

# GREEN GILBERT



**Trashing the Idea of a  
Linear Economy in Gilbert**

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## Did You Know?

- Americans produce more than 250 million tons of trash each year, enough to fill 2 stadiums a day
- Creating products from recycled materials uses up to 98 percent less energy than producing things from new materials
- 95% of food that can be composted ends up in landfills and incinerators
- Recycling 1 ton of Aluminium cans conserves energy equivalent to 1024 gallons of gasoline

## Project Scope

- R**efine Gilbert's bulk waste program
- R**esearch bulk waste best management practices (BMP)
- R**educe bulk waste volume and cost per ton or mile
- R**epurpose bulk waste through innovative recycling
- R**ecommendations to mitigate impacts

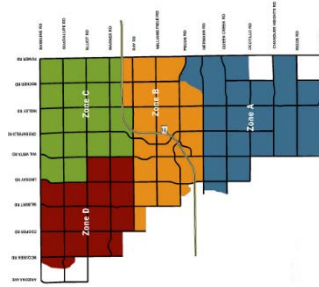
*It is important to transition into a circular economy to build a sustainable community*



# CURRENT SCENARIO



237,000



68.2 mi<sup>2</sup>  
Zones A - D



15 Rear Loaders  
10 Tractors

**BULK TRASH** includes furniture, mattresses, dishwashers, yard waste, glass, and televisions

COLLECT →

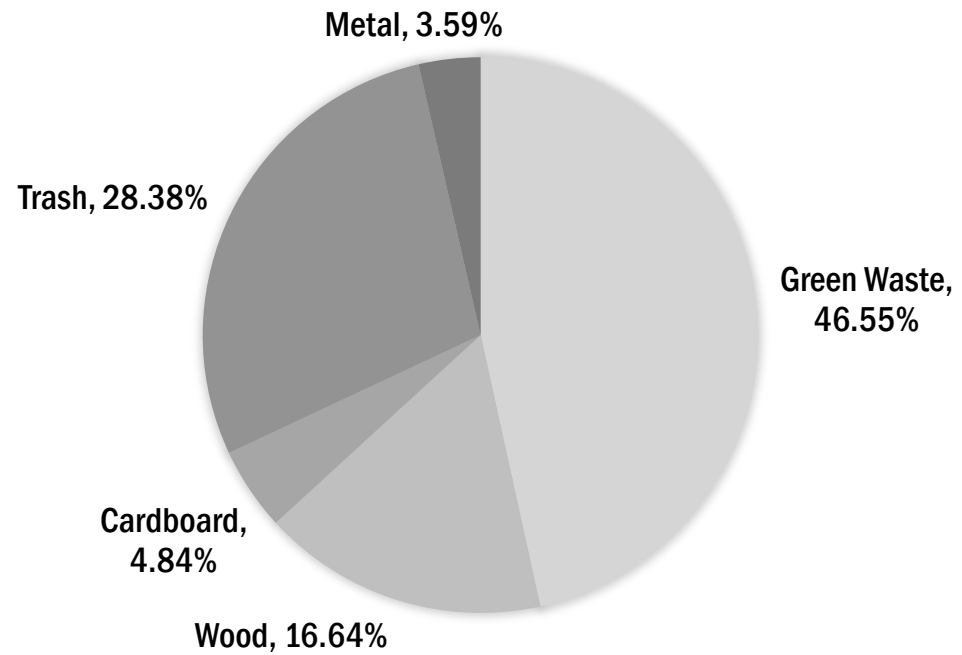
PROGRAMS  
Regular monthly pickups  
Haul It Yourself  
Cardboard drop off facility  
Bulk items donation  
Appliance Recycling Program

