



To: Zero Waste Advisory Commission

From: Sam Angoori, P.E., Interim
Director Austin Resource
Recovery Department

Date: January 9, 2019

Subject: **Director's Monthly Report to the Zero Waste Advisory Commission**

China Impact

The China Impact program, commonly known as "Operation Green Fence," was formally implemented in February 2013 as an aggressive inspection effort aimed at curtailing the amount of contaminated recyclables and waste that was being exported to China. Chinese government officials began to take notice that the recyclables entering China such as plastics, scrap metal and fiber contained too much food, trash and other contaminants. The excess residue could not be recycled and Chinese manufacturers were expending additional monies to sort out and dispose of non-recyclables in Chinese landfills. The Chinese government, looking to protect its homeland manufacturers and mindful of the environmental impact, took action to improve the quality of the raw materials through enhanced inspection, and possible rejection, of recyclables that were exported to China.

One of the most notable effects of the China Impact is the focus on various recycling commodities collected locally, regionally, and nationally. With no expected improvement expected in market conditions in the near future, the Green Fence has created an opportunity for the recycling industry and municipalities to evaluate policies and practices and adjust as needed to changing markets.

The ripple effects of China's actions and the deterioration of the U.S. recycling markets created concern for the City of Austin and the possible effect it would have on our current residential recycling program. Austin Resource Recovery Department officials met, on multiple occasions, with our two contracted recycling processors, Balcones Resources and Texas Disposal Systems (TDS), to gain insight on the impact the City of Austin due to current recycling market conditions.

Balcones Resources and TDS have continued strong, healthy, and positive relationships with their respective contractors and buyers of recyclable materials and both have created situations and conditions which have isolated the City of Austin from extreme risk and wild market swings. They continue to sell 100% of all recyclables coming from City of Austin residents and our collection program. Additionally, both have state of the art facilities and equipment which continue to focus on quality to add more value to materials being sold on the market and both companies are committed to honoring all recycling commodities collected in the City of Austin's residential recycling collection program. In short, Balcones Resources and TDS have committed to invest and remain healthy for future expansion and growth.

Summary of Responses to Request For Information: RFI 1500 SLW6001 Austin Resource Recovery Master Plan Update

Resource Recovery Systems

Benchmarking – clarify # of cities and consider allowing research on cities that have goals other than zero waste

Stakeholder input – specify logistics to help bidders understand the scope i.e. # of meetings, size of citizen input, etc) as stakeholder process can be a significant part of budget depending on scope

Purpose – adding clarification to help bidders understand the why will help ensure that every activity proposed will drive toward the City's ultimate goal

APTIM

Benchmarking – shorten the list of benchmarked cities will result in efficiencies for the City; Benchmarking requires significant time and effort; limit to priority cities to 5-8 total and ask consultant to propose additional cities

Deliverables – extend time for deliverables so that data can be gathered from ARR and so that research can be conducted and presented with clear connection to the City's programs; add time for benchmarking as cities are not always timely with the delivery of requested information.

Burns & McDonnell

Concern on \$300,000 budget: is this only an update for 2019 or will the budget fund the entire master plan;

Add a task – to evaluate opportunities for enhanced regional collaboration as other cities in the region also examine options to enhance resource recovery, there may be benefits for cities to partner together.

Purpose – add a task to develop a vision, goals, and objectives for the plan to guide the overall process

SOW – Data and Technology – too broad in scope, needs to clarify intent,

SOW – add a task to review the City's progress on existing master plan; don't infer it, but clearly define it in the scope;

Arredondo, Zepeda & Brunz, LLC

SOW – add Evaluation of Disposal Capacity in current and proposed landfills;

SOW – add Risk Analysis to identify risks related to long-term solid waste management options and develop strategies to eliminate or minimize these risks

SOW – add Evaluation of Regional Opportunities for implementing programs and constructing new waste management facilities

SOW – add Disaster Debris Management Plan Evaluation and Update given the number and magnitude of recent weather events

