



Climate Change in Mesa



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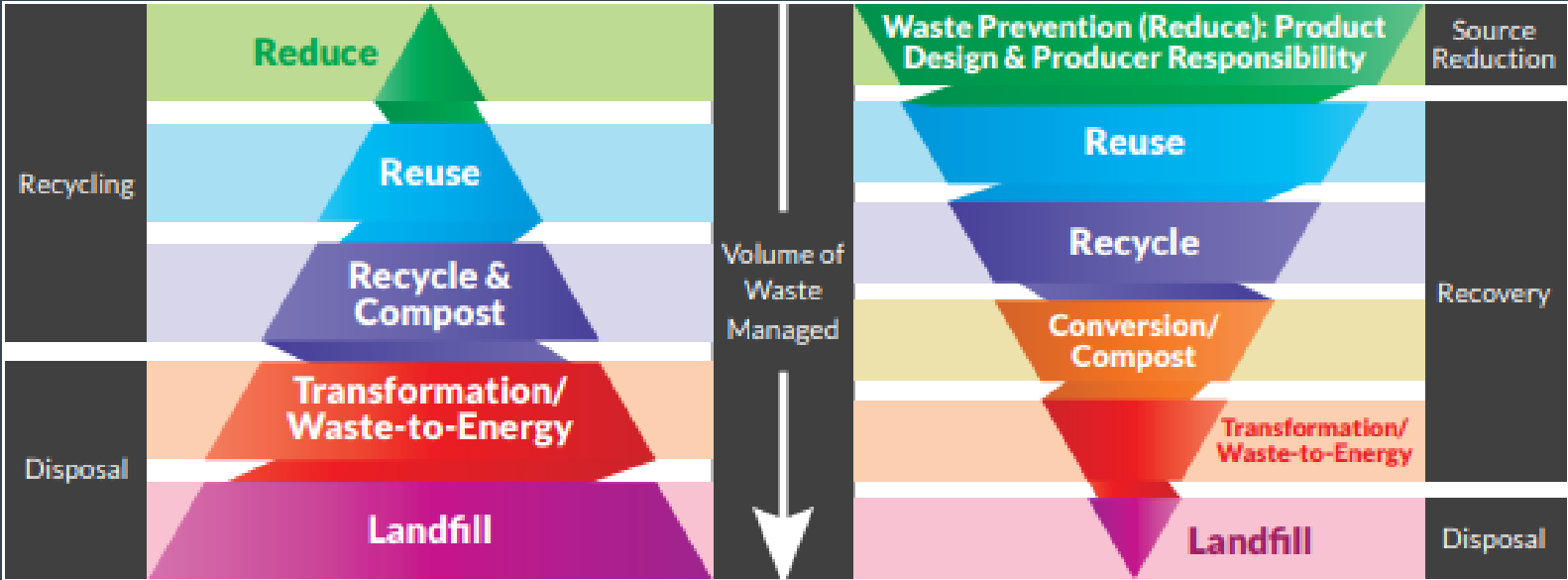
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Inverting the Pyramid: Waste Prevention