→ TRANSPORT

TRANSFER STATIONS

Germann - 60%  
San Tan - 30%  
Cactus - 10%

## WASTE CHARACTERIZATION

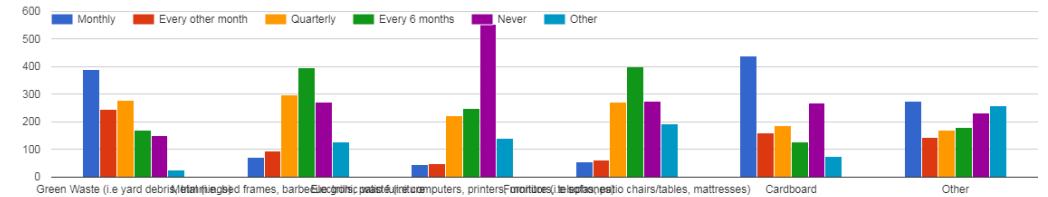


**71.62** % Diversion Material

**56.58** Lbs. of waste per home

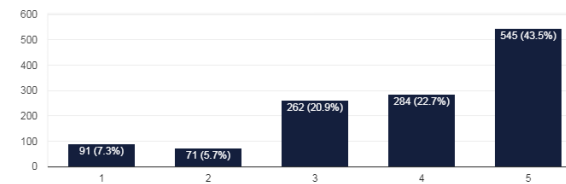
## RESIDENT SATISFACTION SURVEY

How many BULK services by waste type do you utilize in a calendar year?



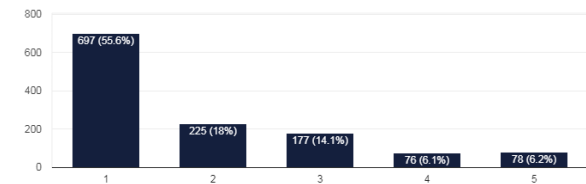
How interested are you in additional Town wide recycling programs (green environment)