Odum Group, LLC

SOW – Outreach and Engagement – use dual approach to include data driven management consulting firm to develop an outreach and engagement strategy, and a grassroots organization to engage with the community;

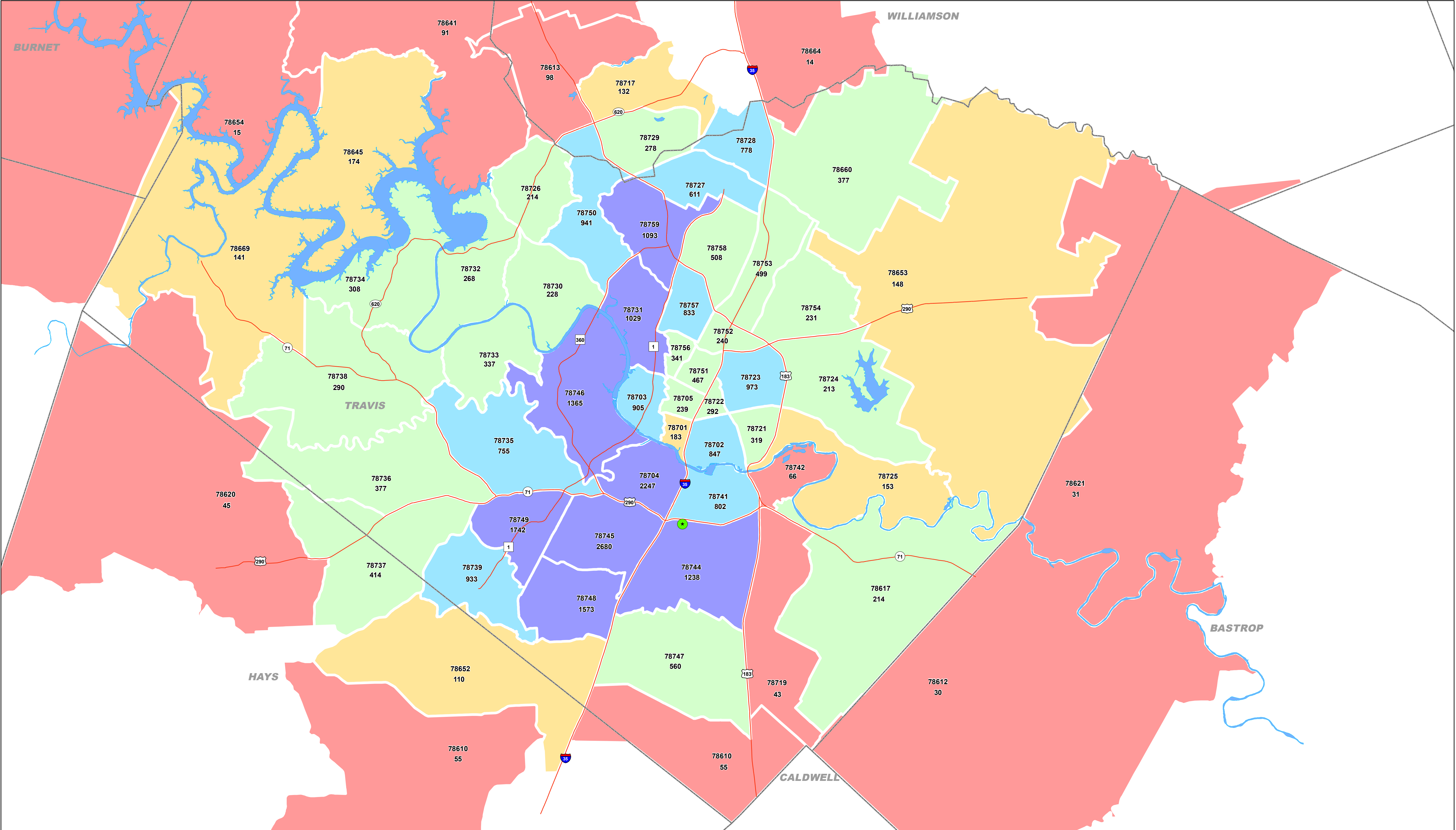
Comment – more clarity on the budget expectation due to : subject matter experts may request compensation for their insight and advice, research may be costly, community outreach and engagement may require partnering with a non-profit