Mesa's Goal: Divert 90% of waste from landfills

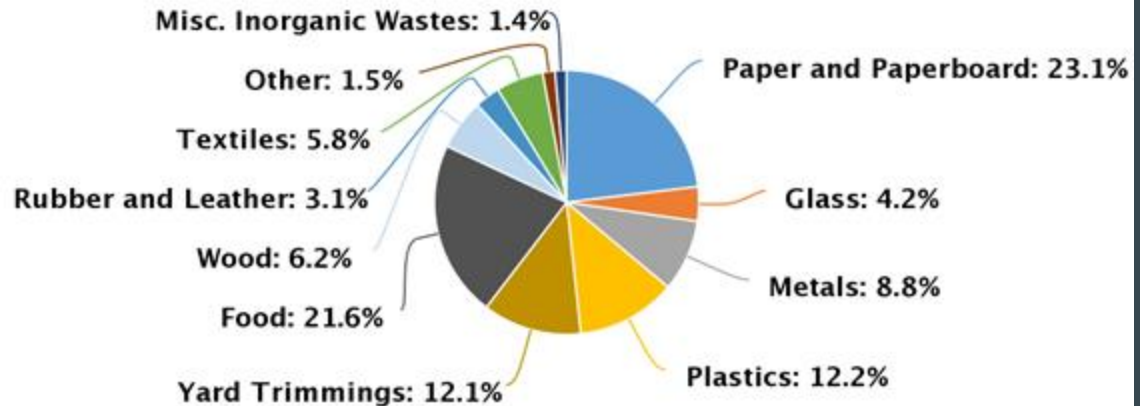


The Food Waste Problem

- 40% of fresh food is sent to landfills in the United States (EPA)
- 1 million people in Mesa are struggling with food security (EPA)
- Fills 21.6% of landfills (EPA)

Total MSW Generated by Material, 2018

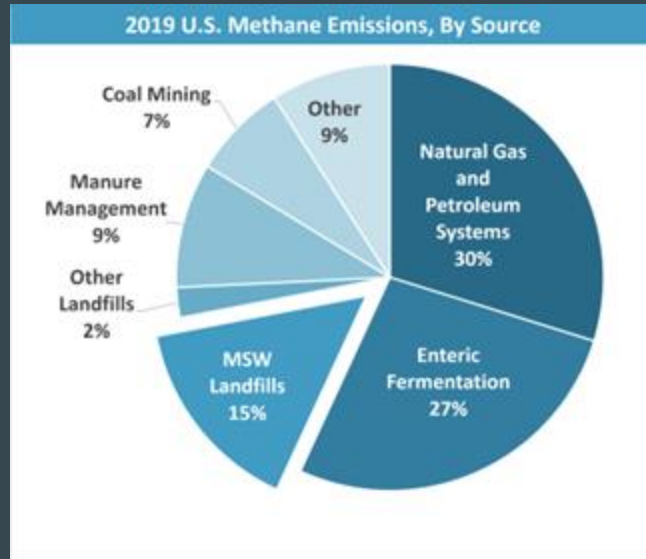
292.4 million tons



Significance

Decomposition of food creates methane gas

- Greenhouse gas
- 28 to 36 times more potent than CO₂ (3)