1,253 responses

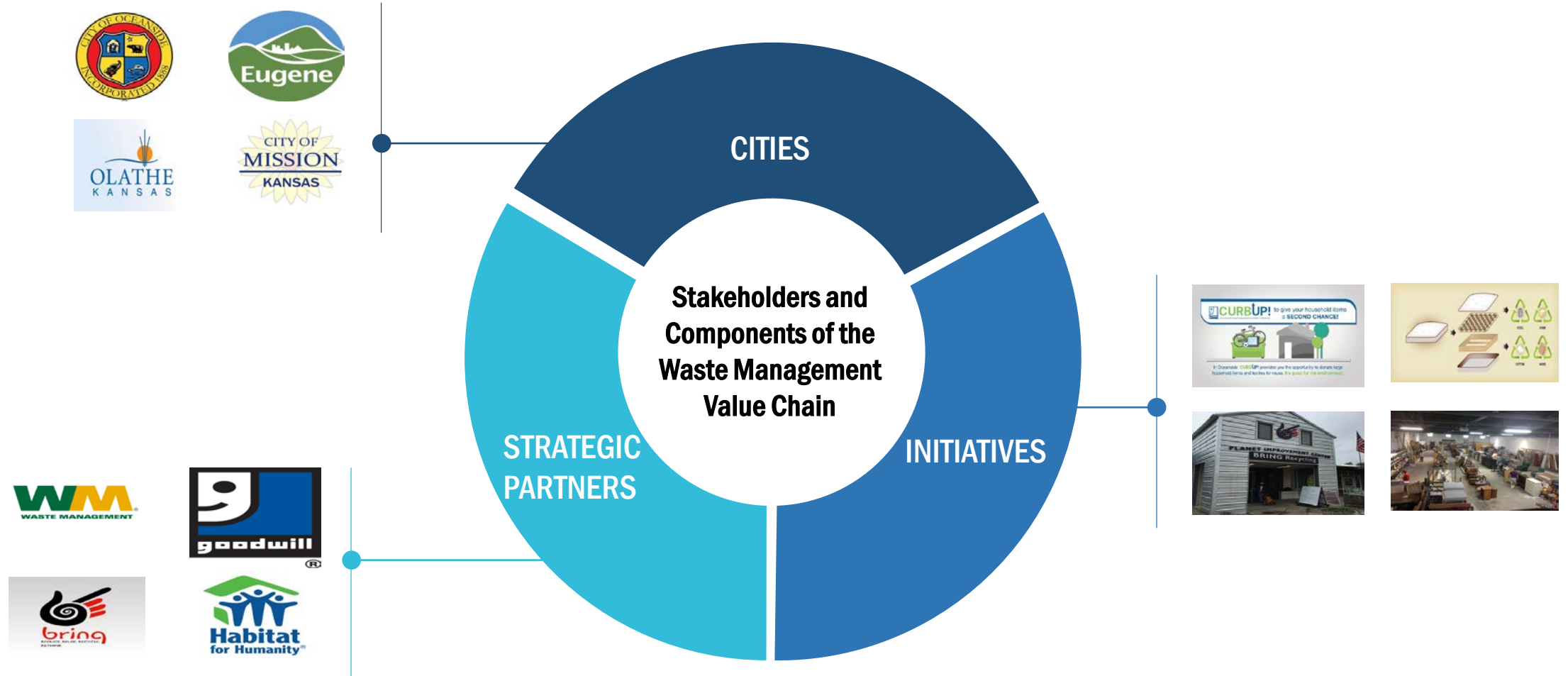


How willing would you be to drop off your green waste or bulk waste at a facility?

1,253 responses



# EPA BEST MANAGEMENT PRACTICES



# CITY WIDE BULK WASTE INITIATIVES



**CITY OF CHANDLER**

Trash to Treasure

Christmas Tree Program

Recycling Facility



**CITY OF PHOENIX**

Curbside Green Organics

Compost Facility

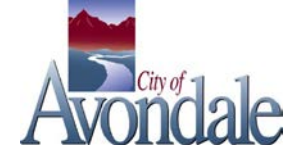
Mattress Recycling Program



**CITY OF TEMPE**

Building Materials Partnership with Stardust

Green Organics Program



**CITY OF AVONDALE**

Green Waste

