



# Solid Waste & Recycling Collection

## 2006 Solid Waste Management Update

### Waste Collection

The level and type of solid waste, recycling and yard trimmings collection services provided throughout the state varies greatly depending upon a community's size, density and demographic profile. The data contained in this report is obtained mainly from the Annual Solid Waste Management Survey and Full Cost Report. This data is used to attempt to identify how local governments collect and manage solid waste, yard trimmings and recyclables generated within their community. Before applying any analysis to this data it should be noted that in FY 2004 there was a significant drop in the response rate (from 93% in FY 2003 to 79% in FY 2004). It is believed that the switch to the online system is the primary reason for the significant drop in the response rate. However, for the FY 2005 reporting year, there was a reciprocal increase in the response rate over FY 2004 (91% in FY 2005 up from 79% in FY 2004). Consequently it is recommended that a minimum of two more years of survey data be collected before this information can be effectively used to establish any reliable benchmarks or trend lines. Until then the data should only be used to acquire an over-all "annual snapshot" of solid waste and recycling activities in the State.

In the table entitled *Residential Waste & Recyclables Collection* the changing role of local governments as solid waste collection service providers is highlighted. Many local governments have opted to "arrange for" rather than "provide" solid waste collection services. Over the past decade, we have seen the solid waste collection role of the private sector increase. One potential trend appears to be the changing role in providing recycling services. While it is impossible to state with any certainty, it appears that the number of local governments providing recycling services has declined from 2003 to 2005. This change in the general trend could be due to the fluctuating response rate.

There are several tools local governments use to partner with the private sector to manage the waste generated within their communities, including: permits, ordinances, franchise agreements, and/or contracts.

The number of local governments reporting they use permits, ordinances, and/or franchise agreements appears to have increased immensely from FY 2003 to FY 2005. This may be due in part to the change in the wording of the question as well as the section of the survey in which the question was asked.

Permits and ordinances governing the collection of solid waste are typically the least restrictive tools local governments use to manage solid waste collection in their community. Collection ordinances typically establish general standards by which a private sector service provider must operate.

Franchise agreements, either exclusive or open, generally establish a minimum level of services that must be provided by all service providers and usually stipulate the specific operating standards. A contract between a local government and private waste service provider provides the greatest degree of management control over the waste stream, with the local government setting forth specific performance

<b>Residential Waste and Recyclables Collection</b>			
<b>FY 2003 - 2005</b>			
	<b>2003</b>	<b>2004</b>	<b>2005</b>
No. of local governments responding to Solid Waste Management Survey	642	546	631
<b>Solid Waste Service Providers</b>			
Local governments providing/arranging for residential waste collection	565	501	593
Provided by public sector	362	336	335
Provided by private sector	379	379	356
<b>Types of Residential Programs</b>			
Curbside/backdoor			
City	400	374	436
County	62	60	66
Staffed Drop-off			
City	37	44	42
County	87	95	80
Unstaffed Drop-off			
City	43	17	40
County	29	25	43
Dumpsters (Green box)			
City	22	27	23
County	20	49	25
<b>Recycling Service Providers</b>			
Local governments making residential recycling services available	444	390	395
Provided by public sector	392	266	264
Provided by private sector	188	67	77
Provided by non-profit organization	109	57	N/A

<b>Private/Public Partnerships for Residential Waste Collection</b>						
<b>FY 2003 - 2005</b>						
	<b>2003</b>		<b>2004</b>		<b>2005</b>	
	<b>City</b>	<b>County</b>	<b>City</b>	<b>County</b>	<b>City</b>	<b>County</b>
Private collection does not exist	164	23	158	55	178	59
Issue permit or license	11	13	48	31	56	34
Local ordinance	11	22	230	70	251	79
Franchise agreement	34	9	103	36	134	40
Governments contract	181	41	202	53	248	60
Open competition – no local government oversight	33	66	139	66	167	72



## Solid Waste & Recycling Collection 2006 Update

measures and standards to be met by both parties.

As can be seen in the *Residential Waste and Recyclables Collection* table, the types of residential solid waste collection services range from “green box” or Dumpster drop-off service to curbside or backdoor pick-up. One trend the Department of Community Affairs has been tracking for several years is the use of Dumpsters. They are often placed in unsupervised areas, usually in rural communities, for trash collection and frequently become dumping grounds for everything from household trash to disabled vehicles, tires, and animal carcasses. They can become an eyesore in a community and attract waste from neighboring jurisdictions. The number of local governments using green boxes for residential waste collection has dwindled in recent years. In 1994, 74 cities and 99 counties reported using them for residential waste collection. In FY 2005, just 23 cities and 25 counties reported using green boxes. It appears that around half of the counties using a Green Box system in FY04 did not report using them in FY05.

