



To: Zero Waste Advisory Commission

From: Bob Gedert, Director
Austin Resource Recovery Department

Date: October 9, 2013

Subject: **Director's Report**

Single Use Bag Ordinance Update

Austin Resource Recovery Department released the following announcement on Sept. 16, 2013:

Texas Retailers Association Drops Bag Ordinance Lawsuit

The Texas Retailers Association withdrew its lawsuit regarding the City of Austin's Single-Use Carryout Bag Ordinance, according to a Notice of Non-Suit filed with the Travis County District Court.

The Single-Use Carryout Bag Ordinance went into effect March 1, 2013. The ordinance regulates the types of bags that can be offered at retail checkouts by businesses within the City and encourages a shift to reusable bags, including more durable plastic and paper bags.

"While crafting this ordinance over the past several years, we worked with a number of stakeholders including TRA, business owners and managers, environmentalists and the general public to create a sound policy," said Mayor Lee Leffingwell. "We now have in place a smarter way to do business with the added benefit of helping our environment. Since the policy went into effect six months ago, I've heard very few complaints and Austin's consumers and businesses alike seem to be adjusting well."

According to the Notice of Non-Suit, the Texas Retailers Association "wishes to dismiss claims against the Defendant City of Austin without prejudice."

The City's Bring It Austin initiative is a broad education and outreach effort to help residents and businesses understand the new rules requiring reusable bags. The City of Austin mailed information about the ordinance to more than 17,000 businesses, held training sessions for retailers, and created an online toolkit with signage templates, answers to FAQs, a training video for employees and more.

"The City of Austin has been working with businesses affected by the ordinance to prepare them for the changes and help them successfully comply with the rules," said Austin Resource Recovery Director Bob Gedert. "Every business has its own unique challenges, and we've worked side-by-side with business owners and managers to answer questions and provide assistance. So far, the business community has

risen to the challenge. We haven't received many complaints, and we have received feedback from the community that they are starting to see a reduction in plastic bag litter in parking lots and along City streets."

The Bring It Austin initiative also encourages shoppers to adopt the habit of bringing their own bags whenever they shop. The City has distributed more than 16,000 reusable bags at neighborhood centers, shopping centers, community events and through nonprofits that serve low-income Austinites.

For more information about the Single-Use Carryout Bag Ordinance, visit bringitaustin.com

Eco-Cycle WtE and MRBT "Leftovers" Study

Recently, a group of nationally renowned Zero Wasters released a study entitled "*What is the best disposal option for the "Leftovers" on the way to Zero Waste?*" The authors (Dr. Jeffrey Morris, Dr. Enzo Favoino, Eric Lombardi, Kate Bailey) desired to address the tons of mixed-waste residuals (a.k.a. "leftovers") *after aggressive recycling and composting*, that need to be disposed of, most commonly in landfills.

Lately, there has been renewed interest in burning the leftovers in waste incinerators with the capacity for energy recovery, typically referred to as waste-to-energy (WtE) plants, in order to create energy and reduce the amount of waste going to landfills. Proponents of WtE claim that this residuals management method reduces the environmental impacts of waste disposal and is the preferred option. This study refutes the WtE claims, based on a scientific analysis of environmental impacts.

The question posed for this study is: What is the best method for managing our residual waste in order to reduce the harm and risks to public health and our environment??

To find the answer, the authors took the residual waste from a leading recycling and composting community, Seattle, Washington, and ran it through five different residual management scenarios based on the leading technologies in the marketplace today:

- 1 & 2. Landfill with landfill-gas-to-energy (LFGTE), with two different assumptions for gas collection efficiencies - High 80% gas recovery (rare) and Low 40% gas recovery (more common). These two scenarios send organic material for disposal to the landfill for methane recovery;
3. Waste-to-energy followed by landfilling (WtE-to-landfill) as currently practiced in the WtE industry;
- 4 & 5. Material Recovery, Biological Treatment followed by landfilling (MRBT-to-landfill) with two different assumptions for recovery of recyclables – High recovery of recyclables, and Low recovery of recyclables. These two scenarios require source separation of materials for recycling and composting, prior to further waste treatment. (This is not the "One-Bin" approach, but rather the three-cart collection prior to residual disposal).

