

To: Zero Waste Advisory Commission

From: Bob Gedert, Director
Austin Resource Recovery Department

Date: June 12, 2013

Subject: **Director's Report**

Austin Resource Recovery Services

ARR employs 408 staff to perform a wide variety of services to the citizens of Austin. A quick summary of these services include:

- Trash Collection
- Recycling Collection
- Yard Trimmings Collection
- Food Scrap Collection (pilot 7100 homes)
- Large Brush Collection (twice per year)
- Large Bulky Collection (twice per year)
- Neighborhood Cleanups (Clean Austin)
- Street and Boulevard Sweeping (cycled 6 to 12 times a year)
- Alley and Downtown Street Cleaning (daily)
- Downtown Litter Collection (daily)
- Downtown trash receptacle service (daily)
- Illegal Dumpsite and Right-of-Way Cleanups
- Dead Animal Collection
- Household Waste Collection
- City-Sponsored Event recycling services
- Cart Maintenance and Deployment Service
- Landfill Closure Activities
- Compost Processing Service
- Brownfield site assessments
- Composting Workshops
- Business waste reduction services (technical assistance)

In addition to these services, many of our staff are working on support services such as:

- Financial Management support
- Human Resources support
- Safety Prevention
- Customer Service
- Administrative Support

- Marketing and Public Education Programs
- Strategic Planning & Master Plan Implementation support
- Public Information support
- City Ordinance Development
- Zero Waste Leadership

Highest and Best Use Principle

In the 2009 Zero Waste Strategic Plan (page 47) and the 2011 Austin Resource Recovery Master Plan (page 41), the Austin City Council adopted its *Highest and Best Use Hierarchy*, as a guiding principle for material collection and end-use. The concept involves the following line of thought:

- To reach for and achieve the Zero Waste Goal, all discards must be treated as resources and conserved and recovered, avoiding incineration and landfilling.
- Conserving resources requires a secondary life of discards, as opposed to disposal (burn or bury) which eliminates the conservation effort and wastes our limited resources..
- To prioritize secondary use of discarded resources, a “highest and best use” scale is applied, through the time-honored Hierarchy of the Three R’s: “Reduce -Reuse-Recycle”.
- Thus, when questioning the most appropriate secondary use of a consumer discarded item, the first approach is waste reduction: can the packaging or product be designed to eliminate waste disposal. Design is in the hands of producers and distributors, yet city policies can influence the outcome.
- If waste reduction cannot be achieved, the second approach is through reuse: can the packaging or product be reused as a second life. Reuse can be encouraged in the home and business. Reuse redistribution is an offered service in the Austin community through non-profit organizations.
- After reuse, the third approach is recycling or composting the discard, making a new product stream out of the old discard. City services provide recycling and organic collection to residents. Private sector haulers provide these services to the business community.

This process of Highest and Best Use attempts to capture the intrinsic value of the item, before expending energy to reconstitute it into a new product through recycling. This approach is validated through life cycle analysis, where all energy and resources involved in the process are measured. Invariably, waste reduction involves the least energy, water and material, with reuse a second option minimizing waste. Recycling and Composting are energy intensive, yet much preferred over landfilling.

An example of this principle can be applied for illustration. Prior to City Council adoption of the Single Use Retail Bag Ordinance, it was estimated that 256,000,000 single use bags were distributed annually in Austin. The ordinance, which became effective March 1, 2013, utilizes the Highest and Best Use Hierarchy. The ordinance regulates that single use bags shall not be distributed in Austin (*Reduce*), and permits three varieties of reusable bags for distribution (*Reuse*). These two actions are expected to achieve a 99% reduction in single use bags distribution within one year, eliminating the need to establish a costly recycling collection program. Reducing and Reusing are higher priorities than Recycling. Our goal is diversion, which can be achieved more cost effectively through reduction and reuse methods.

The following is a graphical representation of the City of Austin Highest and Best Use Hierarchy.

Fig. 7 - Highest and Best Use Hierarchy

Highest Use

Redesign Manufacturing & Supply Chain

- Mandate extended producer responsibility
- Produce durable, reusable, recyclable and recycled-content products
- Use environmentally sustainable feedstocks and materials
- Design for repair, reconditioning, disassembly, deconstruction and recycling
- Make brand owners/first importers responsible to take back products and packaging

Reduce/ Refuse/ Return

- Reduce toxicity
- Reduce consumption
- Purchase and use less
- Apply environmentally preferable purchasing standards to purchasing
- Reduce packaging
- Purchase products with less packaging
- Incentivize durable, reusable packaging

