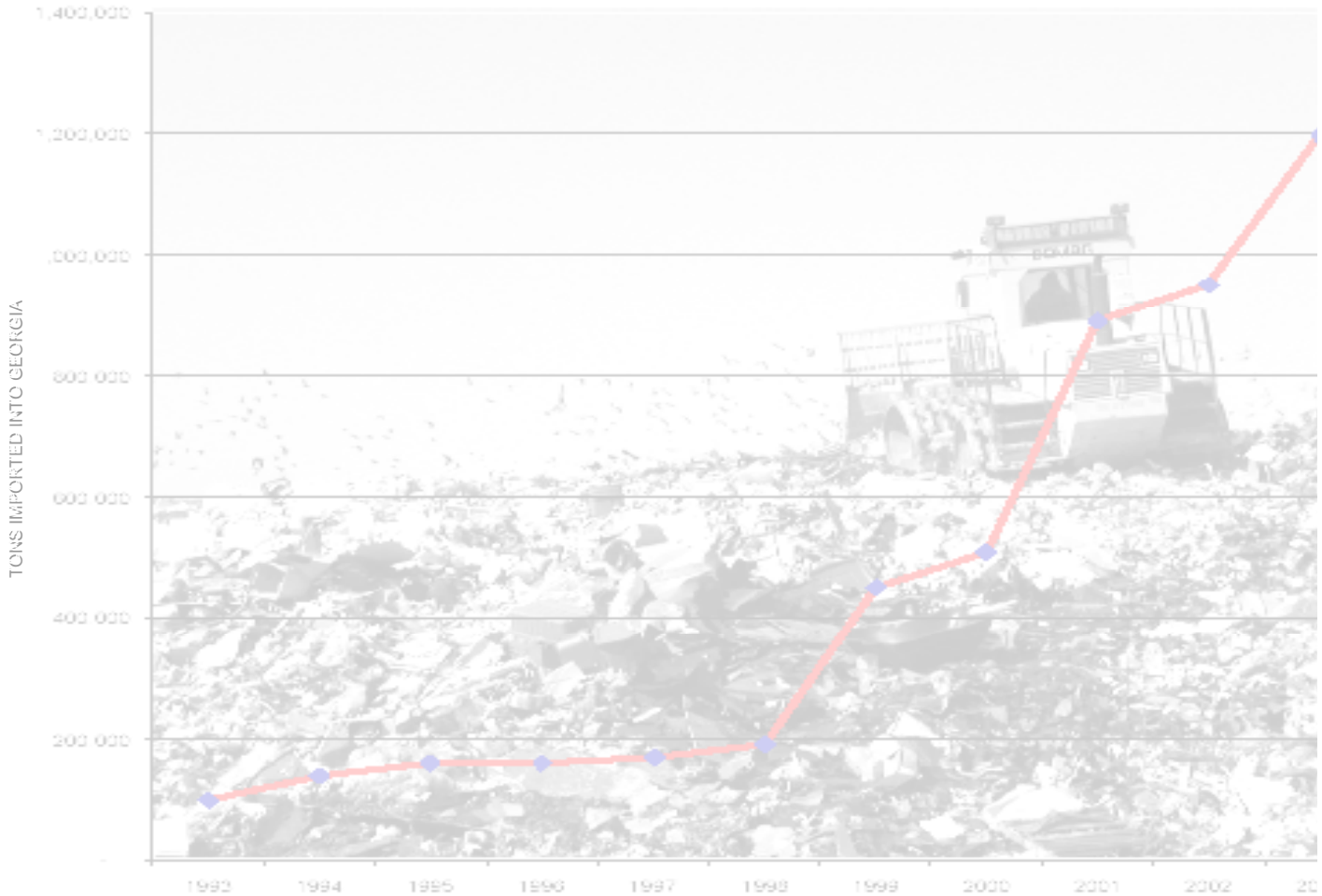


# Georgia's Solid Waste Trust Fund Fiscal Years 1993 – 2005



## Environmental Protection Division

Land Protection Branch

Waste Reduction and Abatement Program

August 2005

# Georgia's Solid Waste Trust Fund FY 1993 – FY2005

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## Executive Summary

In 1990, the General Assembly enacted the Georgia Comprehensive Solid Waste Management Act of 1990. A 1992 amendment to the Act, among other things, created a primary source of funding for the **Solid Waste Trust Fund (SWTF)**. It established a fee of \$1.00 for each new replacement tire sold in the state. The tire fee currently generates about \$6.5 million each year. Unless reauthorized, the SWTF will expire on June 30, 2008.

The General Assembly has appropriated to the SWTF approximately \$59 million of the \$78.5 million in fees collected since 1992. Approximately \$19.5 million in fees were not appropriated to the SWTF.

The Act authorizes and EPD has used the SWTF for:

- taking emergency, preventative, and corrective actions at abandoned, closed, or currently operating disposal facilities that threaten human health and the environment;
- providing grants to local governments and state agencies for waste reduction, recycling, and recycling market development; solid waste enforcement programs to address illegal dumping of solid waste; cleanup of scrap tires; and market development and innovative technology grants; and
- establishing a scrap tire management program in the state that eliminates scrap tire piles and prevents new piles from forming.

EPD's SWTF program operations responsibilities include: fee collection, administration of a statewide program for the cleanup and management of scrap tires, a proactive environmental education program, and the administration of grant programs authorized by the Act. Since 1992, the program has expended approximately \$10 million for these purposes.

Approximately \$46 million in SWTF grants have been awarded to local governments and state agencies for tire pile cleanups, solid waste education and illegal dump prevention programs, solid waste reduction and recycling efforts, and market development for waste derived products.

EPD's scrap tire management program has cleaned up over 12.5 million tires at a cost of \$11.5 million. Besides cleanup of scrap tires, the Act authorizes the use of the SWTF to take emergency, preventative, and corrective actions at abandoned, closed, or currently operating disposal facilities that threaten human health and the environment. Such actions have been taken at several sites. Almost \$1 million of SWTF monies have been spent on these actions.

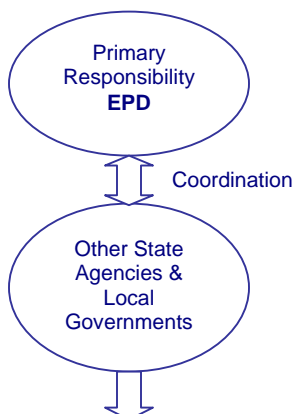
Georgia's solid waste management policies have not been revised since the early 1990s. Some major challenges now facing the state include: a solid waste disposal rate on a per capita basis that is significantly higher than national norms; the state's recycling rate is too low (huge quantities of recoverable materials are being thrown away); out-of-state imports of waste are dramatically increasing; long term costs of perpetual care and cleanup of leaking landfills are not provided for in the current system and keep the true cost of disposal artificially low; litter is a significant and growing solid waste problem; insufficient funding for short-term and long-term needs.

## Solid Waste Management in Georgia in the Early 1990s

In the early 1990s, Georgia faced a critical shortage of permitted waste disposal space or “capacity” for its trash. At the time, local governments operated most of the disposal sites in the state. Many of them leaked and contaminated the state’s ground and surface waters, produced methane gas, and created problems with odors, birds, dust, and litter. Very little waste reduction and recycling occurred in the state exacerbating the already critical shortage of disposal space. Communities faced rampant illegal dumping. Litter blemished many Georgia communities and fouled our roadsides and streams. Over 4.8 million scrap tires were identified in stockpiles throughout the state. In 1992, a major tire fire burned for weeks in Palmetto, Georgia. This fire involved an estimated 3 million scrap tires, and choked the air with billowing black smoke. Pyrolytic oil from the burning tires threatened human health and the environment. The Environmental Protection Agency spent approximately to \$2 million of the Federal Superfund extinguishing the fire, and treating run-off and ground water contaminated with pyrolytic oil. Today, groundwater at the Palmetto site remains contaminated and awaits final cleanup funding.

## Georgia Comprehensive Solid Waste Management Act of 1990

The lack of state policy to address these issues resulted in the General Assembly enacting the Georgia Comprehensive Solid Waste Management Act of 1990 (herein referred to as the Act). The Act, and subsequent amendments to it throughout the 1990s, provides a framework guiding how solid waste is to be managed in this state.



The Act charged the director of the Environmental Protection Division (EPD) with the primary responsibility for instituting and maintaining a comprehensive statewide solid waste management program in the state. It also mandated that rules and regulations regarding the management of solid waste, including scrap tires, be established. The Act requires EPD to coordinate its activities with other state agencies and local political jurisdictions so as to achieve a unified and effective approach solid waste management in the state. In its declaration of policy and intent, the Act set forth the policy of the State of Georgia to:

**Comprehensive Statewide Program for Solid Waste Management**

- Established the Solid Waste Trust Fund
- Develop and implement a state solid waste management plan
- Ensure safe waste disposal sites
- Reduce waste and recycle
- Purchase goods that are recyclable and that are made from recovered materials
- Cleanup scrap tire piles and establish a statewide program to ensure they are properly managed, and where possible reused and recycled rather than disposed
- Recycle yard trimmings rather than disposing of them

- institute and maintain a comprehensive state-wide program for solid waste management which will assure that solid waste facilities, whether publicly or privately operated, do not adversely affect the health, safety, and well-being of the public and do not degrade the quality of the environment by reason of their location, design, or method of operation, or other means and which, to the extent feasible and practical, makes maximum utilization of the resources contained in the solid waste;
- educate and encourage generators and handlers of solid waste to reduce the amount of solid waste which requires disposal through source reduction, reuse, composting, and recycling and engage in the purchase of goods made from recovered materials and goods which are recyclable;
- reduce on a statewide per capita basis the amount of municipal solid waste being received at disposal facilities;
- ensure the proper management of scrap tires from the point of generation to the ultimate point of reuse, recycling, or disposal and that every effort be made to ensure that, where possible, they be reused or recycled rather than be disposed;

- guide local government and solid waste management authorities in the handling of yard trimmings.

## The Solid Waste Trust Fund (SWTF)

The Act also created the **Solid Waste Trust Fund (SWTF)**. A 1992 amendment to the Act, among other things, created a primary source of funding for the SWTF. It established a fee of \$1.00 for each new replacement tire sold in the state. In 1999, the General Assembly extended collection of this fee to June 30, 2005, and in 2005, the fee was extended an additional 3 years to June 30, 2008.

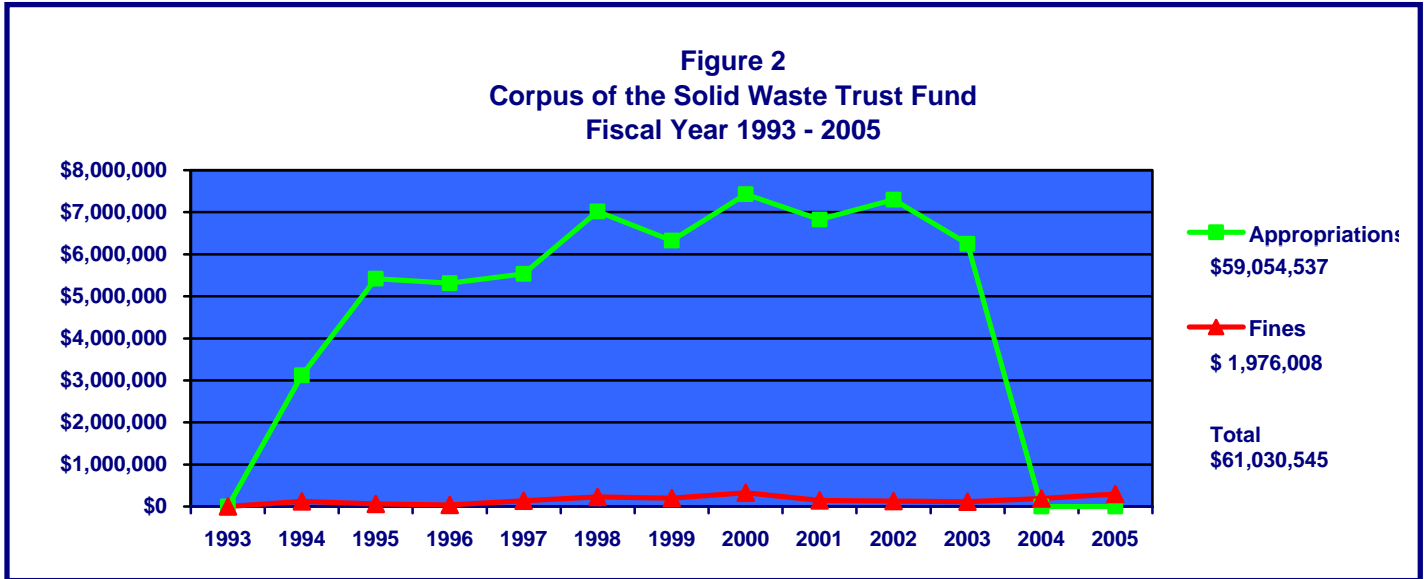
## Historic SWTF Revenue

The tire fee currently generates about \$6.5 million each year. EPD collects the fees from tire retailers and deposits them into the state treasury. Each year EPD requests through the state budgeting process to be appropriated fees collected during the previous year for deposit into the SWTF. **Figure 1** shows the total fees collected and appropriations made by fiscal year to the SWTF since the tire fee was established. Approximately \$19.5 million in fees were not appropriated to the SWTF.

<b>Figure 1</b>		
<b>Tire Fee Revenue</b>		
<b>Fiscal Year</b>	<b>Fees Collected</b>	<b>Fees Appropriated</b>
1993	\$ 3,363,868	\$ 0
1994	\$ 4,982,804	\$ 3,000,000
1995	\$ 5,890,009	\$ 5,363,868
1996	\$ 5,793,277	\$ 5,276,344
1997	\$ 6,132,574	\$ 5,396,990
1998	\$ 6,055,640	\$ 6,792,756
1999	\$ 6,479,339	\$ 6,132,574
2000	\$ 6,685,603	\$ 7,102,405
2001	\$ 6,871,423	\$ 6,685,603
2002	\$ 6,606,385	\$ 7,171,423
2003	\$ 6,570,287	\$ 6,132,574
2004	\$ 6,598,064	\$ 0
2005 estimated	\$ 6,500,000	\$ 0
<b>Total</b>	<b>\$ 78,529,273</b>	<b>\$ 59,054,537</b>

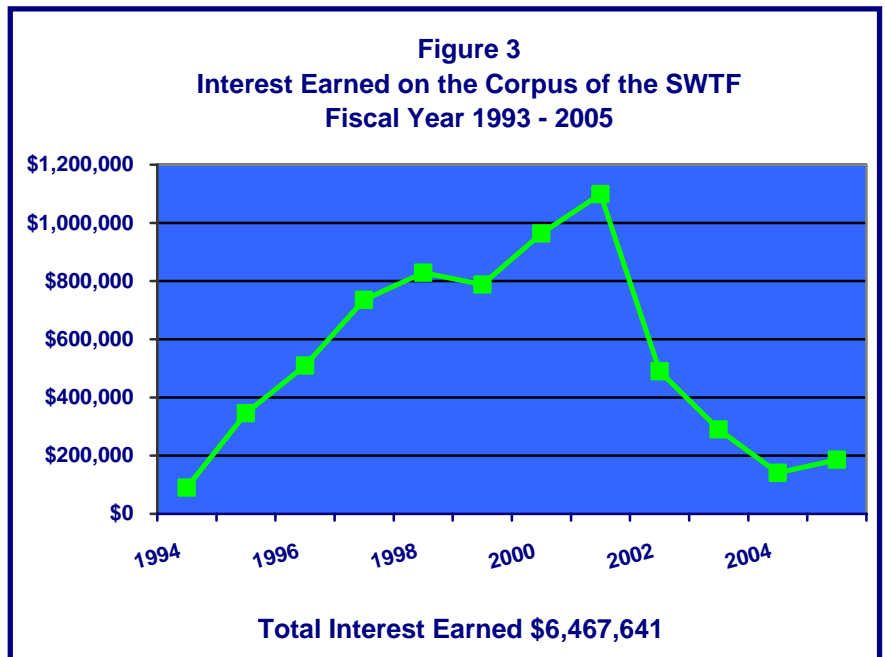
The corpus of the SWTF is comprised of appropriated fees and fines

As defined in the Act, the corpus of the SWTF is comprised of appropriated fees and fines collected for significant violations of the Act. These funds, with approval of the Department of Natural Resources (DNR) Board, are then used by EPD to carry out the goals of the Act. **Figure 2** shows the total historic revenue in the corpus of the SWTF through FY 2005.



Interest on the corpus of the SWTF is used to administer EPD's solid waste management program

The Act specifies that interest earned on the corpus of the SWTF shall be used by EPD for administration of the state solid waste management program. The expenditure of these funds does not require DNR Board approval. Interest earned has been primarily used by the division to supplement the administration of the state solid waste management program. Any interest not expended in the fiscal year in which it is generated is required by the Act to be deposited into the state treasury.



## Authorized uses of the SWTF

The Act provides the framework for instituting and developing a comprehensive program for solid waste management in the state. Two code sections of the Act, §12-8-27.1 and §12-8-37.1., outline the purpose and allowable uses of the SWTF. Code section §12-8-27.1 establishes the SWTF and describes its allowable uses. Code section §12-8-37.1. authorizes state grants from the corpus of the SWTF. **Figure 4** and **Figure 5** below cite those code sections of the Act.

