



These materials were developed by CalRecycle staff for specific workshops and are posted as reference documents for the local government, interest groups and industry staff who attended this workshop.

*If you require assistance in obtaining access to this presentation, call the Office or Public Affairs at (916) 341-6300.*



The “Why” and “How” of Measurement  
for a 75% Statewide Recycling Goal



# AB 341

## PRC Section 41780.02

(a) On or before January 1, 2014, the department shall submit a report to the Legislature that provides strategies to achieve the state's policy goal that not less than **75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020**, and annually thereafter, pursuant to Section 41780.01.



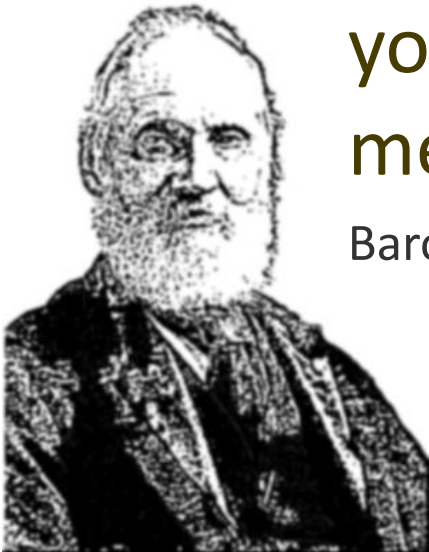
## 75% Recycling

- Statewide Goal
- No change to jurisdiction compliance measurement
- Policy options may impact jurisdiction rates & program options

# Importance of Measurement

“...when you can measure what you are speaking about and express it in numbers you know something about it; but when you cannot ... your knowledge is of a meager and unsatisfactory kind...”

Baron William Thomson Kelvin – May 3, 1883





# Goals

- Consistent with statute & policy
- Ambitious = less disposal
- No additional reporting burdens
- Simple
- Practical



# Indication not Perfection

“Measure with a micrometer.

Mark with chalk.

Cut with an axe.”

*Unattributed, Undated*





# Possible Options

1. Waste stream census for 2020
2. Old adjustment method
3. New, ongoing reporting
4. Current per capita system
5. Modified measurement system





## **Option 1.**

### **“One-time” Census**

- Method used in 1990 for original base-years
- Costly
- Participation, accurate quantification & sharing of proprietary information by all players
- Creative calculating and extrapolating needed
- Double counting
- Likely need to do three times



## Past Survey Success?

- Only 238 (16%) out of 1510 facilities were willing to verify data in 2010/2011
- Only 44 (30%) out of 147 Materials Recovery Facility responded to survey in 2004

# Census

“A census taker once tried to  
test me. I ate his liver with some  
fava beans and a nice chianti.”