## COMMON THEMES

Partnerships with non profits such as Stardust & Goodwill for bulk volume reduction

Emphasis on green waste and composting organics

Development of new infrastructure like composting and recycling facilities

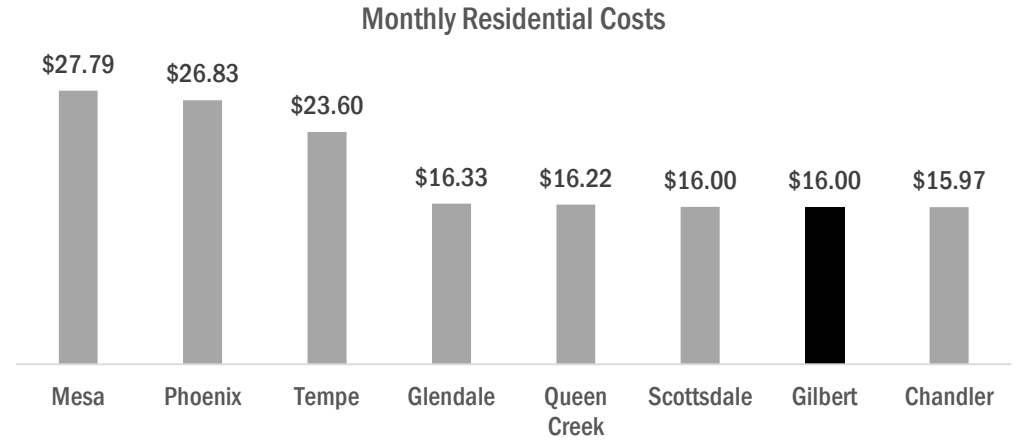
Initiatives targeted towards high volume items such as Christmas trees & mattresses

# INTER CITIES COMPARISON

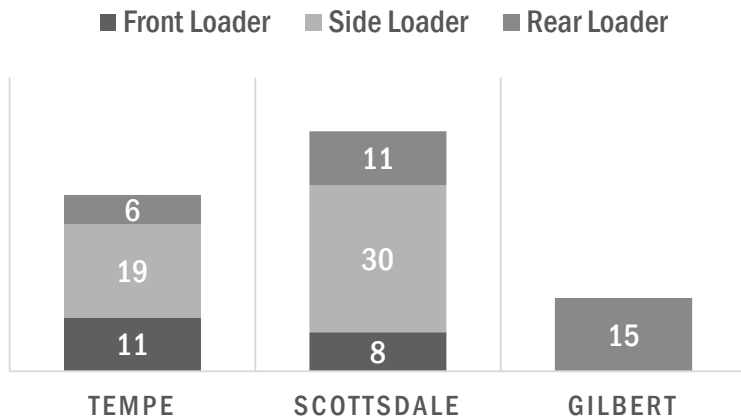
## SERVICE LEVEL

	Weekly/Monthly Pickup	HHW Facility	Free Compost Bin	Free Appliance Pickup	Free Landfill Drop-off
Mesa	✓				
Phoenix	✓				✓
Tempe	✓				✓
Glendale	✓	✓			✓
Queen Creek	✓				✓
Scottsdale	✓				✓
<b>Gilbert</b>	✓	✓	✓	✓	✓
Chandler	✓	✓	✓	✓	✓

