

Scrap Tire Management Special Report *October 1, 2000*

This report on the management of tires is required by House Bill 1854 (Session Law 2000-109) which states:

The Department of Environment and Natural Resources shall study issues related to the scrap tire disposal tax and the white goods disposal tax. This study shall include an evaluation of whether the amount of the scrap tire disposal tax and the amount of the white goods disposal tax should be altered and whether the distribution of the proceeds of these taxes should be reapportioned. The Department shall report its findings and recommendations, including any legislative proposals, to the Environmental Review Commission no later than October 1, 2000.

Scrap tires present unique problems in handling and disposal. Whole tires cannot be landfilled satisfactorily because they use large amounts of space, cannot be compacted, and tend to "float" to the surface due to vibration and the presence of trapped gas.

Improper tire management can pose serious threats to the public health and the environment. Illegal tire dumps are believed to have played a major role in the introduction and spread of the Asian Tiger Mosquito across North Carolina. This mosquito is capable of carrying the deadly eastern equine encephalitis virus. Also, nuisance tire sites pose special fire risks because of the difficulty in cutting off the oxygen supply and extinguishing such fires. Tire fires produce hazardous air emissions and toxic liquid run-off.

This report presents information reported by the counties during 1990-1999. Counties are required to report annually on their scrap tire programs to the Solid Waste Section.

Findings

- ◆ Scrap tires continue to be a hard to manage waste.
- ◆ The current scrap tire disposal tax is adequate and its allocation is appropriate to meet county needs.
- ◆ If the tax is lowered from 2% to 1% on June 30, 2002 there will be insufficient revenue for the program.
- ◆ Illegal tire disposal sites continue to be discovered. These were primarily created prior to 1994 when the counties began offering free disposal.
- ◆ Counties continue to require technical assistance in their tire programs to avoid abuse by disposers of out-of-state tires. Some counties were unable to develop the more comprehensive tire programs they needed without this special technical assistance.
- ◆ Scrap tire recycling is beginning to show some progress but continues to require support.

Scrap Tire Disposal Act

In 1989, the Scrap Tire Disposal Act addressed the scrap tire problem by requiring:

- ◆ All counties must provide at least one scrap tire collection site. This has ensured that all tire disposers have a readily available site to properly dispose of scrap tires.
- ◆ Landfill disposal of whole scrap tires was banned.
- ◆ A disposal tax was imposed on the sale of new tires, with proceeds to be distributed to the counties to fund their scrap tire management programs.

Unfortunately, illegal dumping of tires increased significantly in North Carolina after whole tires were banned from landfill disposal. The ban caused an increase in tire disposal costs due to the costs of tire shredding. Since the disposal tax did not fully cover the county costs of tire disposal, the counties passed the increased costs on to tire haulers and disposers. These higher disposal fees created an economic incentive for illegal dumping of tires.

Legislative Changes in 1993 and 1997

By 1993, it was apparent that there had been a large increase in illegal tire dumping. Data provided by the counties documented a strong correlation between tire disposal fees and problems with tire stockpiling and illegal dumping. Counties with higher fees consistently reported receiving fewer tires.

Problems that needed to be addressed included:

- ◆ Increased illegal tire dumping
- ◆ No funds to clean up existing illegal tire sites
- ◆ Widely varying disposal fees among the counties; disposers found no consistency and shopped for counties with the lowest fees

Legislative changes were made in the scrap tire program in 1993 to address these problems.

These included:

- ◆ County landfill disposal fees for qualified tires were prohibited effective January 1, 1994.
- ◆ The scrap tire disposal tax on passenger tires was increased from 1 to 2 percent temporarily (October 1993 through June 1997). The additional funds were used to:
 1. Increase funding to counties for tire collection and disposal
 2. Provide funds for cleanup of some illegal sites
 3. Provide grant funds to counties that incur deficits in their tire programs
 4. Create a special account, the Scrap Tire Disposal Account, to administer the funds used to clean up sites and make grants to counties

Further legislative changes were made in 1997. These included:

- ◆ The two percent disposal tax on passenger tires was extended until June 30, 2002.
- ◆ A time-limited position was created to assist counties in structuring and operating

their tire programs. (This has enabled counties to operate more efficiently and to avoid providing free disposal for out-of-state tires).