### Figure 4 Establishment and Purpose of the SWTF

#### § 12-8-27.1. Solid Waste Trust Fund

(a) There shall be established the solid waste trust fund. The director shall serve as trustee of the solid waste trust fund. The moneys deposited in such fund pursuant to this Code section, Code Section 12-8-27, Code Section 12-8-30.6, and Code Section 12-8-40.1 may be expended by the director, with the approval of the board, for the following purposes:

(1) To take whatever emergency action is necessary or appropriate to assure that the public health or safety is not threatened whenever there is a release or substantial threat of a release of contaminants from a disposal facility;

(2) To take preventive or corrective actions where the release of contaminants presents an actual or potential threat to human health or the environment and where the owner or operator has not been identified or is unable or unwilling to perform corrective action, including but not limited to closure and postclosure care of a disposal facility and provisions for providing alternative water supplies;

(3) To take such actions as may be necessary to monitor and provide postclosure care of any disposal facility, including preventive and corrective actions, without regard to the identity or solvency of the owner thereof, commencing five years after the date of completing closure; and

(4) To take such actions as may be necessary to implement the provisions of a scrap tire management program in this state, particularly as may be related to the cleanup of scrap tire disposal piles and facilities, regulation of scrap tire carriers and other handlers, and disbursement of grants and loans to cities, counties, and other persons as may be necessary to implement fully the provisions of this part.

(b) If the director determines that a solid waste or special solid waste handling facility has been abandoned, that the owner or operator thereof has become insolvent, or that for any other reason there is a demonstrated unwillingness or inability of the owner or operator to maintain, operate, or close the facility, to carry out postclosure care of the facility, or to carry out corrective action required as a condition of a permit to the satisfaction of the director, the director may implement the applicable financial responsibility mechanisms. The proceeds from any applicable financial responsibility mechanisms shall be deposited in the solid waste trust fund.

(c) The determination of whether there has been an abandonment, default, or other refusal or inability to perform and comply with closure, postclosure, or corrective action requirements shall be made by the director.

(d) Any interest earned upon the corpus of the solid waste trust fund shall not become a part thereof but shall be paid over to the division to be utilized by the division for administration of the state solid waste management program. Any funds not expended for this purpose in the fiscal year in which they are generated shall be deposited into the state treasury. Nothing in this Code section shall be construed so as to allow the division to retain any funds required by the Constitution of Georgia to be paid into the state treasury. The division shall comply with all provisions of Part 1 of Article 4 of Chapter 12 of Title 45, known as the "Budget Act"; provided, however, that the division shall be exempt from the provisions of Code Section 45-12-92, which requires payment into the state treasury of moneys collected by state agencies.

**Figure 5**  
**State Grants Authorized**

**§ 12-8-37.1. State Grants Authorized**

(a) The state is authorized to make grants, as funds are available, to any county, municipality, or any combination of the same, or to any public authority, agency, commission, or institution, to assist such governmental or public body in the construction of solid waste handling systems which are consistent with local and regional solid waste management plans prepared in accordance with the requirements of this part.

(b) The director shall administer all funds granted by the state pursuant to this Code section.

(c) The corpus of the solid waste trust fund established in *Code Section 12-8-27.1* may be used to make grants and loans to cities and counties, any combination of cities and counties, authorities, state agencies, or the Georgia Recycling Market Development Council for the cleanup of solid waste disposal facilities, including those used for the disposal of scrap tires; for the development and implementation of solid waste enforcement programs for the abatement of illegal dumping of solid waste; for the funding of grants or loans, in accordance with procedures developed by the division; for the implementation of innovative technologies for the recycling and reuse of solid waste, including without limitation scrap tires; and for educational and other efforts to promote waste reduction, recycling, and recycling market development.

**SWTF Expenditures**

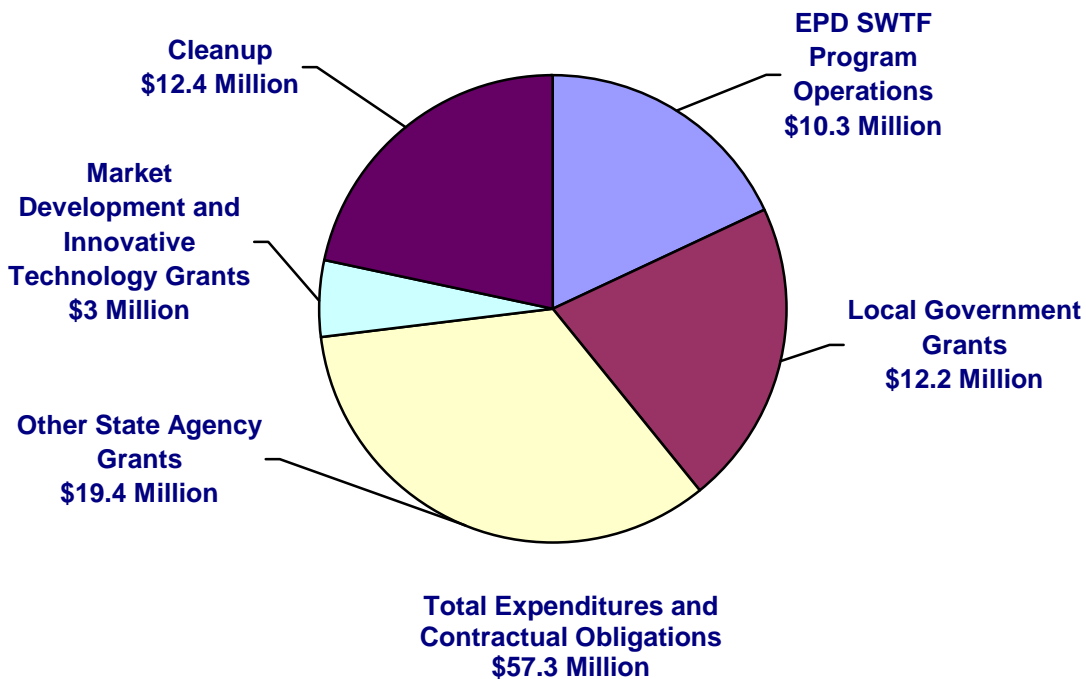
EPD has expended funds from the SWTF for the following activities authorized in the Act:

- EPD SWTF program operations;
- local government grants;
- other state agency grants;
- market development and innovative technology grants to stimulate businesses that recycle wastes into products; and
- cleanup.



**Figure 6** depicts historic expenditures by activity. **Figure 7** depicts a breakdown of “Other State Agency Grants” directed at assisting local governments in the development and review of local solid waste plans as well as assisting them and Georgia businesses with waste reduction, recycling, and litter prevention programs.

**Figure 6**  
**SWTF Expenditures FY 1993 - FY 2005**



**EPD SWTF Program Operations** – administer fee collection and disbursement; operate a statewide program for the cleanup and management of scrap tires; solid waste management, waste reduction and recycling grant programs.

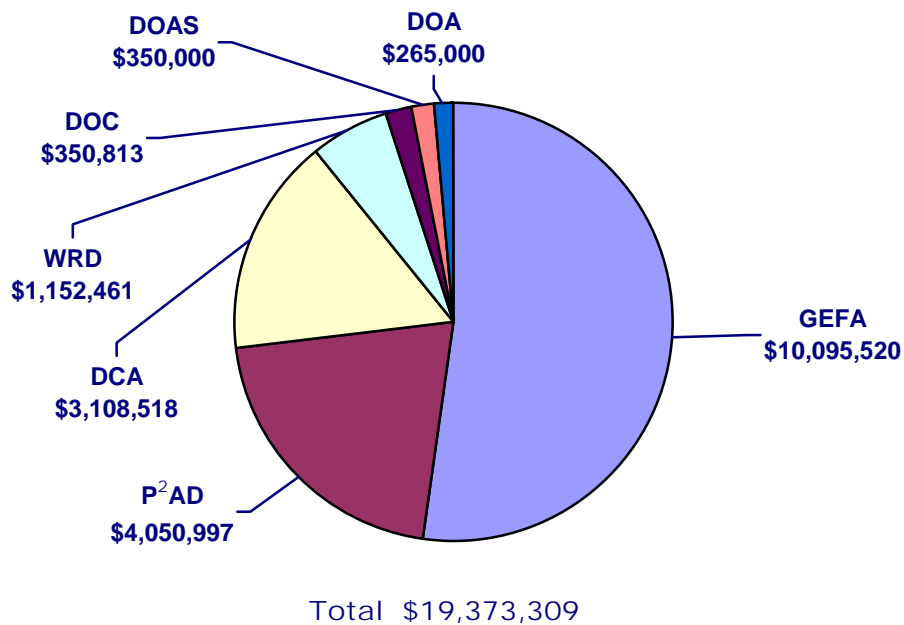
**Local Government** – grants for solid waste and scrap tire education, compliance and enforcement activities, and the cleanup of small scrap tire problems.

**Other State Agencies** – grants for local solid waste management plan implementation and local government waste reduction, recycling, and litter prevention efforts.

**Market Development and Innovative Technology Grants** – grants to local governments and state agencies promote reuse and recycling of scrap tires and other recoverable materials from solid waste.

**Cleanup** – scrap tire piles and for taking emergency, preventative or corrective actions at problem waste disposal sites.

**Figure 7**  
**Grants to State Agencies FY 1993 - 2005**  
**Grants for Waste Reduction, Recycling, and Litter Prevention**



**Georgia Environmental Facilities Authority (GEFA)** – (no positions funded). GEFA provides grants to local governments for infrastructure improvements that promote community waste reduction and recycling programs. Grants are also consistent with and support the implementation of local solid waste plans required by the Act. Over \$10 million of SWTF monies have awarded to local governments by GEFA through the GEFA’s Recycling and Waste Reduction Grant Program since 1995.

**Pollution Prevention Assistance Division (P<sup>2</sup>AD)** - (5 positions funded by the SWTF). P<sup>2</sup>AD provides research and technical assistance to Georgia citizens, businesses, and military bases through voluntary programs that help them reduce their commercial and industrial wastes.

**Department of Community Affairs (DCA)** - (4 positions funded by the SWTF). DCA provides planning, research, and education at the community level. Local governments are able to obtain resources and technical assistance from DCA in developing and implementing local solid waste management plans that include waste reduction, recycling, and litter prevention programs. DCA also manages the Keep Georgia Beautiful program, serving 69 Keep America Beautiful programs representing 80% of the state’s population.

**Wildlife Resources Division (WRD)** - (3 positions funded by the SWTF). WRD provides natural resource conservation education through its Regional Education Centers and fills the gap in communities without illegal dumping and litter prevention programs to provide education and enforcement of illegal dumping and litter that otherwise would not be available.

**Department of Corrections (DOC)** - (1 position funded by the SWTF). Through its Environmental Management System Program DOC administers conservation and waste reduction programs to minimize the environmental impacts from a large prison population.

**Department of Administrative Services (DOAS)** - (1 position funded from FY1995 thru FY2000). DOAS developed and implemented a “buy recycle” program for state agencies. DOAS also developed, implemented, and promoted state agency recycling programs.

**Department of Agriculture (DOA)** – (no positions funded). DOA implemented a statewide pesticide container-recycling program.

## EPD SWTF Program Operations

EPD's program operations responsibilities include: fee collection, administration of a statewide program for the cleanup and management of scrap tires, a proactive education program, and the administration of grant programs authorized by the Act.

### Scrap Tire Management Program

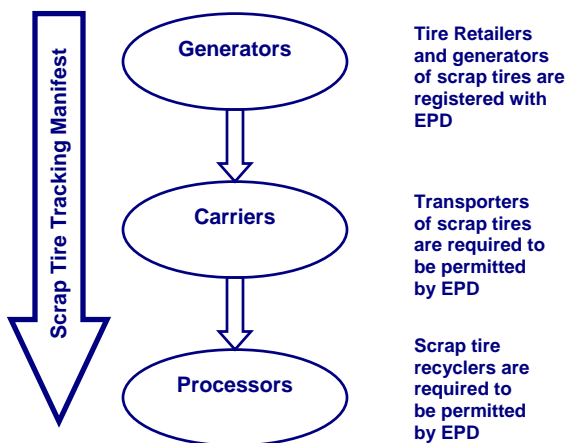
The effective management of scrap tires requires a proactive prevention and cleanup program. Historic scrap tire cleanup activity is discussed in the "*Cleanup*" section of this report.

#### *Preventing New Scrap Tire Piles*

In addition to presenting serious fire hazards, tire piles are breeding grounds for rodents, snakes, and mosquitoes. According to the Environmental Protection Agency, mosquitoes can breed up to 100 times faster in a scrap tire than in the natural environment. Mosquito borne illnesses such as Eastern Equine Encephalitis and the West Nile Virus make it critical that illegal tire piles are eliminated and that scrap tires generated by tire retailers are properly stored until they can be reused or recycled.



**Palmetto Tire Fire 1992**



A regulatory program that requires a scrap tire transportation manifest for each load of tires tracks tires from the point of generation to the final disposition at a scrap tire recycler (processor) permitted by EPD.

A proactive prevention program, including a strong education component along with an effective enforcement component, is critical to preventing the formation of new scrap tire piles. Preventing scrap tires from being illegally dumped requires constant vigilance by EPD and its partners. EPD has developed partnerships with local governments, the Wildlife Resources Division, and EPD’s District offices to implement effective education and enforcement programs.

Rules have been adopted that regulate generation, transportation and processing of scrap tires. Education is a major component of this effort and enforcement action is taken against those that have the knowledge and opportunity to comply, but choose not to do so.

As a result of the ongoing effort by EPD and its partners, the vast majority of the approximately 8 million scrap tires generated in this state each year are now reused or recycled. New tire piles continue to be discovered, but because of vigilant surveillance efforts they are in most cases discovered and cleaned up before they become a major problem. The timely discovery of tire piles frequently results in effective enforcement and cleanup of the illegal tire pile by the responsible party.

EPD’s partners indicate Georgia’s strong policies and the ability of the SWTF to fund education and enforcement activities have allowed them to successfully minimize illegal scrap tire dumping. The scrap tire management program must continue if Georgia desires to proactively combat the scrap tire problem. Supporting these findings, researchers at Georgia State University and the Georgia Institute of Technology found that States that had completed tire pile cleanups and ended their scrap tire management programs soon found scrap tire piles reappearing.

## SWTF Educational Activities

EPD’s education activities include:

- educator training, outreach, and resource materials;
- training of environmental compliance officers;
- local government officials training;
- education of the regulated public; and
- general public.

### *Education, Outreach, and Resource Materials*

The Solid Waste Trust Fund supports two education and outreach programs: **EIC**, the “Environment as an Integrating Context for Learning” school improvement initiative and [www.EEInGEORGIA.org](http://www.EEInGEORGIA.org), “The Online Guide to Environmental Education in Georgia,” **Waste-in-Place** – Keep America Beautiful solid waste curriculum and training, an **Educator Forum** – coordinated and convened quarterly by Keep Georgia Beautiful, and **Catch the Cycle: A School Recycling Guide**.

**EIC** – In 1994, a study of federal and state education agencies, local school districts, universities and environmental organizations found that environmental education had achieved only minor integration in systemic education reform efforts. In 1995, the State Education and Environment Roundtable (SEER), a cooperative endeavor of sixteen state education agencies funded by The Pew Charitable Trusts, was established to address this issue. SEER conducted research and



published its findings in *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*. The EIC is a professional development model for teachers and administrators that uses a school's campus and the community as a laboratory for environmental education ([www.seer.org](http://www.seer.org)). The data indicates that use of the EIC Model has significant positive effects on academic achievement, classroom behavior, and instructional practices.

In 2001, the Georgia Department of Education established a network of EIC demonstration schools in the State. Representatives from EPD and the University of Georgia serve as the coordinator and co-coordinator of EIC in Georgia, and the Environmental Education Alliance of Georgia assists with resource development.

A complete historical perspective on the EIC program along with major accomplishments of the program is discussed in [Appendix A](#).

[www.EEInGeorgia.org](http://www.EEInGeorgia.org) – EPD recognizes that educating Georgians about their environment and developing their skills to make informed decisions, solve problems, and take responsible actions is critical to attaining voluntary environmental compliance and stewardship. This is particularly true for areas such as litter prevention and waste reduction where problems result from the collective behavior of individual citizens and regulation is not an effective tool.



In 1999, EPD began strengthening its longstanding partnership with the Georgia Department of Community Affairs' Keep Georgia Beautiful program and forming partnerships with other organizations that support environmental education (EE). A needs assessment conducted by EPD and its partners determined that even though a wide variety of EE resources and programs were currently offered by many different government agencies and private organizations, the education community and general public were frequently unaware of them or were frustrated by a multitude of tools that failed to address their specific needs. Even within the EE community, there were organizations that did not know of the existence and efforts of other EE organizations. Consequently, there was potential for both insufficient information exchange and duplication of effort. EPD recognized the critical need to catalogue and organize these efforts and present their availability in a coordinated approach.

To address this need, EPD worked in partnership with Department of Community Affairs' Keep Georgia Beautiful Program, Department of Education, Georgia Parent Teacher Association, and Environmental Education Alliance of Georgia to develop The [Online Guide to Environmental Education \(EE\)](#) in Georgia. This Web-based EE initiative was launched in 2002. The goal of [www.EEInGeorgia.org](http://www.EEInGeorgia.org) is to build statewide capacity for environmental education by providing EE lesson plans based on state curriculum standards, a searchable directory of Georgia's EE providers and the resources they offer, a statewide calendar of EE events, easy-to-access facts about Georgia's environment, and updates on current EE grants, awards, news, and other pertinent information. By coordinating efforts of over 200 state agencies, nonprofit organizations, and other partners, [www.EEInGeorgia.org](http://www.EEInGeorgia.org) has served classroom teachers and other educators as the statewide clearinghouse for EE for over three years.

