

MEMORANDUM



TO: Mayor and Council
THROUGH: Rosa Inchausti, Interim Municipal Utility Director, x8999
Ken Jones, Deputy City Manager - CFO, x8504
FROM: Tanya Chavez, Field Operations Interim Deputy Director, x2215
Tony Miano, Solid Waste Services Manager, x8051
DATE: August 27, 2019
SUBJECT: Solid Waste Services Update

PURPOSE:

To update Mayor and Council on the Solid Waste programs and services and seek direction on some of the programs that will impact our rate in the upcoming 2020/2021 rate study presentation.

DIRECTION REQUESTED:

Staff is seeking City Council direction to:

- Continue Tempe's commitment to recycling
- Seek resident impacts on residential trash and recycling reroute
- Explore cost savings moving trash services to curbside
- Explore the commercial sale of our compost and inert materials

CITY COUNCIL STRATEGIC PRIORITY:



Sustainable Growth
& Development

Performance Measure 4.04: Achieve or exceed the Council adopted solid waste diversion rates of 40 percent residential and 25 percent commercial by the year 2020.

	Target	Baseline (FY15/16)	Current
Residential	40%	18.80%	22.80%
Commercial	25%	4.90%	24.20%

BACKGROUND INFORMATION:

Solid Waste Services kicked-off the FY20/21 Rate Study with Stantec Consultants in July 2019. This memo provides Mayor and Council with an update on Solid Waste services and programs to prepare for the upcoming rate study presentation on Sept. 19. The worldwide challenges in the recycling market recently have had an adverse effect on the blue barrel recycling program and operating budget. These market realities have resulted in the city's Solid Waste Management team taking a proactive approach to find ways to contribute to the zero-waste initiative. Each diversion program has a cost attributed to it that increases operational costs. In order to meet the 4.04 Performance Measure of diverting 40 percent (residential) and 25 percent (commercial) trash from the landfill by 2020, Council input is needed on the future of Tempe's Solid Waste programs and services.

Solid Waste Industry Challenges

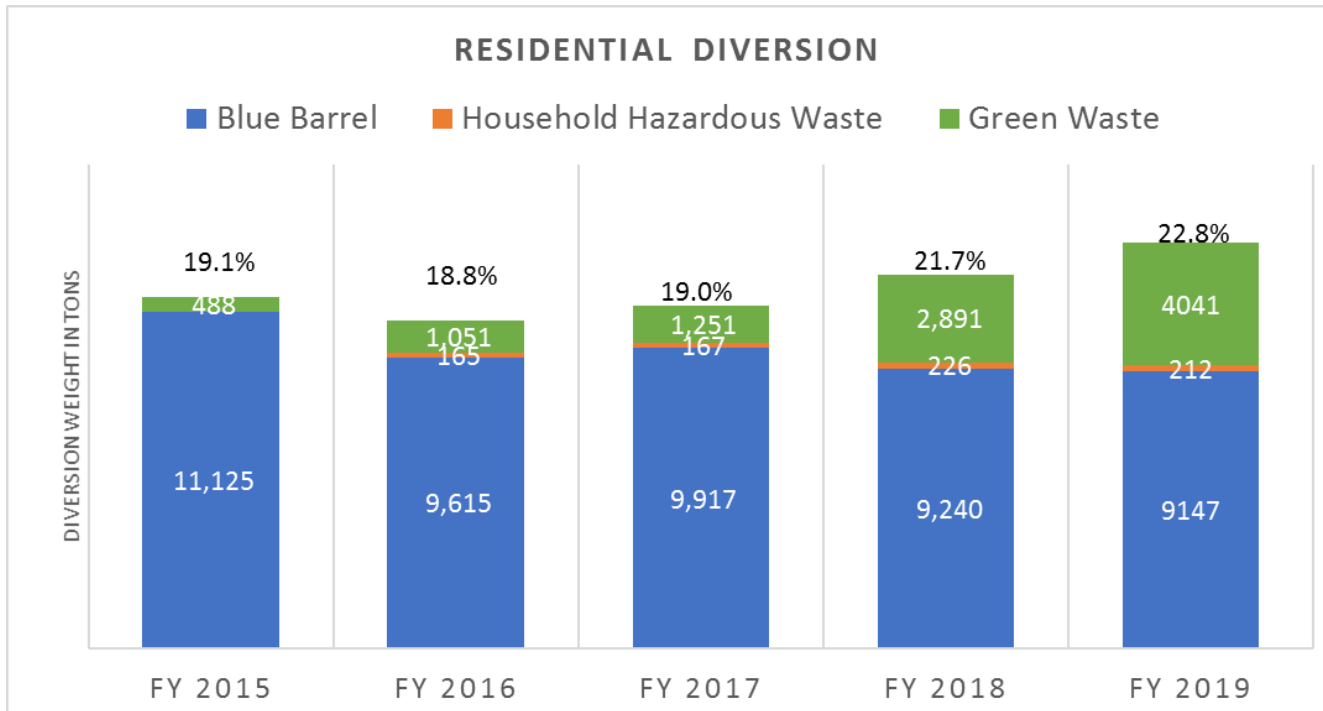
One of the biggest challenges to the solid waste industry, are the blue barrel recycling programs. What once was a profitable program, now places burden on our ability to meet and grow our diversion numbers. Material Recycling Facilities (MRF's) have either reduced what material they take in or have closed. Also, the revenue has been reduced from the sale of good recyclables, leaving Tempe to pay higher prices to process recyclable material and even higher prices to process contamination from the blue barrels. We currently pay \$25.56 per ton to landfill and \$69.02 per ton to process recycling. However, staff has the vision and talent to expand programs and find ways to reuse and divert materials for our everyday business needs to help reach our diversion goals.