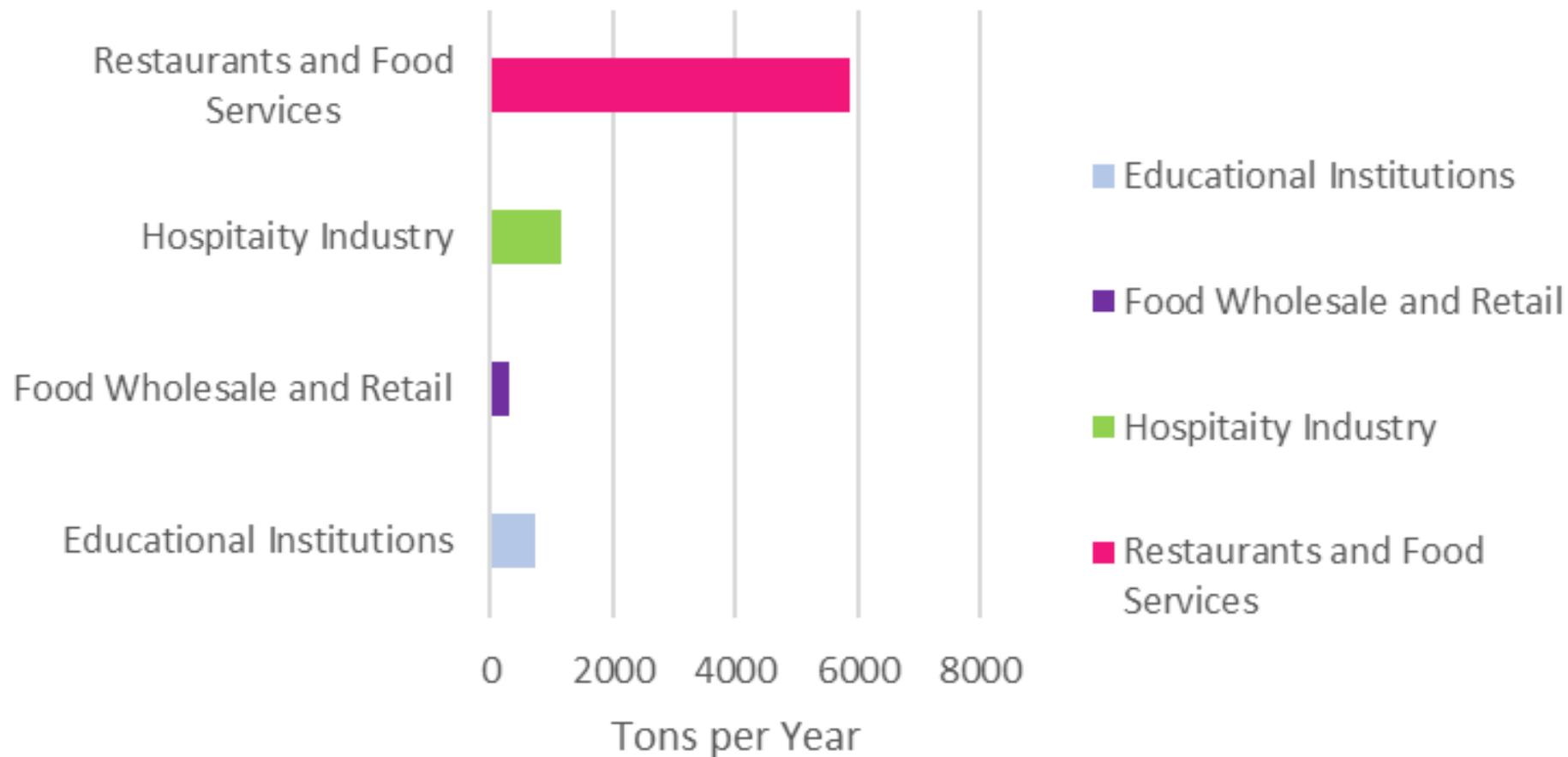


Where?

- Public Services
 - Schools
- Retail
 - Grocery stores
 - Businesses
 - Restaurants



Corporation Food Waste per Year



Cost of Food Waste

5872.5 tons of food x \$29.82 to dump per ton=
\$175,117.95

Tons of food waste in restaurants per year x price
per ton to dump in a landfill = total cost