Major accomplishments of the [www.EEInGeorgia.org](http://www.EEInGeorgia.org) are discussed in [Appendix B](#).

**Waste-in-Place** – Keep Georgia Beautiful works with educators across the state to incorporate Keep America Beautiful's **Waste-In-Place** curriculum into classrooms. Educator workshops, which include CEU credits for educators attending the training, are offered upon request; at the workshop educators are supplied all the resources and training they need to incorporate solid waste education into their classrooms.

**Educator Forums** – Keep Georgia Beautiful maintains a list of environmental educators across the state and periodically meets with them to identify their environmental and solid waste education needs, promote new programs and ideas, and provide an opportunity for them to network with their peers.

**Catch the Cycle: A School Recycling Guide** – Working with a variety of partners, including KAB Affiliates and the Georgia Recycling Coalition a school recycling guide was developed to help schools implement a recycling program. The comprehensive guide is not only a "how-to" document, it helps educators incorporate their recycling program into their classroom activities.

### ***Environmental Compliance Officer Training***

To enhance environmental protection for the citizens of Georgia, the EPD provides on-site and off-site training to local environmental code enforcement personnel. Although the Enforcement and Education Grant program was suspended in FY 2005 there is a continuing need to support local environmental compliance programs.

EPD provides orientation training to County officials, new local government environmental compliance officers, and EPD District staff shortly after they are hired. EPD staff periodically conducts joint inspections with the compliance officer to provide technical and regulatory input as they perform their duties.

Orientation training includes:

- solid waste regulations;
- what resources are available to run local enforcement and education programs;
- what has worked for other local programs and what has not; and
- how to effectively build communication networks and partner with other agencies.

As an adjunct to the training, EPD developed a ***Local Environmental Compliance Program Training Manual***. This manual serves as a guide for all of the activities required under the grant, including guidance for scrap tire generator inspections, dump investigations and field safety procedures. This guide provides local officers with information they need to be more effective in their jobs.

In addition, the EPD conducts biannual seminars for environmental code enforcement officers and EPD compliance monitoring and enforcement staff. These seminars cover a wide range of environmental issues pertinent to the local governments and EPD. One of the two seminars each year typically focuses on specific operational issues such as rules, ordinances, casework, police powers, legal issues, open records, and other issues related to day-to-day operations.



The second seminar covers specific requests from the code enforcement officers and other environmental or safety-related subjects such as interacting with other state or federal agencies, environmental forensics, wetlands, ecosystems, recycling, chemical and personal safety, emergency response, Georgia codes, and other issues.

### ***Local Government Official Training***

With 688 different local governments in the state, every year there is a “new crop” of local elected officials that are faced with managing solid waste in their communities. Working in partnership with ACCG, DCA, and GMA, training and technical resources are provided to local government officials to help them navigate this responsibility. Specific training materials include:

- an overview of solid waste regulations;
- identification of resources available to help manage solid waste;
- identification of solid waste management trends in the state; and
- how to deliver a “solid waste management” message to their community.

Local government officials are made aware of the various state agencies responsible for solid waste management and the resources they have available to assist them. Both ACCG and GMA routinely invite state agency resource personnel to interact with their members and provide up to date briefings on the latest solid waste management issues in the state. Based upon this interaction, it is not uncommon for local governments to request support materials they can use in their communities to promote waste reduction and recycling programs.

### ***Education of the Regulated Public***

Education of the regulated public on solid waste and scrap tire management is the first element in EPD and its partners’ approach to environmental compliance. Enforcement action is typically reserved for those that have the opportunity and knowledge to comply, but choose not to do so.

Compliance inspections of regulated facilities have a strong education component. EPD and its partners have produced guidance documents to assist regulated facilities in complying with the law.

### ***Education of the General Public***

Waste reduction, recycling, and litter prevention materials are produced and distributed to local governments, educators, businesses, and civic groups throughout the state. These materials support local recycling programs and litter prevention programs, materials include information on backyard composting, recycling, unsecured loads, and littering. The materials are a valuable resource for many local communities that do not have the resources to produce and print their own materials.

## **Administration of SWTF Grants**

EPD is responsible for administering SWTF grants and agreements. The Act encourages EPD to implement the goals of the Act through partnerships with local governments and other state agencies. Funds from the SWTF have been awarded by EPD to its partners to conduct solid waste research and planning, build infrastructure, develop and implement waste reduction and recycling programs, market development activities, and to develop and implement education and enforcement programs. The accomplishments of EPD's partners are discussed in the sections below.

### Grants

#### Grants to Local Governments

### **Grants to Local Government**

Georgia's municipalities and counties are responsible for providing solid waste collection and disposal options to their citizenry. Historically, they have also had to address illegal dumping of solid waste and litter control in their communities. With the passage of the Act they became responsible for solid waste planning and providing waste reduction and recycling options for their residents.

Without funding from the SWTF, many communities simply do not have adequate resources to implement the policy goals of the Act. Funding from the SWTF is also critical to local governments to enable them to put in place the other essential comprehensive solid waste management elements, which include:

- implementing a local solid waste plan that is consistent with the state solid waste management plan required by the Act;
- providing an active and multifaceted education program that teaches citizens and local businesses how to reduce waste, recycle, prevent litter, and properly dispose of waste;
- developing comprehensive solid waste, scrap tire, and litter ordinances;
- implementing an active illegal dumping and litter prevention program;
- funding for cleanup of scrap tire piles and scrap tires found along Georgia's roadsides.

### ***Local Government Enforcement and Education Grants***

The Enforcement and Education Grant Program was established by EPD in FY 1994 to assist local governments in developing and implementing local education and enforcement programs that primarily focus on local solid waste management and scrap tire issues.

Since 1994 over \$12.2 million from the SWTF has been awarded to local governments in Enforcement and Education grants. Annually, this amount funded about 50 local government programs. The goal of the grant program was to provide seed money to get the local program started and then, after 3 years, have the program self-sustaining with



local funding. The grant program was discontinued in FY 2005 since the moneys were not appropriated to the SWTF. When the grant ended about 20% of the current grant recipients discontinued their programs. Of the local programs that continued, many environmental compliance officers report that other non-environmental code enforcement responsibilities have been added to their job descriptions.

**Figures 8 and 9** below show the tremendous amount of outreach conducted by local governments to address solid waste, scrap tire, litter, and other environmental issues. Local environmental compliance officers and educators funded by the grant report that education is critical to getting the community's businesses and residents engaged in waste reduction, recycling, and stemming illegal dumping and litter in the community. This grant was suspended in FY 2005 due to lack of funds in the SWTF.

<b>Figure 8</b>				
<b>Local Government</b>				
<b>Educational Outreach Activities</b>				
<b>Educational Activity</b>	<b>FY2001</b>	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>
<b>Schools Visited</b>	<b>300</b>	<b>428</b>	<b>1,337</b>	<b>2,659</b>
<b>Youth Groups Reached</b>	<b>124</b>	<b>220</b>	<b>802</b>	<b>1,048</b>
<b>Civic Groups Reached</b>	<b>153</b>	<b>281</b>	<b>739</b>	<b>1,234</b>
<b>Businesses Reached</b>	<b>459</b>	<b>6,461</b>	<b>13,009</b>	<b>19,127</b>

<b>Figure 9</b>				
<b>Local Government</b>				
<b>Educational Outreach Material</b>				
<b>Activity</b>	<b>FY2001</b>	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>
<b># of articles printed</b>	<b>30,909</b>	<b>16,296</b>	<b>17,734</b>	<b>6,075</b>
<b># of ads printed</b>	<b>3,131</b>	<b>4,059</b>	<b>1,780</b>	<b>26,444</b>
<b># of times displays used</b>	<b>139</b>	<b>552</b>	<b>3,151</b>	<b>3,059</b>
<b># of brochures distributed</b>	<b>173,237</b>	<b>588</b>	<b>169,543</b>	<b>339,259</b>
<b># of PR materials distributed</b>	<b>166,299</b>	<b>900</b>	<b>155,221</b>	<b>306,112</b>

**Figure 10** depicts local government scrap tire compliance monitoring and enforcement activity. These compliance inspections have kept the size of the dumps small. Dumps ranged in size from a few roadside tires to hundreds of scrap tires illegally dumped in piles. Local governments are now beginning to report larger scrap tire dumps. This is due in part because many local governments have reduced or discontinued compliance inspections of scrap tire generators, carriers, and sorters.



Figure 10 Local Government Scrap Tire Enforcement Activities				
Activity	FY2001	FY2002	FY2003	FY2004
Complaints Received	359	858	1,373	1,687
Generator Inspection	1,508	1,955	3,477	2,586
Generator Warnings	-	266	325	228
Generator Citations	22	46	35	39
Sorter Inspections	15	29	67	134
Sorter Citations	2	8	4	7
Sorter Warnings	-	12	17	30
Scrap Tire Dumps Found	211	512	1,063	1,217
Scrap Tire Dumps Cleaned	189	498	962	1,928
Scrap Tires Removed	90,696	181,637	194,493	146,473
Current Number of Dumps	49	618	642	875
Estimated Number of Scrap Tires at Current Dumps	36,670	152,214	236,693	142,160

Figures 11 and 12 respectively show solid waste and other environmental enforcement activities conducted by local governments through the grant program. Due to lack of appropriations to the SWTF the Enforcement and Education Grant Program was discontinued after FY 2003.



Figure 11 Local Government Solid Waste Enforcement Activities				
Activity	FY2000	FY2001	FY2002	FY2003
SW Complaints Received	4,070	5,050	7,714	8,915
SW Dump Investigations	2,862	4,283	5,471	5,312
Inert Landfill Inspections	74	178	252	219
SW Verbal Warnings	-	1,133	1,646	1,904
SW Written Warnings	-	1,700	2,675	3,173
SW Citations	1,245	1,088	2,056	1,611
New Dumps Discovered	592	1,482	2,452	3,101
SW Dumps Cleaned Up	1,153	2,444	2,922	3,987
Current Number of Dumps	146	548	717	1,025

Figure 12 Local Government Other Environmental Enforcement				
Activity	FY2000	FY2001	FY2002	FY2003
Complaints Received	849	1,339	1,682	2,738
Erosion and Sedimentation Inspections	640	1,077	2,935	2,518
Water Investigations	96	202	409	342
Other Investigations	194	1,380	539	824
Verbal Warnings	-	531	928	1,408
Written Warnings	-	325	434	558
Citations	-	211	264	286

## Grants to Other State Agencies



Dalton-Whitfield – Material Recovery Facility

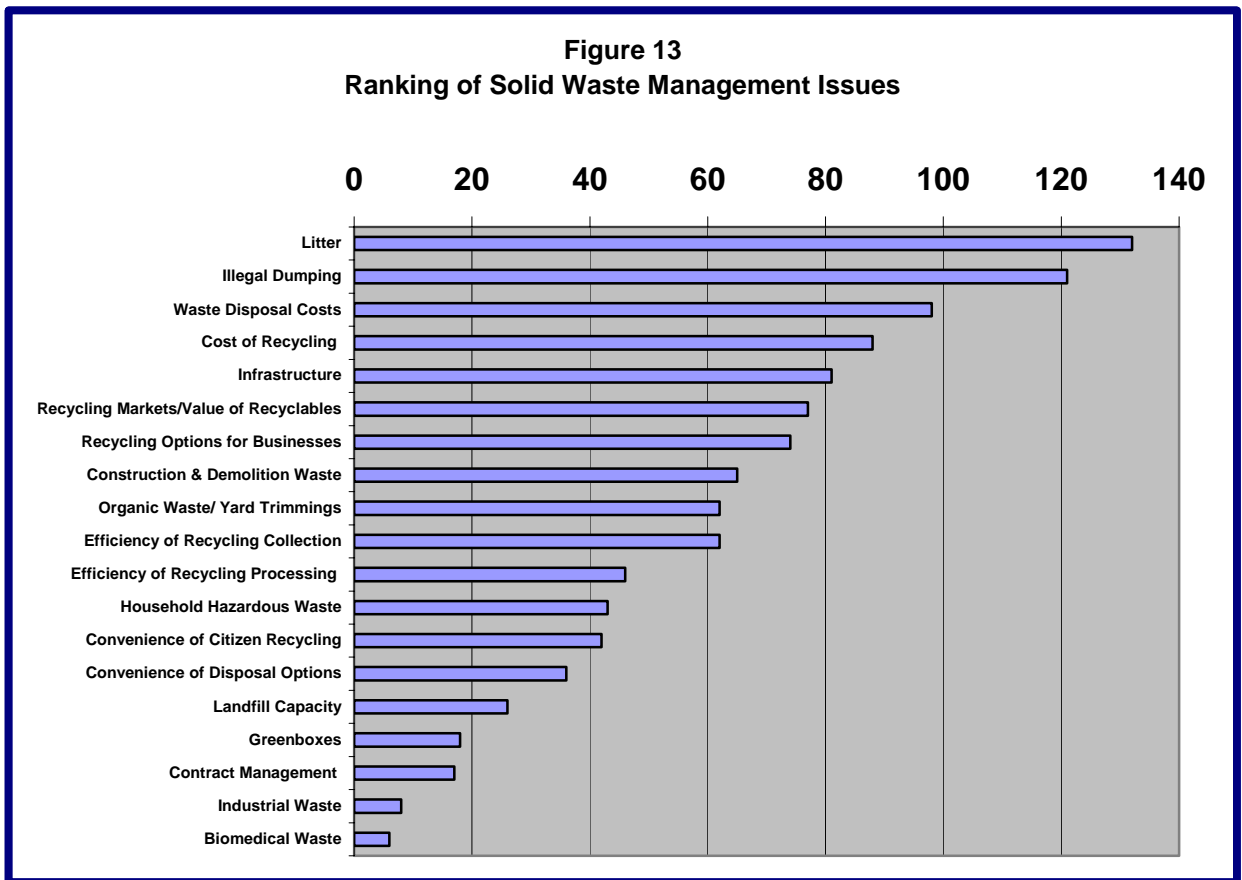
## GEFA – Recycling and Waste Reduction Grant

The Recycling and Waste Reduction Grant Program (RWR) was created in 1995 through a cooperative arrangement between EPD, GEFA, and DCA to assist local governments in implementing their local solid waste plan and providing moneys to local governments so they can construct facilities and purchase equipment needed to reduce and recycle waste. Over \$10 million of SWTF monies have been invested in solid waste infrastructure since 1995 to assist local governments meet the Act's waste reduction goals.

During FY 2005, EPD surveyed RWR grant recipients to determine whether this investment in local government solid waste infrastructure resulted in greater amounts of useful materials being reused or recycled rather than being disposed of in Georgia solid waste disposal facilities.

The complete RWR grant survey report is found in [Appendix C](#) of this report. Four local government projects are also highlight in the survey report. [Appendix D](#) lists all the RWR grant awards made to local governments since its inception in 1995. Since moneys were not appropriated to the SWTF in FY2004 and FY2005, this grant program was discontinued in FY2004.

The RWR grant survey also asked local governments to rank the most pressing solid waste management issues they face in their communities. The results are presented in [Figure 13](#).



## Department of Community Affairs

Using funds from the SWTF, DCA updates the state solid waste management plan, prepares an annual solid waste management report, and oversees local government solid waste planning. DCA also administers the Keep Georgia Beautiful Program and is responsible for developing and coordinating solid waste management education activities in the state.

DCA uses funding from the SWTF for:

### Staff Positions

The SWTF funds four (4) positions at DCA. Two of the positions are responsible for providing assistance to local governments. One of these two positions, a solid waste planner, is the sole person responsible for reviewing local solid waste management plans mandated in the Act. The other position is responsible for waste reduction and recycling technical assistance. The remaining two (2) positions are responsible for the coordination of the Keep Georgia Beautiful Program.

### Local Government Assistance

- **Technical Assistance** – Over the past decade solid waste management services have shifted from the public to private sector for solid waste collection and disposal. Many local governments lack the expertise and resources to hire professional support to assist them with these decisions. DCA provides extensive one-on-one technical support to many communities throughout the state, advising them how to structure their waste and recycling collection programs, providing model ordinances and bid documents, performing cost-benefit analysis of local government operated solid waste facilities, and assisting in design and implementation of special event recycling programs (e.g. electronics recycling). Annually DCA staff handles over 1,500 local government requests for technical assistance and maintains the partnership with EARTHS911 a web and phone directory public outreach assistance resource.
- **Statewide Waste Characterization Study** – local government solid waste management plans required by the Act must include waste characterization data. Typically, this characterization cost to local government is about \$50,000. In FY 2003, funds from the SWTF were used to hire a contractor to conduct a scientific statewide waste characterization study. The findings of this study will be able to be used by local governments in their local solid waste plans and to target their recycling programs to reduce the amount of waste that is disposed of in landfills.
- **Educational Materials** – DCA produces, prints, and distributes a variety of waste reduction and recycling educational brochures. Since June 2000 DCA has delivered nearly 300,000 pieces of educational material to local governments and other organizations for local distribution.