Expansion of Household Hazardous Waste Program

ZWAC had asked for ARR to look into possible ways to expand the HHW Program, as it is not in the most convenient of locations for most of Austin's residents. Since opening six days per week, the program has increased participation from 17,925 customers and collecting 1,477,925 pounds in FY14, to the current pace of 30,750 customers and 1,898,460 pounds for FY18. While a 72% increase in participation is commendable, there are other options to explore to potentially expand the program further. Representatives from Travis County, Cedar Park, and local businesses have been contacted, and initial meetings have been scheduled for this month. Local churches have also shown interest in partnering with the City for a one-time collection event. Additionally, our current hazardous waste vendor is contacting their larger Austin-area customers with space and interest for such an event. As each of these items progress, we will give an update at future ZWAC meetings as to which opportunities may be more feasible.

- Another RRDOC with the same capabilities of the current facility, is planned at the new Northeast Service Center.
- Work with our current vendor to look at the possibility of an off-site collection event. These can be expensive and the specifications for locations (especially in metropolitan areas) can be difficult to meet.
 - Since the last ZWAC meeting on 11/14/18, staff has continued to work toward possible HHW expansion scenarios:
 - On December 11, City Staff met with representatives from Dell Computers to explore using Dell campuses to host an event to reach out to residents from North Austin and Travis County. Their initial response was positive, and further meetings have been scheduled in the coming weeks.
 - On December 10, staff met with City of Pflugerville to discuss the possibility of Household Hazardous Waste collection event that might be more convenient for North Austin residents. The City of Pflugerville was very receptive to the idea and is investigating potential sites for an event. Additional conversations are scheduled with City of Pflugerville within the coming weeks.
 - The Travis County Expo Center has verbally agreed to a collection event in the future.
 - Staff has plans to meet with Cedar Park in the future to resume the discussion regarding an HHW collection partnership.
- Staff will also look at other City properties that might be able to house a "scaled down" version of the current HHW Facility. Possibly a site that collects just Batteries, Oil, Paint, and Antifreeze.
 - Sites like Fleet Service Centers, or Austin Energy and Austin Water may serve as scaled down BOPA (Batteries, Oil, Paint, and Antifreeze) collection sites. These locations would need to have available space, and allow for security and traffic control. The benefit to these sites is how numerous and geographically widespread they are around Austin. Staff anticipates meeting with other departments to evaluate potential locations.
- Work with Travis County to find alternative collection sites.
 - Travis County has some sites that are outside the City Limits that serve as recycling collection stations, but would likely benefit Travis County residents more than Austin residents. A County site would require infrastructure such as storm shelters, lockers, and forklifts prior to operations commencing, costing approximately \$90,000
- Look into a pilot for on-call home pick up of HHW in different areas of Austin.
 - Staff has explored this option in the past; it would require at least 2 new vehicles, retrofitted to have the appropriate capacity and spill response equipment. This would require at least one additional FTE for each vehicle.

- Interlocal agreements where we work with other municipalities and Austin residents may use their HHW facilities/programs. We will also explore this option during meetings with municipalities regarding a possible mobile collection event. These meetings are scheduled in the coming months.
 - Residents from outside the City of Austin, but reside within Travis County, make up about 16% of the HHW's customers. This includes the cities of Pflugerville, and Manor, and Sunset Valley that do not have their own sites; these municipalities direct their residents to the City of Austin's HHW.
 - Other smaller surrounding municipalities have sites that accept HHW from residents, although on a limited schedule. It is our belief that utilizing this option would increase services to Austin residents, while having the lowest cost. Any cost sharing would mirror our own interlocal agreement with Travis County, so that COA would still pay for Austin residents' HHW, but avoid the cost of a new site and infrastructure. However, there have been some initial concerns from smaller municipalities regarding capacity, should Austin residents start utilizing these facilities.
- The included map illustrates the zip code in which each HHW customer lives. The different colors reflect sheer number, and are not an indication of percentage of participating households.



