



Florida's Recycling and Litter Programs:

*Current Status and
Potential Future Directions*

Report to the Governor, President of the Senate and Speaker of the House

As Required by HB 9, 2001 Session

Florida Department of Environmental Protection

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Web site for this document and other activities connected with DEP's comprehensive review of Florida waste reduction and recycling goals:
http://www.dep.state.fl.us/waste/categories/recycling/pages/goals_main.htm

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EXECUTIVE SUMMARY

House Bill 9, enacted by the 2001 Legislature, requires the Florida Department of Environmental Protection to “conduct a comprehensive review of the waste reduction and recycling goals set out in part IV of chapter 403, Florida Statutes, and other legislative requirements in view of reduced funding available for these purposes.” House Bill 9 further directs the department to “issue its report, recommendations, and proposed legislative changes to the Governor, the President of the Senate, and the Speaker of the House of Representatives by October 31, 2001.”

The report provides background information on the current status of recycling and litter programs in Florida, as well as information on the funding and appropriations history for the Solid Waste Management Trust Fund. Part IV of the report addresses the seven review items required by HB 9.

Overall, Florida’s residential recycling and litter programs are currently doing well. The statewide recycling rate is 28%, very close to the 30% goal required of all counties with populations over 75,000 by Chapter 403, Florida Statutes. Florida has 299 curbside recycling programs that collect over 21 different types of materials. Over 8.5 million Floridians had curbside recycling available to them in 1998. Scheduled recycling service was available to 51% of commercial establishments. Substantial additional recycling potential exists in the commercial as well as the construction and demolition debris sectors.

It should also be emphasized that recycling produces far-reaching financial benefits for Florida. Its 3,700 recycling and reuse facilities employ 32,000 workers and generate annual revenues of \$4.4 billion.

Regarding litter control, the statewide roadside litter study conducted in 2001 has shown that the amount of roadside beverage containers, fast-food wrappers, newspapers and other so-called “large litter” has declined 15% since 1995. Florida now has over 40 local Keep America Beautiful affiliate programs that work at the local level to reduce litter.

The Department makes the following recommendations, which are included in the report:

Recycling Goals:

- The current 30% waste reduction goal for counties with population greater than 75,000 should again be identified as a 30% recycling goal and modified to apply to counties with populations over 100,000. Counties with populations less than 100,000 should be required to provide an “opportunity to recycle”.
- The overall 30% recycling goal should remain a county rather than statewide goal.

- No changes should be made to the “Minimum Five” goal (glass, plastic, steel cans, aluminum cans, and newspaper) at this time.

Grants:

- The existing Recycling and Education grants program should be replaced with a small scale competitive “seed grant” program that launches innovative waste reduction/recycling projects, improves recycling in Construction and Demolition (C&D) debris and the commercial/institutional sector, and develops new markets for recycled C&D debris. These areas have the greatest potential for increasing the state’s overall recycling rate.
- Recycling & Education, waste tire, litter, and base grants to counties with populations less than 100,000 should be maintained at appropriate funding levels necessary to continue the opportunity to recycle and meet other statutory mandates. These levels would be based upon an annual Department analysis of the effectiveness of the grants in achieving these mandates and would be reflected in the agency’s Legislative Budget Requests (LBR).
- An appropriate level of funding for waste tire grants should be restored to counties with populations greater than 100,000. Grant funding levels should be based on the Department’s analysis of waste tire demands and the effectiveness of the grants in addressing these demands and will be reflected in the agency’s LBR.
- The state should provide startup grants to local communities willing to establish a Pay-As-You-Throw (PAYT) program, which would allow households to pay a variable rate depending on the amount of service they use.

Litter:

- In the short term, Florida should continue to work with Keep Florida Beautiful (KFB) for litter prevention and control. To address the requirement that KFB be a public-private partnership, KFB must obtain more private sector funding, and demonstrate near term progress to achieve a 50% private partner funding level.
- KFB should continue providing financial and technical assistance to the litter prevention and control component of Florida’s Front Porch initiative.
- The current litter goal should be modified to establish litter reduction rates on a per capita basis using the 2001 litter survey as a baseline.
- The litter survey should be conducted every three years rather than annually. Three year increments are adequate to detect trends.

Other:

- The state should continue its research efforts and funding on solid waste technologies, targeted waste streams and techniques in recycling in order to ensure Florida's continued advancement in solid waste management efforts.
- The state agency recycling program should be modified to establish performance incentives by allowing state agencies to keep and use proceeds from recycling efforts as discretionary funds. Additionally, state agencies would be required to track and report to the Department of Management Services (DMS) on their respective recycling efforts. DMS would submit an annual report to the Governor and Legislature on state agency recycling efforts. State agencies failing to establish a recycling program would be required to develop and implement an action plan to improve recycling efforts.
- State agencies should be required to track and report to DMS on their respective efforts to procure products with recycled content. DMS should submit an annual report to the Governor and Legislature on state agency procurement efforts.
- The state should maintain the ability to enforce existing recycling mandates.

Florida's Recycling and Litter Programs:
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I. INTRODUCTION

House Bill 9, enacted by the 2001 Legislature, requires the Florida Department of Environmental Protection (DEP) to “conduct a comprehensive review of the waste reduction and recycling goals set out in part IV of chapter 403, Florida Statutes, and other legislative requirements in view of reduced available funding for these purposes.” The review shall include, but is not limited to:

- the appropriateness of maintaining, extending, or revising the goals;
- the effectiveness of current programs for meeting the goals;
- the role of Keep Florida Beautiful, Inc.;
- the need to continue those programs;
- alternative techniques for improving those programs;
- alternative strategies for meeting the needs of the programs;
- any other issues related to resource recovery and management.

House Bill 9 also directs DEP to consult with persons knowledgeable about recycling and waste reduction, including, but not limited to, representatives of:

- local government,
- private recycling industry,
- private waste management industry.

House Bill 9 directs DEP to “issue its report, recommendations, and proposed legislative changes to the Governor, the President of the Senate, and the Speaker of the House of Representatives by October 31, 2001.”

This report is divided into five sections. Section I is the Introduction. Section II outlines the current status of recycling and litter programs in Florida, while Section III provides background on the funding and appropriations history of the Solid Waste Management Trust Fund. Section IV addresses the seven specific review items listed in HB 9. Two of these listed items-- “Alternative Techniques For Improving Those Programs” and “Alternative Strategies For Meeting The Needs Of The Programs”—describe potential changes to the state’s recycling and litter programs and are the heart of this report.

Finally, it should be noted that DEP has sought and received public input in preparing this report. An all day public meeting was duly noticed and held at the Orlando City Council Chambers on July 19, 2001 to receive public comment on the issues outlined in HB 9. Over 100 people were in attendance. Comments from the meeting and other public review materials are available at a web site which was also specifically established to obtain public comment on the HB 9 issues:

http://www.dep.state.fl.us/waste/categories/recycling/pages/goals_main.htm

II. CURRENT STATUS OF SOLID WASTE MANAGEMENT IN FLORIDA

The following is a summary of the current status of solid waste management in Florida through calendar year 1998, as reported in the DEP annual report "Solid Waste Management in Florida 2000". This report is available for review or download at:

<http://www.dep.state.fl.us/waste/categories/recycling/pages/00.htm>

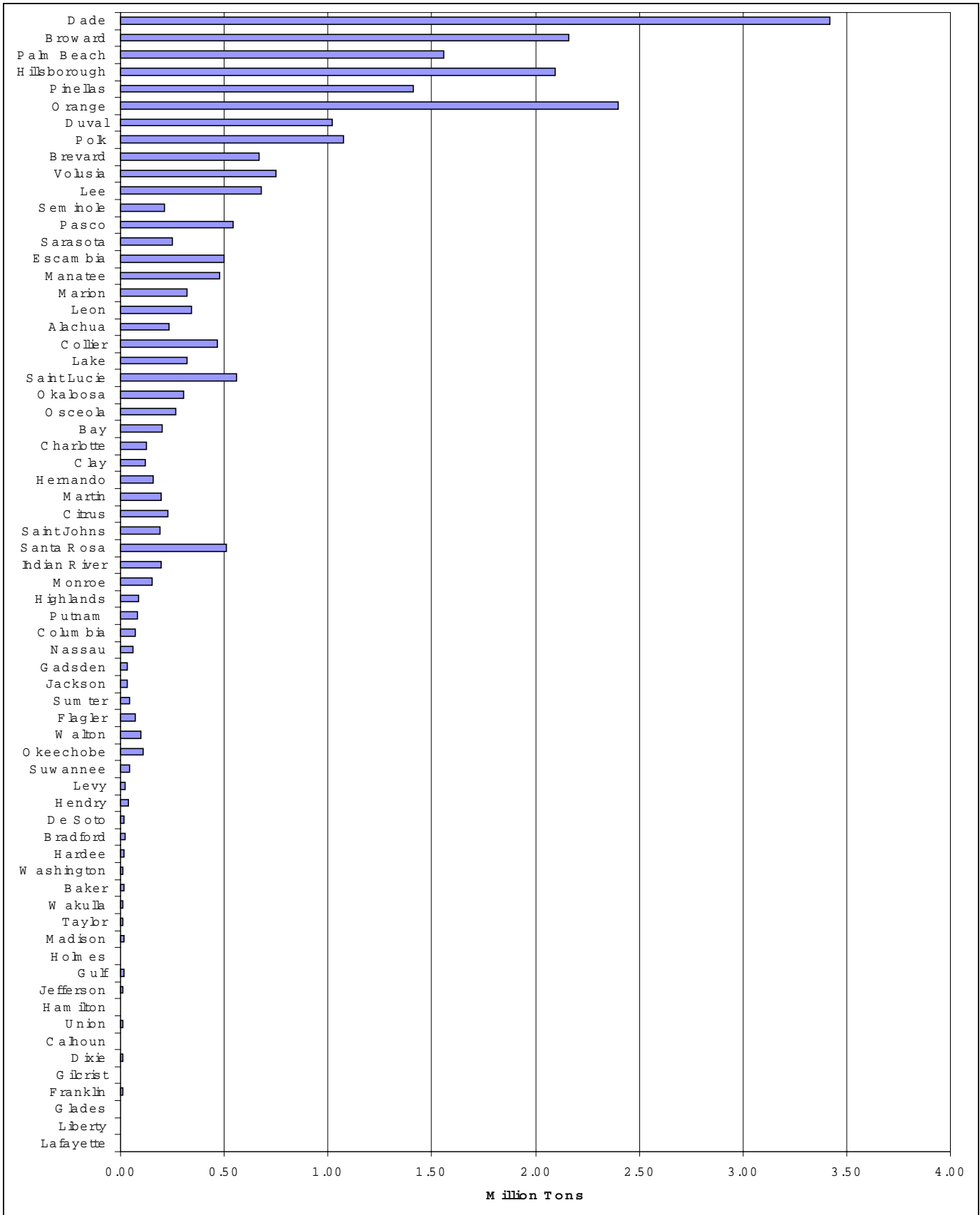
Florida's population in 1998 was 15,000,475. In that year, 24.8 million tons of municipal solid waste (MSW) were collected. As Table 1 indicates below, 51% of that MSW was generated from commercial establishments and 49% from the residential sector.

Table 1: Florida MSW Collected By Generator Type in Florida

<i>Collected Jan 1, 1998 - Dec 31, 1998</i>			<i>Population: 15,000,475</i>
<i>Generator Type</i>	<i>Collected Tons</i>	<i>Percent Total Tons</i>	<i>Total Units</i>
Residential Single Family	8,694,449	35	4,344,712
Residential Multi-Family	3,379,538	14	2,350,635
Commercial	12,783,994	51	521,904
State Totals	24,857,981	100	7,217,251

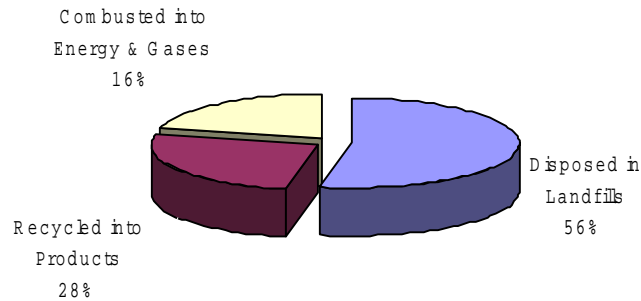
As shown in Figure 1 on the next page, 15 counties generated 77% of the MSW collected.

Figure 1: Total Tons of MSW Collected in Florida (by Descending Population)(1998)



Of the total MSW collected in 1998, approximately 16% (3.8M tons) was combusted into energy and gases, 28% (6.9M tons) was recycled, and 56% (14.1M tons) was disposed in landfills (see Figure 2 below).