- ◆ Distribution of the scrap tire disposal tax proceeds was changed to:
 1. Decrease funding for cleanup of nuisance tire sites (most of the large nuisance tire sites had been cleaned up by 1997).
 2. Increase the allocation for county grants from 25% to 50% of the Scrap Tire Disposal Account income.
 3. Provide funds for grants to industry to encourage tire recycling.

Current Allocation of Scrap Tire Disposal Proceeds

The scrap tire disposal tax is collected at the point of sale of new tires. Retailers remit funds to the NC Department of Revenue. Funds collected in FY 1999-00 were:

Total collections - \$10.5 million
Department of Revenue collection costs - \$211,000
Net amount for distribution - \$10.3 million

The net proceeds are distributed by the Department of Revenue in three ways:

- 68%** - Distributed directly to counties - (\$7.0 million in 1999-00)
- 27%**- Scrap Tire Disposal Account - (\$2.8 million in 1999-00)
- 5%** -Waste Management Trust Fund - (\$513,000 in 1999-00)

Each county is allocated funds based on its population. The Waste Management Trust Fund is administered by the Division of Pollution Prevention and Environmental Assistance (DPPEA) and receives 5% of the net proceeds. This fund is used for recycling grants for counties.

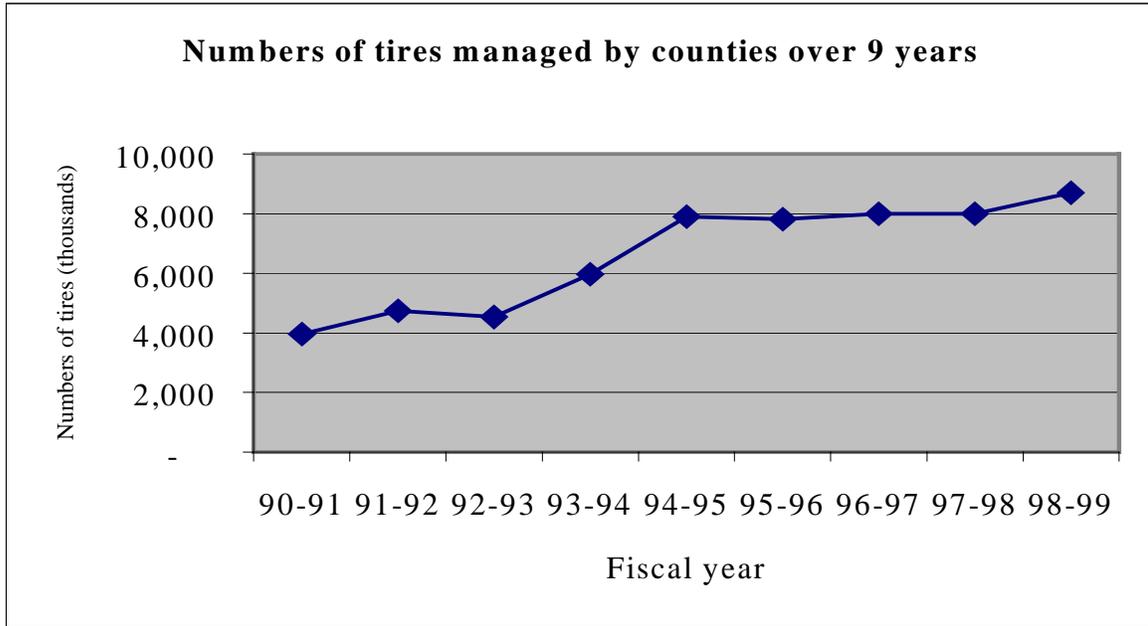
The Division of Waste Management administers the Scrap Tire Disposal Account and receives 27% of the net proceeds. These funds are allocated as follows:

- 50% - Grants to counties that do not receive adequate funding for scrap tire management - (\$1.4 million in 1999-00).
- 40% - Recycling grants to stimulate markets - (\$1.12 million in 1999-00)
- 10% - Nuisance tire site cleanup - (\$280,000 in 1999-00)

