



To: Zero Waste Advisory Commission

From: Bob Gedert, Director
Austin Resource Recovery Department

Date: August 8, 2012

Subject: **Director's Report**

Colorado Study- Director's Response

At the July ZWAC meeting, a presentation was made regarding a status update of a University of Colorado – Denver study evaluating waste-to-energy technologies. ARR is not a financial contributor to this study, but was invited to be a topical expert advisor to this project. (I have more than 30 years of professional expertise in opposing incineration and landfilling, with a professional emphasis on raising the bar on environmental standards for disposal methods.)

The Austin Resource Recovery Master Plan notes the mission of this study:

"The Department is a participant in a life-cycle analysis study through the Department of Civil Engineering, Center for Sustainable Infrastructure Systems at the University of Colorado Denver. This study will provide an environmental and economic comparison of conventional landfilling with alternative conversion technologies. The major measuring stick is GHG reductions. The study will also offer additional means to measure environmental impacts through a systems analysis of each disposal method."

My interest in this study involved the creation of a new scientific-based measuring stick: a life-cycle systems analysis of disposal technologies where various disposal technologies are objectively evaluated on a scale of local community values, GHG impacts, and long-term environmental considerations. Unfortunately, this study did not yield the professional environmental measurement system that I had anticipated, and disregards local community values regarding incineration. (The author was advised about local community values in opposition to incineration.)

First, Austin prides itself on academic freedom and the pursuit of intellectual discourse. In that light, this study represents a genuine and sincere effort to explore the topic of end-of-life waste management and its environmental impacts. The discussion is valuable and brings to light some observations I wish to highlight in the Waste-to-Energy topic discussed below.

Secondly, the report was developed and presented with the intent to address the waste disposal needs of our community. Although our quest is Zero Waste – meaning "no bury or burn" – we must recognize the immediate need to dispose of waste not diverted through existing recycling and composting programs. With that in mind, this study represented an attempt to address *disposal* options and their environmental impacts, and clearly does not evaluate any *diversion* options.

Although this study was performed with good intent, it is a severely flawed study which lacks the academic professionalism that I had anticipated. This study utilizes pro waste industry terminology that promotes disposal technology as a form of “recycling”. The Austin Resource Recovery Master Plan endorses the nationally recognized definition of recycling, which specifically excludes any disposal methods such as incineration or landfilling. Although it is not proper to access the author’s motivations, it seems apparent the researchers did not utilize neutral terminology as well as neutral sourced statistics; a basic requirement in academic studies.

Furthermore, this study fails to perform a life-cycle analysis of environmental effects of various disposal technologies. Instead, the study is a meta-analysis of industry published promotional material, with a statistical evaluation of waste industry published emissions that were not cross referenced to emission measurements by state regulatory agencies. In other words, the study’s poor methodology compromised the objectivity of this study through the extensive use of waste industry sourced literature.

Upon a deeper inspection, the study’s basic assumptions demonstrate that this study is severely flawed and not capable of being adequately revised through academic inquiry. As an invited peer reviewer, I will be providing the author a strong critique of the study. Given this evaluation, and the unprofessional nature of this study, I am withdrawing my support of this study.

Waste-to-Energy (WTE) – Director’s Response

One of the issues highlighted by the comments above is the discussion of waste disposal in the context of Zero Waste implementation. As our community seeks 90% plus diversion, the reality is that approximately 40% of our generated waste is actually diverted, and 60% of our waste is disposed of. This begs the question of *disposal vs. diversion* technologies.

Essentially, every disposal technique is defined as “disposal” and not “diversion”. This includes landfilling, fuel supplements such as cement kilns, thermal destruction such as incineration and gasification, as well as chemical destruction techniques. Waste-to-Energy is utilized as a broad based term to refer to energy production through a waste disposal technology. Although the benefit is an energy source, this benefit does not change the definition of the process from disposal to diversion. More directly stated, WTE is a disposal management system, and not a diversion activity. We cannot achieve Zero Waste through WTE – it merely is a substitute to landfilling.

The Austin Zero Waste Strategic Plan focuses our attention on the Highest and Best Use hierarchy in determining the most appropriate actions necessary to reach the Zero Waste goal. This approach redefines our view of discards, toward Material Management and away from Waste Management.

In the long-run, our focus is diversion – “no bury, no burn.”
In the short-run, we have waste to dispose of.

As we explore waste disposal options, I share two points of observations:

- A) Keep our minds focused on the goal – Zero Waste – through enhanced diversion, and
- B) When necessary to manage waste disposal, oppose incineration and landfilling.