Figure 2: Final Disposition of Florida Municipal Solid Waste (1998)



As seen in Figure 3 below, there was an apparent reduction in the statewide recycling rate from 38% (1997) to 28% (1998). However, DEP attributes most, if not all, of that drop to more accurate measuring methodology first employed in 1998 rather than to any real change in recycling activities throughout the state. Even before the use of the revised measuring methodology, the percentages of MSW recycled and combusted had leveled out while landfill disposal had begun to increase.

Figure 3: Annual Adjusted and Unadjusted Recycling Rate (1998)

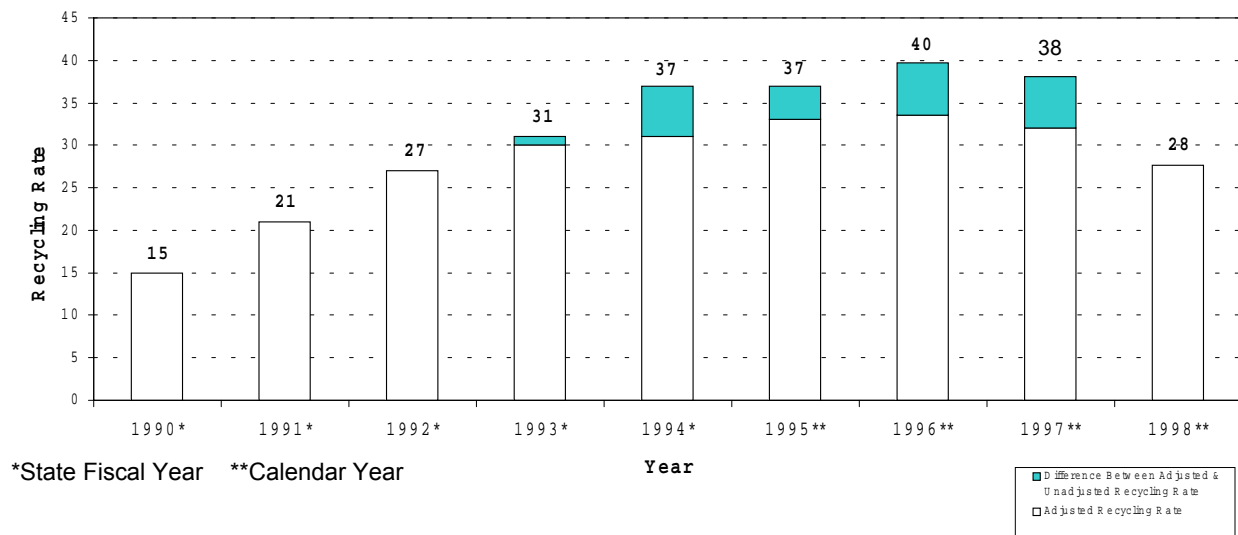
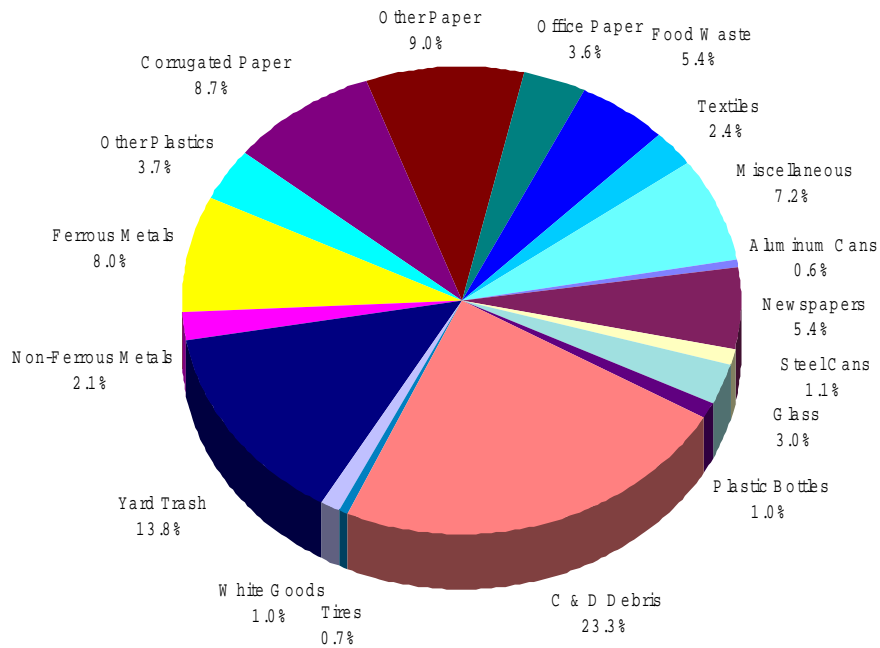


Figure 4 below shows the major components of the MSW stream in 1998. The major components included paper (26%), construction and demolition debris (23%), and yard trash (14%).

Figure 4: Composition of Florida MSW (1998)



Counties with populations greater than 75,000 were required to meet a 30% waste reduction/recycling goal by the end of 1994. Table 2 on the next page demonstrates the progress of the counties towards meeting the goals. In 1998, nine of 35 eligible counties had met this goal. All counties are required to recover a majority of the newspaper, glass, aluminum cans, plastic bottles and steel cans from their waste stream. In 1998, none of the counties met the goal for all five materials. Thirty-three percent have achieved the goal for one or more of the materials and 16% for two or more of the materials.

Table 2: Recycling in Florida Counties over 75,000 Population (1998)

<i>County</i>	<i>Recycling Rank (Adj)</i>	<i>Population</i> ¹	<i>Recycling (%)</i>	
			<i>Unadjusted</i>	<i>Adjusted</i> ²
1 Dade	14	2,090,314	23	23
2 Broward	11	1,460,890	26	26
3 Palm Beach	3	1,020,521	35	35
4 Hillsborough	9	942,322	28	28
5 Pinellas	13	892,178	24	24
6 Orange	10	824,095	27	27
7 Duval	2	753,823	37	37
8 Polk	7	465,858	37	30
9 Brevard	10	465,825	43	27
10 Volusia	8	420,431	30	29
11 Lee	1	405,637	38	38
12 Seminole	16	345,166	18	18
13 Pasco	20	321,074	13	13
14 Sarasota	4	316,023	34	34
15 Escambia	16	296,164	18	18
16 Manatee	12	247,028	32	25
17 Marion	5	242,357	32	32
18 Leon	11	233,232	39	26
19 Alachua	3	211,403	35	35
20 Collier	15	210,095	22	22
21 Lake	10	196,073	27	27
22 Saint Lucie	4	183,222	40	34
23 Okaloosa	18	175,568	14	14
24 Bay	21	147,496	12	12
25 Osceola	19	148,712	16	16
26 Charlotte	11	133,655	26	26
27 Clay	18	134,534	15	15
28 Hernando	10	125,008	27	27
29 Martin	10	119,370	37	27
30 Citrus	6	112,424	31	31
31 Saint Johns	18	109,894	15	15
32 Indian River	14	106,690	40	23
33 Santa Rosa	14	107,814	27	23
34 Monroe	14	85,646	24	23
35 Highlands	15	80,458	22	22

Local governments have received over \$342 million in solid waste grants and awards since 1988. In FY 1998-99, counties were awarded \$10 million in Recycling and Education Grants. Local governments and customers receiving recycling services spent about \$10.08 of their own dollars for every \$1 provided by State grants in 1998 (see Table 3 below).

**Table 3: Florida Counties Recycling Programs Cost Summary
for (October 1, 1998 - September 30, 1999)**

Cost Categories	Dollars Spent and Encumbered		
	R&E Funds	Local Funds	Total
Equipment & Building			
Public Sector	1,337,162	5,307,582	6,644,744
sub-total	1,337,162	5,307,582	6,644,744
Operating Services			
Public Sector	3,127,471	33,871,322	36,998,792
Private Sector Contracts	2,781,657	50,342,981	53,124,638
sub-total	5,909,127	50,342,981	90,123,430
Planning/Engineering Studies			
Public Sector	51,730	491,937	543,667
Private Sector Contracts	58,771	4,998,715	5,057,486
sub-total	110,501	5,490,652	5,601,153
Public Education			
Public Sector	2,363,863	3,314,257	5,678,121
Private Sector Contracts	309,468	2,873,418	3,182,886
sub-total	2,673,331	6,187,675	8,861,007
Total Public Costs	6,880,226	42,985,098	49,865,324
Total Private Contract Costs	3,149,895	58,215,114	61,365,009
Grand Total Used	10,030,121	101,200,212	111,230,333
Costs Per Capita	0.67	6.75	7.42
Grant Award:	10,064,806		
Remaining R&E Funds Not Used:	34,685		

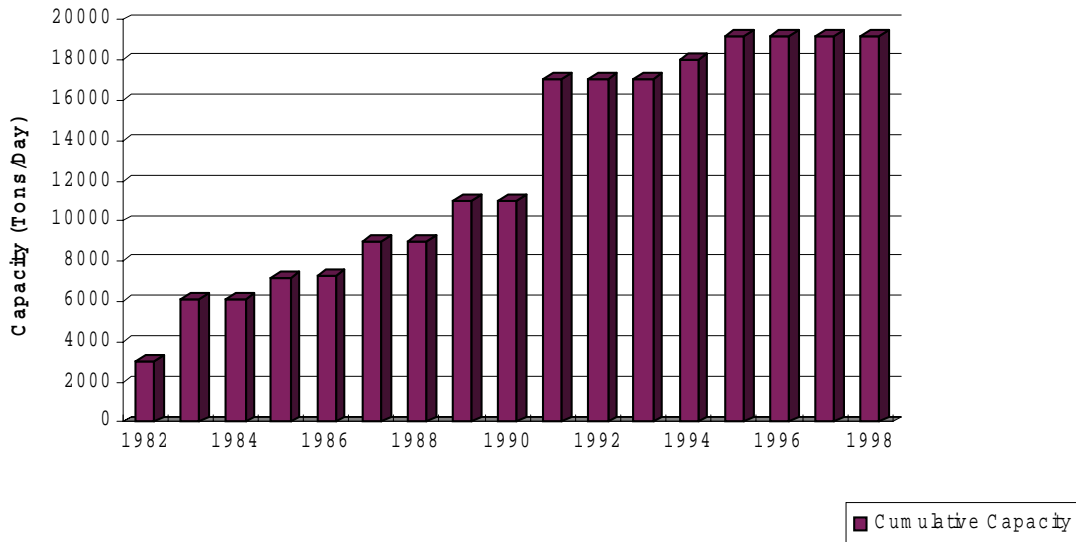
Florida has 299 curbside recycling programs that collect over 21 different types of materials. Over 8.5 million Floridians had curbside recycling available to them in 1998. Scheduled recycling service was available to 51% of commercial establishments while on-call service was available to 35%.

A 1999 study estimated that over 32,000 people were employed in some recycling capacity in Florida, with 51% of those jobs in the private sector.

Florida has 56 Materials Recovery Facilities, 158 Recovered Materials Processing Facilities, and eight permitted composting facilities.

Florida has the largest capacity to burn MSW of any state in the nation and is host to 13 Waste-to-Energy (WTE) facilities (see Figure 5 below). In counties with these facilities, the average percentage of waste burned was 27% in 1998. Each day that year an average of 15,393 tons of MSW was combusted. Combined, Florida's WTE facilities have the capacity to generate over 500 megawatts of electricity daily.

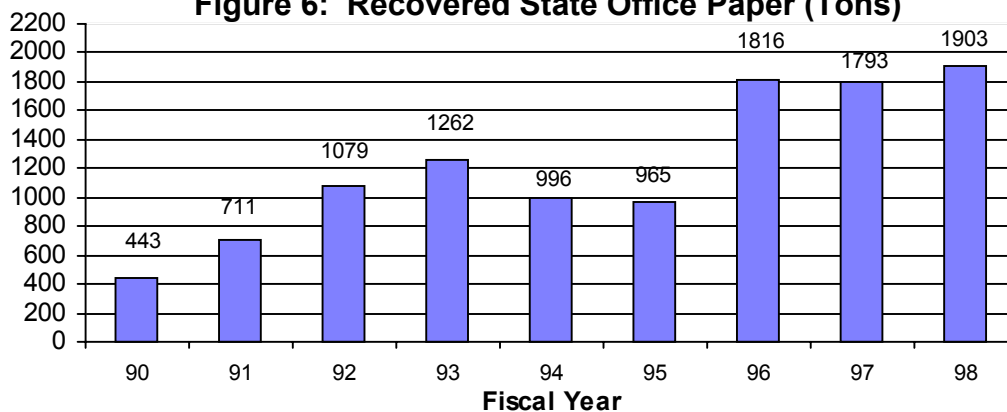
Figure 5: Florida Waste-To-Energy Capacity



Florida has 61 Class I landfills, 1 Class II landfill, 34 Class III landfills, 92 C&D debris disposal facilities, and 69 land clearing disposal facilities. Eighty-five percent of Class I landfills in Florida are publicly-owned. On a statewide basis, there currently appears to be adequate landfill disposal capacity. However, it should be noted that no new "greenfield" landfills (entirely new sites rather than expansions of existing sites) have been built in Florida since 1994, despite a number of attempts to do so. Public opposition to new landfills remains extremely strong, and adequate landfill capacity could become a problem in the next decade.