HHW Zip Code Participation FY17-18

**Participation by Zip
FY 17-18**

- 14 - 100
- 101 - 200
- 201 - 600
- 601 - 1000
- 1001 - 2680



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. This product has been produced by Austin Resource Recovery for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

11/21/2018

ARR Truck Breakdown Analysis

Trash Routes

	Monday	Tuesday	Wednesday	Thursday	Friday
<u>Automated</u>	31	24	29	28	21
<u>Semi-Automated</u>	14	11	12	14	14
<u>Dead-Ends</u>	5	5	5	5	6

Recycling A Week

	Monday	Tuesday	Wednesday	Thursday	Friday
<u>Automated</u>	12	13	15	14	13
<u>Semi-Automated</u>	6	6	6	6	6
<u>Dead-Ends</u>	5	5	5	5	6

Recycling B Week

	Monday	Tuesday	Wednesday	Thursday	Friday
<u>Automated</u>	14	12	16	14	12
<u>Semi-Automated</u>	8	6	6	6	6
<u>Dead-Ends</u>	5	5	5	5	6

Yard Trimmings/Curbside Compost

	Monday	Tuesday	Wednesday	Thursday	Friday
<u>Yard Trimmings</u>	9	7	11	9	7
<u>Curbside Compost</u>	13	13	13	13	15

Brush One route per week

Bulk One Route per week

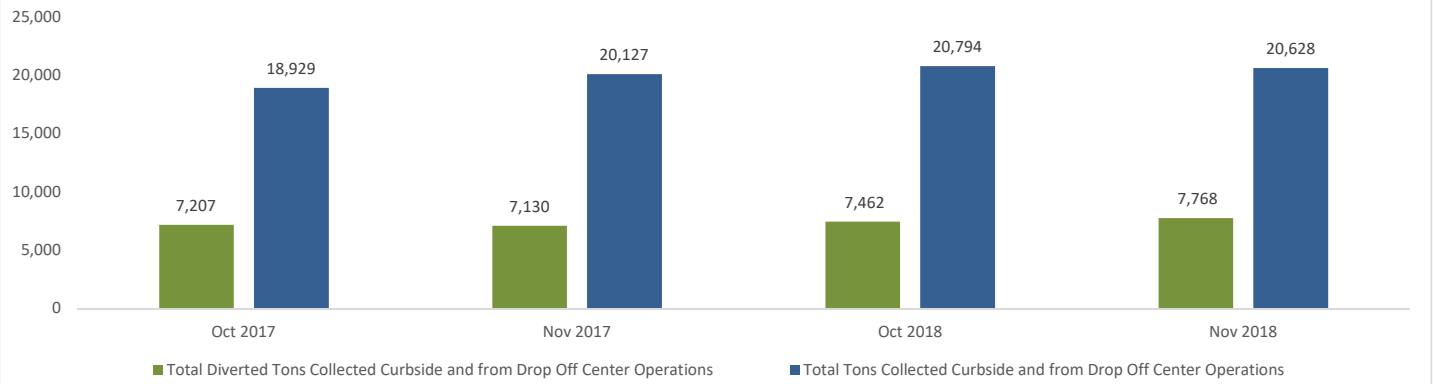
Vehicles in ARR Fleet

Vehicle Type	Number of Units
Automated	61
Rearloader	89
Multi-pack	10
Tractor-Trailer/Rolloff	16
Crane	8
Street Sweeper	26
Bucket Truck/Dump Truck	6
Light Duty	53