Another challenge has been collection equipment. Over the last five years, body manufacturers, who make the part of the truck that lifts the containers and packs the trash back into the body, have either left the valley or have gone bankrupt. Staff has warranty concerns and is currently identifying what equipment to use. The refuse truck industry is moving to larger trucks to assist with efficiencies and produce more tonnage. Small refuse trucks are more challenging to acquire. Tempe will lose the last two residential alley refuse trucks as they have reached their life span. Due to the limited availability of smaller refuse trucks, the City might be forced to pay premium prices for custom trucks.

Residential Collection and Programs

Residential collection consists of 33,500 customers classified as: single living units, du-plex, tri-plex, four-plex, condominiums, townhomes, and mobile homes. Tempe City Code states that Tempe's Solid Waste will provide collection services to all Tempe residents. Tempe City Council established a residential diversion goal of 40 percent by 2020. In FY 18/19 the city's residential diversion rate rose to 22.8 percent. The Bulk

Trash collection team contributed to the great success of the increased diversion rate with staff collecting 4,000, of the 10,000 tons, for green waste organics during the first half of 2019.



Change to Residential Collection Days

In 2015, staff rerouted the city collection system to be more efficient for residential collection. The reroute allowed for a reduction in vehicle costs and our carbon foot print. With the recent implementation of our new routing software system staff determined that more efficiencies could be gained by rerouting the city to a Monday-Thursday collection day schedule. The city would be routed based on living units and tonnage distribution and not just boundary lines as they are now. This will not only improve customer service and operational efficiencies but will also eliminate costly Saturday overtime. Staff will work closely with Neighborhood Services and the PIO to connect with residents to determine the impacts of these changes. We will come back to Council at a future WSS with an update.

Green Organics Collection (3rd Container) Pilot Program

Solid Waste staff analyzed programs that potentially could maximize the city’s ability to divert more residential waste from the landfill to meet the diversion goal. Staff determined that a pilot green organics curb-side collection program would be one of the best uses of resources and would make a positive impact to the diversion goal. In December 2016, the City of Tempe launched a pilot green organics program in each of the four neighborhoods throughout the city. The 2,883 homes that are currently participating in the program, span all Tempe zip codes and collections days. As part of the pilot program, registration for the first bin is free and there is a \$5 fee for additional bins thereafter. The program was designed to have sample areas throughout the city to measure contamination rates, set out rates, tonnage, types of materials collected, and to evaluate available assets and staffing needs.