*Hannibal Lecter - 1991*

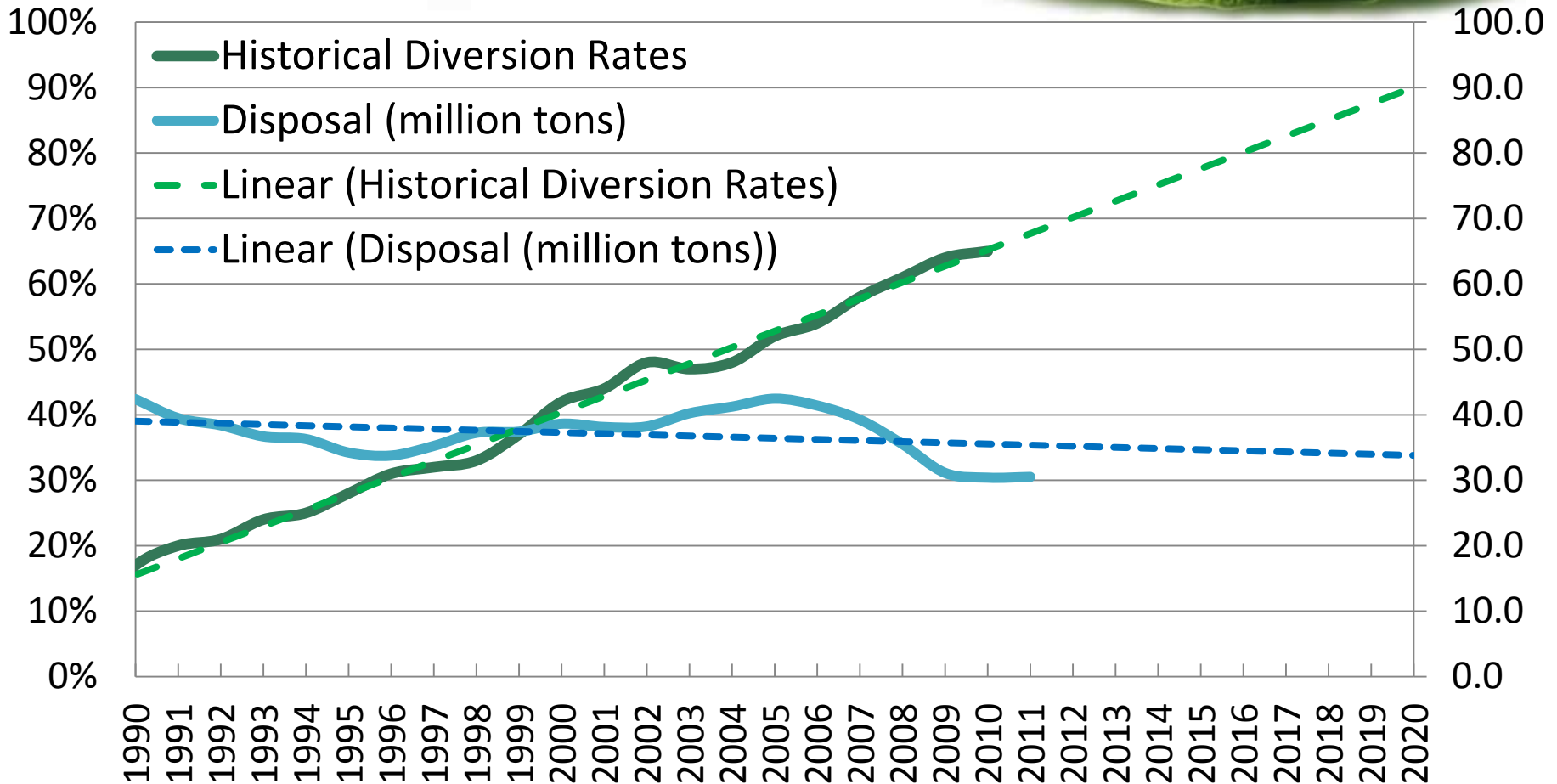




## **Option 2. Adjustment Method**

- Official Method used from 1995 to 2006
- Not timely
- Complicated formula
- Replaced in 2007
- Susceptible to generation inflation

# Calculate our way there?



# Adjustment Method

“If you torture the data long enough, it will confess.”

*Ronald Coase - undated*





## **Option 3. Ongoing Reporting**

- Some statutory authority: PRC Section 41821.5(b)
- Disposal Reporting System model
- Burden on recyclers
- Increased costs
- Some activities hard to measure



# Activities to Track & Who Reports?

## Recycling in CA

- 600+ MRFs & other processors
- 160+ RCP manufacturers

## Composting in CA

- 150+ composting facilities
- 150+ mulch & other
- 2 anaerobic digestion

## Source Reduction in CA

- 12.6 million occupied households
- 1.4 million businesses

## Activity Outside CA

- ??? Brokers, exporters & destinations

## Disposal Related

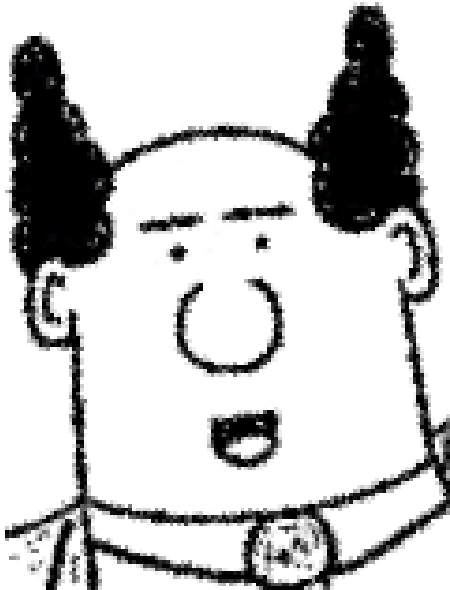
- 129 landfills
- 3 transformation facilities
- 79 ADC/AIC Users
- 61 beneficial reusers
- 4 tire-derived fuel users



# Ongoing Reporting

“Everything is measurable if you try hard enough.”