- **Local Government Workshops** – As needed, DCA conducts workshops and training events for local government officials. DCA maintains a list of state recycling coordinators and periodically conducts a Recycling Coordinator Training Workshop, teaching from the manual prepared by DCA for local Georgia Recyclers, the two-day workshop highlights issues local recycling coordinators in the state need to know. Recently DCA, along with its partners, conducted a workshop to help local governments manage the siting of solid waste facilities in their community. Other workshops have address topics such as funding, (Environmental Grant Workshop), yard trimmings management (Backyard Composting), and electronics recycling.



**Great American Cleanup** – Volunteers cleaning up trash found along the Altamaha River.

### Keep Georgia Beautiful Programs

- **Great American Cleanup** – The SWTF is used to support the annual Great American Cleanup activities throughout the state. This statewide cleanup typically has over 200 organizations participating in over 120 counties. Since 1996, over 240,000 volunteers representing almost 1 million volunteer hours have cleaned up over 31 million pounds of trash along over 24,000 road miles and cleaned up over 1300 illegal dumps. DCA has annually used \$15,000 of SWTF dollars to support this program that is typically matched by over \$125,000 in corporate support.
- **Bring One for the Chipper** – Establishing a conservation ethic for yard trimmings, which includes Christmas trees, helps to promote a recycling ethic that spills over to the proper management of yard trimmings and the recycling of scrap tires. Over 130 communities have annually participated in the Chipper program that annually collects over ¼ million Christmas trees. DCA annually uses \$20,000 of SWTF monies to support this program that is annually matched with over \$175,000 in corporate support.
- **School Recycling Guide** – this is a “how to” guide developed in response to teacher requests received each year throughout the state for a guide to help teachers, students, and administrators in establishing a successful school recycling program.

Figure 14  
The Great American Cleanup

Year	Pounds of Trash Cleaned Up	Miles of Road Cleaned Up	Number of Illegal Dumps Cleaned Up
1996	138,380	610	91
1997	590,496	1,140	43
1998	1,388,000	1,140	60
1999	1,419,980	3,300	177
2000	4,200,056	2,805	84
2001	4,244,938	2,828	211
2002	6,561,282	4,382	206
2003	6,615,817	3,165	175
2004	6,542,867	5,016	320
Total	31,701,816	24,386	1,367

## Pollution Prevention Assistance Division

Using funds from the SWTF, P<sup>2</sup>AD develops and promotes programs that encourage cost-effective waste reduction activities in the commercial, institutional, and construction and demolition sectors; helps businesses find recycling and reuse options for their waste streams; and coordinates research to determine the feasibility of or increase the recovery of high volume, problematic or non-traditional solid waste streams such as construction debris, carpet and electronics. P<sup>2</sup>AD maintains a database that helps companies located near each other recover and share their waste materials; the Division also manages an online directory of computer recyclers. P<sup>2</sup>AD spearheads market development activities that include assisting prospective businesses with their business plan and finding recovered materials for their business; manages the state's household hazardous waste prevention and management program; provides grants to collect mercury from schools systems; and facilitates sector partnerships with Department of Defense and Board of Regents to address solid waste and recycling issues. By providing businesses with the tools and assistance to help them reduce waste and conserve natural resources, businesses operate more efficiently and are more competitive in the marketplace. Several key successes funded by the SWTF are listed below.

### General Public Assistance

- **Mercury-related activities** - since 1992, approximately 800 pounds of mercury and mercury-containing devices have been collected and recycled from businesses, medical centers, state agencies, and schools.
- **Household hazardous waste activities** – annually P<sup>2</sup>AD provides technical assistance to local government and the public on the proper management of household hazardous waste (HHW). For example, in FY 2004 technical assistance was given to 13 local governments and over 1,200 calls from the public were responded to regarding HHW issues in the home.

### Commercial and Institutional Sector Assistance

- **State agency waste reduction activities** – every year P<sup>2</sup>AD assists state agencies in identifying cost savings through increased conservation of energy, water, and reduction in solid waste. In FY 2004 P<sup>2</sup>AD assisted the Department of Corrections, DNR Parks and Historic Sites Division, Georgia Building Authority, and the Board of Regents to develop comprehensive waste reduction programs, implement sustainable building practices, and replace mercury thermometers in laboratories.
- **Department of Defense** – The Department of Defense (DoD) is one of the largest employers in Georgia and one of the largest generators of waste. Since 1998, P<sup>2</sup>AD has partnered with DoD to focus on solid waste/recycling issues facing installations in Georgia. Using SWTF dollars, P<sup>2</sup>AD developed a Solid Waste and Recycling Resource Guide to help bases expand their recycling programs, sponsored green building training, produced outreach materials, and assisted bases in finding markets for their waste streams. In 2004, P<sup>2</sup>AD

assisted Ft. Gordon in a pilot project to deconstruct more than 20 WWII warehouses. Over 26,000 cubic yards of material were diverted from the landfill and the sale of materials generated \$14,000 for the base recycling program.

- **Hospitality** is a \$16 billion industry in Georgia and the state's second largest employer. The Georgia Green Hotel Program was created in part to keep Georgia hotels competitive by attracting clients looking for "green" facilities and to lower operating costs through reduction in energy usage and waste reduction practices.
- **Health Care** – Since 1997, P<sup>2</sup>AD has been involved in the American Hospital Association/U.S. EPA's Hospitals for a Healthy Environment initiative to help Georgia hospitals meet national goals for waste reduction.
- **Educational Facilities** - P<sup>2</sup>AD continues to provide waste reduction and recycling assistance to K-12 schools and colleges and universities throughout the state.
- **G-8 Summit** – P<sup>2</sup>AD assisted organizers to develop a recycling program for the meeting.
- **Sustainable Construction** – The demands of the state's growing population include not only more housing and amenities but also new and improved infrastructure. Construction generates enough debris to fill the Georgia Dome six times. To divert construction and demolition debris from landfills, P<sup>2</sup>AD focused on expanding recycling markets for construction and demolition debris, conducting research on the beneficial reuse of C&D, providing training on sustainable construction practices, and assisting contractors in finding recycling markets for their materials. P<sup>2</sup>AD also supports voluntary initiatives, such as EarthCraft House, that provide a framework for building resource-efficient homes. It is estimated that through the participation in the EarthCraft House program, over 2.3 million pounds of wood and 459 tons of drywall have been diverted from landfills since July 2001.



**Enviro-Log**, produced in Fitzgerald, Georgia, is an environmentally-friendly product produced from scrap wax-coated cardboard containers used to transport perishable foods. In the U.S. almost 5 billion pounds of wax-coated cardboard containers are sent to landfills each year.

### Market Development and Resource Recovery

P<sup>2</sup>AD assists businesses in finding reuse and recycling options for their waste streams. In FY04, P<sup>2</sup>AD responded to 400 requests from manufacturers, commercial businesses and institutions. This assistance not only diverts materials from landfills, but it also saves companies money. For example, P<sup>2</sup>AD helped two Georgia businesses divert scrap plastic from their facilities, resulting in 10.75 million pounds of plastic diverted from the landfill and an avoided disposal cost of \$160,000 per year. In addition, one of the companies generates an estimated revenue of \$165,000 per year from the sale of the material. P<sup>2</sup>AD also assisted a produce packing company in diverting 1,080 tons of waxed coated cardboard a year to Enviro-Log, a manufacturer in south Georgia that uses the material to make synthetic fire logs. The produce company saves \$86,400 a year in avoided disposal costs.

### Miscellaneous Activity

P<sup>2</sup>AD staff handled over 1,700 requests from Georgia businesses and citizens for various issues during 2004, participated in print and broadcast media interviews reaching a total audience potential of over 10 million, and trained over 1,200 people on a variety of waste management and waste reduction subjects.

### Wildlife Resources Division

Since FY 2003, EPD has had an agreement with the DNR – Wildlife Resources Division (WRD) to provide scrap tire and solid waste enforcement in the more rural areas of the state where there are no local compliance officers. In FY 2003, funds from the SWTF were also awarded to WRD for improvements at six Regional Education Centers. The funding allows the centers to assist local governments near them with comprehensive environmental education efforts including waste reduction, recycling, litter prevention, and illegal dumping of scrap tires and solid waste. Funds were also used in FY2003 to assist with the Phase 2 expansion at the Charlie Elliott Wildlife Center.

WRD's major enforcement activity is summarized in the table below.

<b>Figure 15 DNR – Wildlife Resources Division Enforcement Activities</b>			
<b>Warnings and Citations</b>	<b>FY2003</b>	<b>FY2004</b>	<b>FY2005</b>
<b>Litter</b>	<b>1,060</b>	<b>801</b>	<b>566</b>
<b>Unlawful Solid Waste Dumping</b>	<b>280</b>	<b>217</b>	<b>132</b>
<b>Unlawful Burning of Solid Waste</b>	<b>82</b>	<b>137</b>	<b>107</b>

### Market Development and Innovative Technology Grants

### Market Development – Scrap Tire Processors

In 1998, the General Assembly adopted House Resolution 874 directing EPD, with the assistance of the Pollution Prevention Assistance Division, to assess current scrap tire management practices in Georgia including the collection, processing, and end-use of scrap tires. Researchers at Georgia State University and Georgia Institute of Technology were commissioned to conduct this assessment.

The researchers made a number findings. The major findings as it relates to Georgia's scrap tire recycling industry were:

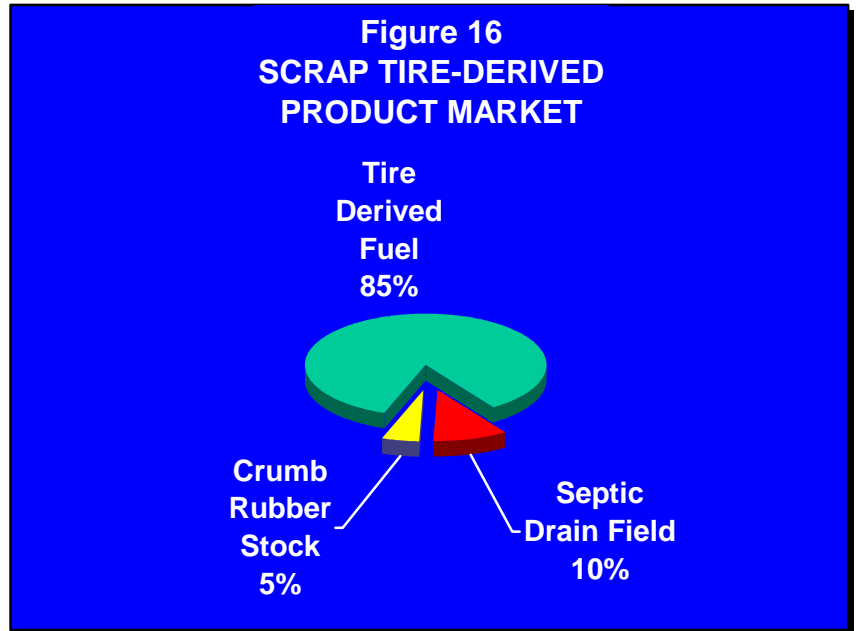
- Current state policies, including the ban on landfilling tires, are effective and necessary to divert scrap tires to available end uses and to minimize disposal in landfills and illegal piles; and
- Current state policies are necessary to support and protect the state's economically fragile scrap tire processing industry.

The policies have been maintained, and as a result, Georgia has 7 permitted scrap tire recyclers located in the state with a capability of processing over 20 million scrap tires each year. They employ approximately 200 people in the state.





**Figure 16** below depicts the scrap tire-derived product market in Georgia. Tire-derived fuel is produced by shredding the scrap tire into chips approximately one inch in size or less and is used primarily as a fuel supplement by the pulp and paper industry in the southeastern United States. Shredded tires are also used as a substitute for gravel in on-site sewage systems. Approximately five percent of the market in Georgia is crumb rubber stock where scrap tires are reduced to a fine ground rubber used in the manufacture of rubber mats, moldings, and other products.



### Innovative Technology Grant

The Act authorizes grants for the implementation of innovative technologies for recycling and reuse of solid waste and scrap tires. As depicted in **Figure 16**, tire-derived fuel (TDF) represents about 85% of current market for scrap tire derived products in Georgia. In an effort to diversify scrap tire derived markets, in FY 02 EPD developed and offered an “Innovative Technology Grant” available only to local governments for projects that would employ local residents and develop other markets for scrap tires.

The City of Milan was the successful applicant and was awarded a \$2.4 million grant for the construction of a facility to produce rubber mat products from ground rubber derived from scrap tires. The City of Milan has contracted with Milan Molded Rubber Products, Inc. to construct and operated the facility.

Construction of the facility began in November 2002. Phase 1 became operational in June 2004 producing 4’x6’ equine trailer and stall mats. Currently, the facility operates one shift and employs 12 people from Milan and the surrounding area. Approximately 150 to 160 mats are produced per shift.

Phase 2 is expected to be fully operational by the end of 2005. Phase 2 involves mixing ground rubber derived from scrap tires with a chemical binder and applying pressure within a cylindrical press to produce a large rubber log. The rubber log is then peeled using



**Milan Molded Rubber Products**

specially manufactured peeling equipment to produce rubber mats of varying thickness. Another major market for the mats produced from the Phase 2 equipment will be the fitness industry. Color specks can be added to the mats that make them very attractive for weight and exercise room applications.

As the Milan plant develops markets for its products and becomes fully operational, the company anticipates the need for a second shift. The resulting 2-shift operation is expected to employ an additional 6-8 people resulting in total employment of about 20 people. At full capacity the Milan plant will annually use up to 6 million pounds of ground rubber derived from scrap tires. The Milan plant's preference is to buy it ground rubber from local suppliers. One of the suppliers of ground rubber for this facility is a ground rubber producing facility located in Calhoun, Georgia. In turn, the Calhoun facility buys many of its tire chips from scrap tire processors based in Georgia that primarily recycle Georgia generated scrap tires.

## Cleanup

### Eliminating Scrap Tire Piles

Eliminating scrap tire piles has been a major activity of the Program since 1992. Over 12.5 million scrap tires have been cleaned up and recycled. The large scrap tire piles that existed in the early 1990's have been cleaned up. Local governments have played a major role in the identification and cleanup of scrap tire piles and in hosting local scrap tire collection and cleanup events.

Local governments have and will continue to play a major role in the prevention and cleanup of roadside tires and scrap tire piles. Historically the SWTF has been used to cleanup tire piles in situations where the responsible party is either unwilling or unknown. Innocent property owners have also had cleanup of their property with moneys from the SWTF. Today, cleanups are primarily conducted in two ways: 1) state lead where EPD hires a contractor and cleans up the tires or 2) reimbursement to local governments for their cleanup costs. In the early days of the program EPD sponsored spring cleanup days where local governments were reimbursed for scrap tires that residents brought into the spring cleanup event.



**Figure 14**  
**Historic Scrap Tire Pile Cleanup Activity**  
**Fiscal Year 1993 – 2005**

Total Number of Tires Cleaned Up	12.5 Million Tires
Total Cost of Tire Cleanups	\$11.5 Million

**Figure 15**  
**Pending Tire Pile Cleanups**  
**Fiscal Year 2005**

Approximate Number of Scrap Tires in New Tire Piles Awaiting Clean Up	200,000
Estimated Cost of Tire Cleanups	\$300,000

## **Emergency, Preventative, or Corrective Actions**

### ***Palmetto Tire Fire***

A company known as Georgia Reclamation, Inc. operated a scrap tire processing facility near the City of Palmetto, straddling the Coweta/Fulton County line, in the 1980s. The company declared bankruptcy around 1988 and was unable to remove an estimated four million tires that had accumulated at the facility.

In June 1992 a fire (cause unknown) began at the abandoned facility. An estimated three million tires were consumed in the blaze. Runoff contaminated with pyrolytic oil from the burning tires heavily contaminated groundwater. The US EPA and Georgia EPD spent approximately \$4.5 million to extinguish the fire, treat the contaminated groundwater, remove and process the remaining one and a half million tires and re-vegetate the site. The groundwater at the site remains contaminated and awaits final cleanup funding.



**Watson Tire Fire** – contractor supervising the excavation and extinguishing of burning scrap tires in the landfill.

### ***Watson Tire Fire***

Georgia's scrap tire management program has significantly reduced the risk of large tire fires. Unfortunately, fires still occur. In September 2002 a fire occurred at the former Watson Tire Landfill located in Upson County.

According to the local fire department, youngsters on ATVs were suspected of starting the fire on September 8, 2002. It was initially thought that the fire was contained on the surface of the landfill. On September 17, 2002 EPD and local government officials confirmed that the fire had spread into the buried tires at the landfill.

Officials from several federal, state, and local government agencies coordinated a swift response to safeguard residents. The Federal Environmental Protection Agency (EPA) led the emergency response action at the site. Residents were evacuated from their homes and EPA brought in a contractor experienced in fighting tire fires to extinguish the fire and stabilize the site. The contractor arrived September 19, 2002 and extinguished the fire on September 23, 2002. EPA's total cost of the emergency response was \$130,000. EPD has spent approximately \$50,000 stabilizing the landfill cover on the site.

### ***Other Emergency, Preventative or Corrective Actions***

Actions have been taken at the following problem disposal facilities:

The NTS landfill is a former tire disposal site that was issued a solid waste-handling permit, but abandoned by its owner before being properly closed. The exposed tires at the site presented an environmental hazard to nearby residents and agricultural operations.

