac{.60}{\text{Disposal Costs}}$
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Total estimated cost per tire: \$2.30

Proposed Tire Assessment per tire: \$3.00

*Balance of Tire Assessment Fee (after expenses) of .70 per tire to be used for scrap tire dump cleanup.

Sources for Cost Estimates

Local Collection Costs (flat fee):	This cost was allocated as a flat fee based on the assumption that .50 cents per tire would cover all local collection and administrative costs incurred by the tire dealer.
Administration & Enforcement Costs:	This cost was developed by looking at other States' scrap tire programs and determining anticipated resource costs to effectively administer and track tire program activities.
Tire Transport Costs:	Transport costs were developed by requesting cost quotes from multiple commercial trucking companies for hauling scrap tires from various points in West Virginia and formulating an average cost per tire.
Tire Disposal Costs:	Tire disposal costs were developed by using an average weight per tire of 20 pounds to calculate number of tires per ton and developing an average rate per ton for disposal.

IMPLEMENTATION STRATEGY FOR SCRAP TIRE COLLECTION & DISPOSAL

Once a scrap tire management bill has been passed and is in effect, an implementation plan must be activated to dispose of scrap tires off the rim at tire dealers. Attached is a flow chart depicting how the collection, disposal and tracking system will work.

When the customer purchases new tires, a \$ 3.00 fee will be assessed on each tire purchased. If the customer wishes to keep the used tires, an owner retention affidavit will be initiated in 3 parts, one copy given to the customer for his records, one copy retained by the dealer, and the original sent to the SWMB for tracking purposes. Once the transaction is made, the dealer submits the collected fees to the WV Tax and Revenue Department where they will be deposited into the Scrap Tire Revenue Fund.

The dealer will store the scrap tires until a tire hauler picks up the scrap tires and delivers them to a county or regional collection facility. At this facility, a three part tire form will be initiated, one copy will be returned to the dealer, one copy will be retained by the collection facility, and the original will be sent to the SWMB for tracking purposes.

The county or regional collection facilities will arrange the scrap tires to be sent to either a tire monofill facility, a tire recycling facility to be recycled into reusable products, or sent to a facility that uses Tire Derived Fuel (TDF) such as a cement kiln. An audit/tracking record will be completed at this stage in four parts, one copy sent to the disposal site, one copy to the collection facility, one copy to the transporter, and the original copy to the SWMB. This completes the audit/tracking system for each scrap tire that is produced in West Virginia. The SWMB will disburse funds to the authorized collection facilities, transporters, and disposal facilities on the amount of tires processed and contract with firms on the abatement of current scrap tire piles identified on a priority basis.

Scrap Tire Legislation Implementation Time Line

This is an estimated analysis of the time which would be needed to implement the WV Scrap Tire Legislation once it was approved by the WV Legislature.