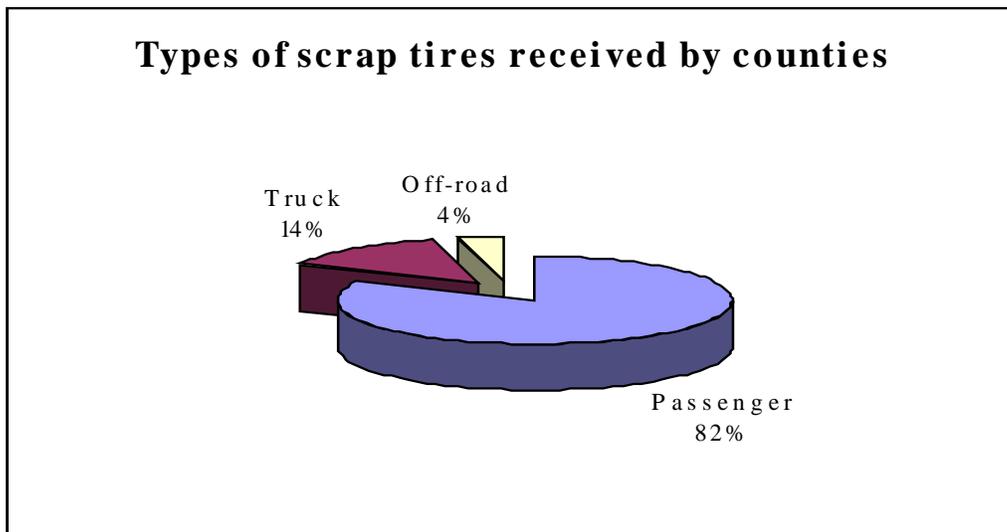
(Note that prior to 1997 the allocation was 75% for nuisance tire site cleanup and 25% for county grants).

Size and Scope of the Tire Program

The standard used by the EPA for estimating generation of scrap tires is one tire per person per year. In FY 1998-99 the counties reported receiving about 8.5 million tires.

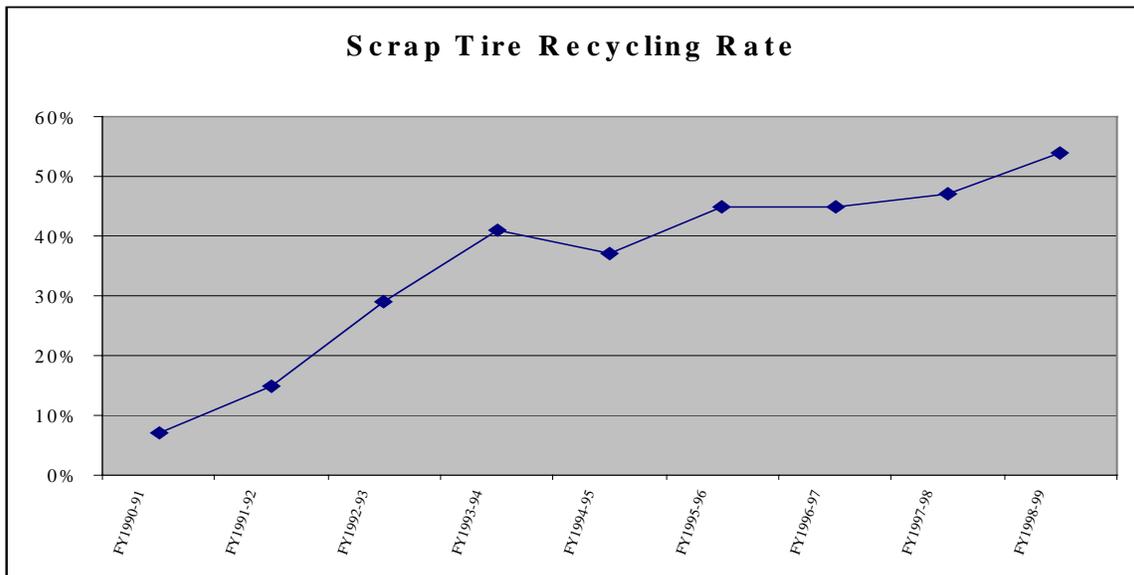


Counties receive tires in three size categories - passenger car tires (82%), heavy truck tires (14%), and off-road tires (4%).