As many as 24 river houses constructed years ago on the Altamaha River have been abandoned without proper disposal by their owners, posing a hazard to the environment of the river as well as navigation. By Resolution dated December 5, 2001, the Board of Natural Resources approved the expenditure of money from the Solid Waste Trust Fund for the purpose of removing these houses from the river and disposing of them properly. The Coastal Resources Division of DNR managed the project.

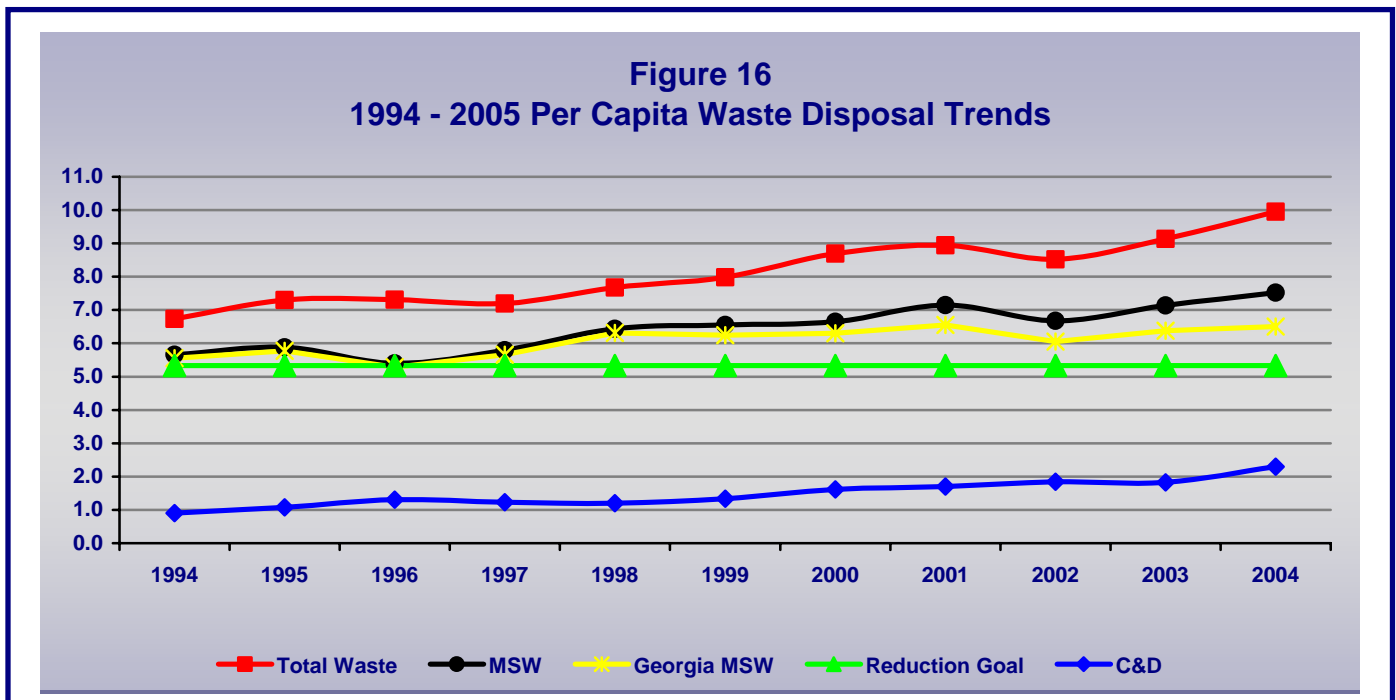
The Crymes Landfill is a closed solid waste disposal site on the border of Gwinnett and DeKalb counties. The facility closed prior to requirements for post-closure care and landfill gas monitoring control. Site investigations of adjoining property have revealed explosive levels of landfill gas that pose a serious threat to commercial and residential areas. In the absence of a responsible party willing to promptly undertake the investigation and preventive measures necessary to safeguard the area from this hazard, the Board of Natural Resources, by Resolution dated January 24, 2001, authorized EPD to perform the needed actions through expenditures from the Solid Waste Trust Fund. EPD used the SWTF to hire a contractor to install a methane gas monitoring system. The monitoring system confirmed off-site migration of methane gas. The responsible parties have notified EPD that they will assume responsibility for the installation of a permanent methane gas monitoring and extraction system. The cost to design and install the system is estimated to be over \$2 million.

## Future Challenges

Unless reauthorized, the SWTF will expire June 30, 2008, leaving Georgia with no funding mechanism to deal with a myriad of solid waste problems and issues. In addition, unless the SWTF receives sufficient appropriation these environmental needs will remain unmet.

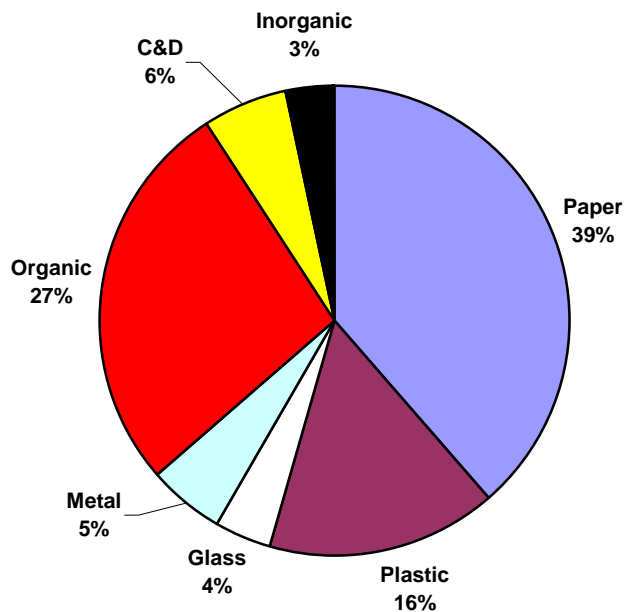
### Solid Waste Reduction

**Figure 16** depicts 1994 – 2005 per capita waste disposal trends. The green trend line represents the 25% percent waste reduction goal established in the Act. It equals a per capita waste generation rate of 5.3 pounds. The yellow trend line shows that in 1996 the 25% waste reduction goal was almost met, but since, has been on the rise to the current per capital rate of 6.5 pounds. Georgia's current per capital waste disposal rate is approximately 30% higher than the national average. In other words, on average, each person in Georgia creates 30% more garbage for disposal than the national average.



A recent study found that significant quantities of waste are being disposed that could be diverted for use by Georgia industries that use them as feedstocks. **Figure 17** depicts the composition of municipal solid waste disposed of in Georgia that could be used by these industries. Reducing the amount of waste disposed also conserves land, prevents property diminution, and reduces environmental degradation caused by landfills. A new per capita goal should be established and a renewed coordinated statewide emphasis on waste reduction and recycling implemented. The funding from the SWTF that was being used to build waste reduction and recycling infrastructure in communities should be restored.

**Figure 17**  
**Georgia's Municipal Solid Waste Composition**



### Solid Waste Planning

The Act mandates solid waste planning. The SWTF funds this critical activity. Today, the state is facing significant solid waste issues. Although there is adequate disposal capacity in the state, this capacity is located far from many communities resulting in solid waste being hauled longer distances. Longer hauling distances increase energy consumption, truck traffic, air pollution, and litter along our roadsides. Cheap disposal, which does not reflect the long-term environmental care costs of these disposal facilities, are encouraging waste imports into Georgia from other parts of the U.S. including the northeast. Cheap disposal is also discouraging waste reduction and resulting in the state's disposal facilities filling up faster than necessary. Preserving the state's disposal capacity is important because siting of new disposal facilities is costly and creates great concern in communities because they do not want these facilities close to them. Careful solid waste planning is an important tool to ensure solid waste management needs of our state are met.

## Prevention and Cleanup of Scrap Tires

The scrap tire management program mandated by the Act is an excellent example of what can be accomplished when sustained focus, effort and funding are provided to deal with a significant environmental problem. The SWTF has funded cleanup of over 12.5 million scrap tires. It continues to provide funding for education, compliance monitoring and enforcement to prevent illegal tire piles from reoccurring. Unfortunately, some states have eliminated or are using the funds for other purposes only to see scrap tire piles reappear. Georgia must continue to sustain its effort to avoid the lessons learned by other states that eliminated their scrap tire management program.

## Abandoned Solid Waste Facilities

The Act provides that the SWTF be used to take care of abandoned solid waste disposal facilities. Without the SWTF, no funding mechanism will exist to closeout and provide post-closure care for solid waste facilities abandoned by bankrupt companies. The cost of these activities can be high. For example, the cost to close and care for one abandoned landfill in east DeKalb County is estimated at over \$2.7 million. EPD currently has insufficient funds to deal with this site. The timing, scope, and cost of site abandonments are unpredictable.



**Scales Road Landfill – Abandoned by the owner/operator. Closure and post-closure care costs estimated at \$2.7 million.**

## Education

Many Georgians are unaware of the impact their individual actions have on the environment. Education and technical assistance are fundamental to effective efforts in combating pollution. Through effective and sustained environmental education and technical assistance, individuals learn to avoid behaviors that harm our natural resources, the environment and a high quality of life.

## Litter Prevention

Research has shown that litter decreases property values, increases crime, negatively affects tourism, and reduces the desirability for businesses to stay or locate in a community. Recognizing this, Governor Perdue signed an Executive Order in 2005 to seek ways of combating the growing litter problem in the state. Monies from the SWTF continue to support the Keep Georgia Beautiful Program administered by DCA. The SWTF has also funded local education and compliance programs to address illegal dumping, including litter. Funding is needed to continue existing programs and to help fund new litter prevention initiatives. Money to address litter prevention will be needed from the SWTF in the future.

## Compliance and Enforcement

Many Georgia communities report that illegal dumping and litter are the top two solid waste issues that they currently face. Compliance monitoring and enforcement is a critical component of local government and EPD's effort to ensure proper management of solid waste. Enforcement is typically used when a person has the knowledge and opportunity to comply, but chooses not to do so. In the past, funding from the SWTF has funded local education and compliance monitoring and enforcement programs. Due to the budget shortfall, EPD ceased funding local programs in FY 2005. For the same reason, EPD has not filled several of its compliance monitoring and enforcement positions.

As a result of the local government and EPD reducing its compliance monitoring and enforcement effort, illegal dumping and litter are on the rise.

#### **Emergency Action at Solid Waste Facilities**

Sufficient reserve funds in the SWTF are needed for emergencies. In the past the SWTF has been used to extinguish fires at landfills and tire piles, to address methane gas problems at landfills, and to control contaminated runoff that threaten the waters of the state. These situations are unpredictable and can be very costly.

## **Appendices**



## **Appendix A**

### **The Environment as an Integrating Context for Learning**

#### **Education and Outreach**

The Solid Waste Trust Fund supports two education and outreach programs administered by the Georgia Department of Natural Resources Environmental Protection Division Land Protection Branch: The Online Guide to Environmental Education in Georgia ([www.EEinGeorgia.org](http://www.EEinGeorgia.org)) and EIC, the “Environment as an Integrating Context for Learning” school improvement initiative.

#### **EIC -**

In 1994, a study of federal and state education agencies, local school districts, universities and environmental organizations found that environmental education had achieved only minor integration in systemic education reform efforts. In 1995, the State Education and Environment Roundtable (SEER), a cooperative endeavor of sixteen state education agencies funded by The Pew Charitable Trusts, was established to address this issue.

SEER conducted research of forty U.S schools, and published its findings in *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*. The data indicates that use of the EIC Model has significant positive effects on academic achievement, classroom behavior, and instructional practices.

In 1998, SEER developed a professional development model for teachers and administrators based on the “best education practices” identified in its research. Learning based on the EIC Model is about using a school’s surroundings and community as a framework within which students can construct their own learning, guided by teachers and administrators using proven educational practices ([www.seer.org](http://www.seer.org)).

In 2001, SEER invited the Georgia Department of Education (GDOE) to establish a network of EIC demonstration schools in the State. Representatives from the Georgia Environmental Protection Division (GEPD) and the University of Georgia (UGA) committed to serve as the coordinator and co-coordinator of EIC in Georgia, and the Environmental Education Alliance of Georgia committed to assist with resource development. EIC in Georgia was initiated to strengthen the relationship between the Georgia Department of Education and the environmental education community, establish environmental education as a valid method for accomplishing the goals of the education system, and develop a process for integrating environmental education into the K-12 curriculum.

In 2002, the Georgia Department of Education distributed applications to all public schools in Georgia. A forty-member committee of educators, representing a wide variety of specialties, reviewed applications from schools across the state and selected the top ten based on their strength to implement the EIC Model, and their geographic and demographic diversity. Four additional schools were selected in 2003. An EIC coordinator provides the schools with professional learning opportunities, funding and technical support throughout the school improvement process.

The Georgia State Board of Education approved the EIC Model Program to address the underperformance of K-12<sup>th</sup> grade students on standardized Science measures. In 2008, an independent study of the effectiveness of the EIC Model on student achievement, classroom behavior, and school attendance will be published and used as a foundation for application in at-risk Georgia schools.

### **Major Accomplishments**

- ❑ **Leveraged SWTF funds 1:2.** Matched \$112,000 from the Solid Waste Trust Fund with almost \$150,000 from the Improving Teacher Quality State Grants Title 11, Part A of the No Child Left Behind Act, \$40,000 from the Environmental Education and Training Partnership (EETAP), \$38,000 from the Captain Planet Foundation and \$10,000 from the Georgia Power Foundation. In addition, partnership agencies and organizations made a significant contribution of time, funding, and other resources to the participating schools.
- ❑ **Promoted the nationwide research and components of the statewide initiative.** Hosted the State Education and Environment Roundtable (SEER), representatives from sixteen state education agencies, the developers of the EIC Model, for their annual meeting in Atlanta. Launched the EIC Web site ([www.eeingorgia.org/eic/](http://www.eeingorgia.org/eic/)), highlighting the schools' accomplishments. EIC coordinators, school administrators, and teachers delivered presentations at the Georgia Science Teachers Association and National Science Teachers Association conferences, Georgia Council for the Social Studies conference, Learn and Serve conference, Middle Schools and High Schools that Work conference and Outdoor Classroom Council symposium. The EIC Model was prominently featured at the Environmental Education Alliance (EEA) of Georgia annual conferences through presentations and exhibits. In 2003, SEER's Linda Hoody delivered the keynote address at the EEA conference.
- ❑ **Supported teacher training.** EIC Implementation Institute – 148 educators trained since 2002; EIC/Garden Earth Training – 31 educators trained since 2003; Biodiversity Basics/Monarchs Across Georgia/Native Seasons/Project Learning Tree/Project WET/Wonders of Wetlands Workshops – 152 educators trained since 2003; Environmental Education Alliance of Georgia Annual Conferences – 60 educators participated since 2003; Outdoor Classroom Council Symposium – 36 participated since 2003.
- ❑ **Supported schools.** Shared technical expertise, observed classes, facilitated meetings with EIC school teams and their principals, and interviewed students and teachers at each of the fourteen schools.
- ❑ **Received feedback and recognition.** The following quotes are paraphrased examples of the feedback the EIC in Georgia initiative received from students, teachers and administrators: "I like to experiment outdoors to find out if the book is right," "He never took an interest in learning until we did the watershed project," "I was seriously considering not renewing her contract next year because of her lack of motivation. Since she joined the EIC team, I can't help but notice her enthusiasm for teaching. She has become a leader through this."

EIC School – Arnold Magnet Academy, Columbus – 2003 Georgia Project WET (Water Education for Teachers) School of the Year;

EIC Teacher – Ruth Pinson – 2003 Floyd County Schools Teacher of the Year;

EIC School – Centennial Place Elementary School, Atlanta – 2004 Georgia Project WET School of the Year;

EIC Teacher – Jenny McMahan – 2004 Midway Elementary School Teacher of the Year (Milledgeville);

EIC Partner – Environmental Education Alliance of Georgia – 2004 North American Association for Environmental Education Outstanding Affiliate - EIC cited as one of the organization's award-worthy initiatives;

EIC Administrator – Dr. Sally Pamplin – 2005 Environmental Education Alliance of Georgia Outstanding Service Award for her leadership of the EIC program at Shakerag Elementary School, Duluth;

EIC Students – 6<sup>th</sup> Graders at Armuchee Elementary School, Rome, 2005 Georgia Wildlife Federation's Youth Conservationists of the Year.

## **Appendix B**

### **The Online Guide to Environmental Education in Georgia**

[www.EEinGeorgia.org](http://www.EEinGeorgia.org)

EPD Land Protection Branch recognizes that educating Georgians about their environment and developing their skills to make informed decisions, solve problems, and take responsible actions is critical to attaining voluntary environmental compliance and stewardship. This is particularly true for areas such as litter prevention and waste reduction where problems result from the collective behavior of individual citizens and regulation is not an effective tool.

In 1999 EPD began strengthening its longstanding partnership with the Georgia Department of Community Affairs' Keep Georgia Beautiful program and forming partnerships with other organizations that support environmental education (EE). A needs assessment conducted by EPD and its partners determined that even though a wide variety of EE resources and programs were currently offered by many different government agencies and private organizations, the education community and general public were frequently unaware of them or were frustrated by a multitude of tools that failed to address their specific needs. Even within the EE community, there were organizations that did not know the existence and efforts of other EE organizations. Consequently, there was potential for both insufficient information exchange and duplication of effort. EPD established the need to catalogue and organize these efforts and present their availability in a coordinated approach.