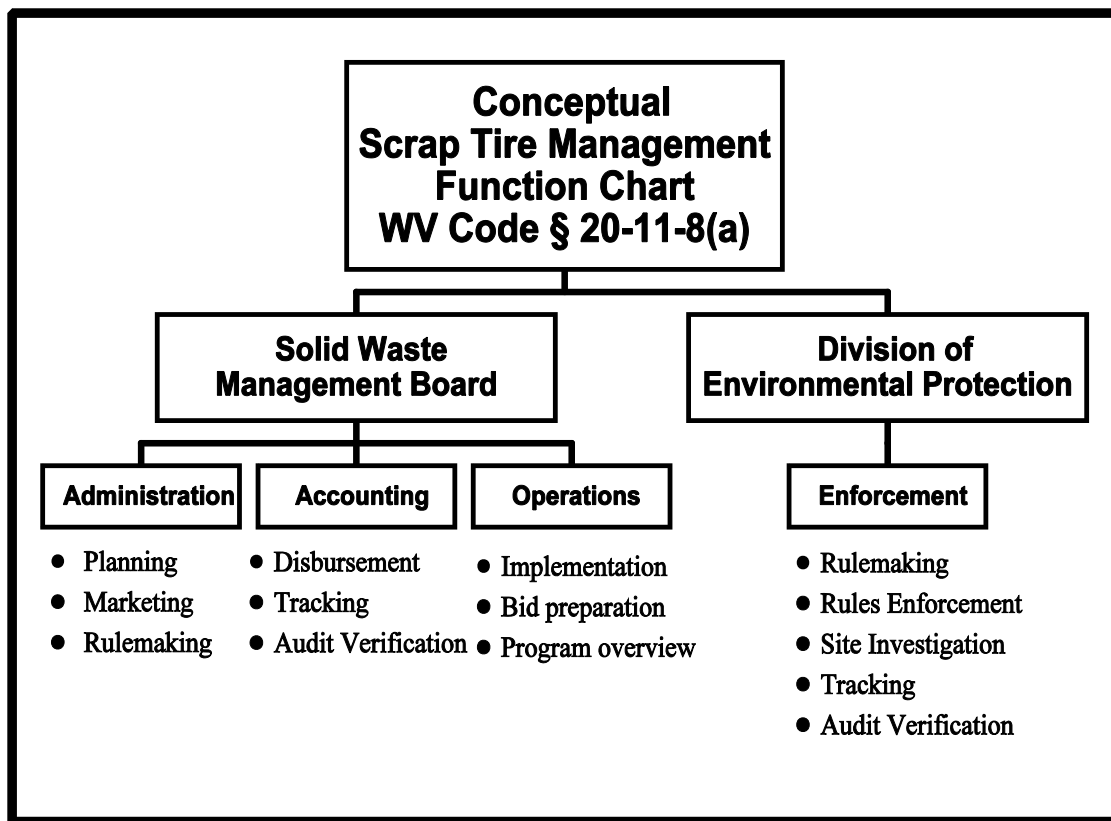
Procedures	Date Starting	Ending Date
Submit and Pass Legislation	1/12/98	4/6/98
Formulate SWMB Scrap Tire Management Rules	4/1/98	7/15/98
Amend DEP Waste Tire Management Rules	4/1/98	7/15/98
Public Hearings on both sets of Rules	7/15/98	8/15/98
Begin performing Secretary of State Rule Making Process	8/15/98	11/15/98
Submit Rules to the Secretary of State and the Legislative Rule Making Committee	1/15/99	2/1/99
Legislature reviews and adopts Rules and Governor signs	1/15/99	4/1/99
Rules take effect	7/1/99	12/31/99
Begin planning implementation (registration of transporters, collection facilities and disposal facilities, infrastructure, end use, etc.)	4/2/99	12/31/99
Implement Scrap Tire Collection Program and institute \$ 3.00 fee	1/1/00	

The Scrap Tire Legislation Time Line (attached) depicts the length of time it will take to implement the Scrap Tire Collection and Disposal Program. Under normal circumstances the program could not be implemented until January 1, 2000. Through adoption of emergency rules a program could be implemented within the October to January, 1999 time frame.

Procedures	Date Starting	Ending Date
Submit and Pass Legislation	1/12/98	4/6/98
Enact Emergency Rules (both SWMB & DEP) to implement legislative provisions	4/6/98	5/15/98
File Emergency Rules with the Secretary of State's office and conduct Public Hearings	5/15/98	6/30/98
Emergency Rules become effective upon approval of the Secretary of State	5/15/98	7/1/98
File Emergency Rules with the Legislative Rule-making Committee for approval	7/1/98	10/1/98
Begin planning for implementation of the Emergency Rules	5/15/98	10/1/98
Implement the Scrap Tire Program using Emergency Rules and implement the \$ 3.00 fee	10/1/98	