Recycling Economic Development Liaison

A key driver in the development of the Austin Resource Recovery Master Plan is the opportunity to create new green jobs and site new green businesses in Austin through economic development. The City of Austin has the ability to attract new businesses to Austin, including reuse and recycling nonprofit

organizations and private sector entrepreneurs, re-processors, secondary manufacturers and other businesses that have the ability to use recovered materials in their manufacturing processes.

Austin Resource Recovery will provide funding for a new staff member in the Economic Growth and Redevelopment Services Office (EGRSO) who will be responsible for retaining and attracting reuse and recycling industries to Austin. The Department will be posting this new position entitled *Recycling Economic Development Liaison*. The main mission of this new staff position will be:

To serve as the economic development liaison between the City, emerging entrepreneurs, existing small business organizations, non-profit organizations, and education institutions to promote the business opportunities offered by the Austin Zero Waste Strategies

National Road-E-O Participant

Every year our most skilled drivers participate in the TxSWANA Road-E-O. This event showcases the truck driving skills and abilities, within a competition format. Winning drivers earn the opportunity to represent Texas at the International Road-E-O. The annual Road-E-O fosters a spirit of competition and goodwill, while also promoting professionalism and safety among participants.

This past June, Chris Gonzales won the “Top Gun” award at the TXSWANA Road-E-O in Denton, Texas, scoring the highest number of points of all truck driving contestants. He won the Transfer Trailer category and qualified for the International SWANA Road-E-O, which will take place in Lexington, Ky., on Sept. 15 and 16. We wish Mr. Gonzales well in the international competition!

In addition, Aaron Green placed third in the statewide Transfer Trailer category. Other ARR employees competing at the Road-E-O were Mike Carnline, Jesse Sanchez and Gerald Watson in the Rear Loading Truck category; Chris Guerrero, Louis Rodriguez and Jacob Cervantes in the Side Loading Truck category; and Bobby Brown in the Transfer Trailer category. Steven Dixon participated as a judge.

Scheduled Council Items

ARR has the following items scheduled for Council review:

Universal Recycling Public Outreach Services 12 months with up to five 12-month extension options	\$151,923 – initial term August 23 Council Agenda
Public Education Campaign - Single-Use Carryout Bags 24 months with two 6-month extension options	\$1,750,000 – maximum value August 23 Council Agenda
Organics Processing Services for 2013 Pilot Program 12 months with two 6-month extension options	\$40,000 – maximum value August 23 Council Agenda
Collection, Transportation, and Disposal of HHW 36 months with up to three 12-month ext options	\$1,456,694.25 – initial term August 23 Council Agenda
Indoor and Outdoor Decals for Various Projects 36 months with up to three 12-month extension options	\$120,600 – initial term August 23 Council Agenda

New Staff

New employee	Promotions	Retirees	Title/ Division
Endicott McCray			Collections - Temporary, Service/Maintenance
Nickolas Sykes			Collections - Temporary, Service/ Maintenance
Brian Kelly			Litter Abatement – SW Operator
	Patrick Clark		From: Solid Waste Operator To: Solid Waste Operator Specialist
	Justin Lewis		From: Solid Waste Operator To: Solid Waste Operator Specialist
	Jessie Owens		From: Solid Waste Operator To: Solid Waste Operator Specialist
	Steven Bryant		From: Operator To: Solid Waste Operator Specialist
		Ricky Aldridge	Collections - Retired July 31, 2012

Current and Upcoming Job Postings

Current Postings	Workflow Status
Solid Waste Associate or Operator	Will be posted on 08-06-12
Austin Resource Recovery Safety Division Manager	Posted, Recruitment underway
Economic & Business Development Liaison	Will be posted on 08-06-12
Austin Resource Recovery Quality Assurance Division Manager	Posted, Recruitment underway
Department Executive Assistant	Top candidate selected
Solid Waste Operator Specialist	Top candidates screening
Planner Senior, Planner III, or Planner II	Interviews completed screening in progress
Public Information Specialist or Specialist Senior	Top candidates selected
Contract Administrator	Top candidate selected
Temporary, Accountant Associate	Screening in progress
Financial Consultant	Top candidates selected
Temporary-Administrative Associate-Field Audit Temporary Position	Interviews scheduled 08-06-12

Performance Contract Information, Measures and Statistical Reports (see attachments)