The number of tires has increased during the past nine years, which reflects the success of the tire program, including a decrease in illegal dumping. The program has become stronger as awareness of the regulations has increased.

Nuisance tire sites have been inventoried and cleaned up since 1994 using funds from the Scrap Tire Disposal Account. Approximately 6.6 million tires have been cleared from 294 sites and numerous countywide cleanup events. Currently 42 sites containing approximately 133,000 tires remain to be cleaned up. New sites, most containing less than 10,000 tires, continue to be found and scheduled for cleanup. If the tire disposal tax passed in 1993 and extended in 1997 is allowed to sunset thus eliminating free disposal, the state will see a substantial recurrence of illegal tire dumping. Removing the sunset to make the fee structure permanent eliminates the incentive for illegal dumping.



The tire recycling rate has increased over the past 9 years. The largest increases have been for civil engineering applications, specifically as a substitute for aggregate in septic tank drain fields. This use has not been approved in North Carolina so all the chips produced for this application are shipped to other states.

Legislation in 1997 allows the Division to use up to forty percent of the revenue in the Scrap Tire Disposal Account for processed material market development grants. These grants encourage the use of processed scrap tire materials, such as tire chips, crumb rubber, and carbon black, in products such as fuel, tires, or commercial and consumer products.

The Division has awarded grants to three North Carolina companies to increase their use of North Carolina recycled processed scrap tire material. The grants will enable these businesses to increase their use of processed scrap tire material by means such as making equipment modifications or expanding production capabilities.

Out-of-State Tires

The sudden increase in numbers of tires disposed after 1994 highlights a problem with disposal of out-of-state tires at county collection sites. The Solid Waste Section estimates that counties spend about \$600,000 per year to manage out-of-state tires that are inappropriately disposed as North Carolina tires.

Many counties have found that the tire program requires greater ongoing attention in comparison with handling other types of solid waste. Since the counties are providing free disposal of an expensive part of the waste stream, special policies and procedures have been adopted in many counties to avoid abuse by disposers of out of state tires who seek free disposal by falsely claiming their tires are from North Carolina. These include:

- Requiring documentation to verify information provided on the scrap tire certification
- Developing an inventory of all scrap tire disposers in the county
- Spot checking loads of tires by calling the generator to verify the origin and number
- Educating all scrap tire generators about the requirements for scrap tire disposal

The time limited position funded from the STDA has worked with many counties to incorporate these procedures into their scrap tire management programs, with several counties experiencing a significant decrease in the volume of scrap tires received and an increase in program efficiency and accountability.

Special Position to Assist Counties

Legislation passed in 1997 provided for a time limited position funded from the Scrap Tire Disposal Account. This was originally authorized through June 30, 1999, but legislation passed in 1999 extended the funding to June 30, 2001. This position assists counties in their effort to detect out of state tires, to implement policies and procedures to increase efficiency in their tire programs, and to facilitate the clean up of nuisance tire collection sites.

Nuisance tire sites pose a threat to public health and the environment. This position works with landowners, the persons responsible for creating the nuisance sites, and local governments to facilitate the safe removal and processing or disposal of the tires. To date, more than 6.6 million tires have been cleaned up from nuisance tire sites. Currently there are 42 known nuisance tire sites in the state containing approximately 133,000 tires, with 28 of these actively under cleanup. This position also works with counties to organize countywide tire clean up events, where individuals can clean up small tire sites on their property. In addition, this position works with the Attorney General's office to take legal action against those responsible for creating the nuisance tire sites.