CONCEPTUAL SCRAP TIRE MANAGEMENT CHART

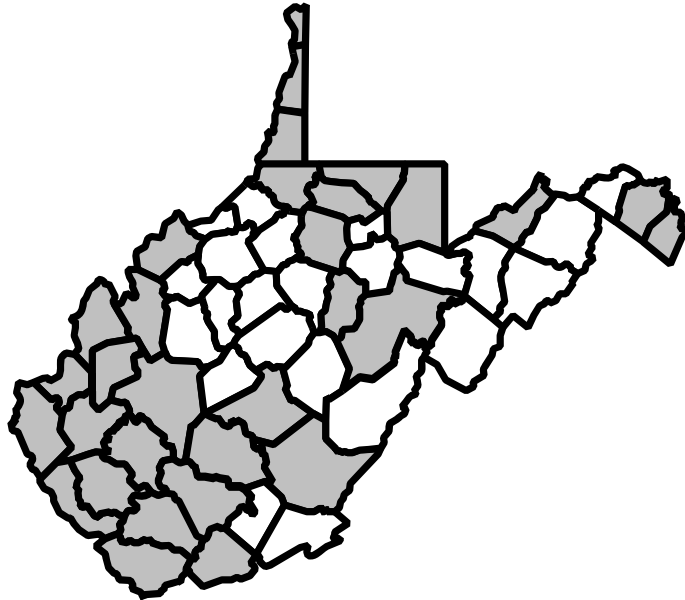
The conceptual scrap tire management chart below is intended to show the program management and enforcement functions. Additionally, specific activities related to the major areas of program administration, accounting, operations and enforcement are indicated. While all functions shown are conceptual in that they do not currently exist, it is felt that all would be required to effectively manage a scrap tire program for West Virginia.



**PROPOSAL FOR SCRAP TIRE COLLECTION AND DISPOSAL
EXHIBITS**

EXHIBIT A

West Virginia Tire Usage Distribution by County



Legend

Total tires generated per year: 1,793,517

Total Tire Dealers: 422

Grey Area of Map - 32 counties account for 85.8 % of tires sold (1,539,905) at 84.6 % of tire dealers (357)

EXHIBIT B

Survey of Waste Tire Management Legislation

1. Do you currently have a Waste Tire Management Program?

a. How is the program funded?

b. What amount is charged?

c. At the retail or wholesale level?

Ohio	Yes, The Scrap Tire Program was enacted in October, 1993 and rules were formulated in March 1996. This fee is used for the abatement of tire piles (50%) and for grant and loans from the Ohio Economic Development Council (50%) plus \$ 750,000 for enforcement and \$ 150,000 to the University of Akron for research and development into new processes and uses.
Ohio A.	By a charge of \$0.50 at the wholesale level
Ohio B.	\$.50 per tire
Ohio C.	Wholesale
Pennsylvania	The Department has a waste tire program which remediates waste tire piles which were in existence prior to Dec 19, 1997. The program is operated through grants for specific waste tire piles which are bid on for remediation.
Pennsylvania A.	Through appropriations.
Pennsylvania B.	N/A
Pennsylvania C.	N/A

Kentucky	Kentucky has no program for the disposal of current generation waste tires. Currently, waste tire generators are responsible for the legal disposal of waste tires. Approximately 90% of our waste tires are recycled (burned as TDF in Illinois) with the rest processed and disposed in landfills. The state is cleaning up abandoned waste tire piles. In the last 2 years, we have abated approximately 2.3 million tires at a cost of approximately \$ 1.00 PTE.
Kentucky A.	One dollar fee charged on the retail sale of replacement motor vehicle tires. Unfortunately, approximately 80% of this money is never collected due to exemptions allowed to generators and to the difficulty in administering the program.
Kentucky B.	1.00 per replacement tire
Kentucky C.	Retail
Virginia	Yes, with - major components. <ol style="list-style-type: none"> 1. Regional collection and processing program (clean up landfills and provide collection service if not currently available). 2. Tire Pile Clean Up Demonstration Program. 3. End User Reimbursement Program - direct payment to user of waste tires - (Virginia tires only)
Virginia A.	Tire tax (dedicated)
Virginia B.	\$0.50 per tire
Virginia C.	Retail
Maryland	Yes, In 1991, the Maryland General Assembly adopted the Scrap Tire Recycling Act. This law established a mechanism for the cleanup of stockpiles scrap tires and for the collection, transportation and recycling or processing of scrap tires as they are generated in Maryland.
Maryland A.	From the collection of a tire recycling fee.
Maryland B.	\$ 1.00 per tire