Upcoming Contract Information for August, September 2012 Council Action

Solicitation Type / Contract Description – Term	Not to Exceed (NTE) Dollar Amount	Council Date
IFBBV / Universal Recycling Public Outreach Services – Twelve (12) months with up to five (5) 12-month extension options	\$151,923 (total of two lowest bids) – initial term \$949,518.75 (total of two lowest bids) – potential with extension options	Requested for August 2012 – Bids received May 23, 2012
RFP / Public Education Campaign to Inform Business Establishments and Citizens of the Requirements of the City Ordinance Regulating the Use of Single-Use Carryout Bags – Twenty-Four (24) months with two (2) six-month extension options	\$1,750,000	August 23, 2012 (Est.) – RFP Proposals originally due July 24, 2012; deadline extended to July 31, 2012
IFBBV / Organics Processing Services for 2013 Pilot Program – Twelve (12) months with two (2) six-month extension options	\$40,000 (Est.)	August 2012 (if price above \$55,000 Council limit) – three (3) bids received July 20, 2012. Note: Currently reviewing bids
IFB / Collection, Transportation, and Disposal of Household Hazardous Wastes – Thirty-Six (36) months with up to three (3) 12-month extension options	\$1,456,694.25 (Est. - lowest bid) – initial term \$2,913,388.50 (Est. - lowest bid) – potential with extension options	Requested for August 2012 – Bids received July 11, 2012
IFB / Indoor and Outdoor Decals for Various Projects and Applications– Thirty-Six (36) months with up to three (3) 12-month extension options	\$120,600 (Est. - lowest bid) – initial term \$723,600 (Est. - lowest bid) – potential with extension options	Requested for August 2012 – Bids received July 17, 2012

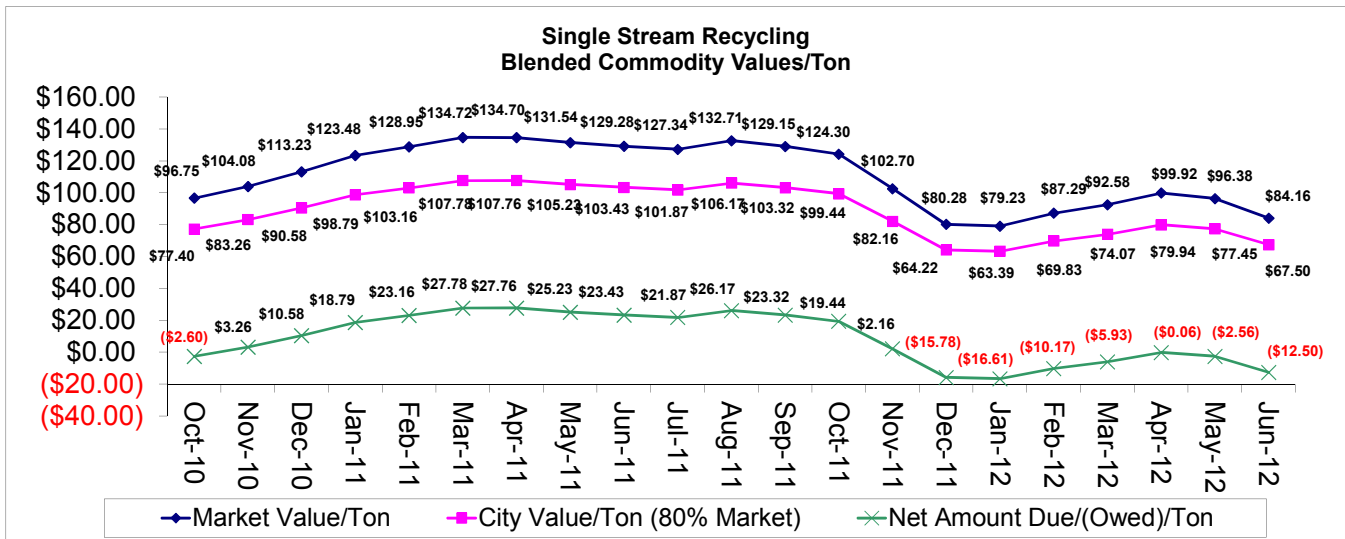
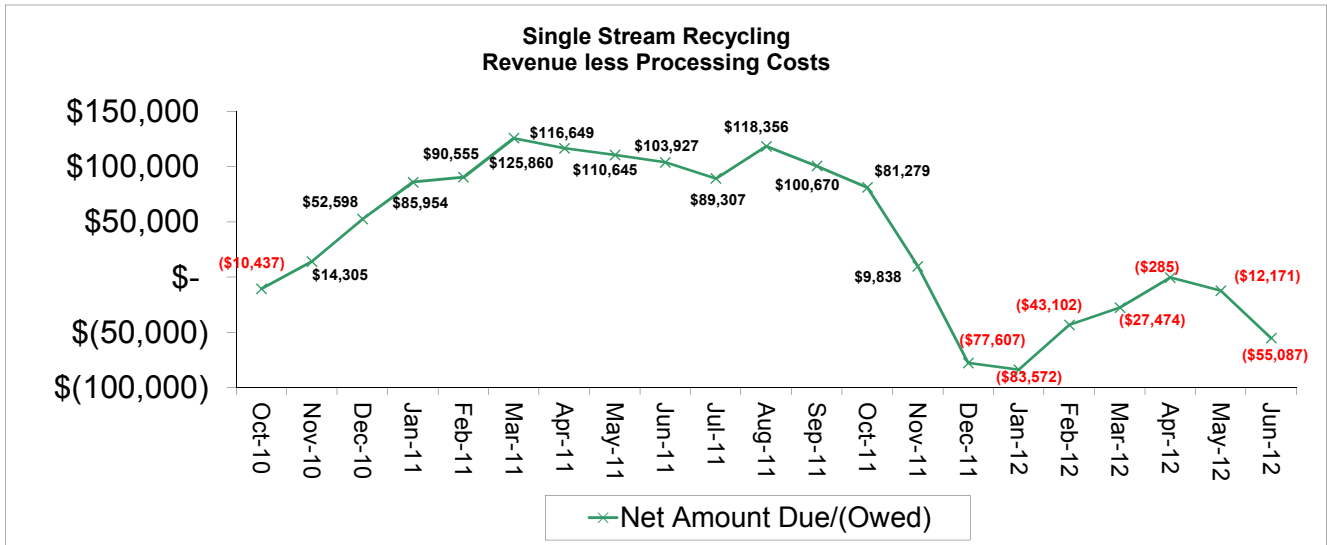
**Single Stream Recycling Statistical Report
as of June 2012**