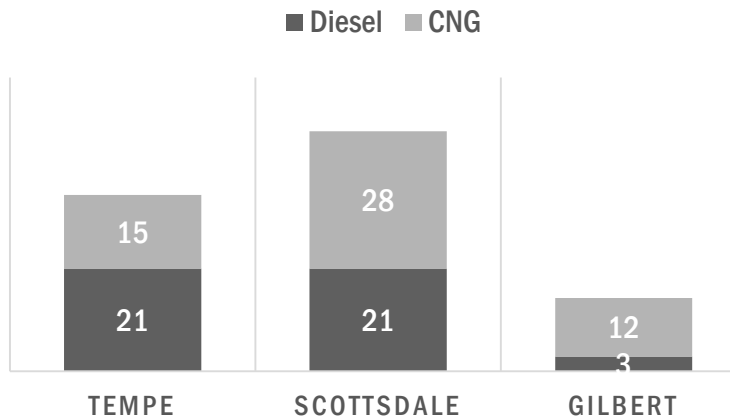
## COST LEVEL



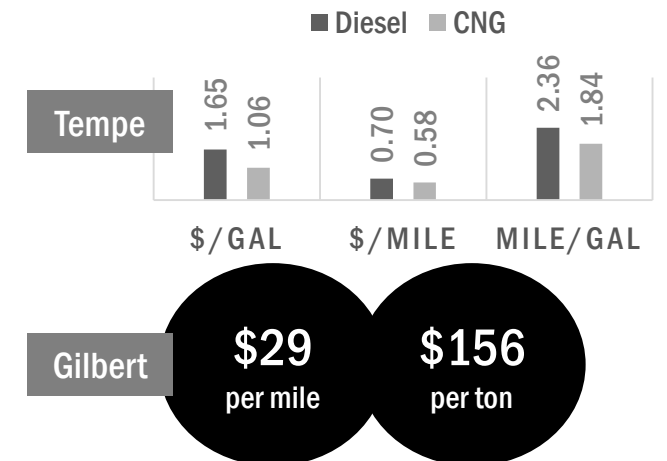
## VEHICLE MIX



## FUEL MIX



## FUEL COST



# SHORT TERM RECOMMENDATIONS

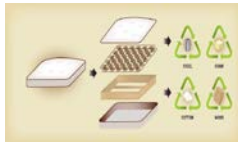
## Partnerships with Non Profits



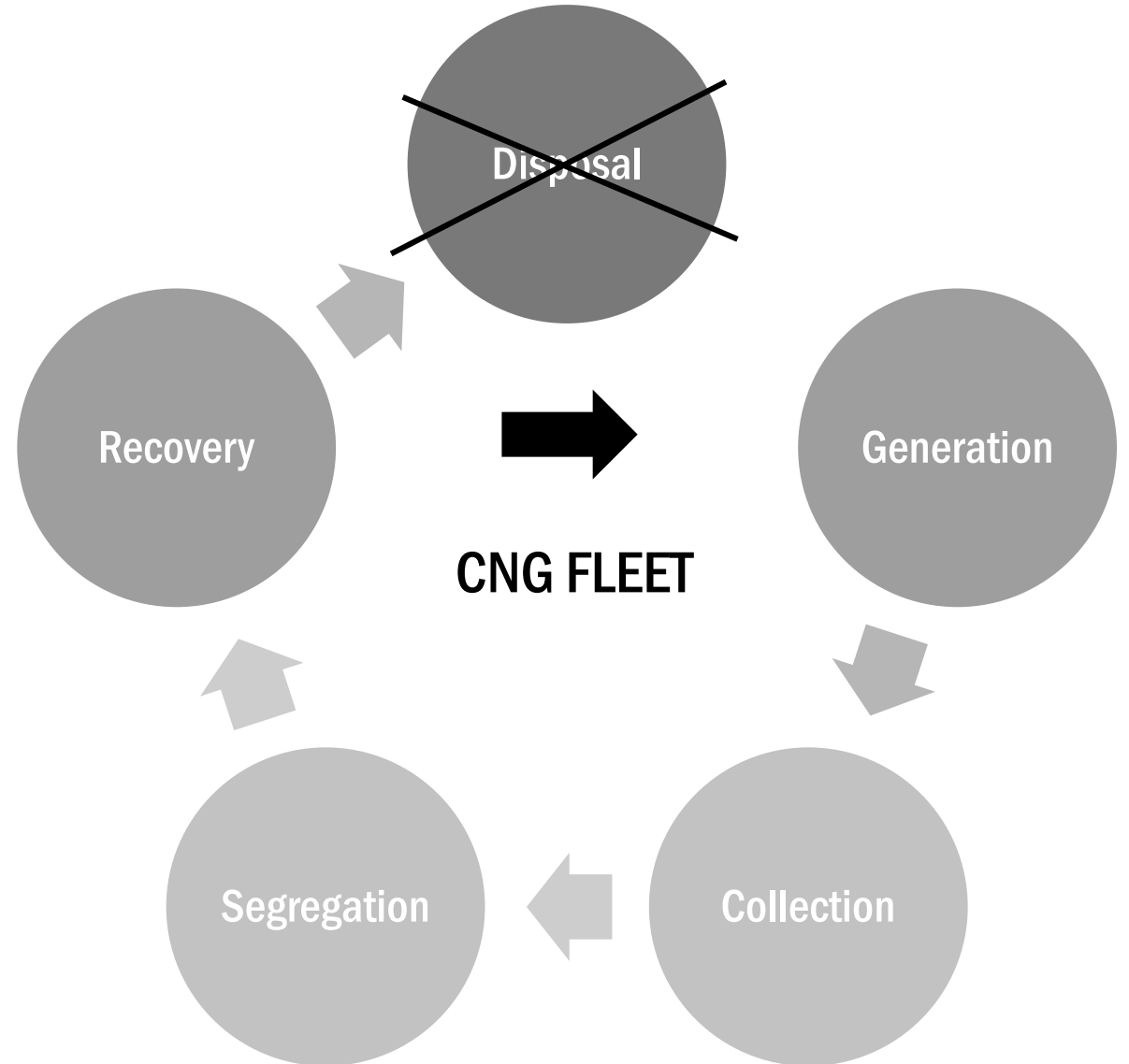
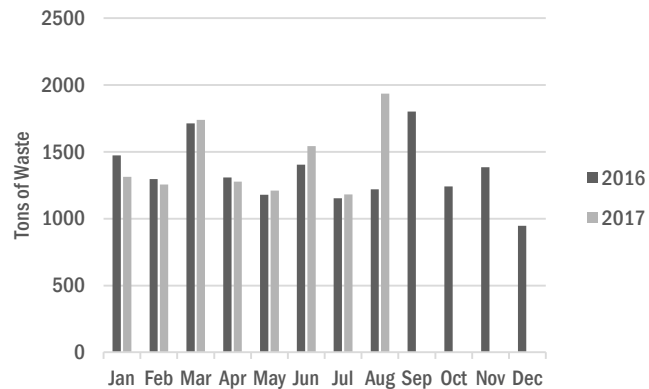
## Pre Sorting