Maryland C.	Retail
North Carolina	Yes. Each County is required by an 1989 statute to establish and manage a current-generation scrap tire management program. The county programs are funded by the N. C. Dept of Revenue. 68% of our 2% fee is distributed to county on a per capita basis. (About \$ 5.5 million annually
North Carolina A	2% Tire Fee (tax) on retail sale of new tires
North Carolina B	2% on tires smaller than 20" dia - 1% on tires larger
North Carolina C	Retail

2. When did the Waste Tire Management Program start?

Ohio	October 1993 with rules formulated in March, 1996.
Pennsylvania	December 16, 1996
Virginia	1994/ tire tax began 1990
Kentucky	1992
Maryland	1991
North Carolina	Bill passed 1989 - Program implemented Jan 1, 1990

3. How many tires are collected annually?

a. from illegal piles?

b. off the rim?

Ohio	Tires are tracked by manifests from dealers transporters and facilities and summarized to the state in a form of a report. All records are kept for audit at any time.
Ohio A.	1,500,000 estimated
Ohio B.	Information not given

Pennsylvania	Statewide Approximately 12 million Annual generation rate
Pennsylvania A.	About 6 to 8 million
Pennsylvania B.	N/A
Kentucky	N/A
Kentucky A.	2.3 million in last 2 years
Kentucky B.	We estimate 1 current generation waste tire /per cap/ yr 3,600,000
Virginia	1996 - 5,432,000
Virginia A.	1,444,300
Virginia B.	3,987,700
Maryland	6.6 million
Maryland A.	1,076,511
Maryland B.	5.5 million
North Carolina	For 1996-97 - 10.7 million
North Carolina A	Average annual cleanup rate of 1.2 million
North Carolina B	current generation tire/per person x 9.5 million

4. What methods of tire disposal are being used?

a. Landfills (Monofills)

b. Recycling

c. TDF

Ohio	No information given
Ohio A.	No information given
Ohio B.	No information given
Ohio C.	No information given
Pennsylvania	All waste tires under the Act 109 program must go for reuse or recycling
Pennsylvania A.	0 %

Pennsylvania B.	10 - 12 %
Pennsylvania C.	88 - 90 %
Kentucky	Most tires are disposed in Illinois where they are burned as fuel
Kentucky A.	10%
Kentucky B.	10%
Kentucky C.	80%
Virginia	Landfilled (if split or shredded), Tire derived fuel.
Virginia A.	No mono-fills in Virginia; some still landfilled
Virginia B.	7 recyclers; 3 in Virginia. 4 out-of-state
Virginia C.	8 TDF users; 3 in Virginia. 5 out-of-state.
Maryland	N/A
Maryland A.	N/A
Maryland B.	34%
Maryland C.	40% - 26% shipped out of state
North Carolina	N/A
North Carolina A	55%
North Carolina B	Crumb 5% - Civil 22%
North Carolina C	TDF 6% - Reuse/recap 7% - Agriculture/Misc 3%

5. What processors are being used to make TDF or crumb rubber?

- Where are they located?