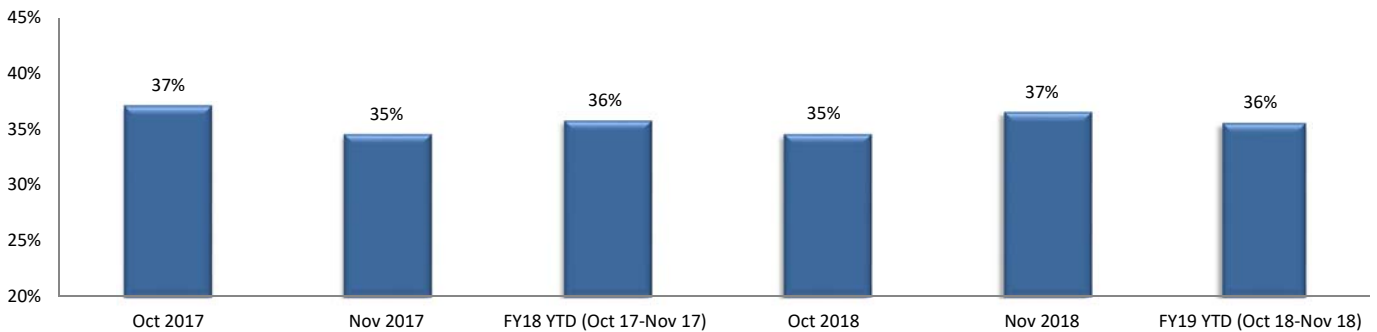
Austin Resource Recovery Curbside Collection and Drop Off Center Operations

		LAST FISCAL YEAR					CURRENT FISCAL YEAR						
Description of Services		FY 2017	FY 2018		Oct 2017	Nov 2017	FY18 YTD (Oct 17-Nov 17)		Oct 2018	Nov 2018	FY19 YTD (Oct 18-Nov 18)		FY 2019 Goal
Tons Disposed	Tons of curbside Trash	131,815	128,829		10,534	11,200	21,734		11,194	11,121	22,315		134,253
	Tons of Curbside Bulk Disposed	11,179	10,073		333	913	1,246		1,045	625	1,670		11,227
	HHW Operations Tons Disposed	471	528		34	37	71		33	40	73		451
	Estimated Tons of Curbside Recycling Residuals*	9,471	10,642		821	846	1,668		1,059	1,074	2,133		9,927
	Total Disposed Tons Collected Curbside and from Drop Off Center Operations	152,936	150,072		11,722	12,997	24,718		13,331	12,860	26,191		155,858
*Estimated tons of curbside recycling processed by vendors as residual - based on bi-annual sample route audit													
Tons Diverted	Tons of curbside recycling	49,233	48,080		3,987	4,072	8,058		4,169	4,090	8,259		52,073
	Tons of Drop Off Center Collections Recycled/Reused	3,248	3,960		308	278	586		425	379	804		4,618
	Tons of Curbside Yard Trimmings	34,316	32,244		1,964	2,313	4,277		2,256	2,870	5,126		48,114
	Tons of Curbside Bulk Recycled	161	192		10	23	33		24	25	49		165
	Tons of Curbside Brush Collected	7,367	6,292		910	418	1,328		563	395	958		8,025
	Tons of Curbside Textiles Collected	245	159		10	9	19		9	10	19		157
	Tons of Carts Recycled	197	154		18	18	36		17	0	17		250
	Total Diverted Tons Collected Curbside and from Drop Off Center Operations	94,767	91,081		7,207	7,130	14,337		7,462	7,768	15,231		113,402
	Tons of Curbside Compost Collected**	5,069	14,414		869	994	1,863		1,457	1,783	3,241		33,565
***Tons of Curbside Compost Collected" is included in the "Tons of Yard Trimmings Collected"													
Total Tons Collected Curbside and from Drop Off Center Operations		247,704	241,153		18,929	20,127	39,056		20,794	20,628	41,422		269,260
Estimated Percent of Curbside Collected Materials Diverted from Landfills by ARR		37.51%	36.81%		37.12%	34.59%	35.81%		34.61%	36.56%	35.58%		38.20%
Pounds of Trash collected per customer per pickup		26.09	24.84		24.77	26.21	25.49		25.68	25.56	25.62		26.10
Number of Trash and Recycling Customers		194,357	199,448		196,256	197,236	196,746		201,177	200,840	201,009		197,876
Pounds of Recycled materials collected per customer per pickup (every other week)		19.61	19.15		18.75	19.17	18.96		19.24	18.87	19.06		20.49
Pounds of Yard Trimmings collected per customer per week		6.83	6.42		4.62	5.45	5.03		5.21	6.62	5.91		9.46
Number of Yard Trimmings/Organics Customers		193,110	193,110		196,299	196,048	196,174		200,000	200,047	200,024		195,520
Total tons of Dead Animals Collected from COA rights-of-way and the animal shelter		39	44		3	4	7		3	4	7		42