“These technologies were chosen to represent commercial technologies available on the market today in the U.S. and Europe. Conversion technologies, such as pyrolysis, gasification and plasma arc, were not considered since these technologies do not have commercial scale facilities with real emissions data to model in this analysis”.

This study notes that “the disposal option with the lowest overall environmental impact, as measured by monetized overall score, was MRBT-to-landfill. This held true across both variations on the performance of an MRBT-to-landfill system, the high and low materials recovery rate scenarios for separating recyclables from mixed waste.”

Another key finding notes that “the combustion of waste for energy, either directly through WTE plants or by burning the methane generated by organic materials in the landfill, had higher relative human health impacts—respiratory diseases, non-cancers, and cancers—than the non-combustion MRBT-to-landfill scenarios. While these energy sources displace the use of fossil fuels, they still emit pollution and greenhouse gas emissions.”

The most important take-away from this study is its recommendation; “Communities should continue to focus on decreasing the amount of leftovers they produce through recycling, composting and waste reduction programs in order to achieve the greatest environmental and public health benefits. While MRBT-to-landfill is the best environmental option for disposing of leftovers, it is no substitute for recycling and composting programs that prevent the disposal of leftovers in the first place.”

Source: Eco-Cycle at www.ecocycle.org/specialreports/leftovers.

How does this study affect our direction toward Zero Waste in Austin? The unsettled questions from the original Master Plan drafts discussed in 2010 included the option of the “Black Box technologies” to reach beyond 75% waste diversion. The final version of the ARR Master Plan (December 2011) offers a climate impact statement regarding residual management. It is our commitment to not embrace the current selling black box “conversion technologies”. Rather, the ARR Master Plan proposes an evaluation of emerging technologies using the Highest and Best Use Hierarchy, impact to climate change, and cost. (Chapter 12.4). The search for such an evaluation tool that measures climate change impacts and costs is on-going, and this study professionally displays several human health effect measures to provide a comprehensive evaluation of available alternative disposal options.

However, Austin is not faced with the immediate choice of alternative disposal measures. Yes, we desire to minimize the climate change and health effects on humans, but these measures are focused on residuals “leftover” from our diversion efforts. First and foremost, we Austinites need to live and practice our Green Values; to aggressively reuse, recycle and compost our household and business “waste streams”. Residual management of the leftovers is a discussion of the future, through full community engagement, after we reach 75% diversion through recycling, composting, and reuse. Our focus for now is to reach for 75% city-wide diversion through the efforts noted in the Master Plan.

Why discuss this study/article now? To keep our eyes on the prize of 90%+ diversion. As a community, we have a detailed plan to reach 75% diversion, and must stay the course. This study opens the door to further advancements in environmental impact studies of the “leftover” technologies after 75% diversion is reached.

Economic Development – Chapter 15

(Part 4 of a series describing the chapters of the ARR Master Plan)

Throughout the ARR Master Plan are references to economic development benefits of Zero Waste. As we reach for 90% diversion, a Zero Waste Economy will develop to utilize resources recovered from the discard stream, and support new jobs in the region.

A key driver in the development of the Master Plan is the opportunity to create new green jobs and attract 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. Economic development activities supporting local recycling and composting collection programs will result in additional financial benefits to the community including new jobs, additional sales tax revenues, and auxiliary economic trade.

Providing green jobs and local economic development is a key opportunity identified in the Master Plan. The Department will provide funding for a new staff member in the Economic Development Office who will be responsible for retaining and attracting reuse and recycling industries to Austin. Through this new position, we have hired Julie Rhodes to be responsible for undertaking the following initiatives:

- **Locating Resource Recovery Small Businesses** – assist small businesses capable of using discarded materials in their manufacturing process to locate in Austin.
- **Supporting Byproduct Synergies** – assist industrial businesses and manufacturers in making waste-pairings where the discarded byproducts from one company can be the feedstock for another company.
- **Supporting Incentives to Attract Recycling Re-processors** – assist in attracting new secondary materials processors to Austin to provide markets for recovered materials generated in the Central Texas region.
- **Eco-Business Park & Eco-Industrial Park** – assist in the development of eco-business parks and eco-industrial parks capable of processing recovered materials generated in Austin.
- **Re-Made in Austin** – assist in developing existing or new business opportunities that produce new products utilizing locally generated recyclables as feedstock.
- **Repair / Reuse Businesses** - encouraging and facilitating the growth and development of repair and reuse businesses and nonprofits.
- **Reuse Centers / Teacher Resource / Creative Reuse Centers** – develop additional opportunities for reuse through several reuse collection centers.