Ohio	No information given
Pennsylvania	None

Virginia	<u>TDF</u> Ogden Martin - Fairfax County Va Recycling Corp. - Richmond S.P.S.A. - Tidewater T. I. R. E. S. - North Carolina U. S. Tire - North Carolina <u>Crumb</u> NRB - Pennsylvania
Kentucky	Almost all waste tires made into TDF are delivered whole to Archer Daniels Midland and Waste Recovery of Illinois. A small fraction of TDF is made by Dalton Tire Recycling in Ashland, KY.
Maryland	5 recyclers 3 cement kilns 1 waste-to-energy
North Carolina	2 Monofills 5 recyclers 1 Tire derived fuels (TDF)

6. What kind of audit/tracking system is being used?

Ohio	Manifest list from dealer to end facility which is to be held for audit at the company. The manifests Are summarized annually and reported to the state.
Pennsylvania	Weigh slips - at the processors contracts are on a per ton basis.
Virginia	Waste Tire Certification (WTC) - tracking End User subject to audit

Kentucky	Tire retailers submit monthly reports to Revenue Cabinet on the number of new tires sold and waste tires disposed for previous months. However, data is not provided in report format that can be obtained by this agency. For all intent purposes, this data is not available. There is no tracking system of the waste tires such as a manifest system.
Maryland	All scrap tire facilities (processing) and scrap tire haulers are regulated by the Maryland Department of Environment (MDE). This comprehensive licensing program allows for the efficient management of scrap tires from the point of generation through license or approval for the transportation system to be a licensed or approved scrap tire facility for transfer, collection, or processing.
North Carolina	Retail and Counties required to use Scrap Tire Certification Forms and all scrap tire haulers are registered with the State. N.C. Dept/Revenue collects 2% fee from new retail tire dealers, and distributes funds quarterly. Our program was audited by our state auditors office about one year ago. The tire program was found in very good condition

7. Please describe how the collection mechanism works?

a. To what state agency are funds remitted?

b. What do you do with the funds collected?

Ohio	Wholesale tire dealers collect \$.50 per tire for the program
Ohio A.	State Tax and Revenue

Ohio B.	The fee is used for the abatement of tire piles (50%) and for grant and loans from the Ohio Economic Development Council (50%) plus \$ 750,000 for enforcement and \$ 150,000 to the University of Akron for research and development into new processes and uses.
Pennsylvania	None
Pennsylvania A.	Department of Environmental Protection
Pennsylvania B.	Provide contracts to individuals to remediate waste tire piles. They can not be responsible for creation of any waste tire pile.
Kentucky	Retailers not exempt from submitting the retail fee are required to pay \$ 1.00 for each retail tire sold. This money goes to the Revenue Cabinet and is deposited in our Waste Tire Trust Fund.
Kentucky A.	The Division of Waste Management administers the Waste Tire Trust Fund
Kentucky B.	To date, most funds have been used to abate waste tire piles. A fraction has been expended on a consultant and costs associated with performing test burns at 3 potential TDF burners in Kentucky.
Virginia	Tire collection is handled by private sector; enclosed is a list of registered (not permitted) tire haulers - about 82.
Virginia A.	Tire tax remitted to the Va. Department Taxation.
Virginia B.	Placed in an interest - bearing trust fund used exclusively for waste tire management

Maryland	<p>In Maryland, the following types of licenses are issued.</p> <ul style="list-style-type: none"> (1) scrap tire recycler (2) scrap tire collection facility (3) scrap tire hauler (4) substitute fuel/tire derived fuel (TDF) facility (5) solid waste acceptance facility
Maryland A.	Comptroller of the Treasury Office
Maryland B.	<p>The Maryland Department of the Environment (MDE) is responsible for administering the funds. MDE may use the fund for stockpile cleanups, remedial actions and for public information concerning scrap tire issues. Under MDE's direction, Maryland Environmental Services (MES) may use funds to implement and oversee programs established as part of a Scrap Tire Recycling System.</p>
North Carolina	<p>Current generations tires are collected at permitted county facilities and county contract with various private scrap tire processors to haul tires away. Counties independently arrange contracts with the processors. Nuisance tire cleanups are through State Contracts (8 largest sites) and county programs (remaining smaller sites) and then processed by contracted scrap tire processors.</p>
North Carolina A	Retailers submit quarterly reports/ collected 2% funds to N.C. Dept/Revenue
North Carolina B	<p>Of approximately \$ 8 million in annual 2% fee collection: 68% to county current generation scrap tire management program - 27% to Scrap Tire Disposal Account - Cleanup/Market Grants/Excess county costs - 10% to Solid Waste Trust Funds - support several positions and projects</p>