After evaluating the data, staff has determined this program is successful in certain areas of Tempe. Areas that have low set out rates and tonnage are not ideal candidates for this program. Staff will be reallocating the containers and trucks to areas of the city that have a favorable participation and diversion rate. In the areas we will be removing service, staff will conduct door-to-door outreach to contact residents to inform them about the process. Mayor and Council will need to decide during the upcoming Solid Waste Rate Study if this pilot program should be memorialized as no dedicated funding has been allocated to this program.

Service day	Total Containers	Setout Rate	Tonnage
Monday	763	34%	276
Tuesday	752	55%	926
Thursday	560	31%	225
Friday	634	37%	314
FY 18/19 Totals	2,709	40%	1,740

FY18/19 green Waste Collection Data

Alley Maintenance Program (AMP)

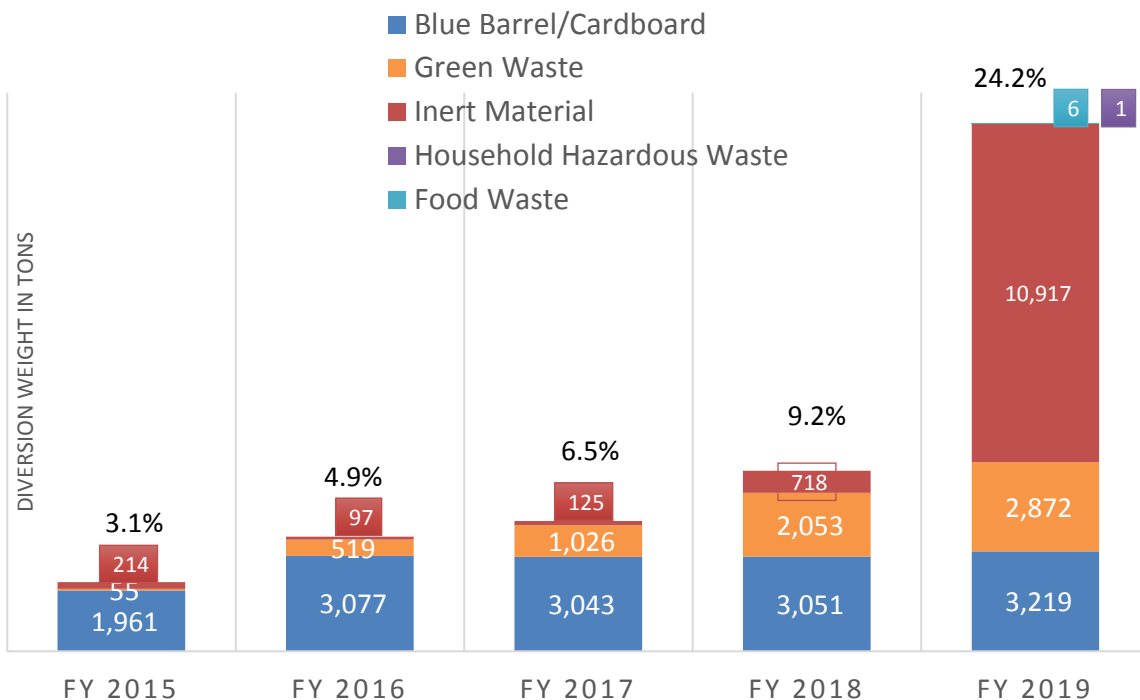
Since 2014, staff has been working on an educational program to inform residents of alley maintenance requirements. Tempe’s alleys need reconditioning. Staff’s focus is to clear illegal materials, work with residents to ensure alleys are clear of weeds and brush, replace or repair 300-gallon containers, and add dust suppression with Recycled Asphalt (RAP). Part of the enhancement process is to educate residents to follow the 10-day rule for placement of bulk trash and green organic waste in alleys.