As shown in Figure 6 below, State Agencies and Universities recycled nearly 1,903 tons of paper in 1998 generating over \$43,000 in revenues from its sale. The number of recycled content items on State contracts exceeds 1,000.

Figure 6: Recovered State Office Paper (Tons)



Perhaps the single most important factor affecting recycling is the status of markets for recovered materials. Recovered materials are commodities, sold on global markets and, like all commodities, prices paid can fluctuate widely over time. This is illustrated in Figures 7 and 8, which show the recent historical prices for two representative materials, old corrugated cardboard and steel cans.

Figure 7: Historical Pricing Trends for Old Corrugated Cardboard*

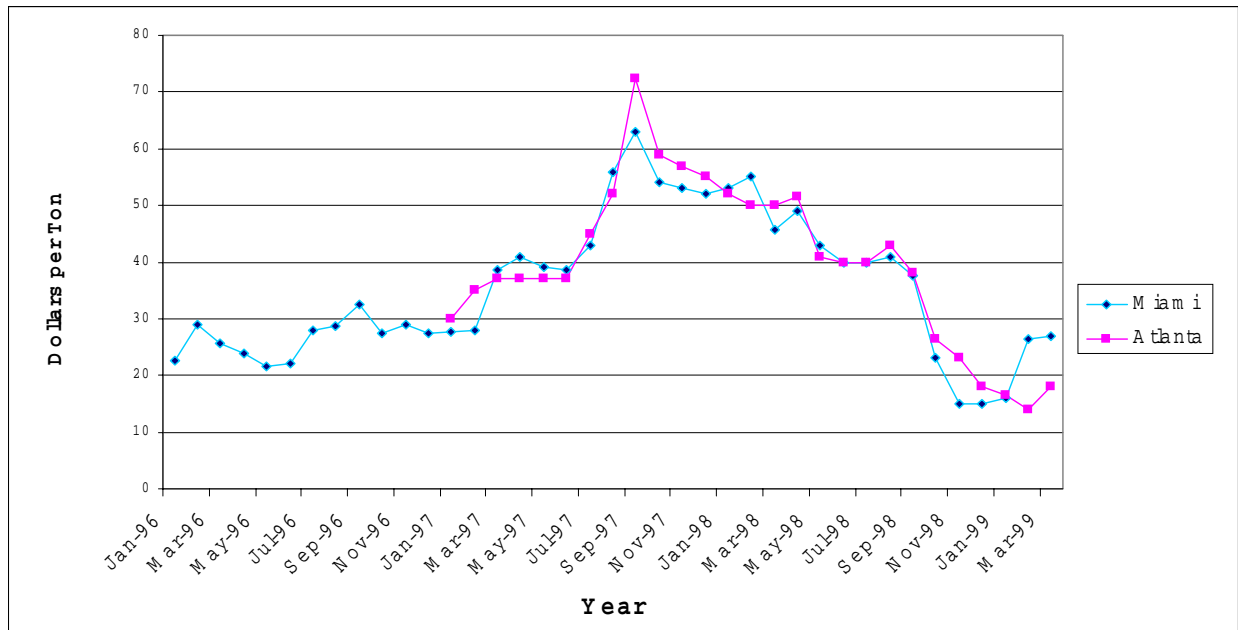


Figure 8: Historical Pricing Trends for Steel Cans*



*Data courtesy of: <http://www.wasteneews.com>

III. BACKGROUND ON THE SOLID WASTE MANAGEMENT TRUST FUND

A. Statutory Basis

The Solid Waste Management Trust Fund (SWMTF) was created in 1988 as part of the comprehensive Florida Solid Waste Management Act. Section 403.709, F.S. directs that the Fund be administered by the Department for the purposes of:

- Funding solid waste activities of the Department, such as providing technical assistance to local governments, performing solid waste regulatory and enforcement functions, preparing solid waste documents, and implementing solid waste education programs.
- Making grants and awards to local governments as provided in s. 403.7095.
- Providing funding for research, demonstration, and training by state universities, community colleges, and independent nonprofit colleges and universities within the state.

B. Funding

To provide funding for the newly created solid waste and recycling program, the legislature focused on fees and other revenue from retail businesses. This approach reflected the view that, since nearly all of what eventually becomes municipal solid waste is first purchased in retail stores, fees imposed at this point integrate the disposal costs of goods and materials into their initial purchase. The major sources of funding for the SWMTF are described below. The funding history is summarized in Table 6.

1. Business Registration Fee On Businesses Which Collect The Sales Tax:

A new business registration fee was created in Section 212.18(5), F.S. which states:

“In addition to any other fee imposed under this part, persons who hold a certificate of registration granted under subsection (3) and who had taxable sales or purchases during the preceding calendar year of \$30,000 or more shall pay an additional annual registration fee for each certificate of registration granted. For certificate holders with taxable sales or purchases during the preceding calendar year of at least \$30,000 but not more than \$200,000, the fee shall be \$25. For certificate holders with taxable sales or purchases during the preceding calendar year of \$200,000 or more, the fee shall be \$50. However, the fee pursuant to this subsection shall not exceed \$10,000 for any dealer who files a consolidated return pursuant to s. 212.11. The fee shall be due and payable with the person's January return or first quarterly return each year. Failure to comply with the provisions of this subsection shall subject such person to penalties provided under s. 212.12(2).”

Further, the Act directed these revenues into the SWMTF: 212.20(6)(e) “Proceeds from the fee imposed pursuant to s. 212.18(5) shall be deposited in the Solid Waste Management Clearing Trust Fund, which is hereby created to be used by the department, and shall be subsequently transferred to the State Treasurer to be

deposited into the Solid Waste Management Trust Fund.”

This fee was in effect from its creation in 1988 until it was repealed in 2000.

2. Two-Tenths Of One Percent (0.2%) Of The Sales Tax:

In 1988, retail businesses were successful in having the “dealer sales tax collection allowance” increased by two-tenths of one percent of the sales tax. (The dealer sales tax collection allowance is a portion of the sales tax which businesses that collect sales tax for the state are allowed to keep as an administrative fee.) However, rather than giving the increase to businesses, the 0.2% was diverted into the SWMTF. The applicable language from Chapter 212 is as follows:

212.20(6)(g) “The proceeds of all other taxes and fees imposed pursuant to this part shall be distributed as follows: ... 2. Two-tenths of one percent shall be transferred to the Solid Waste Management Trust Fund”.

3. Waste Tire Fee:

A one dollar fee for each new motor vehicle tire sold at retail (Chapter 403.718, F.S) was established. The funds were to be used for the purposes outlined in Chapter 403.709, F.S., including cleaning up waste tire piles, the collection, management, recycling and proper disposal of waste tires, and administering the solid waste management program.

4. Advance Disposal Fee (ADF):

Finally, the 1988 Solid Waste Management Act created an Advance Disposal Fee (ADF) of one cent per container on all containers made of glass, plastic, plastic-coated paper, steel and aluminum, which were not being recycled at a sustained rate of 50%. However, the collection of the fee was delayed in the law until affirmative action was taken by the legislature to impose it. In 1993 as part of the Chapter 93-207, Laws of Florida, the ADF goals were broadened to include not only recovery rate, but also minimum content and take-back goals. The fee took effect on October 1, 1993 but was allowed to sunset on October 1, 1995.

It is important to note that the ADF was intended to increase recycling rates and the markets for recovered materials. Nevertheless, the ADF raised \$63 million during the period it was in effect. Initially, any revenues raised by the ADF were to be used for solid waste management purposes. However, the 1993 amendments directed ADF funds to other trust funds to be used for a variety of other environmental purposes. The programs and percentage of revenues to be directed to those programs were established in 1993 in Section 32 of Chapter 93-207, Florida Statutes. The Advance Disposal Fee automatically sunset in 1995 in accordance with the provisions of the 1988 Solid Waste Act and was not continued in large part because its funds were diverted to other uses. Table 4 demonstrates how the ADF funds were allocated.

Table 4: Florida Advance Disposal Fee Chronology (Oct. 1993 – Jan. 1996)

<i>Programs</i>	<i>1994</i>		<i>1995</i>		<i>1996*</i>		<i>Total</i>	
	<i>\$\$'s</i>	<i>%</i>	<i>\$\$'s</i>	<i>%</i>	<i>\$\$'s</i>	<i>%</i>	<i>\$\$'s</i>	<i>%</i>
Small County Closure Grants	10,194,523	27	4,846,962	27		0	15,041,485	24
Stormwater & Sewage Constr. Rev. Loan TF	10,194,523	27	4,846,962	27	8,267,704	100	23,309,189	36
Surface Water Improvement & Mgmt. TF	7,173,923	19	3,410,825	19		0	10,584,748	17
Small Community Sewer Construction TF	4,530,879	12	2,154,205	12		0	6,685,084	10
Recycled Materials Market Development	4,530,879	12	2,154,205	12		0	6,685,084	10
s218 DOR Small County Emergency Distrib.	1,132,725	3	538,551	3		0	1,671,276	3
Totals	37,757,452	100	17,951,710	100	8,267,704	100	63,976,866	100

*All ADF funds unobligated after June 30, 1995 transferred to the Stormwater and Sewer Construction Revolving Loan Trust Fund pursuant to Ch. 403.7197, F.S.

C. Appropriations

Table 5 summarizes the appropriations from the SWMTF for the ten fiscal years 1992-93 through 2001-02. Annual appropriations have ranged from \$46 million in FY 1992-93, to a high of \$73 million in FY 1996-97 (because of an influx of ADF funds), to the current fiscal year appropriation of \$58 million. Over that period, nearly \$700 million has been appropriated from the SWMTF (although, as discussed below, nearly \$150 million, or 21%, has gone for uses other than solid waste).

D. Uses Of The Fund For Purposes Other Than Solid Waste

The SWMTF has been used for purposes other than solid waste management since 1993, when a large influx of funds from the Advance Disposal Fee provided funding for mosquito control and a number of water projects. However, in the past five years, there has been an increasing trend of using SWMTF dollars for water related projects. In FY 1997-98, a total of \$12 million was appropriated for water projects and aquatic weeds. In FY 1998-99, over \$19 million was appropriated for those purposes. In FY 99-2000 and FY 2000-01, water projects and aquatic weeds were appropriated over \$21 million each year. In the current fiscal year 2001-2002, water projects received nearly \$34 million from the SWMTF, or nearly 60% of the total SWMTF appropriation, while funding for solid waste projects totaled \$23 million. During this same period, solid waste grants to counties went from \$23 million annually, to the current fiscal year amount of \$5.8 million.