### Yard Trimmings Collection

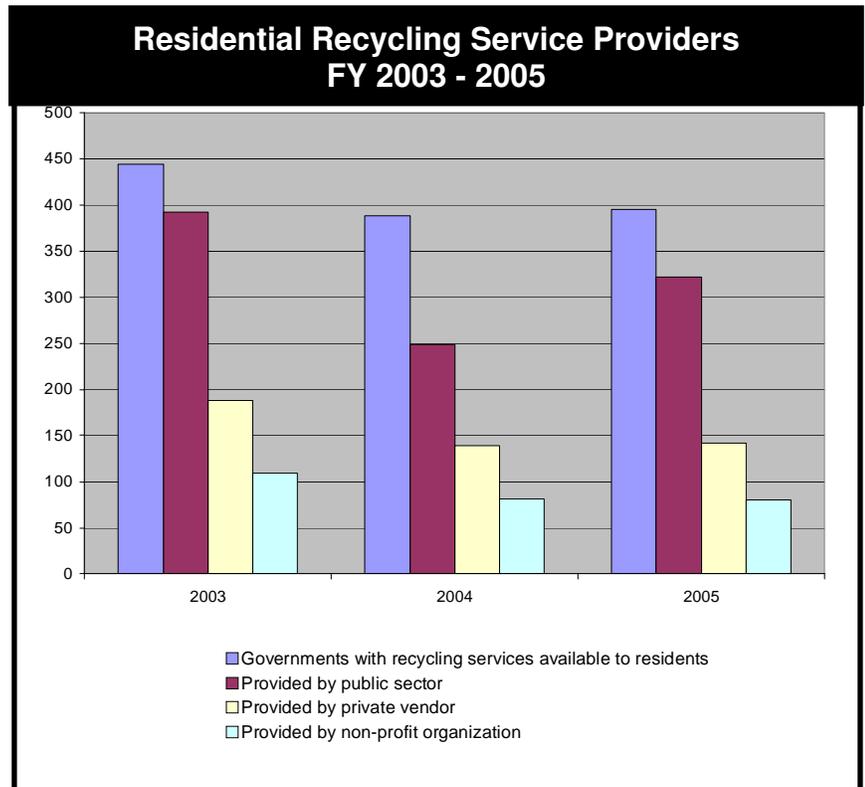
The number of local governments reporting that they provide for the collection and disposal of yard trimmings fell from 448 in FY 2003 to 291 in FY 2005. This decrease may be linked to the increase use of the private sector to provide collection services. The private sector is less likely to offer yard trimmings collection because of the additional cost associated with its collection and disposal. The decline may also be due to the discrepancy in the response rate over the last two years. The type of collection service options ranged from accepting yard trimmings at solid waste management facilities like a solid waste transfer station to curbside collection programs. The number of communities reporting they provide collection services has decreased from 448 in FY 2003 to 291 in FY 2005. From the information reported it appears that this decrease is occurring mainly in the curbside programs and transfer stations accepting the material, however due to the low response rate it is impossible to present a conclusive finding.

### Recyclables Collection

During FY 2005, 395 local governments reported they provided or arranged for residential recycling services in their communities. As can be seen in the *Residential Recycling Services Providers* graph, the strong tradition of public, private, and non-profit partnerships used to provide recycling services throughout Georgia continues. However it appears that the number of private vendors has increased slightly while the non-profit organizations have decreased; this could also be due to the fluctuating response rate.

The number of local governments whose residents have access to recycling services appears to have slowly dwindled during the last three years however this could be due to the fluctuating response rate. Collection programs for glass, scrap metal, aluminum, and newspaper had fallen dramatically in FY 2004, however they have all risen significantly in FY 2005; the increase in the number of communities reporting aluminum, newspaper, plastic containers, and electronics collection programs appears to indicate a trend beyond just the number of communities responding to the survey.

Yard Trimmings Management FY 2003 - 2005						
	2003		2004		2005	
	City	County	City	County	City	County
Promote home composting and grasscycling	55	41	24	27	25	25
Provide for collection and disposal	355	93	365	57	258	33
<b>Collection Options</b>						
Staffed drop-off facilities	17	41	14	16	19	28
Unstaffed drop-off facilities	10	6	9	3	9	3
Curbside collection	276	16	220	5	294	22
Accepted at landfill/transfer station	35	50	3	15	21	32
Other	13	10	13	3	16	6





## Solid Waste & Recycling Collection 2006 Update

Collection programs appear to have been trimmed mainly from small, rural communities. Some of the decrease may be attributed to the low survey response rate. On a more positive note, more jurisdictions reported collecting problem wastes such as electronic items.