The two biggest violations are material being thrown into the alley haphazardly and bulk material. The bulk trash crew has a bigger challenge as the operator who drives the truck has only two feet of space available between the truck and the wall to maneuver heavy equipment. Drivers must move to the back of the truck to load and rake the area for the tractor operator. When residents do not trim their trees, drivers must stoop under the brush. Also, when residents throw out illegal material such as, brick, block, and rock, this causes the ground to become uneven and unsafe with the operator now having to maneuver over the obstructions. These situations place the operator at risk to stumble and fall. Overgrown brush and weeds are also an obstacle for these operators as the higher the weeds, the more concern they have with losing their footing and their ability to see any hidden dangers such as needles and sharp objects. This places a tremendous pressure on the inspections team to educate residents to keep their alleys clean. During the rate study staff will explore cost savings to relocate trash services to curbside for consideration by the City Council to minimize rate increases

Commercial Collection

The commercial diversion goal is 25 percent by 2020. In early 2019, the city made great strides towards achieving this goal by working with Special Events, Diablo Stadium, and businesses to divert industrial waste, organic waste, and construction materials from the landfill. Diversion of inert materials (concrete, rock, sand tile, and asphalt) has increased Tempe’s diversion rate and opened many options for the reuse program. In FY18/19 the city’s commercial diversion rate was 24.2 percent. In July 2016, SB1079 passed which opened the commercial market to private haulers within city limits. Multi-Family Living Units (five units and above) had the option to leave City of Tempe Solid Waste collection services and utilize a private commercial collector. As a result, the City of Tempe lost several large apartment complexes that have valley or state-wide affiliation with management companies. Tempe’s commercial collection services keep rates competitive and/or flat for commercial customers in Tempe. Over the past few years, Tempe has increased their weekly recycling routes from one route consisting of 110 containers to five routes with more than 740 containers. Commercial collection has operated under a deficit since the implementation of SB1079. Vehicle replacement was also put on hold to adjust for the loss of revenue with only one truck being purchased since July 2016. Staff will evaluate the budget in the upcoming rate study for full cost recovery.

COMMERCIAL DIVERSION



Compost and Inert Operations

In 2014, Solid Waste developed a diversion facility that includes a compost and inert yard. Over the last five years, staff has worked hard to develop the compost program and diversion facility. This program is in its early stages and has not grown to its full potential. The program's operational efficiency will take some time as staff is still working on purchasing equipment to assist with diverting materials and developing a variety of products for reuse. The new state certified scale-house, that was recently installed, has helped greatly in accurately tracking tonnage received from residents, city departments, and commercial landscapers. In 2016, Tempe processed just a little more than 2,000 tons of green organic material. In 2019, crews processed 9,884 tons of green organic and inert materials with an additional 7,800 tons estimated to be brought in by the end of the year.

In order to help offset the operational costs of the diversion facility, staff is exploring the potential to sell specific products that can be used by other city departments and the public. This will also assist in closing the "trash- loop" on material that would normally get landfilled. These products can be used in alleys to mitigate dust, to make ABC and landscape material, and produce residential and commercial grade "Tempe Gold" compost. The installation of the new scale-house now allows the city to charge commercial landscapers for the green organics material they bring to the yard with each ton of green organics producing three yards of compost. The ability to sell this commercial grade "Tempe Gold" compost (#1's) will provide a revenue stream to help offset the cost of the program. Tempe residents will continue to receive free (#2's) with their utility bill and drivers license as they do today. Staff will provide revenue projections from this proposed initiative for consideration during the upcoming rate study.

Through operational efficiencies, staff has been able to allocate funding to build the diversion facility and purchase new equipment. In order to be more efficient and produce marketable goods, staff will need to now start charging for the products produced. This will allow the city to expand on these types of materials that can be diverted. With the crash of the recycling market, the creation of the diversion facility will help Solid Waste Services reach its diversion goals.

The diversion yard also includes inert materials. These materials are heavy and add to the increased costs of the landfill rates. Tempe currently pays the landfill to dispose of dirt, rock, brick, and concrete when these items can be reused for city programs. Solid Waste currently partners with Parks, Golf, Engineering, and Water to divert products. The goal is to make and sell ABC gravel to use in trenches for water projects, landscape rock in parks, and a dust proof cocktail for alleys. Staff will be seeking permission to evaluate selling commercial grade compost and inert material to offset the cost of operations.

ATTACHMENTS:

PowerPoint Presentation