8. Is the current level of funding adequate to maintain the program?

Ohio	The fee could be increased to cleanup more tire piles but there might be inadequate abatement sources to recycle the tires. We would like to let the current legislation continue to track its results.
Pennsylvania	No. We may be receiving additional funds
Virginia	To maintain the present program, yes. If we want more tire piles cleaned up, more funding is needed.
Kentucky	If 80% of retailers were not exempt from paying the fee we would have sufficient funds to abate our waste tire piles. However, under current circumstances, available funds are inadequate. We do not plan to or think it appropriate to develop an ongoing state administered program to manage waste tires. Rather, we want to develop market capacities and a manifest system and management standards.
Maryland	Yes, it should be noted, however, that a legislative change was made to the scrap tire law which transferred \$ 7 million from the fund. The ending FY 97 Fund balance was \$ 5,981,581.
North Carolina	<u>YES</u> New legislation reallocating funds for processed scrap tire material grants to encourage market demand. See attached revised legislation

9. What do you consider the program's successes?

Ohio	No information given
Pennsylvania	Yes. We remediated through grants and enforcement approximately 8 million waste tires in 1997.

Virginia	End User Reimbursement Program Voluntary use of Waste Tire Certification and hauler registration system.
Kentucky	We have cleaned up 2.3 million waste tires in the last two years. Have conducted 2 test burns at facilities with great promise to be TDF consumers in the state.
Maryland	Scrap tires have been collected and processed in Maryland through licensed or approved facilities in the state. There are now more than 2,000 locations in the state where a citizen or a business may bring their scrap tires and know that they will be properly handled.
North Carolina	County established current generation scrap tire management programs. Nuisance tire cleanup program - Approx 4.8 million of 5.6 million removed from 225 of 293 sites since February, 1994

10. Have there been major problem areas in the program?

Ohio	No information given
Pennsylvania	No
Virginia	Selecting initial program design. 4 different plans between 1990 and 1994. Slowness in execution.
Kentucky	Insufficient funds, no manifest system or program that otherwise provides sufficient incentive to waste generators to dispose of tires properly. Also, we have no bonding provisions, cost recovery provisions, or waste tire management standards.
Maryland	Would like to have had all illegal tire piles cleaned up by now. Hope to have all illegal tire piles cleaned up by FY 2000.

North Carolina	Out-of-state tires being received at county collection facilities; consequently, several county programs without enough funding. Attempting to establish a traveling state position to assist counties in stopping these tires.
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11. What changes, if any, would you make in the program?

Ohio	No information given
Pennsylvania	None
Virginia	Increase the tire tax to \$ 1.00 and direct more money to tire pile abatement.
Kentucky	We are developing legislation to ensure generation of sufficient program funds, registration of waste tire accumulation, bonding, management standards, manifesting and market development capacities.
Maryland	Improve and expand the tire program activity data base to accept all types of required reports.
North Carolina	Nothing really. The new legislation is a progressive change and a necessary one. The program has worked well.

12. Do you have any marketing support and which agency is responsible?

Ohio	Yes, the Ohio Economic Development Agency assisting with loans and grants for abatement.
Pennsylvania	Yes. Department of Environmental Recycling Group
Virginia	Yes. The Department of Waste Management is responsible for all aspects of the legislation.
Kentucky	No

Maryland	Yes, Maryland Department of the Environment (MDE)
North Carolina	No. Our new revised legislation will assist in developing markets.

13. Are any grants issued to end users?

Ohio	Yes, for abatement by the Ohio EDA
Pennsylvania	Yes. For TDF mainly
Virginia	Our End User Reimbursement Program is a national leader. They are not “grants” but direct payments to end users of Virginia waste tire material.
Kentucky	No
Maryland	No
North Carolina	Not Yet. See previous answer.