Counties often contact the Section concerning changing issues and problems in their tire programs and request assistance and guidance in order to effectively respond. This position analyzes annual tire report data to identify possible tire program problems and works with the targeted counties to address the potential problem areas. This position has provided detailed technical and regulatory assistance to counties, including:

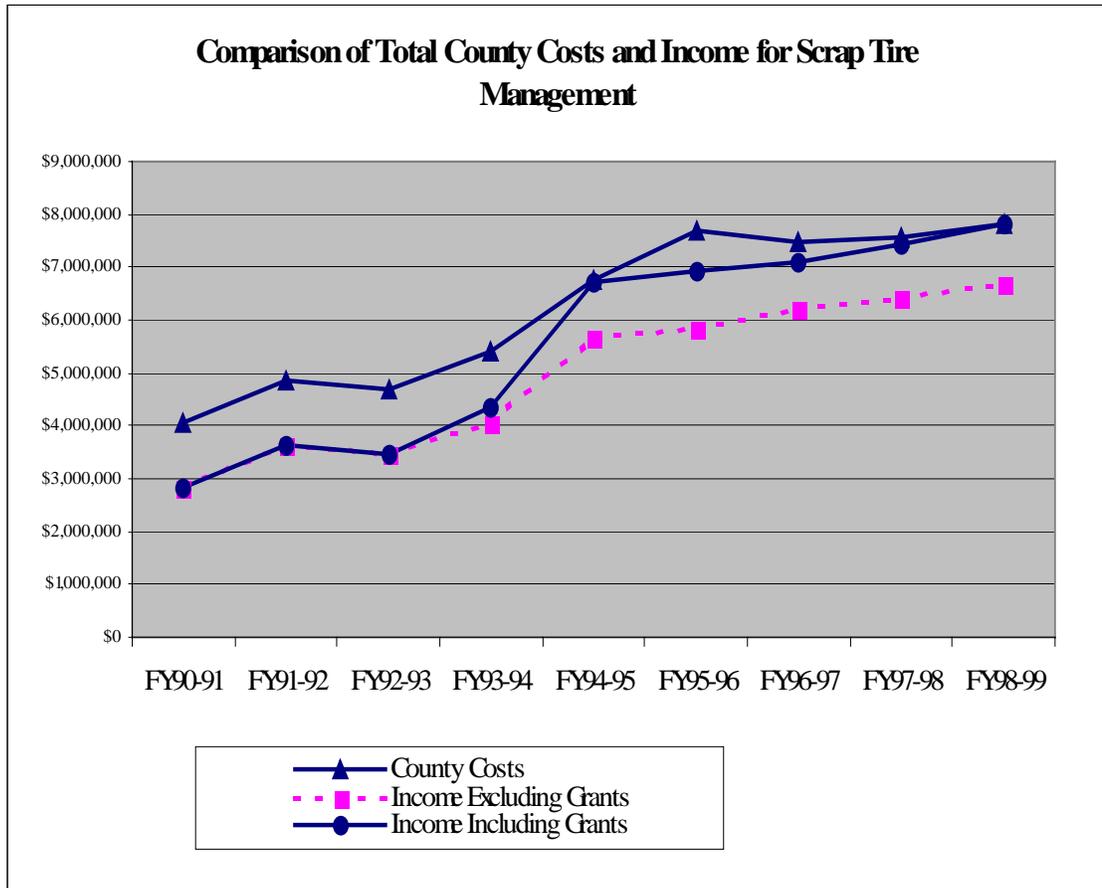
1. Training county personnel involved with scrap tire management
2. Educating scrap tire generators and haulers about program requirements,
3. Helping to implement recommended changes to the county scrap tire program
4. Consulting with the Attorney General's office to provide guidance about tire program issues or problems that arise

Many counties have benefited from this assistance and rely on the specialized help to solve problems in their tire programs. Overall program costs have been reduced in many counties that implemented recommended procedural changes, and several counties have reduced or eliminated their program cost deficits.

Legislative changes in 1997 allowed up to 40% of the STDA to be used for tire material market development grants to encourage business and industry to utilize processed tire material. This position is assuming increasing responsibility for managing these grants. Currently there are three active grants and a fourth is close to being awarded. With the initial success of this grant program the Solid WasteSection anticipates increasing interest and participation from businesses across the state.