Table 5: Appropriation Chronology for Florida Solid Waste Management Trust Fund

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	TOTAL	%	
DEP Costs	\$ 2,876,759	\$ 4,213,456	\$ 3,673,974	\$ 3,366,167	\$ 3,681,860	\$ 3,952,885	\$ 5,676,443	\$ 5,012,128	\$ 5,297,894	\$ 5,294,451	\$ 47,409,588	0.0683	
Tr/DOAH Administrative hearings	132,460	110,386									242,846	0.0003	
Tr/IFAS Gypsum Research											100,000	0.0001	
Tr/DOT Adopt-A-Highway	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,100,000	0.0016	
Tr/DOT Research & Demonstration Projects	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,800,000	0.0026	
Tr/DOT Clean Fla Anti-Litter Campaign											500,000	0.0007	
Tr/DOT Clean Fla Litter Prevention Grants											250,000	0.0004	
Tr/DOT Clean Florida Commission											150,000	0.0002	
Tr/DOT Keep Florida Beautiful Operations										150,000	250,000	0.0004	
Tr/DOT Affiliate Pass-through Grants									300,000	750,000	1,050,000	0.0015	
Tr/DOH Biomedical waste			880,000	880,000	880,000	880,000	880,000	880,000	880,000	880,000	8,281,708	0.0119	
Tr/DACS Mosquito Control		1,600,000	2,028,598	2,028,598	2,278,598	2,278,598	2,278,598	2,278,598	2,278,598	2,778,598	19,828,784	0.0286	
TR/BOR Research & Testing	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	6,000,000	0.0086	
Tr/DMS Recycle Materials	471,014	596,537	596,537	596,537	596,537	596,537	596,537	596,537	596,537	596,537	-	5,825,338	0.0084
Tr/DOR Solid Waste Tax Collection	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	110,000	1,320,000	0.0019	
Tr/DOE 4Rs Curriculum	117,743	117,743	117,743	117,743	117,743	139,135	139,135	139,135	139,135	139,135	1,402,133	0.0020	
Tr/FCSHWM Litter Survey		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,800,000	0.0026	
Total Agency Transfers	1,581,217	3,484,666	4,682,878	4,682,878	4,932,878	4,954,270	4,954,270	4,954,270	5,254,270	5,757,733	49,900,809	0.0719	
SWIX							300,000	300,000	300,000	300,000	1,200,000	0.0017	
Operation Clean Sweep									300,000	300,000	600,000	0.0009	
Clean Florida Commission											600,000	0.0009	
Keep Florida Beautiful Operating		731,475		150,000	150,000	150,000	150,000	300,000			1,631,475	0.0024	
Environmental Citizenship Campaign							250,000				250,000	0.0004	
Recycling Market Development			6,072,000			200,000					6,272,000	0.0090	
Recycl/Aseptic Pkg		200,000									200,000	0.0003	
Wtr Conserv Compost Project											150,000	0.0002	
Landfill Initiatives (EPA/ETI)				600,000							600,000	0.0009	
HW Compliance & Education Assistance									-	800,000	800,000	0.0012	
Mercury Recycling Demonstration		200,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000	0.0014	
Waste/Energy Fac pilot prj		100,000									100,000	0.0001	
Total Operating Projects	-	1,231,475	6,172,000	850,000	250,000	450,000	800,000	700,000	700,000	1,500,000	13,403,475	0.0193	

This table continues on the next page.

Table 5 (cont.): Appropriation Chronology for Florida Solid Waste Management Trust Fund

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	TOTAL	%
Recycle Lead Acid Products								400,000	400,000	400,000	1,200,000	0.0017
Waste Tire Abatement	7,975,000	5,975,000				2,117,000	1,850,000	1,000,000	1,000,000	250,000	33,692,000	0.0485
Tr/FDOT for KFB Operating & Grants										1,000,000	1,000,000	0.0014
KFB St LtrMarine Deb Campaign		500,000									500,000	0.0007
Adopt Shore											300,000	0.0004
G&A KFB Public Awareness Campaign											2,500,000	0.0036
G&A CCA										50,000	50,000	0.0001
COMPOST/LANDFILL RESEARCH										1,000,000	1,000,000	0.0014
G&A SOLID WASTE MGT Grants	33,200,000	34,475,000	35,000,000	35,000,000	35,000,000	23,000,000	23,000,000	23,000,000	22,600,000	5,835,707	337,685,707	0.4865
G&A ADF Supplemental SW Mgt Grants			15,180,000								15,180,000	0.0219
G&A Small County Landfill Closure Grants				7,486,000							7,486,000	0.0108
G&A KFB Pass Through Grants		100,000	450,000	450,000	450,000	250,000	250,000	998,000			2,948,000	0.0042
G&A BIOREACTOR R & D							3,200,000		500,000		3,700,000	0.0053
G&A Glades Co Landfill							600,000				600,000	0.0009
G&A Suwannee Co Landfill							300,000				300,000	0.0004
G&A Sumter Co Integrated Waste System						250,000	250,000				500,000	0.0007
G&A Sumter County FORCE									3,500,000		3,500,000	0.0050
G&A Nature Coast Glassphalt							280,000				280,000	0.0004
G&A Holmes County Landfill Closure								850,000			850,000	0.0012
Total Fixed Capital Outlay	41,175,000	41,050,000	50,630,000	42,936,000	37,567,000	25,350,000	28,880,000	26,248,000	27,250,000	8,535,707	413,271,707	0.5953
Tr/Working Capital Trust Fund					25,000,000					33,800,000	58,800,000	0.0847
Tr/Invasive Plant Control TF						6,000,000	8,000,000	10,000,000	6,500,000		30,500,000	0.0439
Tr/Ecosystem Mgmt & Restoration TF						6,000,000	11,157,988	11,040,000	13,700,000		41,897,988	0.0604
Tr/Sm Com Sewer Construction TF			6,072,000								6,072,000	0.0087
Tr/ Sewage Treatment & Stormwater TF				10,000,000							10,000,000	0.0144
Tr/Administrative TF				562,175	443,084	491,034	522,447	543,565	607,714	603,934	3,773,953	0.0054
Tr/ Environmental Lab				512,078	537,307	535,334	403,630	435,138	732,151	472,403	3,628,041	0.0052
Tr/Grants & Donation TF						1,303,124	2,166,131	4,104,595	4,166,148		11,739,998	0.0169
Tr/MRCTF Park Patrol				203,445	140,455		156,047				499,947	0.0007
Tr/Law Enforcement GDTF					729,500						729,500	0.0011
State 5% TF Reserve										2,432,737	2,432,737	0.0035
Pay Package Reserve										112,612	112,612	0.0002
Total Other Transfers			6,072,000	11,277,698	26,850,346	14,329,492	22,406,243	26,123,298	25,706,013	37,421,686	170,186,776	0.2452
TOTAL	\$45,632,976	\$49,979,597	\$71,230,852	\$63,112,743	\$73,282,084	\$49,036,647	\$62,716,956	\$63,037,696	\$64,208,177	\$58,509,577	\$ 694,172,355	1.0000

Table 6: Revenue Chronology for Florida Solid Waste Management Trust Fund

Year	Funding Source						
	Oil Overcharge	Advance Disposal Fee	Newsprint Disposal Fee	Waste Tire Fee	2% from Ch 212, FS	Annual Business Registration Fee	TOTAL
1989	\$19,250,000			\$ 879,269.79	\$ 11,020,781.99	\$ 4,408,138.76	\$ 35,558,190.54
1990			\$ 66,083.30	7,376,344.80	16,056,081.14	7,521,958.54	30,954,384.48
1991			39,001.63	12,529,984.52	16,252,549.35	5,018,181.75	33,800,715.62
1992			59,066.94	16,449,729.66	16,827,792.82	4,966,856.79	38,244,379.27
1993			114,527.49	18,266,906.79	17,164,876.52	5,459,571.94	40,891,355.25
1994		\$37,757,452	267,957.87	16,572,633.18	20,113,103.65	6,124,004.41	80,567,193.24
1995		17,951,710	15,789.26	16,243,815.91	21,322,333.48	5,953,205.45	61,471,064.84
1996		8,267,704	1,589.19	17,445,230.82	22,891,225.64	6,046,347.16	54,650,507.62
1997			558.71	17,360,722.27	24,121,417.04	7,165,897.98	48,648,037.29
1998			71.49	17,355,486.17	26,028,421.64	8,568,985.52	51,952,893.33
1999			10.02	18,280,950.36	27,649,210.54	4,899,825.98	50,829,986.88
2000			10.00	19,112,797.93	30,018,229.67	6,684,689.76	55,815,717.36
2001*			22.34	19,808,922.94	31,404,311.88	406,875.85	51,620,110.67
TOTAL	\$19,250,000	\$63,976,866	\$ 564,688.24	\$197,682,795.14	\$280,870,335.36	\$ 73,224,539.89	\$635,569,224.63

E. OPPAGA Reviews

OPPAGA (Office of Program Policy Analysis and Government Accountability) has reviewed the state's program for Recycling and Education (R&E) grants to local governments on two previous occasions (1996 and 1999). A third review is expected to be completed in late 2001. The first two reviews (#95-46 and #99-03) are available for viewing at OPPAGA's website (<http://www.oppaga.state.fl.us>).

OPPAGA's 1996 review recommended eliminating the R&E grants at the end of fiscal year 1995-96. OPPAGA listed the following conclusions as the justification for that recommendation [current comments from DEP are in brackets]:

- The primary goal of the program has been met. Currently 33% of the state's municipal solid wastes are being recycled. This is up from only 4% when the program began. [DEP comment: OPPAGA reached this conclusion before DEP had implemented a newer, more accurate recycling measurement methodology in calendar year 1998, which showed that previous recycling figures had been too high. In reality, the recycling rate for the period OPPAGA examined was probably more in the range of 23%.]
- The markets for recycled materials have improved considerably since the start of the program. Increased revenues to county recycling programs could be used to partially offset the loss of state funds received from the recycling and education grants program. Improved markets for recyclables also produce economic incentives for the commercial sector to recycle more of their solid waste. [DEP comment: Like other commodities, markets for recycled materials are cyclical. At the time of this OPPAGA review, the markets were strong. The markets are now depressed and as poor as they have been in two or three years.]
- While some reduction in the amount of material recycled may occur due to the loss of grant money, all larger county programs will continue and only approximately 1/3 of small county programs would end due to the loss of grant money. [DEP comment: DEP has long agreed that most of the larger counties will continue their recycling programs without the R&E grants. Conversely, DEP continues to strongly disagree with OPPAGA's assertion that only 1/3 of the small counties will end their recycling programs if grants are eliminated. It is much more likely that most, if not all, small counties will terminate their recycling programs if state grants are eliminated.]
- Loss of recycling programs in small counties would not significantly impact the quantity of municipal solid waste recycled in the state as a whole. The 36 counties with a population exceeding 50,000 persons account for 99% of all municipal solid waste recycled, while the 31 counties with a population of less than 50,000 persons account for only 1%. [DEP comment: DEP agrees with the general point being made in this conclusion.]

OPPAGA's 1999 review listed the following conclusions:

- Recycling continues to be established in the state. Statewide, more than 34% of municipal solid waste is being recycled. However, the 50% recycled goal for the minimum five materials has not yet been achieved. [DEP comment: This review, as

in OPPAGA's 1996 review, did not have access to the more accurate recycling measurements previously mentioned. Consequently, DEP estimates that the 34% recycling rate was nearer to 24%.]

- Starting in Fiscal Year 1997-98 Recycling and Education Grants were reduced 55%.

OPPAGA somewhat modified its 1999 recommendation compared to the one from 1996. Instead of calling for the immediate elimination of the R&E Grants, it recommended a multiyear phase-out. DEP agreed with this concept.

F. Solid Waste Management Trust Fund Review Commission

During the 1997 session, in Section 36 of SB 2402, the Florida Legislature created the Solid Waste Management Trust Fund Review Commission to review the current uses of the Solid Waste Management Trust Fund and recommend alternative funding sources for recycling, aquatic plant management and surface water improvement and management. The Commission held public meetings at various locations around the state to gather information and submitted its report to the Governor, President of the Senate and the Speaker of the House in January, 1998. The Commission was specifically charged with reviewing the following matters, including, but not limited to:

- 1.. The current uses of funds; the need to continue those uses; and alternative techniques for phasing out grants to local governments;
- 2.. Alternative techniques for restructuring grants to local governments for recycling and education purposes, including measures that make the grants more performance-based or competitive;
3. The appropriateness of allowing local governments to use funds available to the SWMTF for either recycling activities, surface water improvement and management program activities, or aquatic weed control activities; and
4. Alternative funding strategies for meeting the needs of solid waste management, the surface water improvement and management program, and aquatic weed control.

In its findings and recommendations the Commission strongly urged that the SWMTF be used only for solid waste purposes. The Commission noted:

“The Solid Waste Management Trust Fund is an integral part of the solid waste solution. It is the State's contribution to 285 curbside recycling partnerships formed with local governments. It provides the research and development funds to encourage innovative solutions. It is the essential aid small counties need to provide the basic services that keep our rural countryside clean. It is the catalyst for transforming the public perception of solid waste and the individual's responsibility to recycle.

Without the Solid Waste Management Trust Fund, Florida would lose its momentum and steerage to guide future solutions for solid waste. The Commission finds the Solid Waste Management Trust Fund was a good idea in 1988, remains a good idea and should be maintained to fulfill the intent of the Solid Waste Management Act.”