## Item Specific Initiatives



## Education & Outreach

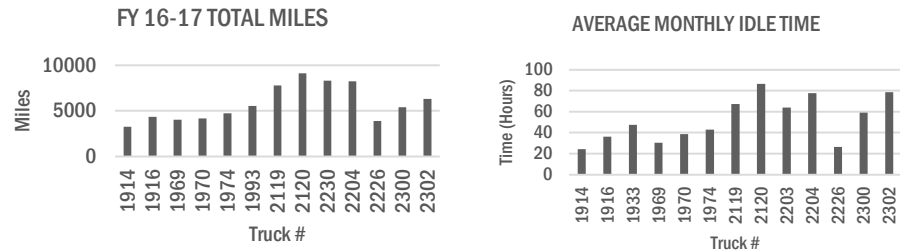




# LONG TERM RECOMMENDATIONS

## Scheduling & Fleet Improvements

**Scheduling**  
Ex: Chandler model

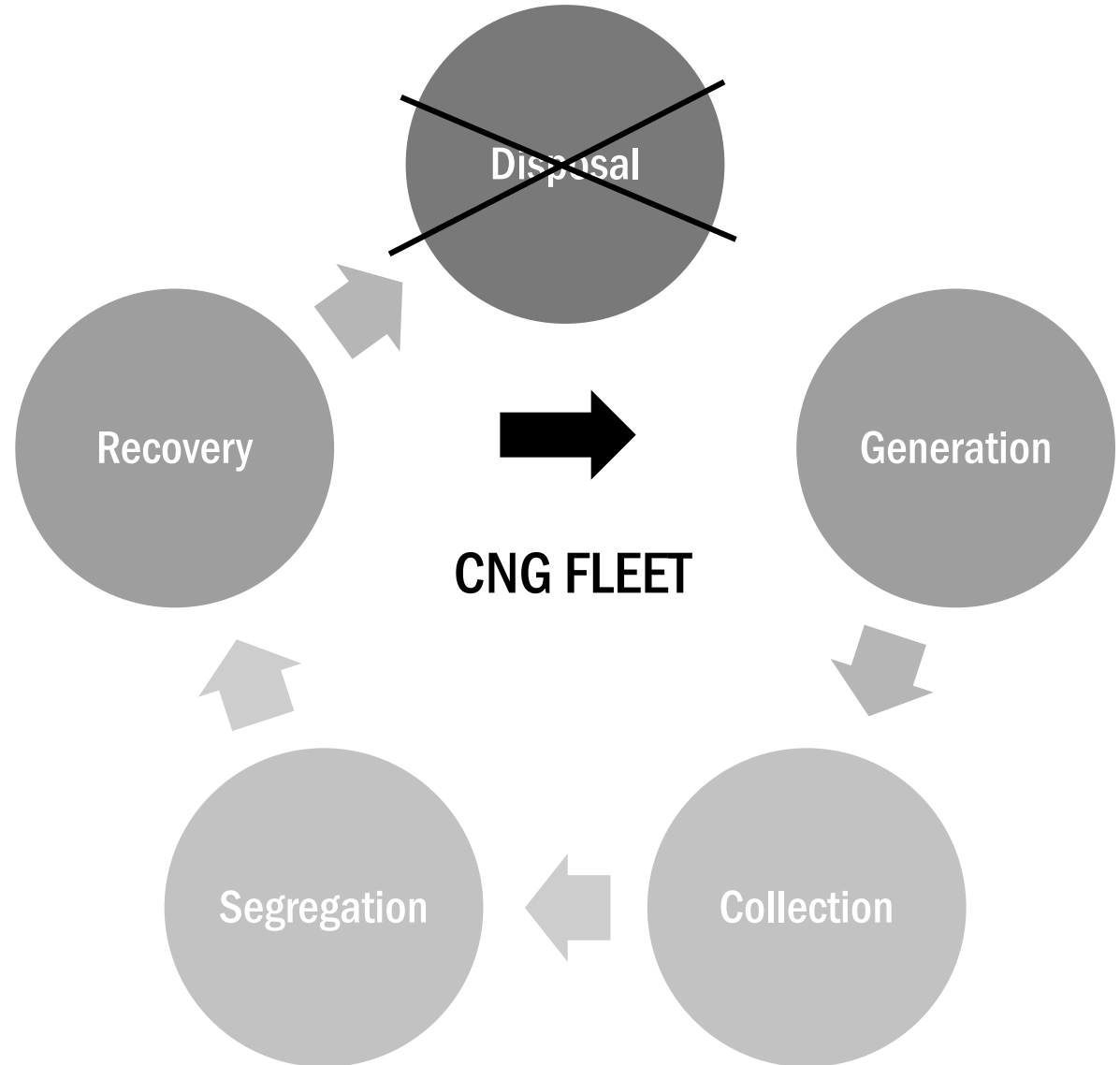


## Strategic Partnerships



CITY OF CHANDLER

**\$72,155 - METAL**  
**\$15,826 - CARDBOARD**  
**\$2,878 - E-WASTE**



# REFERENCES

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**THANK YOU!** – Nalini, Anne, Frank, Giao, Class  
**Happy Holidays!**