As shown in the *Number of Jurisdictions Collecting Materials for Recycling* tables on page C-4, there was an increase in the number of local governments making residential recycling services available in their jurisdictions.

Nationally and regionally, market prices for recycled materials have varied widely. Virtually any recyclable commodity price, when tracked over time, varies greatly. This affects which materials some local governments choose to recycle, given their budget restraints and shifting priorities.

This report does not address the scale of the individual local recycling operations, which would be difficult to quantify. Rather, it focuses upon the level of recycling services being offered throughout the state. Since 1992, newspaper has been reported as the residential recyclable material most widely collected in Georgia, followed by aluminum cans. The most popular commodities recycled from residences were newspaper (509 jurisdictions reporting collection); aluminum (452); magazines (378); corrugated cardboard (368); and #1 plastic (360.) round-off the top five most recycled materials category during FY 2005. After trending drastically down in FY 2004 glass has rebounded sharply in FY 2005 this fluctuation could be attributed to the response rate. Although some recyclers have dropped glass from their programs, saying prices have fallen to the point that dealing with the material (which can be a contaminant for other recyclables if not handled properly) is no longer worth the trouble. Glass proponents claim that markets for the material have strengthened in the last two year, and that with care and proper equipment maintenance, glass should not be a problem for a recycling operation. The tables on page C-4 tally the number of local governments collecting commercial and residential materials for recycling.

### Recyclables Processing

In FY 2005 176 local governments reported processing residential recyclables as source separated materials, or reported that they collect source-separated materials from their customers. Source-separated means the materials are separated before being collected, typically by the consumer. For example, a homeowner may have to place glass, plastic and metal in separate containers before collection. Commingled collection means the consumer places all the material in one container and the material is sorted after collection, often by paid staff, inmates or probationers



### Processing of Residential Recyclables FY 2003 - 2005

	2003		2004		2005	
	City	County	City	County	City	County
Source-separated	142	75	75	97	79	97
Commingled	41	12	32	12	46	14
Both	32	35	8	10	6	9
Unknown	94	11	52	34	32	21



## Solid Waste & Recycling Collection 2006 Update

Number of Jurisdictions Collecting Commercial Materials for Recycling by Type FY 2001 - 2005					
	2001	2002	2003	2004	2005
<b>Automobile components</b>					
tires	98	89	88	62	54
auto batteries	74	70	71	44	38
motor oil	82	71	75	50	36
<b>Metals</b>					
aluminum	249	249	238	248	196
scrap metal	175	170	168	106	94
<b>Paper</b>					
newspaper	270	258	257	293	254
magazines	218	202	198	189	84
corrugated cardboard	268	257	253	202	177
white paper	184	190	177	98	66
phone books	181	176	168	163	71
other paper	154	153	148	92	50
<b>Misc.</b>					
plastic	353	353	326	214	181
glass	193	176	177	139	57

Number of Jurisdictions Collecting Residential Materials for Recycling by Type FY 2001 - 2005					
	2001	2002	2003	2004	2005
<b>Automobile components</b>					
tires	141	137	136	117	142
auto batteries	88	93	91	89	100
antifreeze	15	22	24	18	21
motor oil	109	101	93	66	95
oil filters	22	17	23	18	28
<b>Metals</b>					
aluminum	375	362	334	292	452
steel cans	173	165	157	118	226
scrap metal	223	212	214	124	208
aerosol cans	38	41	40	16	39
<b>Paper</b>					
newspaper	406	380	365	344	509
magazines	315	298	280	269	378
corrugated cardboard	332	314	287	280	368
phone books	250	241	234	202	322
paper board	126	129	132	111	72
other paper	238	234	206	172	236
<b>Misc.</b>					
#1 plastic	276	268	256	247	360
#2 plastic	259	244	255	208	311
other plastic	85	85	76	52	69
glass	293	266	251	180	303
white goods	263	250	239	246	225
Christmas trees	262	245	244	253	262
C&D materials	66	60	65	51	48
agricultural chemical containers	23	22	23	15	10
electronics	20	27	40	12	76
<b>Household Hazardous Waste</b>					
paint	19	21	24	42	29
cleaning products	6	8	10	0	2
pesticides	4	3	7	4	4
other	12	25	21	19	12

n/a: Question not asked on that year's survey

\*Prior to the 2000 survey, DCA did not separate #1 and #2 plastics in its survey.