Local market development can provide economic development and green jobs. Implementing an aggressive Zero Waste market development action plan has the potential to create 1,000 to 5,000 new green jobs in recycling and organics collection and processing, materials reuse and repair, and local remanufacturing.

Source: Austin Resource Recovery Master Plan, excerpts from Chapters 7 & 15

Recent Council Actions

Emerge Technologies for the URO Data Reporting Contract - Director will provide verbal update at Commission meeting.

Current and Upcoming Job Posting

Position	Contact Manager	Posting Status
Temporary Human Resources Assistant	Blanche Quarterman	Position posted
Public Information Specialist	Emlea Chanslor	Top candidate to start October 2013
Marketing Representative A	Emlea Chanslor	Position posted
Waste Diversion Planner and Planner Sr	Jessica King	Position posted
Administrative Specialist	Chad Presley	Position to be posted
Business Process Consultant	Jessica Edwards	Position posted
Utility Account Specialist	Kim Euresti	Position posted
Occupational Health & Safety Coordinator	Jeff Dilbert	Reviewing applications
Technical Trainer	Jeff Dilbert	Reviewing applications
Brownfields Program Manager	Nancy Chan	Top candidate to start October 2013
Business Process Consultant	Nancy Chan	Position to be posted
Temporary Recycle Right Auditor	Nancy Chan	Reviewing applications
Environmental Program Specialist Senior	Donald Hardee	Position posted
Environmental Program Technician	Donald Hardee	Top candidate identified
ARR Supervisor	Ron Romero/Vidal Maldonado	Reviewing applications
ARR Crew Leader	Ron Romero	Interviews scheduled
Austin Resource Recovery Operator Sr	Ron Romero	To be posted
Austin Resource Recovery Associate	Ron Romero	Reviewing applications
Temporary ARR Associate	Ron Romero	Reviewing applications
Austin Resource Recovery Associate	Richard McHale	Position to be posted
Administrative Specialist	Vidal Maldonado	Position posted

Staff Hires and Promotion Updates

New employee	Promotions	Notes: Title/ Division
Austin Talley		GIS Supervisor
Emily Cardenas		Intern
Joe Mares		ARR Operator
	Bobby Baker	From: Environmental Program Technician To: Environmental Program Specialist

Single Stream Recycling Statistical Report - Oct. 9, 2013 ZWAC Meeting

FY 2012-13: October, 2012 through August, 2013

Texas Disposal Systems (TDS) and Balcones Resources, Inc. (BRI)