Counties will continue to have questions and problems in their tire programs and illegal sites will continue to be found. If funding for this position ceases, response to the technical assistance and nuisance site cleanup requests would have to be added to the workload of the field operations staff or other special wastes branch staff. Tire dealers and local governments statewide support the permanent continuation of this position. **This report recommends making this position permanent . This report also recommends removing the sunset on the revised tire disposal tax thus creating a permanent source of funding for this position.**

County Costs of Tire Disposal

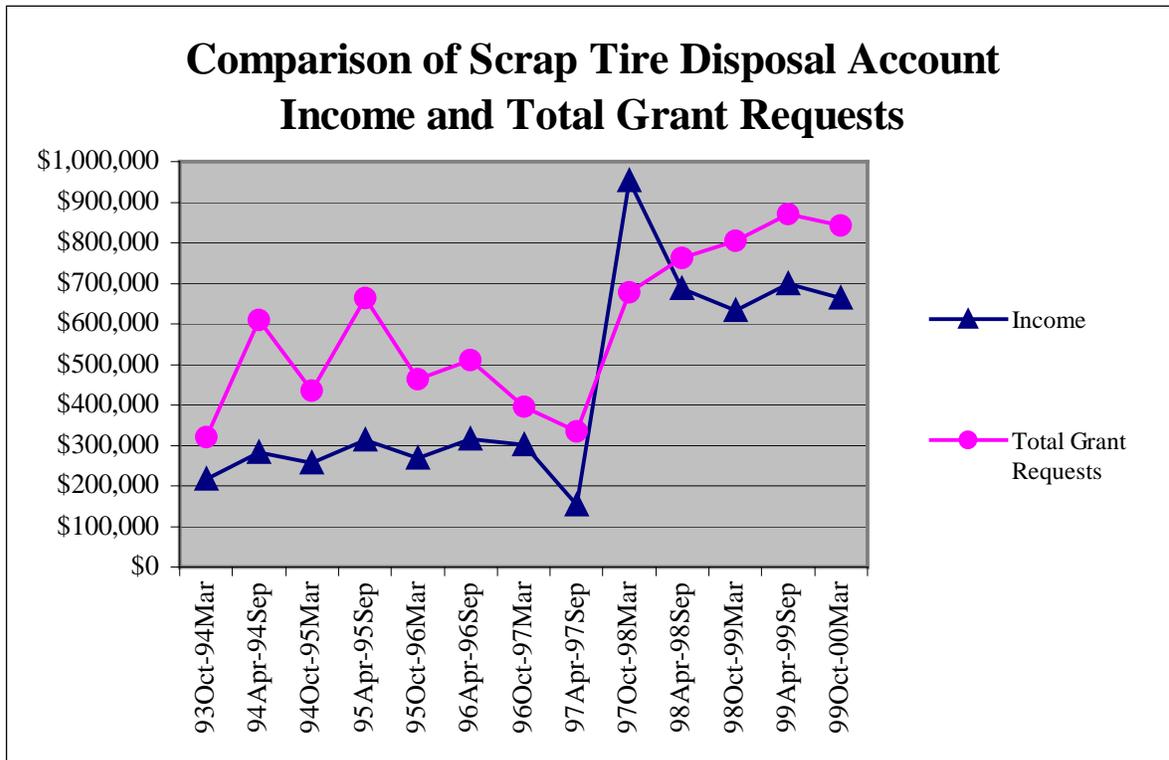


During the past four years, counties have reported spending around \$7.5 million annually to manage scrap tires. Counties ship collected tires to tire processors for recycling or disposal. The average disposal cost is about \$77 per ton, which generally includes transportation cost and trailer rental. Counties that are not near processing facilities may pay as much as \$90 per ton. Most counties collect scrap tires at their landfill or transfer station. Some counties also locate collection trailers at retail tire dealers that have high volumes of scrap tires.

The counties receive 68% of net tax proceeds to pay for their tire programs. This income has not covered total county costs any year of the tire program. Total county costs have exceeded county income by about \$1.2 million each year, based on annual reports. The Scrap Tire Disposal Account receives about \$1.4 million annually to use for grant awards to cover county deficits. **Since overall funding is adequate this report does not recommend increasing the scrap tire disposal tax.**

Grants to Counties That Have Deficits in Their Tire Programs

The General Assembly created the Scrap Tire Disposal Account in 1993 in part to provide the additional funding (through grants) needed by the counties. This account receives 27 percent of the net disposal tax proceeds with a portion of it allocated for county grants. Only counties