To address this need, EPD worked in partnership with Department of Community Affairs' Keep Georgia Beautiful Program, Department of Education, Georgia Parent Teacher Association, and Environmental Education Alliance of Georgia to develop The Online Guide to Environmental Education (EE) in Georgia. This Web-based EE initiative was launched in 2002. The goal of EEinGeorgia.org is to build statewide capacity for environmental education by providing EE lesson plans based on state curriculum standards, a searchable directory of Georgia's EE providers and the resources they offer, a statewide calendar of EE events, easy-to-access facts about Georgia's environment, and updates on current EE grants, awards, news, etc. By coordinating efforts of over 200 state agencies, nonprofit organizations, and other partners, EEinGeorgia.org has served classroom teachers and nonformal educators as the statewide clearinghouse for EE for over three years.

#### **Major Accomplishments:**

- Delivered monthly electronic newsletters informing teachers and other educators of the latest EE news, teaching resources, events grants, contests, and awards added to the EEinGeorgia.org Web site. More than 1,800 educators currently subscribe to the monthly E-newsletter.
  
- Conducted over 50 EE presentations at various school workshops, courses, symposia, and other events including annual meetings or conferences of the Georgia Recycling Coalition, Georgia Council for the Social Studies, Science Teacher's Association, Environmental Education Alliance of Georgia, Georgia

Parent Teacher Association, Keep Georgia Beautiful Directors, Scrap Tire Enforcement and Education Grantees, etc.

- Conducted teacher education courses and worked with partner organizations to develop and publish over 160 EE lesson plans that address and assess state education standards in grades K-12. These lesson plans are also published in the Department of Education's online lesson plan database available to all Georgia teachers.
- Distributed over 100,000 EEinGeorgia.org bookmarks to teachers at all 2069 public schools and 138 independent schools in Georgia.
- Steadily increased use of EEinGeorgia.org Web site. Over 200 EE organizations currently submit resources and events to EEinGeorgia.org. Classroom teachers and other educators rely on the site to locate available EE lesson plans, curriculum guides, grants, awards, outreach programs, field studies, conferences, and professional learning courses to meet their specific needs. The site received a total of over 875,000 page requests from January 2003 – June 2005. EEinGeorgia.org currently receives an average of 53,019 page requests per month.
- Created "Guidelines for Solid Waste Education." Developed for programs supported by the Solid Waste Trust Fund, these guidelines focus on achieving two goals: 1) Reducing solid waste and 2) Making Georgia litter free. They will also serve as a framework for developing future lesson plans and educational materials.
- Served on the board of directors of the Environmental Education Alliance of Georgia, on the Outdoor Classroom Council, and on the Education Committee of the Georgia Recycling Coalition. Major achievements include working with these partners to present the annual EE Conference and annual Outdoor Classroom Symposium. Each event is attended by 250-300 educators annually. Other accomplishments include creating a printed Directory of Georgia EE Providers and distributing it to all public and independent schools in the state, coordinating an annual recycling grant program for schools and recycling awareness contest for students, and developing the Guide to Recycling in Georgia Schools.
- Leveraged funds and resources. In 2000, EPD received an EE Capacity Building grant from the Environmental Protection Agency (EPA). \$35,000 of these funds were used to create the EEinGeorgia Web site and program. EPD was recently selected as a finalist for a second EPA grant. If selected for funding, this grant would provide \$55,000 to enhance the EEinGeorgia Web site and create similar EE clearinghouse Web sites in seven other southeastern states. Partnering with these other states will achieve substantial cost savings and leverage resources to further build capacity for EE.
- Efficiently managed the EEinGeorgia Web site. By converting to a content management system in January of 2003, the EEinGeorgia site is more efficient, user-friendly, and cost-effective. The site will be more sustainable in the future

because specialized training and software are no longer needed to manage the Web site.

- Initiated the Georgia Green and Healthy Schools Initiative. In 2004, EPD worked with the Department of Community Affairs and Georgia Parent Teacher Association to create a new collaborative initiative to assist and support schools in understanding and practicing environmentally sound principles. This statewide project now includes over 30 partner agencies and organizations.
- Received Recognition. In 2005 the EEinGeorgia Coordinator received the Outstanding Service Award from the Environmental Education Alliance. This award is given to a person who has “contributed in significant and meaningful ways to the advancement of the field of environmental education through dedicated and exemplary teaching, research and/or service.”

Appendix C  
Georgia Environmental Facilities Authority  
Recycling & Waste Reduction Grant Program  
Solid Waste Trust Fund  
Benefit Analysis

I. Background

One of the missions of the Solid Waste Trust Fund, which is supported by the \$1 fee on new replacement tires purchased in the State, is to allow grant funding to local governments in order to help them achieve the goals of the Georgia Comprehensive Solid Waste Management Act. The Act states that:

*It is further declared to be the policy of the State of Georgia to educate and encourage generators and handlers of solid waste to reduce and minimize to the greatest extent possible the amount of solid waste which requires collection, treatment, or disposal through source reduction, reuse, composting, recycling, and other methods and to promote markets for and engage in the purchase of goods made from recovered materials and goods which are recyclable. (OCGA 12-8-21. (b))*

The GEFA Recycling & Waste Reduction Grants are an integral part of this statewide mission. The grant program was established by cooperative arrangement between GA-EPD, GEFA and DCA to grant Solid Waste Trust Fund money to local governments so that they can afford the facilities and equipment needed to recycle and reduce waste.

The EPD Waste Reduction & Abatement Program recently examined the results of the Georgia Environmental Facilities Authority (GEFA) Recycling & Waste Reduction Grant Program in order to determine the value gained by the Solid Waste Trust Fund Investments in local government recycling infrastructure and the effectiveness of the grant program in supporting waste reduction. The recycling infrastructure purchased for local governments by the grant program includes containers for the collection of recyclables, buildings for the processing and storage of recyclables, and processing equipment such as conveyor belts, balers, and forklifts. EPD examined how this infrastructure helped local governments to gain efficiency in their recycling program and divert greater amounts of useful material from Georgia landfills.

Four EPD staff people performed interviews with the contact persons from twenty-four local government programs. EPD identified contact persons by the GEFA grant applications. EPD selected local government programs at random from each area of the state, however, more recent grant recipients were given priority since those contact persons were easier to locate.

This report explains the conclusions drawn from EPD's interviews with contact persons and from EPD's observations during visits to the recycling centers. EPD staff found that the GEFA grants were very successful in helping local governments achieve the mission given to them by the Georgia Comprehensive Solid Waste Management Act to reduce the amount of useful material they send to the landfill.

## II. GEFA Grant Benefits

A graph of specific GEFA grant benefits is included in Attachment A. The highlights of these benefits are as follows:

### **No misuse of equipment was observed-**

During the visits to 24 grant recipients, EPD staff observed all of the equipment purchased through the Recycling & Waste Reduction Grant Program is still be used for its intended purpose. The bailers, vehicles, containers and other equipment were all actively in use at the recycling centers and convenience centers. The lack of misuse proves there is a real need for this equipment.

### **Grant money helps local government recycling programs gain efficiency-**

GEFA grants allowed local governments the chance to get a new piece of equipment or build a new convenient center that helped them recycle more and rely on landfill disposal less. The new equipment and centers either made the collection and processing of recyclables more efficient or more convenient for citizens. As a result, recycling became more cost effective.

Athens-Clarke County, Baldwin County, Cherokee County, the City of Jesup and the City of Roswell all stated that the GEFA grants allowed them to increase their volumes of recyclables and sell the material at a better price. The revenues helped local governments to off-set the operating cost of recycling and sometimes even make a profit. The Dalton-Whitfield Material Recovery Center, for example, has started to make a profit after only three years of operation (excluding costs of capital equipment, such as the bailer which was funded by GEFA).

The GEFA grants in Floyd, Laurens, Peach and Pickens Counties, to name a few, allowed the local government to provide its citizens with a more convenient access to recycling. In the City of Pembroke, the GEFA grant helped the county get equipment to sort recyclables so that the citizens would not have to. In each of these cases, greater convenience resulted in an increase in volumes of recyclables and a decrease of materials wasted in the landfill.

### **GEFA grants have roll over benefits to private sector business-**

The manufacturers that utilize the recycled commodities in their industry benefit from the public sector collection of recyclables. There were also a few specific examples of other benefits to private sector business:

- In the case of Floyd and Pickens County, private industry recycling was spawned by the public sector efforts. In Floyd County, a private sector cardboard recycler took over the accounts that Floyd County helped to establish. In Pickens, Keep Pickens Beautiful's effort to enhance recycling in the County encouraged a private sector firm to start a curbside collection route for recyclables.
- The poultry compost demonstration project in Baker County identified best practices for poultry composting that could be profitable for poultry farmers, and it identified potential end markets, which is a important contribution in poultry litter compost market development.



## **GEFA funds allowed local government the chance to implement Solid Waste Management Plans –**

All programs that were interviewed stated that the grant was necessary in order for their local government to implement the goals in their Local Solid Waste Management Plan. Local Governments need funding and other incentives to implement these plans, which are required by the Georgia Comprehensive Solid Waste Management Act.

### **III. Other Findings**

#### **Georgia has inconsistent economic and political incentives for waste reduction-**

The economics of recycling varies from local government to local government. Counties without a landfill have to pay landfill tipping fees and therefore have an economic incentive to reduce waste, but Counties that host a landfill do not have a financial incentive to recycle since they do not have to pay a tipping fee and/or they lose tipping fee revenue. For example, in Decatur County, they have an incentive to recycle because they do not own or host a landfill and must pay tipping fees to send material to a neighboring county's landfill. In the past 3.5 years, recycling has saved them \$64,445 in landfill tipping fees. In Baldwin County who owns and operates a county landfill, however, there is less incentive to recycle because the local government actually loses revenue when its citizens recycle because that material is diverted from the landfill and the local government landfill does not receive the tipping fee. Luckily, Baldwin County still chooses to recycle because they understand the future costs and liability of landfills.

Economics are not the only incentives for recycling. State government leadership in the recycling effort and state pressure on local government to reduce waste can help recycling programs to maintain progress. Leadership can come in the form of trainings, guidance materials, and policies. Pressure can come in the form of enforcement of the policies. Several of the contact people interviewed said that they have observed a decrease in the state government's support for recycling and waste reduction. They would like to see state agencies maintain incentives and even pressure on local governments to reduce waste. Otherwise, several local programs will choose not to bother with recycling and waste reduction.

#### **The benefit of GEFA funding for facilities assessments was not as clear as the benefit of GEFA funding for equipment and facility construction-**

As the chart in Attachment A suggests, GEFA funding for equipment and facility construction is very valuable to local governments. All grant recipients fully endorsed the benefits of these grants. When asked about the benefit of facilities assessments, EPD got a more subdued response. Only Floyd County and the Cities of Roswell and Jesup have received facilities grants. Roswell and Jesup both stated that their assessments told them what they already knew. These programs are relatively experienced, suggesting that perhaps the facility assessments would be more beneficial to brand new programs. Facility assessments are also beneficial in situations where an unbiased third party opinion is needed. For example, Floyd County needed an independent opinion on how to retrofit their recycling facility and grow the program. The 2000 GEFA grant for a facility assessment helped Floyd County accomplish this task and avoid a potentially costly mistake.

#### IV. Ranking of Local Solid Waste Management Issues that Remain

Eighteen (18) grant recipients that were interviewed were given a list of the following solid waste management issues so that EPD could measure the needs of local solid waste management programs. They were asked to rank each issue according to how problematic that issue was for their local government, 1 being not very problematic and 10 being very problematic. The results of that ranking are as follows. These numbers represent the sum total of numbers selected by grant recipients to characterize these issues. These results can help the State to focus its effort and develop programs that will help local governments solve their most problematic solid waste issues.



## V. Future Program Needs and Opportunities

The following conclusions were drawn from comments made by GEFA grant recipients interviewed during EPD's visits:

- Litter and illegal dumping are ranked as the biggest local solid waste management problems, so there is an on-going need for state assistance with local environmental compliance programs.
- There is an on-going need for the GEFA grant and loan programs because local governments have difficulty budgeting for the purchase of recycling equipment.
- There is an on-going need for education to citizens on recycling methods in order to maintain both the quantity and quality of materials collected, both of which determine the value that local governments receive when selling their recyclables.
- Scrap tires are still a problem, mainly with one to four tires being littered along roadways.
- Many local governments, even those that have successful recycling collection programs, do not have official policies for buying recycled products. Many do not realize that increasing demand for products with recycled content will help increase the value of the recyclables they collect and send to market.
- There is an on-going need for recycling coordinator trainings to teach local officials how to select equipment, market materials, improve efficiency, track costs, etc.

Attachment A: GEFA Grant Benefits  
 (Noted during follow up visits to GEFA Recycling & Waste Reduction Grant recipients)

Local Government	Population Served	\$ Awards 1996-2003	# Employed as a result of recycling program	Equip. still being used as intended?	Increase in tonnage recycled	Waste diversion stats	Other efficiency gained	Quote from grant recipient
Athens-Clarke County	103,691	\$224,500	2 FTE	Yes	From 10,000 tons in 2001 to 13,000 tons in 2003.	13,000 tons/year	Thanks to the 2001 GEFA grant which helped fund the construction of a Materials Recovery Facility at the Clarke County MSW landfill, there is an increase in tonnage of recyclables sent to the Athens-Clarke Recovered Materials Processing Facility. The increased tonnage has resulted in a decrease in the net cost per ton that Athens-Clarke must pay for processing recyclables. They are now starting to generate revenue.	"Athens-Clarke County extends our sincere appreciation to GEFA and Georgia lawmakers who provided this funding assistance for the above noted projects. Athens-Clarke County's waste reduction efforts have garnered state and national awards over the past 10 years. The financial assistance provided to our community through the Solid Waste Trust Fund has guaranteed the success and longevity of our waste reduction program." – Sharyn Dickerson, ACC - Assistant Solid Waste Director/Waste Reduction Manager
Baldwin County	44,953	\$103,038	11 PT & 3 FTE	Yes	From 3347 tons recycled and mulched in 2002 to 5100 tons in 2004	25% of total waste stream	These projects enabled the county to increase their volume recycled and therefore make a profit from the sale of recyclables. Prior to the projects, they only broke even.	"We could not be at this point if it weren't for this grant program." -Ralph McMullen, Assistant County Manager
Charlton County	10,707	\$25,000	0.5 FTE	Yes	no figures to show an increase in tons recycled were provided	420 tons/year	The trailers allowed the businesses on the route to load the cardboard into the trailers directly. Prior to the grant, the businesses would drop cardboard in an area on the ground and the Satilla CSB would load the cardboard from the ground to the trailer.	"Our agency provides meaningful work for the disabled of our area. The (grant) project will help to ensure our financial stability and ability to provide work for the disabled." - James Carter, Service Center Director (2003 GEFA Grant Application Cover Letter)
Chattooga County	26,422	\$148,186	6	Yes	no figures on increase over the years provided	1140 tons/year	The high capacity chipper produces wood mulch that is given away to the public, reducing tonnage of waste going to landfills. According to Lamar Greg, Public Works Coordinator, this has cut disposal costs for wood by half.	
Cherokee County	166,639	\$120,000	3.5 FTE	Yes	From 1,557 tons in 2002 to 2,000 tons in 2004	2000 tons/year	Because the projects helped Cherokee Co. process greater volumes of material in a way that allows them to sell the material at a better price, they have increased their revenue and offset the cost of recycling.	"If it weren't for the GEFA grant, Cherokee County would not have a recycling program, or else it would be a small, token recycling program with very few items recycled." -Stan Hall, Environmental Coordinator

Claxton, City of (with Evans Co.)	11,365	\$175,000	0	Yes	no figures to show an increase in tons recycled were provided	25% of total waste stream	The City of Claxton has a contract with a private company for solid waste collection. The recycling program has reduced the tonnage of solid waste collected and has reduced the cost of disposal for the City.	The City of Claxton and Evans County could not have established a recycling program without the grants." - Gayle Durrence, City Administrator
Clinch Co.	6,967	\$77,304	0.5 FTE	Yes	no figures to show an increase in tons recycled were provided	no figures on waste diverted were provided	The grant in Clinch County has focused on cardboard, which is the most marketable material in the area, and allowed for a partnership between the County and the Satilla Community Service Board. The recycling program provides meaningful work to mentally handicap individuals, and helps businesses in Clinch County reduce their waste stream.	
Dalton-Whitfield Co.	87,833	\$250,000	3 FTE	Yes	From 543 tons in 2002 to 2628 tons in 2004	2628 tons/year	GEFA also provided a grant for Dalton-Whitfield to develop a permanent Household Hazardous Waste (HHW) Facility. Each year the amount of HHW collected at this facility and diverted from the landfill has grown steadily from 9.4 tons during its first year to 10.9 tons in 2004.	"The GEFA grant allowed us to divert recyclables from the carpet industry from the landfill and serve as a model for carpet recycling nationwide." -Mack Belue, Director of Dalton-Whitfield Regional Solid Waste Management Authority
Decatur Co.	28,212	\$140,000	3 FTE	Yes	From 390 tons in 2000 to 650 in 2004	650 tons/year	In the past 3.5 years, recycling has saved \$64,445 in landfill tipping fees and has kept over 671 commercial-sized truckloads out of the landfill.	"It has been wonderful having the two forklifts to help us move materials. Our shelter area has made a big difference in the amount of work time we can provide for our employees since rainy wet weather is no longer a major problem." -Diana Dowdy, Recycling Center Manager
Floyd Co.	93,368	\$388,492	4 FTE	Yes	From 4000 tons in 1996 to 6000 in 2004	6000 tons/year	The 1998 grant which funded equipment for the remote sites allowed citizens to have much more convenient access to recycling. The citizens expressed appreciation for these sites.	"GEFA funding to hire a consultant to develop a master-plan for recycling was invaluable." -Marta Turner, Recycling Center Director
Hart Co.	23,432	\$184,500	0	Yes	From 979 tons in 2001 to 1014 in 2004.	10% of total waste stream	There is a slight revenue gain overall from the recycled materials but the main savings is for the citizens with the Pay as You Throw system. The citizens have the opportunity to cut their waste disposal costs by taking advantage of the opportunity to recycle.	"Without the grants..., the trend toward recycling would be reversed and the county would also have to start charging to recycle." -Jon Caime, Hart County Administrator