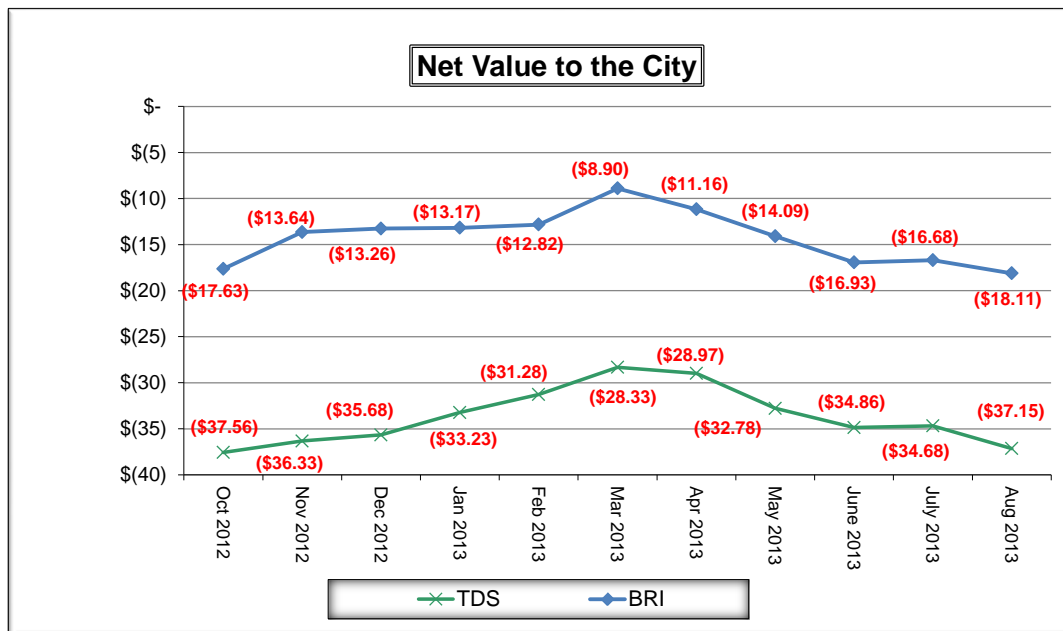
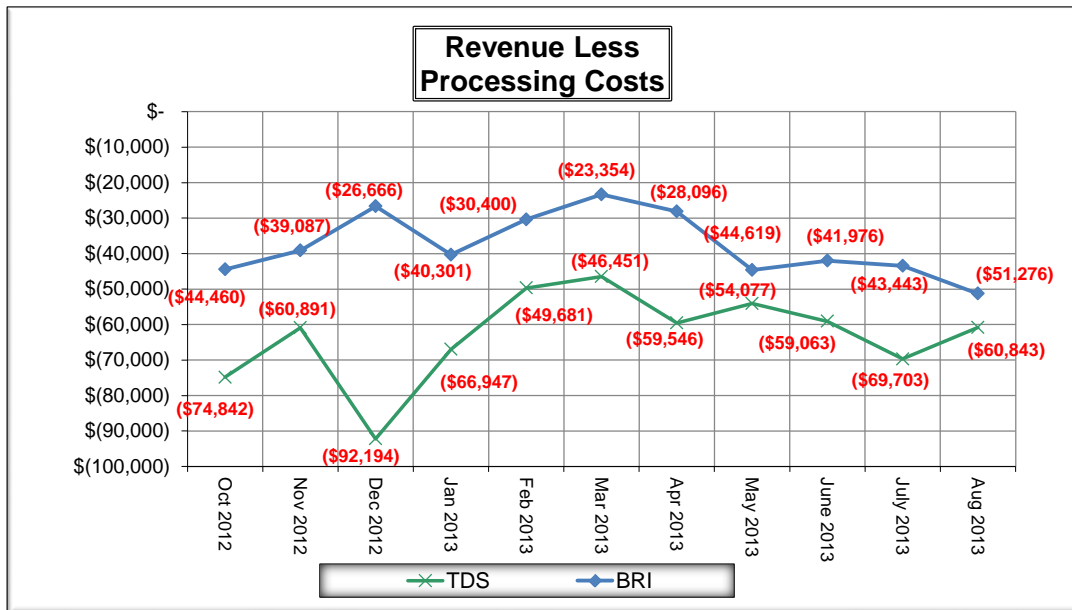
		Contractor Payments			Net Value to the City	Landfill Cost Avoidance	
Month, Year, Contractor	Tons Delivered	Revenue	Processing Cost	Net Amount Due/(Owed)	\$ per ton value	Cost Per Ton	Total
October 2012 - TDS	1,992.62	\$107,483	\$182,325	(\$74,842)	(\$37.56)	\$21.14	\$42,124
October 2012 - BRI	2,522.20	\$156,614	\$201,074	(\$44,460)	(\$17.63)	\$21.14	\$53,319
Total	4,514.82	\$264,097	\$383,399	(\$119,302)			\$95,443
November 2012 - TDS	1,676.28	\$92,488	\$153,380	(\$60,891)	(\$36.33)	\$21.14	\$35,437
November 2012 - BRI	2,864.82	\$188,214	\$227,301	(\$39,087)	(\$13.64)	\$21.14	\$60,562
Total	4,541.10	\$280,702	\$380,681	(\$99,978)			\$95,999
December 2012 - TDS	2,584.16	\$144,257	\$236,451	(\$92,194)	(\$35.68)	\$21.14	\$54,629
December 2012 - BRI	2,010.51	\$135,238	\$161,904	(\$26,666)	(\$13.26)	\$21.14	\$42,502
Total	4,594.67	\$279,495	\$398,355	(\$118,860)			\$97,131
January 2013 - TDS	2,014.55	\$117,385	\$184,331	(\$66,946)	(\$33.23)	\$21.14	\$42,588
January 2013 - BRI	3,059.87	\$201,932	\$242,233	(\$40,301)	(\$13.17)	\$21.14	\$64,686
Total	5,074.42	\$319,317	\$426,564	(\$107,247)			\$107,273
February 2013 - TDS	1,588.12	\$95,632	\$145,313	(\$49,681)	(\$31.28)	\$21.14	\$33,573
February 2013 - BRI	2,370.66	\$159,074	\$189,474	(\$30,400)	(\$12.82)	\$21.14	\$50,116
Total	3,958.78	\$254,706	\$334,787	(\$80,081)			\$83,689
March 2013 - TDS	1,639.78	\$103,588	\$150,039	(\$46,451)	(\$28.33)	\$21.14	\$34,665
March 2013 - BRI	2,625.14	\$185,599	\$208,953	(\$23,354)	(\$8.90)	\$21.14	\$55,495
Total	4,264.92	\$289,187	\$358,992	(\$69,805)			\$90,160
April 2013 - TDS	2,055.29	\$128,513	\$188,059	(\$59,546)	(\$28.97)	\$21.14	\$43,449
April 2013 - BRI	2,517.46	\$172,616	\$200,712	(\$28,096)	(\$11.16)	\$21.14	\$53,219
Total	4,572.75	\$301,129	\$388,771	(\$87,642)			\$96,668
May 2013 - TDS	1,649.59	\$96,860	\$150,937	(\$54,077)	(\$32.78)	\$21.14	\$34,872
May 2013 - BRI	3,167.84	\$205,879	\$250,498	(\$44,619)	(\$14.09)	\$21.14	\$66,968
Total	4,817.43	\$302,739	\$401,436	(\$98,697)			\$101,840
June 2013 - TDS	1,694.34	\$95,969	\$155,032	(\$59,063)	(\$34.86)	\$21.14	\$35,818
June 2013 - BRI	2,479.78	\$155,851	\$197,827	(\$41,976)	(\$16.93)	\$21.14	\$52,423
Total	4,174.12	\$251,820	\$352,859	(\$101,039)			\$88,241
July 2013 - TDS	2,010.01	\$114,213	\$183,916	(\$69,703)	(\$34.68)	\$21.01	\$42,230
July 2013 - BRI	2,604.04	\$163,896	\$207,339	(\$43,443)	(\$16.68)	\$21.01	\$54,711
Total	4,614.05	\$278,110	\$391,255	(\$113,146)			\$96,941
August 2013 - TDS	1,637.80	\$89,016	\$149,859	(\$60,843)	(\$37.15)	\$21.01	\$34,410
August 2013 - BRI	2,831.40	\$173,468	\$224,744	(\$51,276)	(\$18.11)	\$21.01	\$59,488
Total	4,469.20	\$262,483	\$374,602	(\$112,119)			\$93,898
FY 2012-13 Totals	49,596.26	\$3,083,785	\$4,191,700	(\$1,107,915)			\$1,047,284