## Transfer Stations

With fewer, more regional-sized landfills in the state and a wide array of solid waste collection programs, solid waste transfer stations continue to be a popular method of streamlining solid waste collection services. Transfer stations are especially effective when collection routes are farther than 50 miles from a landfill. Combining several conventional rear-loader garbage truck loads into a single tractor-trailer for the trip to the landfill saves fuel costs, vehicle wear and tear, and means fewer trucks can service more customers. Only 20 cities reported that they or their contractors used transfer stations for the collection or disposal of residential waste in FY 1995. By FY 2005, 157 cities or their contractors were using transfer stations to manage residential waste.

Use of Solid Waste Transfer Stations FY 2001 - 2005		
	City	County
2001	142	63
2002	143	67
2003	146	70
2004	153	70
2005	157	72



## Solid Waste & Recycling Collection 2006 Update

Georgia banned yard trimmings from lined Municipal Solid Waste (MSW) landfills in 1996, as part of an effort to extend landfill disposal capacity. Effective Sept. 1, 1996, each city, county and solid waste management authority was required to impose restrictions on yard trimmings generated in or disposed within their jurisdiction. The restrictions required that yard trimmings:

- Not be placed in or mixed with municipal solid waste;
- Be sorted and stored for collection to facilitate composting or other handling;
- To the maximum extent feasible be sorted, stockpiled or chipped for composting or used as a mulch or for other beneficial purposes;
- Be banned from disposal at MSW disposal facilities having liners and leachate collection systems;

Annually, DCA surveys local governments to determine how they collect, process and use yard trimmings generated within their communities. During FY 2005, 25 cities and 25 counties reported actively promoting waste minimization practices such as home composting or beneficial reuse of yard trimmings. During FY 2005, 258 cities and 33 counties reported collecting yard trimmings for diversion from MSW landfills. While the total number of local governments responding to the survey is about the same in FY03 and FY05, the number of local governments reporting they collect materials is significantly lower in FY05. Those that did report that the service was available indicated that they provided the collection services with just a few indicating they contracted with a private vendor to collect yard trimmings. In many areas, especially urban and suburban communities, the visible result of the yard trimmings ban has been the

presence of large paper bags of leaves and grass at curbsides. Collection of yard trimmings in paper bags enables them to be ground into a mulch or feedstock for composting. The majority of local governments who reported collecting yard trimmings, either ground or shredded the collected material for use as mulch, however 246 local governments reported disposing the collected materials into an inert landfill. Composting and burning were also reported as common processing methods. Yard trimmings, when processed properly, have numerous beneficial uses in a community. The use of compost and mulch is extremely beneficial for slowing storm-water runoff and retaining moisture around plants. Many local governments use processed yard trimmings as mulch for their landscaping and civil engineering applications or report offering the processed yard trimmings to their citizens for residential landscaping.

<b>Yard Trimmings Management FY 2003 - 2005</b>						
	<b>2003</b>		<b>2004</b>		<b>2005</b>	
	City	County	City	County	City	County
Promote Home Composting and Beneficial Reuse	55	41	24	27	25	25
Provide for collection and disposal	355	93	365	57	258	33
<b>Collection</b>						
Not available	133	61	137	86	178	96
Your government	253	67	308	54	242	76
Another government	18	16	18	12	17	22
Solid Waste Authority	11	7	7	6	8	11
Private vendor via individual subscription	7	20	8	20	11	24
Private vendor via government contract	30	10	19	12	35	11
<b>Collection Options</b>						
Staffed drop-off facilities	17	41	16	23	16	32
Unstaffed drop-off facilities	10	6	9	6	10	8
Curbside collection	276	16	220	15	240	16
Accepted at landfill/transfer station	35	50	19	39	21	44
Other	13	10	8	6	8	6
<b>Processing Methods</b>						
Composting	46	11	46	12	48	18
Solid waste landfill	40	8	35	8	22	8
Inert landfill	91	46	177	94	154	92
Grind/chip into mulch	173	55	177	55	183	76
Own a chipper/shredder	132	23	146	20	143	29
Contract out chipping/shredding	39	28	35	33	31	33
Use another local government's chipper/shredder	19	5	17	9	18	9
Burning	30	3	24	0	24	4
Other	23	8	0	0	23	6
<b>Beneficial Use</b>						
Give away	171	49	180	56	178	68
Sell	8	9	8	7	8	8
Used by local government	92	29	112	26	97	41
Becomes property of private contractor	12	8	39	13	39	15