Reuse/ Preserve Form & Function

- Repair and recondition products
- Deconstruct and salvage buildings and building products
- Support thrift stores and charity collection

Recycling/ Compost/ Digestion

- Recover and return materials to economic mainstream for remanufacture to like-value products
- Recover and return materials to economic mainstream for remanufacture to value-added soil amendment products
- Ambient temperature (<200 degrees) processing of organic materials for recovery of fuels and energy, with composting of residue

Down Cycle

- Recover and return materials to economic mainstream for remanufacture to non-or marginally-recyclable products, such as office paper to tissue paper, or soda bottles to toys or clothing

Waste-Based Energy

- Biological energy recovery technologies, including anaerobic digestion
- Thermal energy recovery technologies including gasification, plasma arc, pyrolysis

Bury/ Incinerate

- Bioreactor landfilling, when design incorporates sufficient safety and environmental protections
- "Beneficial" landfill use, such as alternative daily cover or landfill construction
- Traditional landfilling

Lowest Use

Staff Hires and Promotion Updates

New employee	Promotions	Notes: Title/ Division
Alexandra Alexander		Temporary Public Event Leader
Maria Alvarado		Temporary Public Event Leader
Eufemio Castillo		ARR Operator
Emlea Chanslor		Public Info & Marketing
Ricky Jones		Temporary ARR Associate
Tayrell Larry		Temporary ARR Associate
Tiesha Payne		Administrative Specialist
Gilbert Pizano		Temporary Business Process Consultant
	Patrick Clark	To: ARR Crew Leader

Current and Upcoming Job Posting

Position	Contact Manager	Posting Status
Planner II or III	Jessica King	Position posted
Temporary Recycle Right Auditor	Jessica King	Position posted
Temporary Waste Diversion Planner or Waste Diversion Planner Senior	Jessica King	Position interviewing 5-31-13
Research Analyst and Marketing Interns	Jessica King	Position interviewing June 2013
Financial Consultant	Sue Cooper	Position interviewing June 2013
HR Advisor (Employee Relations)	Blanche Quarterman	Top candidate identified
Occupational Health & Safety Coordinator	Tammie Williamson	2 nd round Interviews to be scheduled
ARR Division Manager Safety	Tammie Williamson	Position posted
Brownfields Program Manager	Nancy Chan	Position at HRD to reclassify
Temporary Administrative Specialist	Nancy Chan	Interviews 6-3-13
Business Process Consultant	Nancy Chan	Interviews 5-31-13

Position	Contact Manager	Posting Status
Temporary Administrative Specialist	Vidal Maldonado	Top candidate identified
GIS Supervisor	Nancy Chan	Position at HRD to reclassify
Solid Waste Operator	Vidal Maldonado	Top candidates identified
Solid Waste Associate	Vidal Maldonado	Position to be posted
ARR Supervisors	Operations	Interviews 5-30-13
Solid Waste Operator	Ron Romero	Position to be posted
Solid Waste Operator	Richard McHale	Position to be posted