Material Composition Percentages						
	Audit #1		Audit #2		Audit #3 (current)	
	TDS	BRI	TDS	BRI	TDS	BRI
Material	10/27/2012	10/22/2012	2/9/2013	1/26/2013	4/13/2013	4/27/2013
ONP #8 (Old Newspaper)	13.80%	27.89%	22.54%	25.01%	16.14%	25.97%
OCC (Corrugated Cardboard)	7.58%	11.15%	9.19%	12.80%	8.42%	12.14%
Mixed Paper	19.76%	12.31%	18.23%	13.13%	20.17%	9.73%
Plastic Bottles - PETE	3.13%	3.58%	2.44%	3.05%	2.71%	3.21%
HDPE Natural	1.34%	0.90%	1.05%	1.08%	1.00%	0.62%
HDPE Color	1.11%	0.64%	0.87%	0.91%	0.83%	0.75%
Mixed Plastics 3-7	3.17%	2.53%	3.38%	2.02%	3.73%	1.85%
UBC (Used Beverage Cans)	1.32%	1.45%	1.09%	0.98%	1.21%	1.33%
Tin Cans	2.04%	2.28%	1.66%	2.17%	1.94%	1.86%
Scrap Metal	0.69%	0.35%	0.55%	0.43%	0.89%	0.72%
Glass	30.61%	26.59%	26.89%	27.66%	27.04%	27.99%
Residual - trash	15.45%	10.33%	12.11%	10.76%	15.92%	13.83%
Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Single Stream Recycling Statistical Report - October 9, 2013 ZWAC Meeting