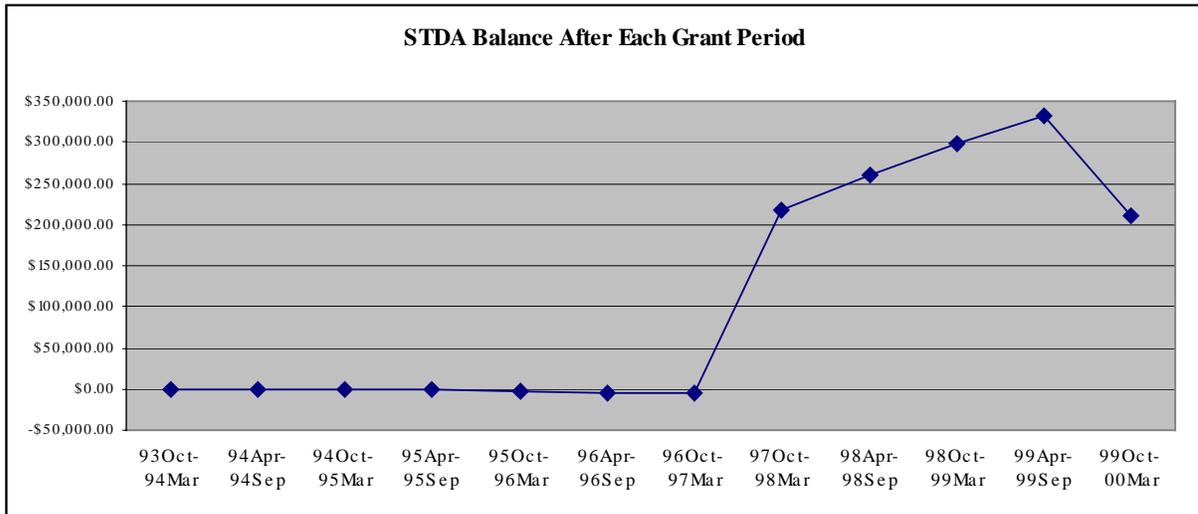
that incur deficits in their tire program are eligible to apply for grants.

Originally only 25% of the account could be used for grants to counties. This did not provide adequate funding for all county requests. Legislation passed in 1997 increased the allocation for county grants from 25% to 50%, allowing a higher percentage of grant requests to be awarded. However, requests during the three most recent grant cycles exceeded account income by \$200,000.

The Solid Waste Section does not always award 100% of requested grant funds. Scrap tire legislation defines criteria for making grant award decisions. This requires the Section to make grant awards based on its evaluation of individual county tire programs.

It has been noted that counties report higher deficits on their semi-annual grant applications, in comparison to the yearly deficits reported in their annual reports. The Section reduces grant awards if counties request reimbursement for overhead and administrative costs.

The account accumulated some reserves in funds allocated for county grants during 1997 and 1998 since not all county deficits were reimbursed. However, these reserves are being



depleted. The most recent grant awards (October 1999 - March 2000) used \$100,000 of the account reserve funds. It is anticipated that these reserve funds will be depleted by mid 2001.

Conclusions and Recommendations

This report finds that the current disposal tax (2% on passenger tires and 1% on heavy truck and off-road tires) adequately funds the scrap tire program and allows counties to provide free disposal. The 2% passenger tire tax should be continued past its sunset of June 30, 2002 to prevent it from reverting back to 1%. If the tax reverts to 1% on all types of tires, the counties will incur large program cost deficits and the corresponding decrease in allocations for county grants will not be sufficient to fund all grant requests. Counties will need to charge disposal fees, which will lead to problems with illegal tire dumping to avoid paying these fees.

The time-limited position should be continued past its sunset of June 30, 2001 to maintain the same level of service and assistance provided to the counties the past three years.

Legislative changes should be made to achieve these goals as follows:

1. The June 30, 2002 sunset should be removed on the legislation that increased the scrap tire disposal tax from 1% to 2% on passenger tires.
2. The June 30, 2001 sunset should be removed on the legislation that provide the time-limited position. It should be continued as long as counties are mandated to provide free disposal.