Month	Tons Delivered	Contractor Payments			Landfill Cost Avoidance	
		Revenue	Processing Cost	Net Amount Due/(Owed)	Per Ton	Total
October-10	4,016.67	\$310,896	\$321,334	(\$10,437)	\$19.94	\$80,092
November-10	4,389.46	\$365,461	\$351,156	\$14,305	\$19.94	\$87,526
December-10	4,972.47	\$450,396	\$397,798	\$52,598	\$19.94	\$99,151
January-11	4,575.35	\$451,982	\$366,028	\$85,954	\$19.94	\$91,232
February-11	3,909.79	\$403,338	\$312,783	\$90,555	\$19.94	\$77,961
March-11	4,531.25	\$488,360	\$362,500	\$125,860	\$19.94	\$90,353
April-11	4,202.05	\$452,813	\$336,164	\$116,649	\$19.94	\$83,789
May-11	4,385.61	\$461,493	\$350,849	\$110,645	\$19.94	\$87,449
June-11	4,436.60	\$458,855	\$354,928	\$103,927	\$20.63	\$91,527
July-11	4,083.74	\$416,007	\$326,699	\$89,307	\$20.63	\$84,248
August-11	4,523.28	\$480,219	\$361,862	\$118,356	\$20.63	\$93,315
September-11	4,316.51	\$445,990	\$345,321	\$100,670	\$20.63	\$89,050
FY11 Totals	52,342.78	\$5,185,811	\$4,187,422	\$998,389		\$1,055,694
October-11	4,181.89	\$415,830	\$334,551	\$81,279	\$20.63	\$86,272
November-11	4,552.52	\$374,040	\$364,202	\$9,838	\$20.63	\$93,918
December-11	4,918.05	\$315,837	\$393,444	(\$77,607)	\$20.63	\$101,459
January-12	5,030.20	\$318,844	\$402,416	(\$83,572)	\$20.63	\$103,773
February-12	4,239.70	\$296,074	\$339,176	(\$43,102)	\$20.63	\$87,465
March-12	4,629.89	\$342,917	\$370,391	(\$27,474)	\$20.63	\$95,515
April-12	4,367.78	\$349,138	\$349,422	(\$285)	\$20.63	\$90,107
May-12	4,763.67	\$368,922	\$381,094	(\$12,171)	\$20.63	\$98,275
June-12	4,348.33	\$292,780	\$347,867	(\$55,087)	\$20.63	\$89,706
FY12 Totals	41,032.03	\$3,074,382	\$3,282,563	(\$208,181)		\$846,491