FY 2012-13: October, 2012 through August, 2013

Texas Disposal Systems (TDS) and Balcones Resources, Inc. (BRI)



Austin Resource Recovery Curbside Collection and HHW Operations

		LAST FISCAL YEAR					CURRENT FISCAL YEAR			
		FY 2012	FY 2012 Goal	July 2012	August 2012	FY12 YTD (Oct '11 - Aug '12)	Jul 2013	Aug 2013	FY13 YTD (Oct '12 - Aug '13)	FY 2013 Goal
Tons Disposed	Tons of curbside Garbage	129,653	123,000	10,958	10,801	120,322	11,064	10,145	114,275	127,000
	Tons of Curbside Bulk Disposed	7,611	7,500	618	832	7,043	1,123	753	7,489	6,600
	HHW Operations Tons Disposed	434	400	31	23	390	35	39	362	400
	Total Disposed Tons Collected Curbside and from HHW Operations	137,698	130,900	11,607	11,656	127,754	12,222	10,937	122,126	134,000
Tons Diverted	Tons of curbside recycling	54,009	60,000	4,384	4,549	49,987	4,632	4,451	49,375	63,000
	HHW Operations Tons recycled/reused	208	150	13	23	191	29	17	227	150
	Tons of Curbside Yard Trimmings	21,712	25,000	1,274	1,210	20,590	1,352	1,103	24,697	27,000
	Tons of Curbside Bulk Recycled	233	200	16	13	217	24	11	167	800
	Tons of Curbside Brush Collected	7,720	7,500	678	730	6,757	542	524	6,611	6,400
	Total Diverted Tons Collected Curbside and from HHW Operations	83,882	92,850	6,365	6,525	77,742	6,579	6,106	81,077	97,350
Total Tons Collected Curbside and from HHW Operations		221,580	223,750	17,972	18,181	205,496	18,801	17,043	203,202	231,350
Percent of Waste Stream Diverted by Curbside and HHW Operations		37.86%	41.50%	35.42%	35.89%	37.83%	34.99%	35.83%	39.90%	42.08%
Pounds of Garbage collected per customer per pickup		27.05	25.06	27.24	26.79	n/a	27.20	24.74	n/a	26.03
Number of Garbage customers		184,316	188,807	185,775	186,246	n/a	187,858	189,408	n/a	187,676
Pounds of Recycled materials collected per customer per pickup (every other week)		22.71	24.44	21.97	22.74	n/a	22.96	21.89	n/a	25.82
Pounds of Yard Trimmings collected per customer per week		4.56	5.09	3.19	3.02	n/a	3.35	2.71	n/a	5.53
Number of Recycling and Yard Trimmings customers		182,971	188,807	184,323	184,783	n/a	186,360	187,865	n/a	187,676
Total tons of Dead Animals Collected from COA rights-of-way and the animal shelter		69	115	4	4	65	4	3	45	85

Austin Resource Recovery Curbside Collection and HHW Operations