Hazlehurst, City of	3,787	\$196,961	3 FTE	Yes	no figures to show an increase in tons recycled were provided; they will start tracking in FY06	no figures on waste diverted were provided; they will start tracking in FY06	The grants allowed the City to expand recycling efforts to the general public and collect cardboard, office paper and newspaper. Each ton collected saves them the \$30/ton tipping fee they would otherwise have to pay at the landfills in Telfair and Toombs Counties.	The GEFA grants, especially for the warehouse, were a tremendous help." -Ethelene Creech, City Clerk
Jesup, City of (with Wayne Co.)	27509*	\$316,328	~2 FTE	Yes	now recycle 1500 tons per year	21% of total waste stream	The recycling program serves 9000 City of Jesup residents with curbside collection and Wayne County residents with the drop off center, all at no cost to taxpayers. The efficiency they have gained has allowed them to get better prices for material and offset their cost of operation.	"We would never have been able to start (the recycling program) without the GEFA grants." -Mike Deal, City Manager
Jones Co.	25,472	\$87,179	0	Yes	no figures to show an increase in tons recycled were provided	no figures on waste diverted were provided		
Laurens Co.	46,108	\$192,475	several PT positions	Yes	no figures to show an increase in tons recycled were provided	310 tons/year	The grants helped Laurens County convert unmanned disposal centers to manned convenience centers. The unmanned sites were an "eyesore" for the community and a source of litter. The new centers allowed citizens to have a safer, cleaner solid waste collection site, as well as the opportunity to recycle. The new centers also helped to reduce litter.	
Madison Co.	27,075	\$91,000	0	Yes	430 tons in 2000 to 450 tons in 2004	450 tons/year	The grants improved the operation of the recycling center and greatly assisted the understaffed personnel at the center. The cage trailers also provide more convenience for aluminum can recycling at their remote locations.	"We could not have progressed this far without help from GEFA. It has allowed us to give our kids lessons and offer services only big cities can afford." -Sandra Webb, Solid Waste Director
Monroe Co.	23,244	\$50,000	0	Yes	1078 tons in 1998 to 2399 in 2004	2399 tons/year (does not include motor oil and filters)	The facility experienced a decrease in their transportation costs because they can store material until they have a full load. Before, they had to haul materials more often with reduced loads.	"Grant funds were critically important to the establishment of the program." -Maxine Allen, Solid Waste Director

Oglethorpe Co.	13,379	\$46,500	3 hourly FTE	Yes	From 178 tons in 2003 to 196 tons in 2004.	196 tons/year	There was very little recycling in the county prior to the GEFA grants. The grants helped Oglethorpe County establish convenience centers and a Pay as You Throw system for citizens. Citizens are now able to save disposal costs by recycling and reducing waste. It is estimated that 60-65% of county citizens utilize the convenience centers.	"Projects funded by GEFA grants have been a great asset to Oglethorpe County." -Honorable Robert Johnson, Commission Chairman
Peach Co.	24,320	\$101,600	2 FTE	Yes	From 30 tons in 2000 to 478 tons in 2004	478 tons/year	Prior to 2001, the County used to offer recycling only on Saturdays at the recycling site. Now, thanks to the facility expansion, citizens can take recyclables to the center or 2 drop off sites.	
Pembroke, City of	2,379	\$20,000	0	Yes	no figures to show an increase in tons recycled were provided	no figures on waste diverted were provided	The project helped citizens save time by removing the need for them to sort the materials for curbside collection.	
Pickens Co.	26,905	\$110,000	1 FTE	Yes	283 tons in 2004	11% of total waste stream	The new center is in a more residential part of the county, and therefore is more convenient for Pickens County citizens. The center is very user-friendly.	"The GEFA grants energized the community." -Don Russell, Executive Director of Keep Pickens Beautiful
Polk Co.	39,800	\$125,000	2 FTE	Yes	From 175 tons in 2003 to 350 tons in 2004	350 tons/year	Polk County was able to eliminate an old, unsightly convenience center, which promoted dangerous disposal activities that posed a threat to citizens, and build a new convenience center with GEFA grant funds.	"Without the convenience center and the truck, waste reduction in Polk County would likely be substantially reduced or eliminated altogether." -Jimmy Lowhter, Polk County Zoning Department
Roswell, City of	79,334	\$290,000	3 FTE	Yes	no figures to show an increase in tons recycled were provided	no figures on waste diverted were provided	The grants allowed the Roswell Recycling Center to be more efficient with collection and processing. In effect, they increased the volume of the materials and the revenue gained from their sale.	
Walton Co.	69,381	\$121,000	5 PT	Yes	From 500 tons in 1998 to 1400 tons in 2004	1400 tons/year	The 2002 GEFA grant which expanded the Walton Recycling Center, allowed the county to expand their paper recycling route and increase their recycling tonnage by 200 tons per year or 14%.	"Equipment replacement is our recycling program's most critical need." -Elaine Oakes, Director of Recycling

## Attachment B: Case Studies

### Solid Waste Trust Fund Invests in Georgia: GEFA Grant Case Studies

#### Case #1 - City of Jesup & Wayne County: A Model Recycling Program

During the 2004 G-8 Summit, when world leaders came to Sea Island Georgia for the conference on global economic issues, the Jesup-Wayne County recycling center was chosen as one of two facilities to recycle all of the paper, aluminum, plastic and glass that was generated during that historic conference. Without this facility, Georgia may not have been able to meet the waste management needs of this international event.

The Jesup-Wayne Recycling Program is a model for recycling programs in Georgia and across the Southeast. The recycling program services residents of the City of Jesup with a curbside collection program and residents of Wayne County with recycling drop-off site. The program also serves 120 commercial locations in the community with a cardboard collection route. The recycling center now processes about 1,500 tons of recyclables out of an annual waste stream of 7,000 tons. The operation is able to service all of these customers while offsetting its costs from the sale of these recyclables. When markets for the recycled material are good, they have even been able to show a profit. These profits can be added to the long-term savings a local government realizes when it sends fewer tons of waste to the landfill.



**Cardboard collected from commercial locations in the City of Jesup is sent to the Jesup-Wayne County recycling center.**

The Jesup Wayne County Recycling Program has benefited from six GEFA Recycling and Waste Reduction Grants for a total of \$281,328 in awarded funds. The program was also awarded a GEFA Facilities Assessment Grant to determine how to expand the facility to become a regional recycling center in order to allow neighboring counties to divert their materials from the landfill to this center. According Jesup City Manager, Mike Deal, “they would never have been able to start [the recycling program] without GEFA grants.”





## Case #2 - City of Dalton-Whitfield County: A Leader in Carpet Recycling and Household Hazardous Waste Management

*In Whitfield County, the largest source of waste going to the landfill was carpet waste generated by Dalton Georgia's famous carpet industry. The Dalton-Whitfield Regional Solid Waste Management Authority knew that recycling markets existed for the carpet waste, as well as for other materials that were going to the landfill. They opened their Material Recovery Facility (MRF) in January of 2002 in order to divert loads of carpet and paper waste from the landfill to more beneficial uses with the help of Solid Waste Trust Funds offered through GEFA's Recycling & Waste Reduction Grant Program.*



**GEFA provided a grant for \$200,000 to purchase and install the MRF's two-ram horizontal baler and conveyor system. In addition to the funds provided by GEFA, the Dalton-Whitfield contributed \$1.5 million to the development of this facility.**

Mack Belue, Director of the Dalton-Whitfield Solid Waste Management Authority, stated that "the GEFA grant allowed us to divert recyclables from the carpet industry from the landfill and serve as a model for carpet recycling nationwide." In 2004, the facility sent 1283 tons of carpet waste to recycling markets. The rest of the carpet, 6,912 tons, was baled and diverted to a "balefill," or baled carpet monofill, whereby the carpet bales are set aside from the other municipal waste for a time in the future when recycling markets will exist for this particular type of carpet material.

Still, carpet is just one of the materials recycled at this facility. Fifteen other commodities are recycled at the Dalton-Whitfield MRF, representing over 1200 tons sent to market each year in addition to carpet. In 2004, the revenue gained from the sale of the recyclables, including carpet, totaled \$130,264.33 – a first time to make a profit for the recycling operation.



**Dalton-Whitfield County Household Hazardous Waste Collection Facility,  
constructed with the financial assistance of a GEFA grant.**

GEFA also provided a grant for the Dalton-Whitfield Regional Solid Waste Management Authority (RSWMA) to develop a permanent Household Hazardous Waste Facility to divert hazardous materials from the landfill. When it was opened in June of 1999, this facility was the first of its kind in the state. It accepts paint, fertilizers, solvents, and other household hazardous waste for proper disposal. This material would otherwise be destined for the municipal landfill. Each year the amount of household hazardous waste

collected at this facility and diverted from the landfill has grown steadily from 9.4 tons during its first year to 10.9 tons in 2004.

**Case #3 - Forsyth County:  
Managing a Growing Waste Stream that Accompanies a Growing Population**

During the ten-year period from 1990 to 2000, Forsyth County experienced an overall growth rate of over 123%, ranking it among the fastest growing counties in the State of Georgia and in the country. This rapid growth rate brought with it a serious need for programs to manage Forsyth County’s growing waste stream. Luckily, the GEFA Recycling and Waste Reduction Grants were there to help the county implement recycling infrastructure and educate citizens on recycling, waste reduction and proper procedures for solid waste management.

Forsyth County received a GEFA grant in 1996 to construct one of two recycling drop off centers where county residents can bring recyclable materials (Forsyth County built the 1<sup>st</sup> one with local funds). Three subsequent GEFA grants allowed the county to buy containers and equipment for the two centers. During that time the volumes recycled increased each year to the point where the county is now recycling over 1000 tons annually. Now that the county is able to collect larger volumes of materials, the revenues they receive have grown at a much faster rate because the county is now being paid for material they were giving away when they had lower volumes. The County has plans to add five more recycling convenience centers for a total of seven centers.



**Case #4- Baker, Mitchell, Stephens Counties:  
Managing Poultry Litter from the Poultry Industry**

Georgia is the largest poultry producer in the country. Because Georgia is a leader in this agricultural industry, we also have the challenge of dealing with the waste that this industry generates: poultry litter. Over 500,000 tons of poultry litter are produced in the state each year. Much of this litter has been directly applied to the topsoil of farmland, but unless the poultry litter is composted into a milder soil amendment, it can over time create an overload of phosphorous in the soil. Composting also tones down the odor that raw litter produces and makes it easier to transport. In 2002, GEFA awarded a \$125,000 grant for a demonstration project in Baker, Mitchell and Stephens Counties to determine the economic feasibility and agricultural benefits of poultry waste composting.



**Composting Poultry Litter in Windrows**

The demonstration project showed that poultry composting is a valuable pursuit in North Georgia where farmland is being rapidly converted into residential communities, and as a result there is less tolerance for the odor of raw litter during transportation and application. Also, North Georgia has been applying raw litter to farmland for over forty years and the soils are experiencing a nutrient overload.

In South Georgia, the demonstration project determined that it is not yet economical to incur the operational and equipment costs of composting when there are so many farms that are willing to apply raw litter to their farms. However, poultry composting will make sense for South Georgia in the future when direct land application of poultry litter has created a buildup of phosphorous.

The ability to minimize and manage industrial waste streams can give a business the competitive edge it needs to survive. The poultry composting demonstration project has added value to Georgia's poultry industry by giving poultry farmers the road map they need to beneficially reuse their waste stream.



**Land Application**



**Composted Poultry Litter Test Plot**

Appendix D

GEFA Waste Reduction and Recycling Grants – FY 1995 thru 2003

COMMUNITY	AWARD	PROJECT DESCRIPTION
Adairsville	\$15,211.00	Refurbish existing recycling center, concrete pad for composting area.
Alamo	\$20,000.00	Purchase tub grinder for mulching yard trimmings and organic material.
Alma	\$8,000.00	Purchase 18 trailers to be used in cardboard recycling operation.
Alpharetta	\$25,000.00	Implement a Pay-As-You-Throw program.
Aragon	\$25,000.00	Purchase baler for processing recyclables and tow motor to handle loads.
Ashburn	\$20,000.00	Purchase leaf vacuum, wood chipper for composting program.
Athens/Clarke County	\$25,000.00	Establish additional recycling drop-off collection sites.
Athens-Clarke Co.	\$2,500.00	Scrap tire chips for drain fields, newspaper, 2 mobile trailers, refurbish compost demonstration center.
Athens-Clarke County	\$52,000.00	Waste reduction and recycling program, establish three additional recycling drop-off centers.
Athens-Clarke County	\$125,000.00	Construct a materials recovery facility to be operated by County's municipal solid waste landfill.
Athens-Clarke County	\$20,000.00	Subsidize cost of compost bins, recycling drop-off site.
Bacon County	\$47,500.00	Purchase one large cardboard baler.
Baker County	\$125,000.00	Poultry litter composting demonstration project program.
Baldwin County	\$25,000.00	Purchase camera equipment to reduce labor costs.
Baldwin County	\$36,000.00	Food and wood waste composting project (Central State Hospital & Prison).
Baldwin County	\$17,038.00	Purchase pre-engineered metal building, Caterpillar loader with fork attachments.
Baldwin County	\$25,000.00	Expansion of its recycling program.
Barnesville	\$12,395.00	Purchase equipment to crush glass and cans.
Barrow County	\$25,000.00	Home Composting Program - tire recycling included.
Bartow County	\$40,000.00	Purchase multi-compartment recycling containers for school recycling program.
Bartow County	\$157,000.00	Add to existing recycling center, construct 2 additional collection centers, purchase shredder, initiate industrial waste reduction program.
Brooklet	\$11,495.00	Purchase wood chipper to prepare yard trimmings for composting.
Brooks County	\$27,750.00	Purchase five trailers for pesticide container recycling program.
Butts County	\$20,000.00	Purchase a chipper and leaf machine.
Butts County	\$25,000.00	Development of a County-wide convenient/recycling center.
Cadwell	\$30,000.00	Construct a solid waste recycling convenience center.
Camilla	\$42,620.00	Purchase a horizontal baler and paper shredder.
Camilla	\$25,000.00	Purchase specialized equipment for recycling program.
Candler County	\$125,000.00	Consolidate green boxes, construct convenience centers/recycling drop-off centers around county.
Canton	\$100,000.00	Development of recycling, public information and education program.
Carroll County	\$66,000.00	Development of three additional staffed convenience centers to provide recycling and solid waste collection.
Centerville	\$25,000.00	Construct a recycling convenience center.
Centerville	\$40,000.00	Construct a recycling center.
Centralhatchee	\$25,000.00	Construct a recycling convenience center.
Charlton County/Folkston	\$25,000.00	Replace compactor truck and purchase 15 additional utility trailers.
Chatham County	\$20,000.00	Purchase 5 recyclable material collection containers.
Chattooga County	\$30,000.00	Purchase bin trailers for schools.
Chattooga County	\$25,000.00	Establish and equip recycling locations.
Chattooga County	\$50,000.00	Purchase trailer mounted recycling bins and conduct public education program.