Blended Commodity Values per Ton				
Month	Market Value/Ton	City Value/Ton (80% Market)	Processing Cost/Ton	Net Amount Due/(Owed)/Ton
October-10	\$96.75	\$77.40	\$80.00	(\$2.60)
November-10	\$104.08	\$83.26	\$80.00	\$3.26
December-10	\$113.23	\$90.58	\$80.00	\$10.58
January-11	\$123.48	\$98.79	\$80.00	\$18.79
February-11	\$128.95	\$103.16	\$80.00	\$23.16
March-11	\$134.72	\$107.78	\$80.00	\$27.78
April-11	\$134.70	\$107.76	\$80.00	\$27.76
May-11	\$131.54	\$105.23	\$80.00	\$25.23
June-11	\$129.28	\$103.43	\$80.00	\$23.43
July-11	\$127.34	\$101.87	\$80.00	\$21.87
August-11	\$132.71	\$106.17	\$80.00	\$26.17
September-11	\$129.15	\$103.32	\$80.00	\$23.32
October-11	\$124.30	\$99.44	\$80.00	\$19.44
November-11	\$102.70	\$82.16	\$80.00	\$2.16
December-11	\$80.28	\$64.22	\$80.00	(\$15.78)
January-12	\$79.23	\$63.39	\$80.00	(\$16.61)
February-12	\$87.29	\$69.83	\$80.00	(\$10.17)
March-12	\$92.58	\$74.07	\$80.00	(\$5.93)
April-12	\$99.92	\$79.94	\$80.00	(\$0.06)
May-12	\$96.38	\$77.45	\$80.00	(\$2.56)
June-12	\$84.16	\$67.50	\$80.00	(\$12.50)

Material Composition Percentages						
Date of Waste Stream Audit						
Material	10/30 & 11/20/2010	2/19/2011	6/18/2011	10/1/2011	1/14/2012	4/28/2012
ONP	30.34%	25.89%	21.26%	14.47%	23.36%	18.49%
OCC	9.58%	13.99%	12.01%	7.12%	11.84%	9.64%
Mixed Paper	12.99%	14.34%	13.72%	26.00%	15.14%	18.33%
Tin	1.93%	1.81%	1.65%	1.79%	1.71%	1.81%
Aluminum	1.28%	0.95%	1.39%	1.33%	0.89%	1.06%
NHDPE	1.06%	1.16%	1.12%	1.08%	0.95%	1.13%
CHDPE	1.09%	1.00%	1.07%	1.07%	0.83%	1.16%
PETE	3.23%	3.30%	3.36%	3.22%	2.07%	3.00%
Glass	28.64%	26.88%	25.36%	26.17%	25.64%	27.18%
Residual	7.36%	8.26%	14.86%	13.90%	14.77%	14.46%
Plastics 3-7	1.97%	1.83%	3.46%	3.06%	2.18%	2.99%
Other	0.53%	0.59%	0.74%	0.79%	0.62%	0.75%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
For Billing Purposes	Used for Oct10 thru Jan11	Used for Feb11 thru May11	Used for Jun11 thru Sept11	Used for Oct11 thru Dec11	Use for Jan12 thru Mar12	Use for Apr 12 thru Jun 12