IV. HB 9 REVIEW TOPICS:

A. The Appropriateness Of Maintaining, Extending, Or Revising The Goals

1. Statutory Requirements Of Current Waste Reduction And Recycling Goals

In 1988 (with revisions in 1993), two goals were established for waste reduction and recycling in Section 403.706, Florida Statutes:

- Counties with populations greater than 75,000 were required to meet a 30% adjusted waste reduction rate for all MSW by the end of calendar year 1994. Counties with populations below 75,000 could elect to provide residents the "opportunity to recycle" in lieu of achieving the 30% waste reduction goal.
- All counties were required to initiate a recycling program designed, at a minimum, to recover a majority of the newspaper, glass, aluminum cans, plastic bottles and steel cans from the solid waste stream.

Florida Statute 403.706(4)(a) requires that *no more than one-half* of the 30% waste reduction/recycling goal can be met by a combination of certain special wastes: yard trash, white goods, C & D debris, tires, and process fuel. Process fuel is composed of yard trash, clean wood, or paper waste used in process boilers.

A county's unadjusted recycling rate is calculated by dividing the weight of recycled MSW by the total weight of MSW. Recycling rates are then adjusted to reflect the statutory requirements for special wastes. The adjusted recycling rate is determined by first calculating the percent of special wastes recycled. Divide the total weight of special wastes recycled by the total weight of all MSW. If the result is less than 15%, no adjustment is needed. If the result is greater than or equal to 15%, take the unadjusted recycling rate percent, subtract the percent of special waste recycled, and add 15%. The result will be the adjusted recycling rate. As shown earlier in this report, Figure 3 represents Florida's annual progress in recycling.

2. Recycling Goal vs. Waste Reduction Goal

It should be noted that in 1993, the 30% *recycling* goal was changed to a 30% *waste reduction* goal. It is not just a minor semantical difference. A waste reduction goal should establish a reduction in the amount of solid waste disposed on a per capita basis in comparison with a base year. While waste reduction includes recycling, it also includes other activities such as reduction in waste generation and the production and utilization of fuels made from solid waste in industrial boilers. Unfortunately, the statute did not establish a base year from which to measure waste reduction. While DEP measures and reports waste reduction progress from a number of different base years, recycling data continues to be used by the agency and the public as a popular proxy for waste reduction. Because of these factors, the Department's opinion is a return to a simple recycling goal.

3. Current Status

Counties with population greater than 75,000 were required to meet a 30% waste reduction/recycling goal by the end of 1994. In 1998, nine of 35 eligible counties had met this goal. After a dramatic increase from 1989 to 1995, and a leveling off of the rates from 1996 to 1997, Florida's recycling rate has dropped from a high of 38% to 28%. This drop is likely attributable more to improved accounting methods than any real change in recycling activities throughout the state. As mentioned earlier, the Department implemented a Construction and Demolition reporting mechanism which allowed for more accurate accounting of the material being managed. The C&D reporting mechanism uncovered a greater amount of MSW being managed, which resulted in recycling rates decreasing and disposal rates increasing.

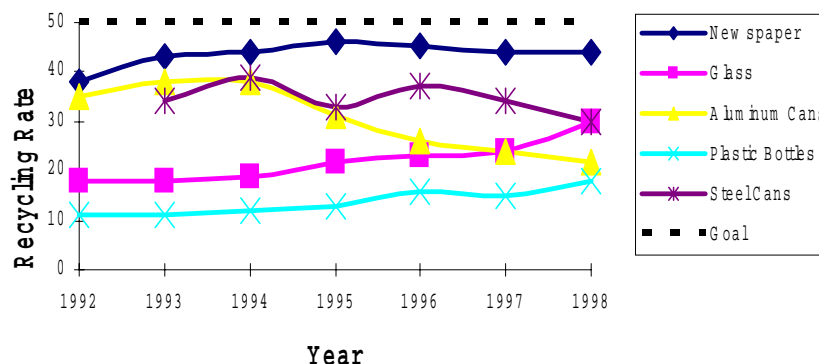
All counties under 75,000 population are exempted by statute from having to reach the 30% goal. Of the 35 counties over 75,000 population, only nine met the goal in 1998. Eleven more counties reported rates between 25 and 28%.

Like the 30 percent waste reduction/recycling goal, there is some disagreement as to how the "Minimum 5" (glass, plastic, steel cans, aluminum cans, and newspaper) goal is to be interpreted. The law requires that local programs be *designed to* recover the majority of the glass, plastic bottles, steel cans, aluminum cans, and newspaper from the waste stream. Some observers assert that it simply means programs should be capable of recovering a majority of the "minimum 5" regardless of whether they actually reach that goal. Other observers argue that it is only when the goal is actually met that one can say the program was designed to meet the goal.

In 1998, none of the 67 counties met the 50% recycling goal for all of the Minimum 5 materials. However, 33% of all the counties have achieved the goal for one or more materials, while 16% accomplished the goal for two or more materials. In 1998, only 18 counties met the goal for newspaper, six counties met the goal for steel cans, four counties met the goal for aluminum cans, seven counties met the goal for glass, and no county met the goal for plastic bottles. Figure 9 below shows Florida's overall progress toward achieving the 50% recycling goal for each material type since 1992. While dropping one or more materials may make recycling programs more cost effective, it is highly likely that any savings would be lost as a result of confusion over which materials are or are not recyclable by the public.

RECOMMENDATION: No changes should be made to the "Minimum Five" goal (glass, plastic, steel cans, aluminum cans, and newspaper) at this time.

Figure 9: Progress Towards Meeting the Florida "Minimum 5" Goal



4. Other States Waste Reduction/Recycling Goals

In 1988, Florida was the second state in the nation to set recycling goals for itself. Since then, most of the other states have also set waste reduction and/or recycling goals for themselves. There was (and is) no federal mandate for states to set such goals, though the federal EPA did set a voluntary national goal of 25% recycling at about the same time Florida established its goal.

Figure 10 summarizes the goals and current recycling rates for 41 states and the District of Columbia. It is important to note that comparison between states of both the goals and recycling rates is difficult because of the lack of a nationwide standard for measurement and differing statewide criteria for what is included as municipal solid waste. The various state goals range from 65% for New Jersey to 20% for Maryland. It should not be assumed that a higher numerical goal in one state represents more recycling than a lower goal in another state. Various states use different methods of calculating progress towards their goal. For example, some states allow automobile recycling to count towards their goal, while others (including Florida) do not.

Over the past several years, various states and the federal government have attempted to standardize recycling and waste reduction accounting processes nationwide. This effort has been frustrated because numerous state statutes define solid waste terms and formulas in various ways, while the federal government has no authority to impose any particular accounting process on the states.

Even allowing for definitional and accounting differences from state to state, waste reduction/recycling progress in Florida has generally been mirrored at the national level. During the last three or four years, most states have seen a leveling off (and in some cases a small decline) of such progress.

5. County Versus Statewide Goal

In 1996, DEP established the Florida Recycling Advisory Group (FRAG) as a proactive effort to develop a proposal for the next phase of waste reduction/recycling in Florida. All major stakeholders were involved in the process and consensus was reached. That consensus was translated into HB 1829, which passed the House but not the Senate. HB 1829 would have established a statewide 50% *diversion* goal instead of county waste reduction/recycling goals. Recent meetings and discussions with various stakeholders indicate that there is still strong support for switching the goals at the county level to a statewide goal, especially given the reduction in grant money from the state. Maintaining these goals at the county level provides a better measure for local government accountability for their recycling efforts to their respective residents, and may be necessary in order to sustain the ability to enforce recycling mandates.

RECOMMENDATION: The overall 30% recycling goal should remain a county rather than statewide goal.

6. Alternative Types Of Goals

There are basically three types of statewide goals which could be enacted:

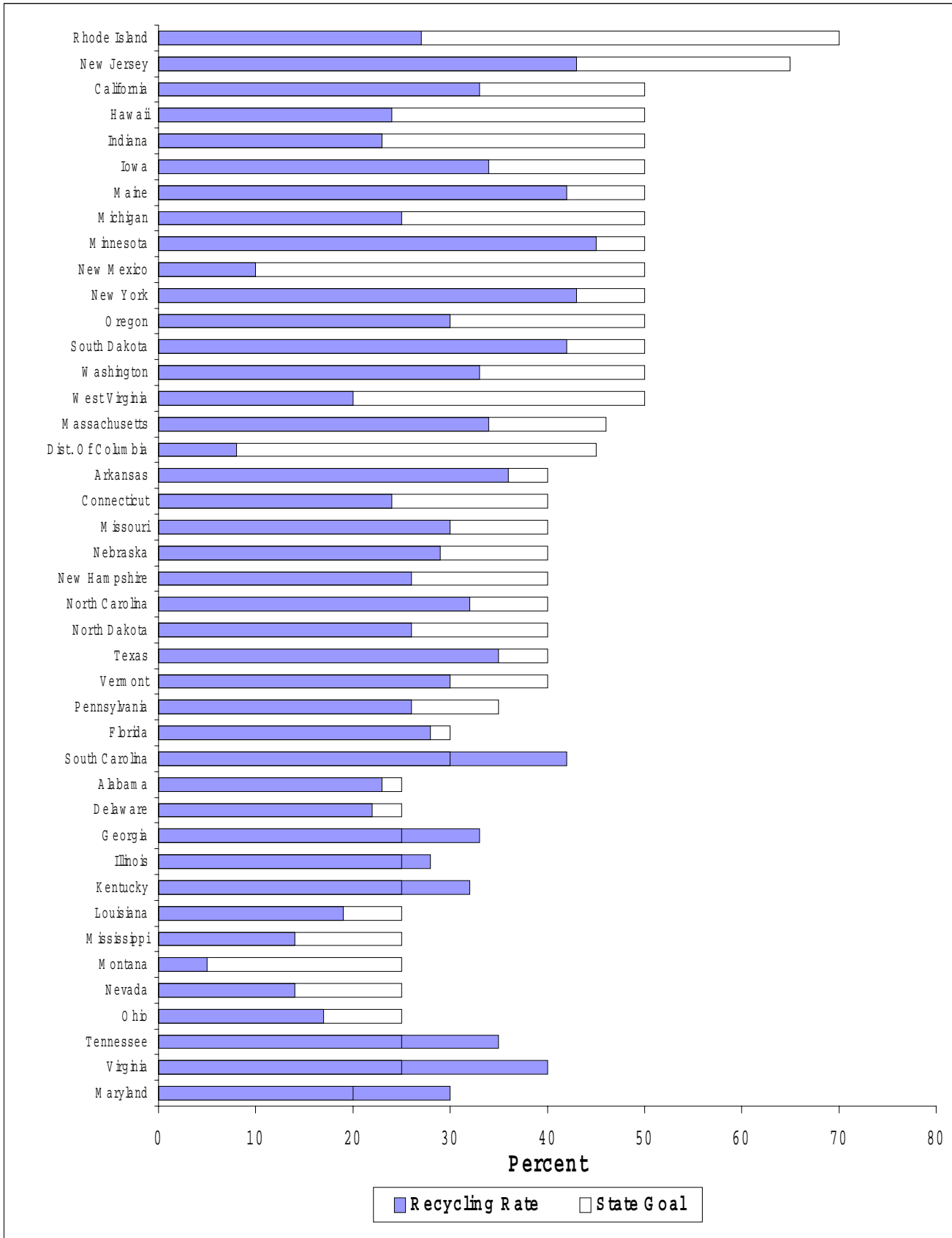
- Waste Reduction Goal: as noted previously, this goal measures the reduction in total waste generated on a per capita basis, against a base year. It has the advantage of including waste reduction efforts in addition to recycling (e.g. “don’t bag it” programs which encourage people to compost rather than bag and discard yard and lawn trimmings).
- Recycling Goal: a straight-forward recycling goal is simply a statement that a given percentage of the waste (e.g. 50%) generated in any given year will be recycled on a sustained basis by a target year.
- Resource Recovery Goal: a resource recovery goal includes not only recycling, but also energy recovery from the combustion of solid waste at waste-to-energy plants and industrial boilers which burn solid waste, such as wood waste for energy.

A waste reduction goal should establish a reduction in the amount of solid waste disposed on a per capita basis in comparison with a base year. As discussed previously, this report recommends a return to a simple recycling goal.

Regarding the numerical value of the goal, a 30% goal for counties with populations over 100,000 should not be increased at this time. (Note: While the statute currently requires this goal to pertain to counties with populations greater than 75,000, it is believed that 100,000 is a more appropriate definition for rural or small counties. This change would eliminate differences between counties receiving funding as small counties and counties required to provide an “opportunity to recycle”). As previously reported, only nine of the 35 counties required to meet the goal have done so. Therefore, a 30% recycling goal should be maintained until the measures recommended in this report have been implemented and the 30% goal attained.