COMMUNITY	AWARD	PROJECT DESCRIPTION
Chattooga County	\$43,186.00	Purchase high capacity chipper for mulching of brush for mulching program.
Cherokee County	\$30,000.00	Replace aging and overworked equipment, expand drop off capabilities.
Cherokee County	\$50,000.00	Construct new recycling center.
Claxton	\$10,000.00	Purchase a vertical baler.
Claxton	\$40,000.00	Purchase front-end loader with attachments, enhance existing recycling center with loading dock fence.
Claxton	\$125,000.00	Construction of a drop-off recycling center, will serve others (Combined with Evans County).
Clinch County/ Homerville	\$32,860.00	Purchase 1-baler, new life truck and a security fence to replace old equipment for recycling area.
Clinch County/Fargo	\$44,444.00	Purchase wood chipper, bins, renovate center and public education materials.
Coffee County	\$30,000.00	Purchase 3 balers and 6 trailers for expansion of recycling program.
Coffee County/Douglas	\$28,000.00	Expand the baling storage shelter by 15' to back & 30' to front for protection against weather.
Conyers	\$25,000.00	Commercial recycling program - containers for cardboard.
Dade County	\$62,082.00	Construct recycling collection bins, establish Keep America Beautiful Program, purchase recycling collection equipment & waste oil recovery /storage program.
Dade County	\$48,000.00	Construct a 5,800 square foot recycling center.
Dade County	\$25,000.00	Erect 4 fenced facilities to house household garbage and recycling bins.
Dahlonega	\$21,458.00	Expand recycling program, purchase trailers, baler and equipment.
Dahlonega	\$14,700.00	Plan a fully integrated recycling program.
Dalton-Whitfield	\$50,000.00	Bailer for cardboard products and carpet scraps associated with industry.
Dalton-Whitfield RSWMA	\$200,000.00	Construct 40,000 square foot recycling facility to handle the two large waste streams filling the Subtitle D landfill, carpet and related paper waste.
Decatur County	\$45,000.00	Construct drop-off recycling center, purchase storage sheds for school recycling.
Decatur County	\$20,000.00	Purchase various educational materials and equipment for recycling center.
Decatur County BOC	\$37,000.00	School recycling program with classroom container and teaching resources, provide community with information and install recycling information at collection area, baling equipment.
Dodge County	\$25,000.00	Purchase 5 five-bin recycling trailers.
Dooly County	\$34,981.00	Purchase a horizontal baler and skid steer loader.
Dooly County	\$76,500.00	Construct concrete tipping floor, purchase loader truck, containers for pesticide container recycling program (Adjoining Counties).
Dougherty County	\$30,950.00	Establish a home composting education program, provide compost bins.
Douglas	\$13,139.00	Mesh netting over composting/mulching site for odor control.
Douglas	\$200,000.00	Biosolids/yard trimmings/agriculture waste composting (Coffee County).
Douglas County	\$5,325.00	Promote backyard composting to local residents.
Dudley	\$20,000.00	Purchase a leaf vacuum.
Dudley	\$20,000.00	Purchase a brush chipper.
Duluth	\$9,000.00	Provide additional compost bins to residents, produce brochure on composting.
East Dublin	\$44,450.00	Develop recycling, mulching and composting program, purchase chipper, recycling bins.
Eatonton	\$18,816.00	Purchase additional equipment and containers.
Eatonton	\$24,956.00	Purchase additional equipment and containers to enhance operations at newest convenience center.
Eatonton	\$20,000.00	Establish a recycling center (storage building and cardboard baler).
Elbert County	\$200,000.00	Develop multiple staffed convenience centers with recycling capability, eliminate green boxes in county (Bowman).
Elberton	\$50,000.00	Renovate space at the city's existing center.
Elberton/Elbert County	\$70,830.00	Renovate the recycling center's roof and door.
Emanuel County	\$50,000.00	Establish a recycling/waste reduction program - recycling collection containers.

COMMUNITY	AWARD	PROJECT DESCRIPTION
Fitzgerald	\$40,000.00	Enable marketing of collected recyclable plastics and establish commercial cardboard recycling plan.
Floyd County	\$33,000.00	Costs involved in accomplishing a master plan for recycling component.
Floyd County	\$150,000.00	Regional school central source separation recycling project (Bartow County, Cartersville and Rome).
Floyd County	\$72,000.00	Public education program, remote transfer stations improvements and equipment, curbside collection improvements.
Floyd County	\$50,000.00	Purchase 2 roll-off containers, 2-18foot trailers and 2-14foot trailers.
Folkston	\$21,000.00	Multi-activity waste reduction program.
Forsyth County	\$80,000.00	Construct additional staffed recycling drop-off centers
Forsyth County	\$20,000.00	Replace 2-compactors and add a new one for aluminum cans, one recycling bin for glass.
Forsyth County	\$30,000.00	Construct new recycling center in North Forsyth County.
Forsyth County	\$13,979.00	Purchase 2 recycling containers and improvements to recycling center.
Fort Oglethorpe	\$9,150.00	Purchase four trailers and one waste oil-fired EPA approved furnace.
Fulton County	\$20,000.00	Develop backyard composting program.
Glennville	\$19,554.00	Develop more efficient and cost-effective yard trimmings management system.
Glynn County	\$20,000.00	Institute curbside recycling and public education program for residents.
Gordon County	\$70,000.00	Implement volume-based rate system for municipal solid waste collection and recycling at six compactor sites as incentive for recycling by residents.
Gwinnett County	\$50,000.00	Expand Recycling Bank of Gwinnett, add sorting line conveyor and baler, 10,000 square foot paper handling facility, sorting conveyor and forklift.
Hall County	\$200,000.00	Develop model comprehensive commercial and industrial waste reduction initiative - reuse center and composting program.
Hall County	\$48,000.00	Improvement to recycling center to allow for baling of difficult to bale papers and increase output.
Hall County	\$19,386.00	Investigate and develop a cooperative recycling network for businesses.
Hall County	\$8,200.00	Develop a listserv web and complimentary web site.
Harris County	\$40,000.00	Purchase 6 roll-off containers, 6 glass crushers and 2 drop-off centers.
Hart County	\$100,000.00	Replacement of green boxes with 24 roll-off recycling boxes at eight convenience centers around county.
Hart County	\$35,000.00	Construct an 1120 square foot addition to existing recycling building for increased storage capacity.
Hart County	\$49,500.00	Purchase eight recycling containers and freight cost.
Hartwell	\$52,000.00	Feasibility study/phase-in for recycling program, waste stream analysis, equipment, materials and training
Hazlehurst	\$51,961.00	Construct parking lot, gated fence, lighting and signage at recycling center.
Hazlehurst	\$25,000.00	Purchase & install horizontal baler.
Hazlehurst	\$70,000.00	Expand recycling center, purchase processing equipment.
Hazlehurst	\$50,000.00	Construct a shelter for all-weather storage of baled materials.
Heard County	\$25,000.00	Build a convenience center.
Helena	\$13,125.00	Purchase three recycling trailers.
Henry County	\$47,684.00	Establish an educational and advertising agenda and purchase roll-offs to replace bins.
Jackson	\$25,000.00	Purchase leaf machine and wood chipper for mulching program.
Jackson County	\$75,000.00	Develop composting operation, purchase equipment (Jackson County Correctional Institute).
Jackson County	\$24,463.00	Purchase a wood chipper for composting program.
Jesup	\$25,000.00	Enhance recycling center by constructing concrete pad.
Jesup	\$30,000.00	Construct ramp and purchase 4 trailers for collection of recyclable material.
Jesup /Wayne County	\$50,000.00	Establish a glass recycling program, purchase two dumping hoppers, a trailer, a glass crusher and construct shelter for weather storage.
Jesup/Wayne County	\$126,328.00	Expand and equip recycling center to handle biweekly recyclables pickup.
Jesup/Wayne County	\$50,000.00	Purchase 150 covered containers to replace wire bins for collection program.

COMMUNITY	AWARD	PROJECT DESCRIPTION
Johnson County	\$20,000.00	Expand recycling program by constructing drop off center.
Jones County	\$25,000.00	Construct a recycling convenience center.
Jones County	\$11,000.00	Incorporate three projects that will expand their recycling program and increase public awareness, (scrap tires, playground, roll-offs).
Jones County	\$26,179.00	Construct four used oil and battery collection facility and purchase three recycling containers.
Jones County	\$25,000.00	Complete 2 recycling convenience centers.
Keep Cherokee Beautiful	\$40,000.00	Purchase trailers, can crusher, construct metal building - expanding their recycling center.
Keep Sumter Beautiful	\$23,000.00	Grind & use waste gypsum wallboard for agricultural use and develop learning center with completion of Geo Dome & playground built with recycled material.
LaGrange	\$100,000.00	Establish five drop-off recycling centers across city.
LaGrange	\$20,000.00	Expand center, purchase baler and bobcat loader.
Laurens County	\$125,000.00	Construct eleven staffed drop-off recycling centers throughout the county (East Dublin, Dexter, Dudley, Montrose, Cadwell and Rentz).
Laurens County	\$50,000.00	Develop 2 new drop-off recycling centers.
Laurens County	\$17,475.00	Purchase 5 - 30 yard open top roll-off containers to collect cardboard.
Lincolnton	\$25,000.00	Expansion of recycling facility.
Long County	\$75,000.00	Replace green boxes at two locations to assess use of convenience centers countywide.
Lookout Mountain	\$20,000.00	Purchase leaf vacuum to handle the large volume of yard trimmings.
Lumpkin County	\$200,000.00	Construct recycling center, purchase baler, satellite drop stations and public education.
Macon	\$75,000.00	Purchase self-contained, single-unit recycling collection vehicle.
Madison County	\$50,000.00	Equip recycling center with new equipment to replace failing old equipment.
Madison County	\$25,000.00	Purchase recycling trailers, forklift, dump trailer.
Madison County	\$16,000.00	Purchase a Bobcat front-end loader, bins, oil, trailer and recycling center signs.
McDuffie County	\$75,000.00	Make 1/2-mile track from recycled tire and rubber products.
McRae/Helena	\$70,000.00	Purchase equipment for composting operation.
Monroe County	\$50,000.00	Construct a recovered materials processing facility.
Montgomery County	\$16,300.00	Construction of a recyclables "Unloading Station".
Montgomery County	\$200,000.00	Initiate a comprehensive incentive-based solid waste and recycling program, recovered materials processing center.
Morgan County	\$25,000.00	Construct two new recycling centers equipped with roll-on roll-off containers.
Morgan County	\$25,000.00	5 recyclable materials collection centers equip with roll-on/roll-off containers.
Mount Vernon	\$10,000.00	Purchase 5 bin recycling trailer and truck to pull the trailer.
Nahunta	\$20,000.00	Purchase wood chipper to handle yard trimmings.
Nahunta	\$10,000.00	Install fiberglass containers for cardboard and paper for recycling program.
Nahunta	\$20,000.00	Install fiberglass containers for recycling.
Newton County	\$150,000.00	Construction of a Recyclable Material Collection and Distribution Facility (Covington, Oxford, Porterdale, Mansfield, and Newborn).
Newton County	\$25,000.00	Purchase a baler for recycling center.
Nicholls	\$9,300.00	Purchase a brush chipper for composting program.
North GA WMA	\$100,000.00	Expand recycling activities to three additional counties, provide infrastructure to participants (Lumpkin, Towns & Union now, add three more).
North Georgia WMA	\$125,000.00	Process and sell construction waste and land clearing debris from current waste stream.
Oconee County	\$10,000.00	Purchase commercial style home composting bins and make available to the public.
Oconee County	\$10,000.00	Purchase 287 units of the "Soilmaker" Compost Bin.
Oconee County	\$4,663.00	Purchase 7 yard dumpster containers with waterproof lids for 7 schools.
Oglethorpe County	\$21,500.00	Purchase of two recycling separation trailers, truck for towing trailers.
Oglethorpe County	\$25,000.00	Build 3 waste and recycling collection sites – (staffed and fenced).

COMMUNITY	AWARD	PROJECT DESCRIPTION
Paulding County	\$98,150.00	Recycling public information and education, construct recycling center (Dallas, Hiram).
Peach County	\$60,000.00	Fix up interior of recycling building, pave the driveway, fence and signage and develop their collection process.
Pembroke	\$20,000.00	Improve curbside recycling program with education of public.
Perry	\$15,000.00	Enhance recycling center, purchase trailer and containers.
Pickens County	\$50,000.00	Construct convenience centers, establish scrap tire deposit, improve recycling education and establish vendor & haul permit for solid waste handling.
Pickens County	\$60,000.00	Construct additional convenience center in western section of the county.
Pike County	\$20,000.00	Improvements to the existing recycling center (Purchase lift truck and bins).
Pike County	\$45,000.00	Purchase wood chipper, develop composting program.
Pine Mountain	\$20,000.00	Purchase wood chipper, develop composting program.
Polk County	\$75,000.00	Eliminate green boxes, develop six convenience centers with recycling.
Pooler	\$20,000.00	Install recycled materials recovery station (tires, oil, paper yard waste).
Portal	\$10,000.00	Purchase baler, platform and chipper.
Preston/ Webster Co.	\$50,000.00	Construct staffed recycling facility, purchase processing equipment.
Putnam County	\$75,000.00	Establish recycling centers in various locations around county.
Putnam County	\$20,000.00	Assist the county with construction of a recycling facility.
Rabun County	\$100,000.00	Construction of staffed recycling drop-off center
Rentz	\$30,000.00	Construct a solid waste recycling convenience center.
Roberta	\$15,000.00	Oil recycling center and finish recycling center.
Roberta	\$75,000.00	Expand recycling center - construct new building, accept recyclables from surrounding jurisdictions (Crawford County).
Roberta	\$20,000.00	Complete interior new recycling building and develop collection process.
Rockdale County	\$46,000.00	Create an additional transfer recycling center for the South Rockdale Community and expand existing solid waste reduction program.
Rome	\$33,492.00	Develop multi-site mulching program to serve city and county (Floyd County).
Roswell	\$200,000.00	Expand existing recycling center, construct new building to house operations.
Roswell	\$50,000.00	Expand and enhance recycling center's customer service area and second floor.
Royston	\$20,000.00	Initiate a curbside collection of recyclables in the city, carts at residences.
Screven	\$19,650.00	Purchase chipper to use for yard trimmings, trailer for cardboard.
Screven County	\$100,000.00	Construct recycling and waste drop-off centers, elimination of green boxes (Sylvania, Oliver, Newington, Rocky Ford, Hiltonia & Cooperville).
Snellville	\$50,000.00	Purchase baler, forklift, baler building, baler storage building and office.
Soperton	\$5,500.00	Purchase brush chipper for organic material and recycling container.
Spalding County	\$25,000.00	Purchase equipment, make unmanned sites into manned collection centers.
Spalding County	\$31,000.00	Construct walking trail using crumb rubber, install playground & fitness station in center.
Statesboro	\$100,000.00	Construction of recycling processing center (Bulloch County).
Sumter County	\$30,000.00	Construct phase II of environmental learning center.
Sumter County	\$30,000.00	Construction waste and recycling education center (Americus).
Thomson	\$19,019.00	Purchase a forklift for recycling center.
Thomson	\$12,000.00	Purchase a baler to continue to recycle without leasing equipment.
Tifton/Tift County	\$50,000.00	Make improvements to center by adding concrete pad for each driveway access providing all-weather access.
Toombs County	\$30,000.00	Extension of loading dock area and install bale storage area.
Treutlen County	\$18,655.00	Purchase a baler, build shed with electric for baler, concrete pad and bins.
Troup County	\$50,000.00	Develop convenience centers with recycling operations.
Troup County	\$25,000.00	Construct 1 manned convenience center and provide recycling containers.
Tybee Island	\$35,000.00	Purchase tub grinder for shared use with other jurisdictions.
Upson County	\$20,000.00	Develop a recycling drop-off center.
Valdosta	\$40,000.00	Improve education approaches to recycling, effective collection methods such as Pay As You Throw and the introduction of larger recycling bins.
Valdosta	\$47,646.00	Develop a regional composting project.
Valdosta	\$16,710.00	Enclose current recycling facility.
Valdosta	\$25,000.00	Enclose and add additional space to store current facility equipment.



COMMUNITY	AWARD	PROJECT DESCRIPTION
Vidalia	\$50,000.00	Purchase Bobcat loader and horizontal baler to expand recycling center.
Walton County	\$46,000.00	Install industrial scale for trucks.
Walton County	\$25,000.00	Purchase recycling containers for 5 proposed convenience sites.
Walton County	\$50,000.00	Construct 100x40x20 foot concrete pad at Walton County Recycling Center, fence property.
Ware County	\$20,000.00	Purchase 1-refuse truck, 5-trailers, 20-hampers and 40 cages.
Washington County	\$75,000.00	Eliminate green boxes, reduce from 72 to 36 fenced and graveled sites, and provide recycling containers at each site.
Waycross	\$100,000.00	Design an organic recycling composting program.
White County	\$18,850.00	Purchase wood chipper to handle storm debris and yard trimmings.
Wilkinson County	\$20,000.00	Eliminate dumpsters, construct two additional convenience centers for recyclables.
Wilkinson County	\$100,000.00	Develop an additional convenience center, provide recycling information to the public.
Zebulon	\$15,000.00	Purchase recycling bins for local residents.
	<b>\$9,893,605.00</b>	

FY 2003 GEFA Waste Reduction & Recycling Grants		
These are open GEFA Grants so the projects are in progress.		
COMMUNITY	PROJECT DESCRIPTION	AWARD
Dawson County	Purchase of 2 initial material collection (drop-off) depot sites for regional recycling system.	\$50,000
Decatur County	Recycling program for 3 schools; instructional materials for teachers.	\$38,000
Floyd County/Rome	Purchase of equipment for recycling center.	\$50,000
Jesup/Wayne County	Conduct efficiency analysis of City/County waste reduction and recycling programs.	\$35,000
Lumpkin County/NGRMA	Purchase a material transport vehicle (Ford F-700) for comprehensive recycling facility.	\$100,000
Peach County	Purchase a new or used truck as replacement for the 29Ford/600 Converted U-Haul model.	\$41,600
Polk County	Purchase a special designated recycling vehicle to help achieve 25% waste reduction goal.	\$50,000
City of Roswell	Conduct analysis of City's recycling operations and combo with Alpharetta for recycling.	\$40,000
City of Snellville	Build a demonstration model of a 100% recycled, renewable & energy efficient building; acquire equipment.	\$50,000
Thomas County	Purchase a baler, lease recycle containers, site work, used oil container, pay inmate labor, lease program.	\$45,900
Baldwin County	Purchase equipment for county recycling center.	\$17,500
Pickens County	Relocate and purchase equipment for county recycling center.	\$25,000
Putnam County	Purchase equipment for 2 new recycling convenience centers.	\$50,000
		<b>\$593,000</b>