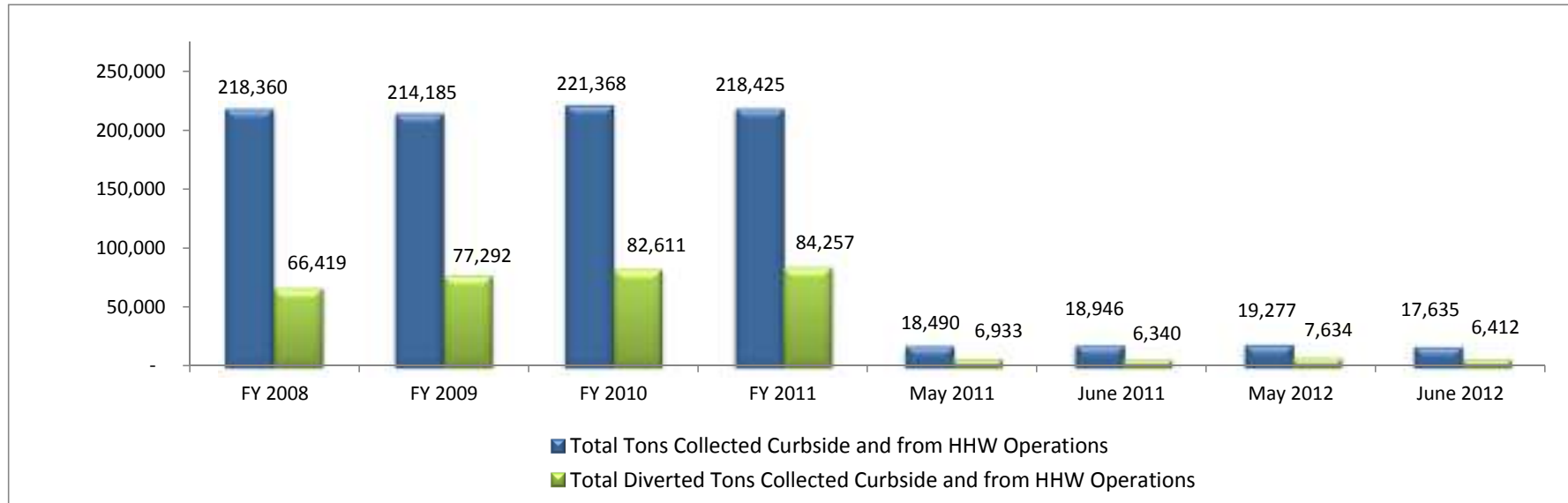
Single Stream Recycling Statistical Report as of June 2012



Austin Resource Recovery Curbside Collection and HHW Operations

		FY 2008	FY 2009	FY 2010	FY 2011	May 2011	June 2011	FY11 YTD (Oct '10 - Jun '11)	May 2012	June 2012	FY12 YTD (Oct '11 - Jun '12)
Tons Disposed	Tons of curbside Garbage	143,950	128,519	130,851	126,497	10,925	11,970	96,062	11,120	10,289	98,563
	Tons of Curbside Bulk Disposed	7,589	8,033	7,516	7,276	598	591	5,253	485	877	5,593
	HHW Operations Tons Disposed	402	341	390	395	34	45	300	38	57	335
	Total Disposed Tons Collected Curbside and from HHW Operations	151,941	136,893	138,757	134,168	11,557	12,606	101,615	11,643	11,223	104,491
Tons Diverted	Tons of curbside recycling	34,691	49,811	52,479	52,236	4,219	4,452	39,401	4,767	4,350	41,054
	HHW Operations Tons recycled/reused	118	114	132	164	14	27	128	23	24	155
	Tons of Curbside Yard Trimmings	24,027	19,497	22,456	24,777	2,030	1,306	21,918	1,954	1,249	18,096
	Tons of Curbside Bulk Recycled	203	187	194	227	18	12	175	11	19	188
	Tons of Curbside Brush Collected	7,380	7,683	7,350	6,853	652	543	5,467	880	771	5,349
	Total Diverted Tons Collected Curbside and from HHW Operations	66,419	77,292	82,611	84,257	6,933	6,340	67,089	7,634	6,412	64,842
Total Tons Collected Curbside and from HHW Operations		218,360	214,185	221,368	218,425	18,490	18,946	168,704	19,277	17,635	169,332
Percent of Waste Stream Diverted by Curbside and HHW Operations		30.42%	36.09%	37.32%	38.57%	37.49%	33.46%	39.77%	39.60%	36.36%	38.29%
Pounds of Garbage collected per customer per pickup		32.14	27.90	27.79	26.70	27.64	30.12	n/a	27.81	25.65	n/a
Number of Garbage customers		172,287	177,156	181,069	182,246	182,601	183,123	n/a	184,720	184,862	n/a
Pounds of Recycled materials collected per customer per pickup (every other week)		15.56	21.61	22.45	22.20	21.49	22.56	n/a	24.02	21.85	n/a
Pounds of Yard Trimmings collected per customer per week		5.39	4.23	4.80	5.27	5.17	3.31	n/a	4.92	3.14	n/a
Number of Recycling and Yard Trimmings customers		171,446	177,267	179,808	180,992	181,350	181,895	n/a	183,358	183,488	n/a
Total tons of Dead Animals Collected from COA rights of-way and the animal shelter		158	153	142	85	8	6	70	6	5	57

Austin Resource Recovery Curbside Collection and HHW Operations



Percent of Waste Stream Diverted by Curbside and HHW Operations