The practicality for small counties to achieve a 30% recycling rate is limited. Regardless, all of the state’s residents should be provided the opportunity to recycle. Therefore, the current goal for small counties to provide an “opportunity to recycle” should be maintained.

RECOMMENDATION: The current 30% waste reduction goal for counties with populations greater than 75,000 should be changed back into a *recycling goal* and modified to apply to counties with populations over 100,000. Counties with populations less than 100,000 should be required to provide an “opportunity to recycle”.



B. The Effectiveness Of Current Programs For Meeting The Goals

The effectiveness of current programs for meeting the waste reduction/recycling goals appears at first to be somewhat mixed. (See Section IV.A.3 “Current Status” of this report). Why did so many counties over 75,000 population fall short of the goals? For most of them, it was not the result of a lack of good faith effort. Many counties in Florida are considered national (and even international) leaders in recycling, with high citizen interest and participation, yet they still did not reach all of the above goals.

1. Areas Where Recycling Has Been Successful

- **Residential curbside recycling:** The fact that many counties did not achieve the goals does not mean the effort was futile. Instead, it is clear that the current programs provided a major stimulus to the establishment of residential curbside recycling in Florida. There are 299 curbside recycling programs that collect over 21 different types of materials. Over 8.5 million Floridians had curbside recycling available to them in 1998. This is in stark contrast to 1988, when the state’s recycling rate was estimated to be less than 4% with only a handful of curbside recycling programs.
- **Special Wastes recycling:** The current programs have also been successful in the management and recycling of some special wastes, particularly waste tires, used oil, batteries, and electronic wastes.
- **Research:** A third current program has been the highly successful targeted research sponsored by the Florida Center for Solid and Hazardous Waste Management (FCSHWM), which has advanced new solid waste technologies, substantially improved our understanding of particular waste streams and helped develop techniques to increase recycling. The complete research accomplishments and current research agenda for the FCSHWM can be seen at <http://www.floridacenter.org>. The FCSHWM also maintains two websites for research in two particularly topical areas: research on chromated copper arsenate (CCA) treated wood (<http://www.ccaresearch.org>), and bioreactor landfill research, based on the demonstration bioreactor landfill project at the New River regional landfill in Union County (<http://www.bioreactor.org>).

RECOMMENDATION: The state should continue its research efforts and funding on solid waste technologies, targeted waste streams and techniques in recycling in order to ensure Florida’s continued advancement in solid waste management efforts.

2. Areas Where Recycling Can Be Increased

At the same time, there are some major segments of the waste stream where recycling can be significantly increased. These include:

- **Construction and Demolition Debris Recycling:** when DEP improved its tracking system to obtain more accurate C&D data during the last couple of years, it became evident that the state was not recycling nearly as much C&D as previous data indicated. Given the growth of population and the concomitant building construction

in this state, there is significant potential for additional C&D recycling. Because C&D waste is a substantial part (25%) of Florida's municipal solid waste, increased recycling would have a big impact on the waste stream. It would not only result in the resource, energy and material savings discussed above, but also could be particularly important for preserving C&D disposal capacity (Note: Florida had nearly 300 C&D disposal sites in 1995, but because of significant new environmental requirements enacted in 1995, many of these sites closed, and the state now has only 92 C&D disposal facilities).

- **Commercial/Institutional Recycling:** this is another waste stream area ripe with major recycling potential. To date, there has been minimal activity by many commercial and institutional establishments across the state. There have been a few counties and cities that have implemented mandatory commercial recycling ordinances. However, enforcement has not been a priority in these counties. Furthermore, the cost of disposal for the commercial sector is relatively low resulting in little economic incentive to recycle. Finally, the commercial and institutional sectors have not received sufficient information regarding the economics and opportunities to recycle.
- **State Agency Recycling and Procurement of Recycled Products:** from the limited data available, it appears recycling and procurement of recycled products by state agencies can be substantially increased. There is adequate existing statutory authority. Various state agencies can be urged to implement the existing authority and extend their efforts to local governments receiving state funding.
- **Organics Recycling:** while there has been some success with organics recycling in Florida, this is yet another area where there is a potential for much more to be done, which also would have a substantial impact on the waste stream. Additionally, to improve the recycling of organics, the 2000 appropriation budget provided \$3.5 million to establish a Florida Organics Recycling Center of Excellence (FORCE). DEP has contracted with Sumter County to act as the host for the project at its Sumterville Composting Facility. Sumter County in turn, is contracting with the Institute for Food and Agricultural Sciences (IFAS) for the day-to-day operations of the Center. The FORCE will conduct environmental research related to organic feedstock, products, applications, and facility operations; develop a comprehensive range of organics products for Florida's end-use markets; facilitate the integration of technologies (i.e. in-vessel, windrow) and feedstock (i.e., agricultural wastes, foods wastes, biosolids, municipal solid waste; and conduct other activities.

C. The Role Of Keep Florida Beautiful, Inc.

1. Background On Florida Litter Programs

In 1988, Section 403.4131, F.S., of the Solid Waste Management Act created the Clean Florida Commission consisting of five state agency heads which represented the state arm for solid waste management. Keep Florida Beautiful, Inc. (KFB) was created within the Clean Florida Commission and the membership comprised of private organizations or businesses. The Commission was tasked with helping Florida and its local communities implement a sustained litter prevention campaign, and to act as a

working public-private partnership in helping to implement the state's litter prevention program.

In the 1993 revisions to the Solid Waste Act, the Clean Florida Commission was sunset and KFB was given the lead responsibilities for litter prevention in Florida. In addition, a 50% Litter and Marine Debris Reduction Goal was established (see statutory references below). It is important to note that creation of KFB occurred within the context of a vigorous debate over the passage of a bottle bill and a legislative directive to the Department to make recommendations on items in the litter stream to be subject to a litter tax. KFB was created and charged with accomplishing litter reduction without the need for passage of a bottle bill or a litter tax, but its creation implied a substantial long-term funding commitment by the private sector.

One of the major efforts of KFB throughout the 1990's was to build up the number of local Keep America Beautiful affiliates (such as Keep Tallahassee-Leon Beautiful, Keep North Miami Beautiful, etc.). During the first two implementing years, approximately 10 community litter programs were established. Today, more than 40 community programs implement their litter prevention education programs under the umbrella of KFB. Each local community program is certified by KFB's national program, Keep America Beautiful.

KFB and the local systems are the nucleus for the state's implementation of its litter prevention and recycling education programs at the community level. For example, programs include the statewide annual Great Florida Cleanup, neighborhood cleanups, administration of local adopt-a-shore programs and implementation of comprehensive environmental education programs in local school systems, to name a few.

In particular, KFB is working with Florida's Front Porch Communities initiative (which helps communities revitalize distressed neighborhoods) with grants, technical support and other assistance, by conducting cleanups, litter prevention activities, and expanding the participation of local private businesses in Front Porch programs.

RECOMMENDATION: KFB should continue to provide financial and technical assistance to the litter prevention and control component of Florida's Front Porch initiative.

2. Statutory Basis For Keep Florida Beautiful

Section 403.4131, F.S. states that:

"It is the intent of the Legislature that a coordinated effort of interested businesses, environmental and civic organizations, and state and local agencies of government be developed to plan for and assist in implementing solutions to the litter and solid waste problems in this state and that the state provide financial assistance for the establishment of a nonprofit organization with the name of 'Keep Florida Beautiful, Incorporated,' which shall be registered, incorporated, and operated in compliance with chapter 617. This nonprofit organization shall coordinate the statewide campaign and operate as the grassroots arm of the state's effort and shall serve as an umbrella organization for volunteer-based community programs. The organization shall be

dedicated to helping Florida and its local communities solve solid waste problems, to developing and implementing a sustained litter prevention campaign, and to act as a working public-private partnership in helping to implement the state's Solid Waste Management Act.”

3. The Litter Goal

Section 403.4131 establishes the state litter reduction goal and requires annual litter surveys:

“(8) The Legislature establishes a litter reduction goal of 50 percent reduction from the period January 1, 1994, to January 1, 1997. The method of determination used to measure the reduction in litter is the survey conducted by the Center for Solid and Hazardous Waste Management.”

4. Status Of Meeting the 1997 Litter Goal

The results from the annual litter survey required by Chapter 403, F.S. found that the amount of roadside litter in Florida remained fairly constant during 1995 and 1996. In 1997, the survey found a statistically significant (17-18%) increase in large roadside litter. It is clear from these results that the Litter reduction goal was not met during the specified timeframe. However, results from the most recent litter survey conducted in 2001 have shown a statistically significant decline (34%) in large roadside litter, signifying progress toward achieving the reduction goal established.

RECOMMENDATION: It is recommended that the current litter goal be modified to establish litter reduction rates on a per capita basis using the 2001 litter survey as a baseline.

5. Roles of Keep Florida Beautiful

As previously discussed, one of the major roles of KFB has been to build up the number of local Keep America Beautiful affiliates. Another one of KFB’s roles has been to provide a mechanism for outsourcing the administration of a pass-through grant program for local grassroots community-based programs. During the 1999-2000 fiscal year, 50 grants (\$998,000) were awarded to local entities by the KFB. KFB was responsible for providing the administrative capacity to ensure funds were properly tracked, costs were allowable and reimbursed, and deliverables received. A chronology of appropriations to the Department for litter prevention and control programs is provided in Table 7.

The KFB administered the pass-through grant program for seven years. State funds were passed through KFB to community based programs for projects including the Florida Great American Cleanup, Adopt-A-Shore, Adopt-A-Road/Park/Spot, tree plantings, neighborhood cleanup and improvements, graffiti prevention and removal, community based enforcement programs, involvement for risk youth programs, illegal dumping control and prevention, litter-free events, and house painting and improvement programs. The KFB also works closely with other programs affecting the quality of life in Florida communities, (e.g., the Florida Front Porch program, county sheriff

departments, and local government code enforcement programs). The usefulness in getting these nonprofit organizations to assist in the delivery of other community service programs should be examined by other governmental agencies at the state and local level.

Another role of KFB is to coordinate statewide public awareness campaigns to educate individuals, government, businesses, and other organizations concerning the role they must assume in preventing and controlling litter in accordance with Ch. 403.41315(2), F.S. Over the last 10 years, KFB received grants from the Department to administer three statewide public awareness campaigns. The first campaign, in 1994, focused on litter prevention. The message of the second campaign, in 1995, targeted recycling. The 1997 campaign encouraged environmental citizenship.

Although the 1997 litter reduction goal of 50% for Florida was not attained, other states (e.g., Texas) have found high profile statewide public awareness media campaigns to be an integral part of programs aimed at affecting behavior and reducing litter.

RECOMMENDATION: In the short term, Florida should continue to work with Keep Florida Beautiful (KFB) for litter prevention and control. To address the requirement that KFB be a public-private partnership, KFB must obtain more private sector funding, and demonstrate near term progress to achieve a 50 percent private partner funding level

6. Litter Funding History

Table 7 provides a history of litter funding in Florida over the last ten years.

Table 7: Litter Funding

Tr/FDOT	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	TOTAL
Adopt-a-Highway	\$100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	100,000	\$ 1,000,000
Grants									300,000		300,000
KFB											
Operating										\$ 150,000	150,000
KAB Affiliate Grants										750,000	750,000
Tr/DOT TOTAL	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	400,000	1,000,000	2,200,000
DEP											
KFB											
Campaign		500,000									500,000
KAB Affiliate Grants		100,000	300,000	450,000	450,000	250,000	250,000	998,000			3,648,000
Operating		731,475	150,000	150,000	150,000	150,000	150,000	300,000			1,931,475
KFB TOTAL		1,331,475	450,000	600,000	600,000	400,000	400,000	1,298,000			5,079,475
FCSHWM Litter Survey		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,800,000
Litter Grants to Counties		441,624	999,997	999,996	999,976	999,944	1,500,000	1,000,000	1,000,000	436,536	8,378,073
DEP TOTAL		1,973,099	1,649,997	1,799,996	1,799,976	1,599,944	2,100,000	2,498,000	1,200,000	636,536	15,257,548
STATEWIDE TOTAL	\$100,000	\$2,073,099	\$1,749,997	\$1,899,996	\$1,899,976	\$1,699,944	\$2,200,000	\$2,598,000	\$1,600,000	\$1,636,536	\$17,457,548

In FY 1994, \$500,000 was granted to KFB to conduct an anti-litter statewide public awareness multi-media campaign. The message was "It's In Your Hands - Keep Florida Beautiful"

In FY 1995, \$1,700,000 was granted to KFB to conduct a statewide public awareness multi-media campaign funded from ADF revenues. The message was "It's In Your Hands - Recycle - Keep Florida Beautiful"

In FY 1997, \$1,200,000 was granted to KFB to conduct a statewide public awareness multi-media campaign. The message was "It's In Your Hands - Be an Environmental Citizen - Keep Florida Beautiful"

7. Annual Litter Survey

Per the requirements of Section 403.4131, F.S. the DEP contracts with the Center for Solid and Hazardous Waste Management for an ongoing annual litter survey. The statewide roadside litter study conducted in 2001 has shown that the amount of visible litter on the state's roadsides has dropped more than 30% since 1997, the last time the survey was conducted. The study is the fifth since 1994, when funding was initially provided for these studies as part of a larger effort to cut the state's litter problem in half. It found that the amount of roadside beverage containers, fast-food wrappers, newspapers and other so-called "large litter" – anything 4 square inches or larger – had dropped almost 34% since 1997. In contrast, for the period 1995-1997, the amount of large litter increased 18%. Overall, for the period 1995-2000, there was a net 15% decline in large, roadside litter. It should be noted that this data is not adjusted for population growth and the number of Florida visitors, both of which could have a significant impact on the amount of litter. For this reason, as previously noted, DEP recommends that the litter reduction goal be changed to a per capita based goal.