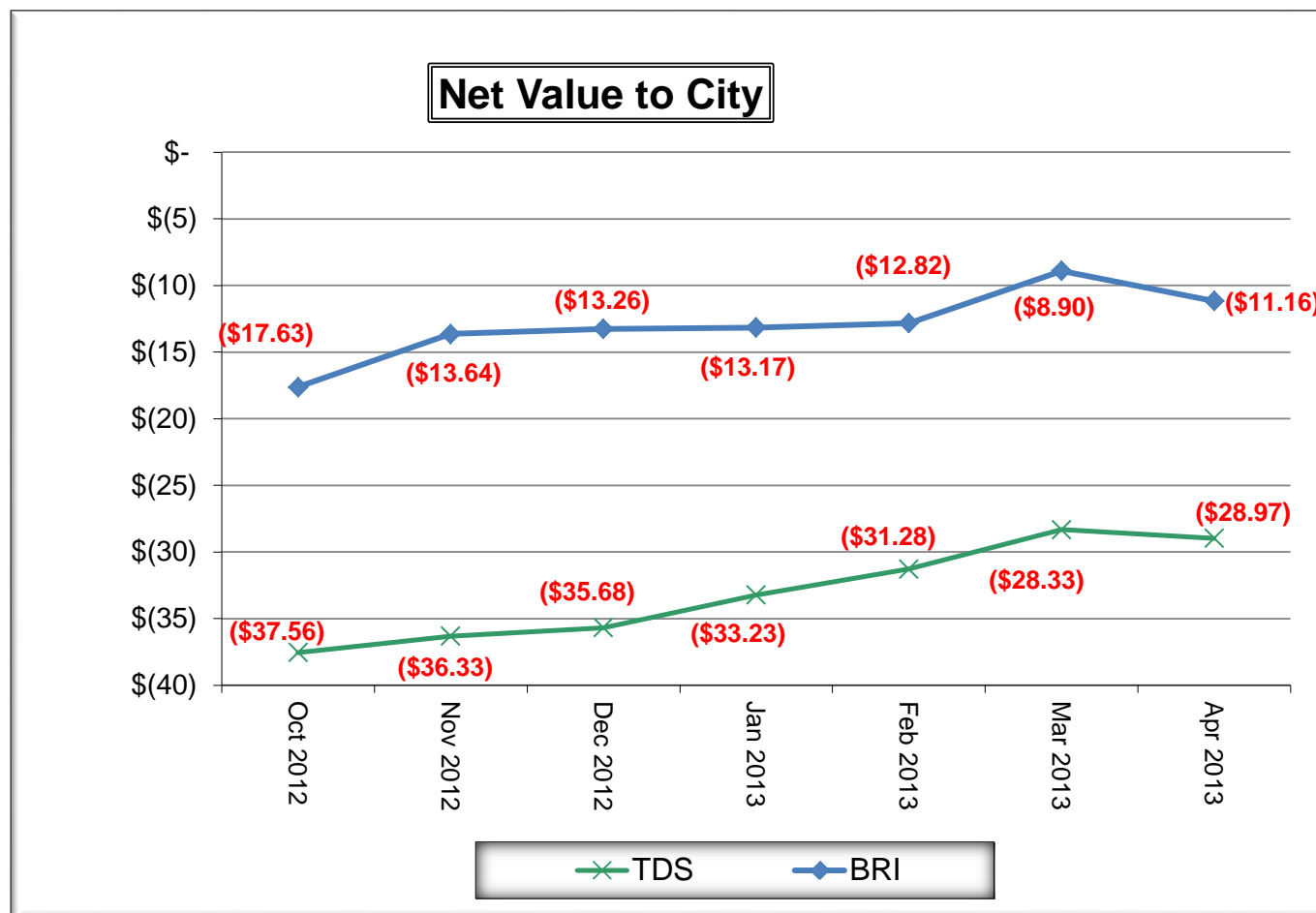
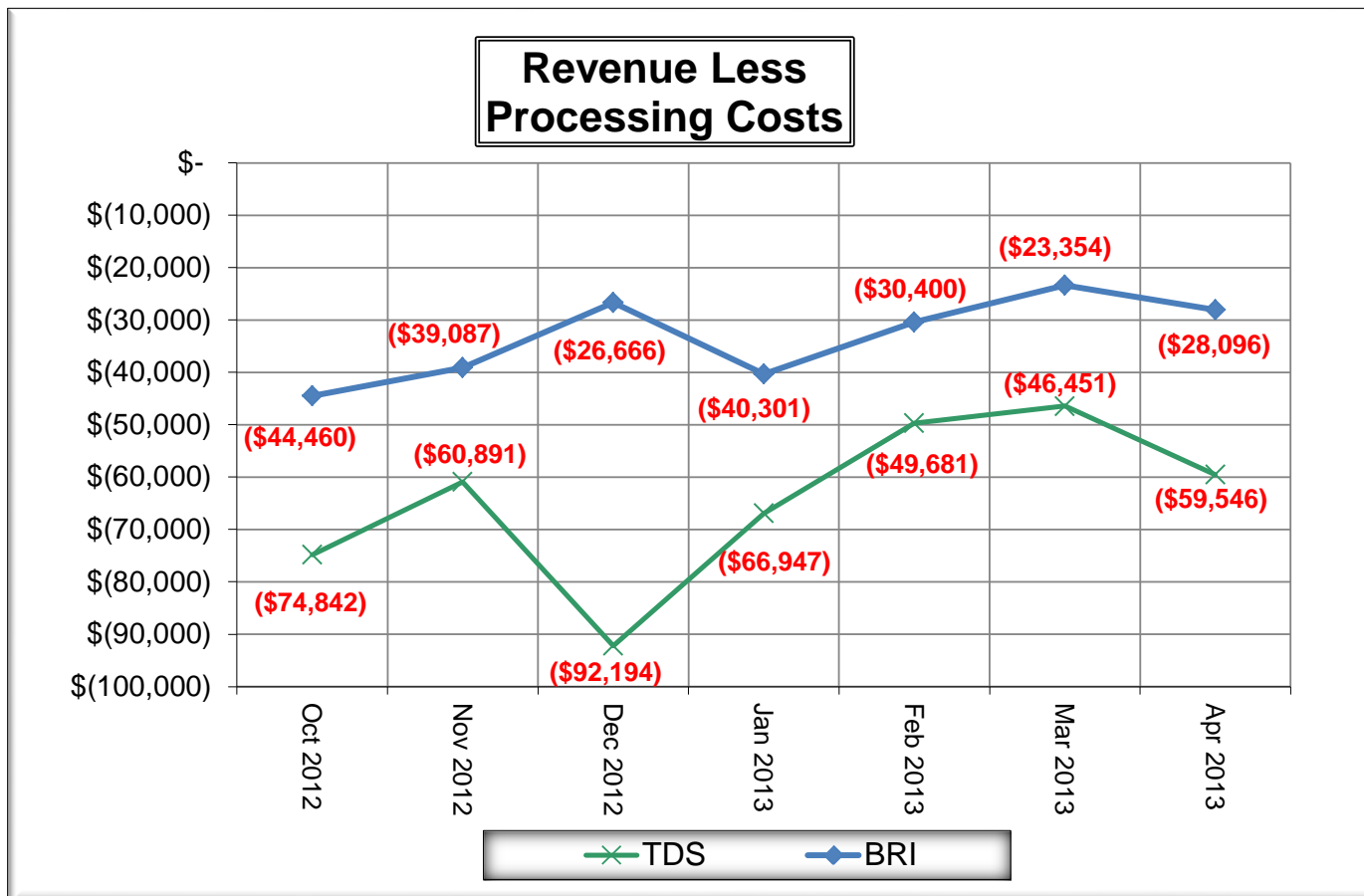
Single Stream Recycling Statistical Report
FY 2012-13 through April, 2013
Texas Disposal Systems (TDS) and Balcones Resources Inc (BRI)