Austin Resource Recovery Curbside Collection and Drop Off Center Operations



Estimated Percent of Curbside Collected Materials Diverted from Landfills by ARR

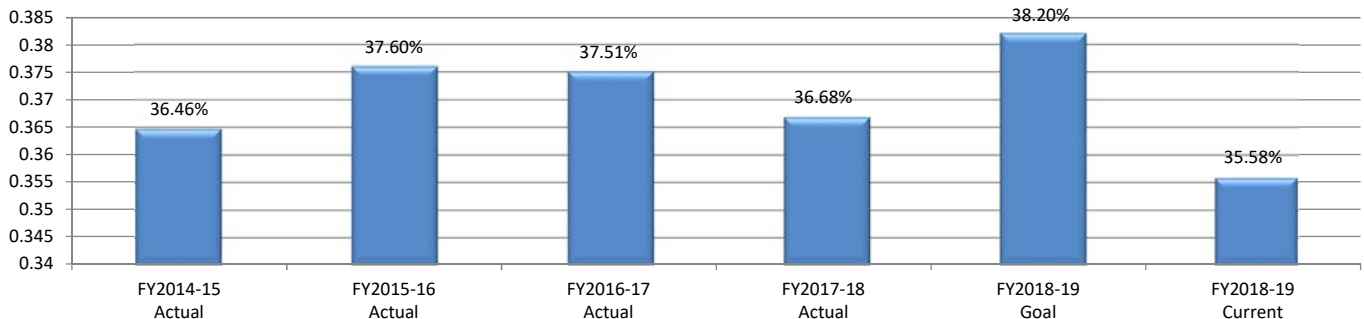


Reporting Status and Diversion Results for All Categories of Waste Generation

Category of Waste Generation	FY2014-15 Actual	FY2015-16 Actual	FY2016-17 Actual	FY2017-18 Actual	FY2018-19 Goal	FY2018-19 Current
Residential Waste Diversion (city serviced accounts)	36.46%	37.60%	37.51%	36.68%	38.20%	35.58%
Community Diversion Rate	*	42.02%	*	*	*	*

*As prescribed in the Austin Resource Recovery Master Plan, the Department will conduct a detailed waste assessment study every five years to determine progress toward our Zero Waste goal. The first such study was published in 2015 and is titled Austin's 2015 Community Diversion Study. The study focused on estimating diversion from both ARR-serviced properties and commercial properties. Commercial properties include retail businesses, food service establishments, professional offices, industrial properties, institutional facilities, government facilities, and multifamily properties five units and larger. According to Austin's 2015 Community Diversion Study, Residential Waste Diversion Rate (city serviced accounts) represents approximately 15% and the Community Diversion Rate (accounts serviced by private waste haulers) represents approximately 85% of the total citywide wastage.

Residential Waste Diversion (city serviced accounts)



Category of Waste Generation	CY 2015	CY 2016	CY 2017
Commercial Tons Landfilled**	1,062,012	1,152,661	1,708,484
Commercial Tons Recycled**	550,515	360,244	722,573
Commercial Organics Tons**	556,099	206,165	97,173

** Numbers reported here are compiled from self-reported data submitted by licensed private waste haulers via semi-annual tonnage reports required under Section 15-6-3 of the City Code on a calendar year basis and as such, ARR does not attest to the accuracy of these amounts. These numbers reflect data from 100-200 licensed haulers (number of haulers varies over time), and include haulers servicing dumpsters, roll-offs, construction and demolition debris, landscaping debris, and metal scrap. These numbers do not reflect all data sources included in Austin's 2015 Community Diversion Study.