The litter study, which covers all of Florida's 67 counties, is the most comprehensive in the nation. Technicians use a computer program to randomly select 10 roadways in each county. Although some roadsides are in cities, highly urban areas in downtowns are often rejected, because roadsides may not exist or are too narrow to compare to other roadsides. Other exclusions include roadsides that are under construction or deemed unsafe for the survey.

The technicians measure out a 200-foot swath on one side of each roadway. Next, they walk the swath with a tape recorder, carefully identifying and recording all the large litter they see. The procedure is followed on a smaller scale for small litter, with technicians counting all small litter in three 1-foot-by 5-foot areas in each swath. The researchers divide the litter into 72 large litter categories and 14 small litter categories. The January-April process involves nine specially trained technicians. Overall, the survey covered 670 sites and more than 25,000 miles of roadway statewide.

RECOMMENDATION: The litter survey should be conducted every three years rather than annually. Three year increments are adequate to detect trends.

D. The Need To Continue Those Programs

1. The Broad Benefits Of Recycling

It should be emphasized that waste reduction and recycling provide a broad range of environmental and economic benefits, and it is in the state's interest to ensure that these benefits continue, which include:

- Reduced environmental impacts during reuse
- Increased landfill space
- Reduced greenhouse gases
- Conserving resources
- Saving energy
- Provides substantial economic and employment benefits

It should be emphasized that recycling produces far-reaching financial benefits for Florida. According to the recently published *Florida Recycling Economic Information (REI) Study*, the state's 3,700 recycling and reuse facilities employ 32,000 workers and generate annual revenues of \$4.4 billion. Recycling and reuse establishments maintain an average payroll of \$765 million, which is 10-times higher than that of Florida's convenience store industry. In addition, even though Florida's recycling and reuse industry employs only one-fifth the number of people employed by the fast food industry, its total payroll is more than half that of fast food restaurants. The recycling/reuse business also generates \$62.7 million in state government revenues each year (the report is available for viewing or download at: <http://www.dep.state.fl.us/waste/categories/recycling/pages/publications.htm>)

2. Historic State Role In Promoting Recycling

In the late 1980s and early 1990s, during the early days of the state's recycling program there was a need for a strong state role to establish goals, provide large-scale funding for start up and initial maintenance of programs, and, if needed, develop a series of strong mandates to enforce recycling requirements.

3. Future State Role

Now that the state's recycling program has matured, the state's role can be focused on the following areas:

- Regulatory: permitting, compliance and enforcement
- Establishment and tracking of county recycling goals
- Data repository and management
- Technical assistance
- Training
- Research and development
- Small targeted grants to stimulate innovation and efforts in specific areas
- Procurement and state agency recycling

During the last ten years, solid waste *disposal* has grown from a predominately local issue to a regional (multi-county) issue in most parts of the state (while solid waste *collection* has remained a local issue). The trend has been consolidation towards fewer, larger landfills and waste-to-energy plants taking waste from larger geographic areas. During this same time period, few new landfills have been sited in the state (the last "Green Field" landfill was sited in Florida in 1994). Concurrently, there has been increased public concern about landfills and the need for regulating both the use and need for such facilities.

During this time, recycling has matured from just an environmentally positive activity to an economic development component. Jerry Powell, a respected recycling industry journalist, recently noted:

"When municipal recycling surged more than a decade ago, few thought materials recovery would ever amount to much in the marketplace. How wrong they were. In

recent years, secondary materials have become the preferred incremental feedstock. For example, since the mid-1990s, new demand for recovered paper has outstripped incremental demand for virgin pulp by nearly three to one. In the past decade, while no virgin-ore mills were constructed, many new recycled steel mills were built.”

“Given this structural change in the materials economy, the preservation of a consistent flow of secondary materials at a sufficient quantity is now a key ingredient to profitable growth by American industry. Recycling isn't some hug-a-tree, get-good-publicity corporate action; it is an industrial raw material strategy critical to business survival. After spending tens of billions of dollars in recycling investments in the past dozen years, industry knows that threats to the flow of secondary materials are threats to corporate livelihoods.” (Source: "It's Time for a New Voice," by Jerry Powell, Resource Recycling, August 2001, page 4.)

4. Litter and KFB

As previously discussed, the statewide roadside litter study conducted in 2001 has shown that the amount of visible litter on the state's roadsides has dropped by more than 30% since 1997. For the period 1995-2000, there has been a net 15% decline. While the goal required by the statute was not met, the recent data suggests that the current litter programs are effective. There are a number of other models for a state litter control program that Florida could follow. Some examples are the highly successful “Don't Mess with Texas” program operated by the Texas Department of Transportation, the Pennsylvania program run by the Pennsylvania Department of Environmental Protection, and the Georgia program run by the Georgia Department of Community Affairs. However, given the reductions in Florida roadside litter recently observed, a good case can be made that the current KFB model, when coupled with the 40 local Keep America Beautiful affiliate local chapters, should be continued.

E. ALTERNATIVE TECHNIQUES FOR IMPROVING THOSE PROGRAMS

This section discusses changes or improvements which could be made to existing programs. More dramatic changes, and new ideas, are discussed in the following section.

- Improved state agency procurement
- Improved state agency waste reduction/recycling
- Seed grants aimed at innovation, C&D, and commercial sector
- Modifications to existing recycling loan program
- Additional tax incentives for waste reduction/recycling
- Small county grants
- Waste tire grants
- Enforce existing recycling mandates

1. Improved State Agency Procurement

As described above, there are opportunities and existing statutory authority for increased agency procurement of products with recycled content. With more than 1000 items on the state contract with recycled content, purchases could be increased. The trend towards decentralized purchasing by state agencies instead of going through

DMS is an important factor to be considered.

RECOMMENDATION: State agencies should be required to track and report to DMS on their respective efforts to procure products with recycled content. DMS should submit an annual report to the Governor and Legislature on state agency procurement efforts.

2. Improved State Agency Waste Reduction/Recycling

As described previously, it appears from the limited data available that recycling by state agencies could increased under existing statutory authority. The state agency recycling program should be modified to establish performance incentives by allowing state agencies to keep and use proceeds from recycling efforts as discretionary funds for the benefit of agency employees.

RECOMMENDATION: The state agency recycling program should be modified to establish performance incentives by allowing state agencies to keep and use proceeds from recycling efforts as discretionary funds. Additionally, state agencies would be required to track and report to the Department of Management Services (DMS) on their respective recycling efforts. DMS would submit an annual report to the Legislature on state agency recycling efforts. Any state agency failing to establish a recycling program would be required to develop and implement and action plan to improve recycling efforts.

3. Seed Grants Aimed At Innovation, C&D, And Commercial Sector

The current grants program provided for in Section 403.7095, F.S. could be replaced with a smaller program focused on innovative waste reduction/recycling projects and a new, small scale, competitive grant program to local governments to further stimulate waste reduction/recycling of C&D debris and in the commercial/institutional sector. Note that for Fiscal Years 1998-99 through 2000-01, Florida had an Innovative Recycling Grants program based on language included in the Implementation Bills for each of those years. Competitive grants or loans could similarly be provided to public or private entities for the establishment of new markets for recycled C&D debris.

RECOMMENDATION: The existing Recycling and Education grants program should be replaced with a competitive small scale “seed grant” program that launches innovative waste reduction/recycling projects, improves recycling in C&D debris and the commercial/institutional sector, and develops new markets for recycled C&D debris. These areas have the greatest potential for increasing the state’s overall recycling rate.

4. Modifications To Existing Recycling Loan Program

The DEP manages a Florida Recycling Loan Program which was created to provide access to capital for the purchase of equipment and machinery to expand recycling capacity. The program offers long-term fixed-rate loans at interest rates 2% below prime. The maximum loan amount is \$200,000. The program is limited to for-profit small

businesses that are either legally licensed and operating in Florida, or creditworthy start-up companies or out-of-state firms considering expansions into Florida. Eligible recycling companies must have a net worth of less than \$6 million and have less than 100 employees. This program could be modified to provide low interest loans for the start-up and expansion of waste reduction/recycling businesses and organizations that purchase equipment to reduce the generation of municipal solid waste at the source.

5. Additional Tax Incentives For Waste Reduction/Recycling

Tax exemptions currently available are for the purchase of equipment for new and expanding businesses as stated in 212.08 (5)(b), F.S. This applies to machinery and equipment that recyclers use, but only after spending \$50,000 in sales tax during the year (based on \$833,333 in equipment purchases). A competing “new” business would receive the tax exemption on the first dollars spent, which is a serious disincentive for existing Florida recyclers, particularly if there is a loss of the state grants to local governments.

Exemptions are also provided in 212.08, F.S. (7)(ff) and (7)(zz) but these are specific to certain SIC codes which do not include 5093-Scrap and Waste Materials (even though language in (ff) specifically references “recycling equipment”). The addition of SIC 5093 would enable companies to take advantage of these exemptions for recycling equipment.

In 1988 an addition to 212.08 was made in subsection (5) Exemptions; Account of Use (e) Machinery and equipment for processing recyclable materials. This exemption was intended for recycling businesses that increased consumption of recyclable materials. Companies had to demonstrate that recyclable material consumption was increased by 10% and they had to provide receipts for taxes paid on equipment that contributed to this increase after one full year of use. This law sunset on October 1, 1991. Recycling companies did not take advantage of it because the requirements proved to be too cumbersome.

6. Small County Grants

For Fiscal Year 2001-02, counties with populations less than 100,000 continued to receive their historical level of solid waste grants (Small County base grants, recycling, waste tires and litter), or about \$5.8 million total, while the larger counties lost all solid waste grants. Given the other pressing concerns of rural counties, and the lack of a local tax base, there is strong concern that if funding isn't continued for these rural counties, then recycling, waste tire and litter programs in those counties will cease.

RECOMMENDATION: Recycling and Education, waste tire, litter and base grants to counties with populations less than 100,000 should be maintained at appropriate funding levels necessary to continue the opportunity to recycle and meet other statutory mandates. These levels would be based upon an annual Department analysis of the effectiveness of the grants in achieving these mandates and would be reflected in the agency's Legislative Budget Request (LBR).

7. Waste Tire Grants

Historically, since 1989, DEP has awarded waste tire grants on the basis of population to all Florida counties for abatement of waste tire piles, amnesty day programs, purchase of rubber products containing recycled tires and subsidization of waste tire tipping fees. As noted above, such grants were awarded in Fiscal Year 2001-02 to counties with populations less than 100,000. There is concern that if these programs are not continued, waste tire dumping and other problems will increase.

RECOMMENDATION: An appropriate level of funding for waste tire grants should be restored to counties with populations greater than 100,000. Grant funding levels should be based on the Department's analysis of waste tire demands and the effectiveness of the grants in addressing these demands and will be reflected in the agency's LBR.

8. Enforce Existing Recycling Mandates

The state could enforce the existing mandates on the counties. The law allows DEP, at its discretion, to stop all DEP grants, not just recycling grants, from being awarded to a county if a good faith effort is not being made by the county to meet recycling goals. The law also allows DEP to deny or place conditions on permits for new disposal facilities, or expansions of existing disposal facilities, if recycling requirements are not being met.

If DEP attempts such enforcement, the counties may bring up the issue of unfunded mandates. Moreover, regarding mandatory enforcement, there may be an issue with the accuracy of measuring a county's progress towards achieving the goals. Like all enforcement activity, significant time and resources are invested toward an end result that may or may not produce an ultimate benefit of equal value. At the same time, the flexibility to decide, on a case-by-case basis, whether or not to pursue enforcement, should remain with the Department as an option, not as a requirement.