		Contractor Payments			Net Value to 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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	4,572.75	\$301,129	\$388,771	(\$87,642)			\$96,668
FY 2012-13 Totals	31,521.46	\$1,988,633	\$2,671,548	(\$682,915)			\$666,364

Material Composition Percentages						
	Audit #1		Audit #2		Audit #3	
	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%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Single Stream Recycling Statistical Report FY 2012-13 through April, 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	Mar 2012	Apr 2012	FY12 YTD (Oct '11 - Apr '12)	Mar 2013	Apr 2013	FY13 YTD (Oct '12 - Apr '13)	FY 2013 Goal
Tons Disposed	Tons of curbside Garbage	129,653	123,000	11,479	10,637	77,154	9,927	10,994	72,817	127,000
	Tons of Curbside Bulk Disposed	7,611	7,500	504	537	4,231	309	210	3,684	6,600
	HHW Operations Tons Disposed	434	400	44	34	240	42	39	216	400
	Total Disposed Tons Collected Curbside and from HHW Operations	137,698	130,900	12,027	11,208	81,625	10,278	11,243	76,717	134,000
Tons Diverted	Tons of curbside recycling	54,009	60,000	4,625	4,373	31,937	4,260	4,536	31,373	63,000
	HHW Operations Tons recycled/reused	208	150	12	19	109	23	27	130	150
	Tons of Curbside Yard Trimmings	21,712	25,000	3,857	2,856	14,893	4,301	3,969	18,266	27,000
	Tons of Curbside Bulk Recycled	233	200	10	29	158	8	4	90	800
	Tons of Curbside Brush Collected	7,720	7,500	632	698	3,698	730	849	4,361	6,400
	Total Diverted Tons Collected Curbside and from HHW Operations	83,882	92,850	9,136	7,975	50,795	9,322	9,385	54,220	97,350
Total Tons Collected Curbside and from HHW Operations		221,580	223,750	21,163	19,183	132,420	19,600	20,628	130,937	231,350
Percent of Waste Stream Diverted by Curbside and HHW Operations		37.86%	41.50%	43.17%	41.57%	38.36%	47.56%	45.50%	41.41%	42.08%
Pounds of Garbage collected per customer per pickup		27.05	25.06	28.74	26.73	n/a	24.46	27.07	n/a	26.03
Number of Garbage customers		184,316	188,807	184,035	183,831	n/a	187,064	187,615	n/a	187,676
Pounds of Recycled materials collected per customer per pickup (every other week)		22.71	24.44	23.33	22.14	n/a	21.15	22.50	n/a	25.82
Pounds of Yard Trimmings collected per customer per week		4.56	5.09	9.73	7.23	n/a	10.68	9.84	n/a	5.53
Number of Recycling and Yard Trimmings customers		182,971	188,807	182,684	182,490	n/a	185,665	186,217	n/a	187,676

Austin Resource Recovery Curbside Collection and HHW Operations