Legend

MAG_FoodWaste_Businesses_Updated - Sector vs. Food Waste

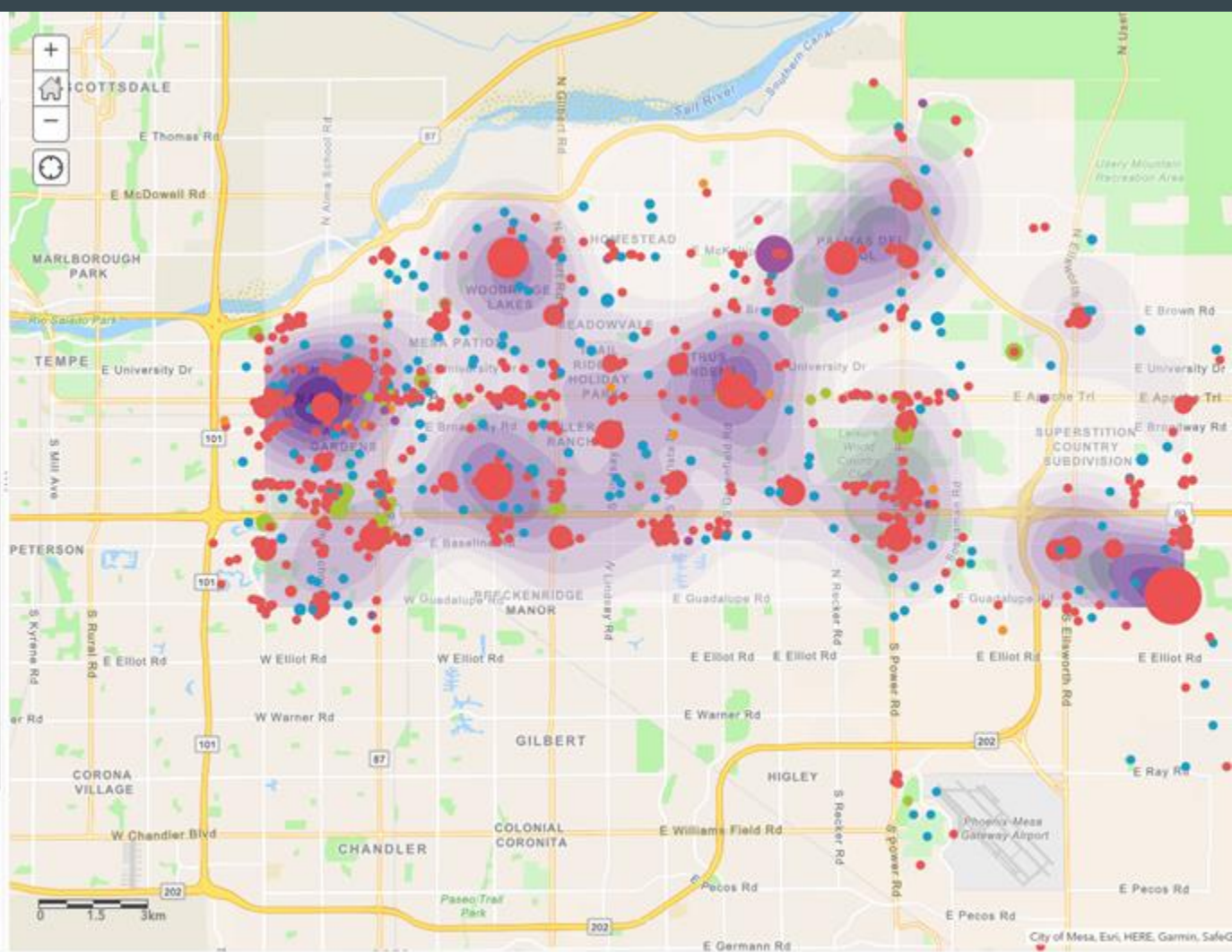
EPA Sector

- Restaurants and Food Services
- Educational Institutions
- Hospitality Industry
- Food Wholesale and Retail
- Food Manufacturers and Processors

Estimated Weekly Food Waste Tons



MAG_FoodWaste_Businesses_Updated__Restaraunt_Density





Claim

To reduce food waste, the City of Mesa should target restaurants in Downtown Mesa.



Current Solutions

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Food to Energy Feasibility Study

- Domes near Price 101 and Red Mountain 202 Freeway
- Converts food waste into Compressed Natural Gas (CNG) gas used in trucks





Proposed Solutions

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Restaurant Distribution Application

- Ran by the City
- Restaurants with consumable food, soon to be thrown away
 - Sold on app at a reduced price
- Incentivized by prospect of additional profit
 - Potential entry requirements imposed by the City
- Discounted food more available to different communities

Based on Preexisting App:



Composting

- Add more composting to downtown mesa
- Help with fresh fruit and vegetables for homeless shelters





Work Cited

1. <https://ecoeducationservice.org.au/resources/waterway-health/food-waste/>
2. <https://citydata.mesaaz.gov/stories/s/cs2q-rjdj>
3. <https://www.epa.gov/lmop/basic-information-about-landfill-gas>
4. <https://www.wastenotaz.org/>