RECOMMENDATION: The state should maintain the ability to enforce existing recycling mandates.

F. Alternative Strategies For Meeting The Needs Of The Programs

The Department has surveyed other states to review alternative strategies for improving recycling and waste reduction. Several states have implemented the following concepts:

- Pay-As-You-Throw
- Voluntary Incentives for EMS Certification
- Environmental Leadership/Performance Tracking Program
- Voluntary Product Stewardship
- "Green Building" Initiative
- Specific Measures To Increase C&D Recycling
- Bottle Bill

1. Pay-As-You-Throw

Traditionally, residents pay for waste collection through property taxes or a fixed fee, regardless of how much—or how little—trash they generate. Pay-As-You-Throw (PAYT) treats trash services like electricity, gas, and other utilities. Households pay a variable rate depending on the amount of service they use.

Most communities with PAYT charge residents a fee for each bag or can of waste they generate. In a small number of communities, residents are billed based on the weight of their trash. Either way, the less individuals throw away, the less they pay. On average, according to EPA, PAYT communities reduce their waste from 14-27% and increase recycling from 32-59%. PAYT programs are now in operation in over four thousand communities nationwide (for more information on PAYT, see <http://www.epa.gov/epaoswer/non-hw/payt/index.htm>).

RECOMMENDATION: The state should provide startup grants to local communities willing to establish a Pay-As-You-Throw (PAYT) program, which would allow households to pay a variable rate depending on the amount of service they use.

2. Voluntary Incentives For Environmental Management Systems

Florida could design an incentive program that encourages local governments and other organizations to develop and implement an environmental management system (EMS). An EMS is a voluntary management tool designed to improve an organization's environmental performance. An EMS establishes procedures for an organization to plan, implement, evaluate and improve processes that impact the environment. It institutionalizes environmental compliance and pollution prevention into business planning. Like quality management, an EMS is a continuous improvement process. Incentives could include:

- Grants or loans to help local governments and businesses develop and implement an EMS.
- Technical assistance from DEP to local governments and small to medium size businesses in developing and implementing the EMS. (Note: If this is conducted on a pilot project basis with a limited number of participants, no new staff resources should be needed.)
- A public recognition program for local governments with exceptional EMS programs or that have achieved ISO 14001 certification
- Regulatory incentives (see section on Environmental Leadership below).

3. Environmental Leadership/Performance Tracking program

Environmental Leadership/Performance Tracking programs (EL/P) are related to EMS type programs in that they are based on the concept of encouraging greater voluntary pollution prevention through incentives. An EL/P approach can be desirable because opportunities for Pollution Prevention (P2) are not always fully realized and existing environmental statutes and regulations neither adequately encourage pollution prevention practices nor emphasize multimedia management. Consequently, businesses with exemplary environmental practices should be further encouraged through regulatory flexibility to prevent pollution.

To participate in the program, eligible companies must have a good compliance history, a P2 program or planning, P2 goals or commitments, performance measurement, and public communication and/or involvement.

In exchange, EL/Ps offer some form of public recognition and small business technical assistance, as well as regulatory incentives including: regulatory flexibility, permitting advantages, streamlined monitoring and recordkeeping, tax credits, fee reductions, reduced inspections, and regulatory coordination.

4. Voluntary Product Stewardship

Voluntary “product stewardship” means that all parties responsible for the design, production, sale, and use of a product assume responsibility, as specified for the full environmental impacts of the product throughout its life cycle. Environmental impacts of products considered include air and water pollution, energy and materials consumption, the amount of toxics in products, product and packaging waste, and safety for workers and consumers. A key tenet of product stewardship is that manufacturers in particular should take greater responsibility for reducing these environmental impacts, including end-of-life management. Currently, the responsibilities and costs for end-of-life management are being borne almost entirely by local governments.

Recently, DEP has been participating in two product stewardship initiatives which could serve as models for further state actions. One involves a number of state agencies working with the carpeting industry to develop voluntary product stewardship guidelines and practices to promote the take-back and recycling of discarded carpeting.

The other is a national electronics waste initiative involving electronics manufacturers and government to increase the collection and recycling of discarded electronic goods. Also, in October 2001 the Electronics Industry Alliance announced \$100,000 in grants for a year-long study to determine the best way to collect used household electronics for recycling, reuse, and disposal. Grants were awarded to the state of Florida; the 10-state Northeast Recycling Council; and the U.S. Environmental Protection Agency (EPA) Region III (Pennsylvania, Maryland, Delaware, Virginia, West Virginia and Washington, D.C).

The Department could work with industry on a voluntary basis to develop a flexible product stewardship framework to encourage product stewardship programs. Such framework may include guiding principles, including a means of apportioning responsibility and costs; potential models of product stewardship programs including funding mechanisms; guidance for identifying and designating product categories for product stewardship program development; incentives such as government procurement standards to encourage leasing and research to develop markets for recovered materials; product disposal bans; modifications to the regulations affecting end of life products; mechanisms that increase public awareness.

5. “Green Building” Initiative

Nearly three billion tons of raw materials are used annually to construct buildings

worldwide. The built environment offers numerous opportunities to show environmental stewardship: buildings can reduce energy and water consumption, minimize the use of natural resources in the materials selection process and improve indoor air quality and occupant well-being.

In response, the state could help promote “green building”. One example is the LEED (Leadership in Energy and Environmental Design) Green Building Rating System, developed through the US Green Building Council, which could guide this effort. It is a voluntary, consensus-based, market-driven building rating system based on existing proven technology. It evaluates environmental performance from a "whole building" perspective over a building's life cycle, providing a definitive standard for what constitutes a "green building".

Elements of a green building include: using products made with recycled content in the construction of the building; ensuring that the building is energy and resource efficient in its maintenance and operation; and designing “deconstruction” features into the building so it can itself be recycled at the end of its useful life.

Implementing green design and building strategies has a positive financial impact as well. Many companies are discovering the financial benefits of eco-intelligent facilities through significant reduction of building operating and maintenance costs.

6. Specific Measures to Increase C&D Recycling

Construction and demolition (C&D) debris recycling was debated in the 2000 legislative session. A report was prepared by the DEP at the request of the legislature to assist the Committee in its task. The following are a series of options taken from that report for increasing C&D recycling. Some are actions local governments can take on their own. Others would require state legislative action. The full report is available for review or download at:

<http://www.dep.state.fl.us/waste/categories/recycling/pages/canddreport.htm>.

a. Local Government Ordinances Requiring The Recycling Of C&D Debris:

Sarasota County, FL and Alameda County, CA have ordinances which require that C&D waste haulers recycle a majority of debris generated in their jurisdiction.

- Sarasota County enacted an ordinance in 1992 requiring the recycling of C&D.
- Alameda County, CA designed an ordinance for cities to adopt. It states that:
 - reusing and recycling C&D debris is essential to further City efforts to reduce waste and comply with goals,
 - C&D debris waste reduction and recycling have been proven to reduce the amount of such material which is landfilled, increase site and worker safety, and be cost effective, and
 - except in unusual circumstances, it is feasible to divert an average of at least 50% of all C&D debris from construction, demolition, and renovation projects.

Local governments could also require builders to source separate on site, or recycle on

site if environmentally acceptable (e.g. applying powdered drywall residue to soil as a conditioner) as a condition of obtaining a construction permit. For example, the City of Portland, Oregon requires on-site recycling in all construction projects except for very small ones valued at under \$50,000. A business must complete a construction site recycling plan form to obtain a building permit.

b. Restrict C&D Debris Disposal In C&D Debris Landfills:

The Legislature could restrict the landfilling of C&D debris by prohibiting the disposal of any materials for which a proven market exists. Or, it could require that all C&D debris be processed before disposal, to create the opportunity to pull out recyclable materials as well as potentially hazardous waste. C&D contractors in Massachusetts are studying pending regulations that will ban many types of C&D debris from entering landfills. A solid waste master plan that will be adopted by the state addresses C&D materials in several ways, including banning materials generated at construction and demolition sites from entering landfills except as residue after passing through a C&D recycling facility. Between now and 2003, when the proposed ban will take place, the Massachusetts Department of Environmental Protection (DEP) intends to boost end markets for materials that do not have established recycling infrastructures, including wood, asphalt shingles, gypsum drywall and carpeting. Regulatory officials have said they will only enforce the ban in 2003 if they conclude that an adequate infrastructure exists to recycle banned materials. The DEP has set a goal of an 88% recycling rate on C&D material by 2010.

c. Recognition Programs To Encourage Contractors To Reduce And Recycle:

King County, WA has a recognition program called Construction Works. The Construction Works Recognition Program publicizes construction companies that recycle, reduce waste and use recycled products on the construction job site. Companies are awarded Construction Works by job site and can apply for multiple awards.

To become a Construction Works member, an organization must meet these criteria:

- Recycle 40% of its waste
- Practice at least three waste reduction strategies
- Use at least three recycled products

To become a Distinguished Construction Works member, an organization must meet the following criteria:

- Recycle 60% of its waste
- Practice at least six waste reduction strategies
- Use at least six recycled products
- Be involved in three additional activities that promote recycling, waste prevention, and buying recycled to your company, your customers or the public.

d. Local Government Solid Waste Contracts To Increase C&D Debris Collection And Recycling

Finally, one of the more important issues discussed in the 2000 C&D report is the role local government solid waste franchises play in encouraging or discouraging recycling

of C&D, and whether the Legislature should impose requirements or restrictions on such franchises. Some C&D recycling firms have complained in the past that solid waste franchises impair recycling by not allowing C&D recycling companies access to the C&D waste stream. At the same time, advocates of local solid waste franchises say that such franchises are not an issue.

To resolve this issue, a comprehensive survey of local government franchises is needed. Dr. Melvin Droubay from the University of West Florida issued a report in 2000 entitled "The Use of Franchise Fees in Commercial Solid Waste Management in Florida", which provided information on commercial franchises. However, the study was conducted on the county level looking at all commercial waste, therefore C&D debris was not exclusively addressed.

It should also be noted that any changes in existing local government solid waste franchise agreements or contracts would have to be made at the end of the current contract period, or otherwise with sufficient lead time to honor existing contractual agreements.

Meanwhile, options to modify local government solid waste contract include:

- **Non-exclusive commercial franchises:**
Local governments with non-exclusive franchises allow competition between waste haulers and recyclers. This allows any company to bid on waste handling, thereby opening the market to a wide range of handling options including reuse and recycling.
- **Separate C&D debris franchises:**
Franchises can be established for the handling of C&D debris--exclusive of other waste streams. This provides assurance to the local government that this waste stream will be handled in a way that is consistent with regulations. Compliance inspections and enforcement measures are funded through the franchise fee paid.
- **Rebate a portion of the building permit fee if recycling occurs:**
In San Jose, CA, a rebate system is being established to reward recyclers of C&D waste. The system places a deposit on construction, demolition, and remodeling projects when the project permit is issued. The deposit rate will be based on square footage of and the type and quantity of material expected to be generated by the project, in conjunction with the costs of recycling or processing that material. Upon demonstration of diversion of a pre-established percentage of the C&D debris to an authorized recycling facility, the full deposit or appropriate portion will be refunded to the permitted participant.
- **No franchise, but require permits for roll-off box haulers without imposing franchises:**
To ensure that public health and safety concerns are addressed, some local governments require haulers of C&D debris to obtain an annual waste permit or on a job by job basis. However, there is otherwise a free market with no franchise determining who hauls the waste for an entire city or area.

7. Bottle Bill

There are ten states that have a type of statute that is commonly known as a bottle bill, whereby customers pay a deposit of 5 cents or 10 cents when they purchase a can or bottle of a product. The customer gets the deposit back upon the return of the can or bottle.

Bottle bills result in significantly higher recycling rates of bottles and cans than curbside recycling programs. However, bottle bill opponents point out that aluminum, glass, and plastic bottles comprise only approximately five percent of Florida's municipal solid waste. While most of those opponents are willing to concede that a bottle bill would increase the recycling rate of bottles, they also assert that major problems would be created for the retailers who have to deal with the returned bottles. They conclude that the problems would not be offset by the benefits, especially given the relatively small part of the total waste stream that would be affected.

Additionally, there is concern that a bottle bill could negatively impact the revenues of local recycling programs.

G. Any Other Issues Related To Resource Recovery And Management

If Part IV of Chapter 403 is going to be amended to address the recycling and litter programs, there are a number of technical and other changes which could be made to update and improve solid waste management law. These include repealing antiquated language or clarifying ambiguities.