Pointy Haired Boss - March 8, 1998



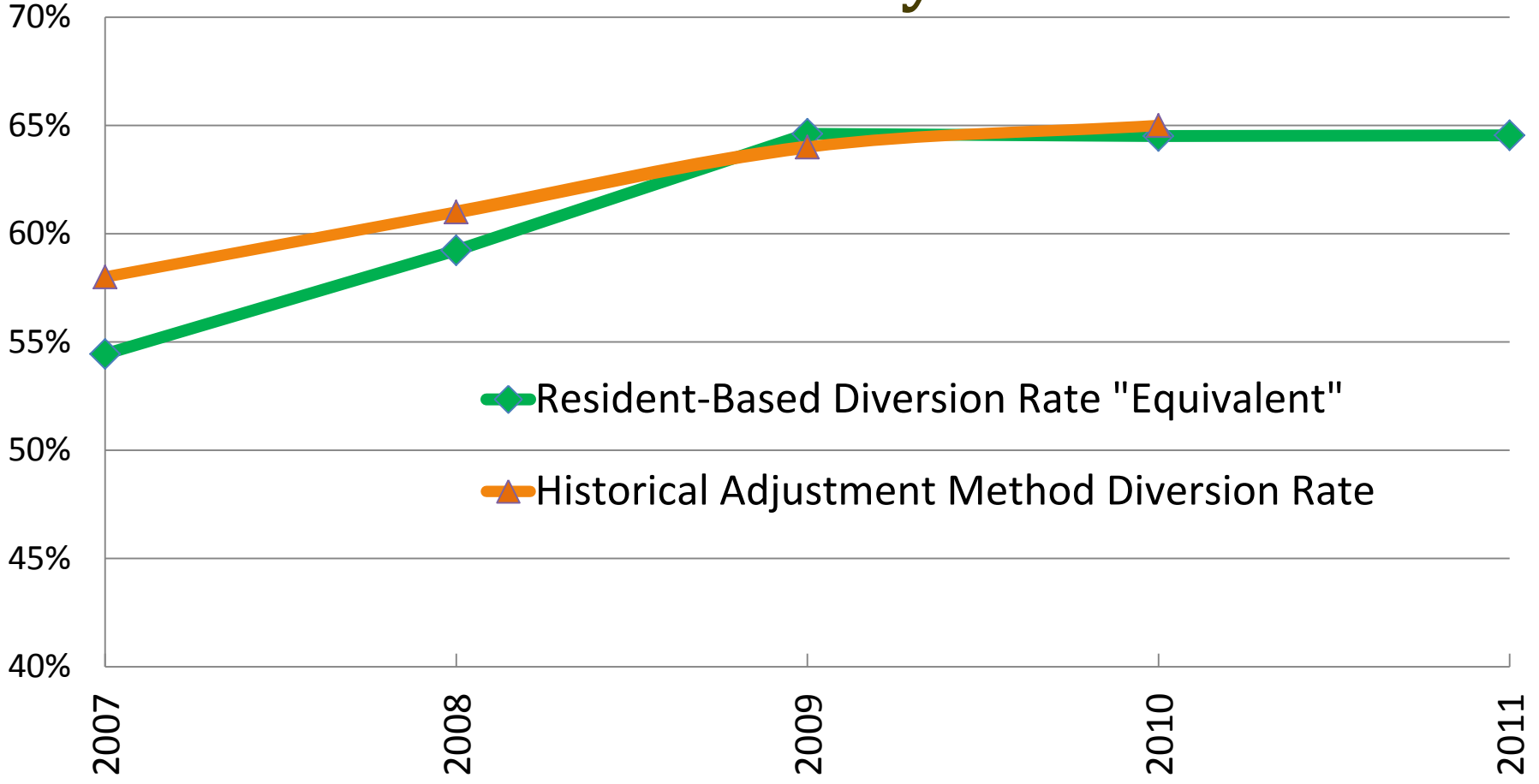


## Option 4. Current per capita system

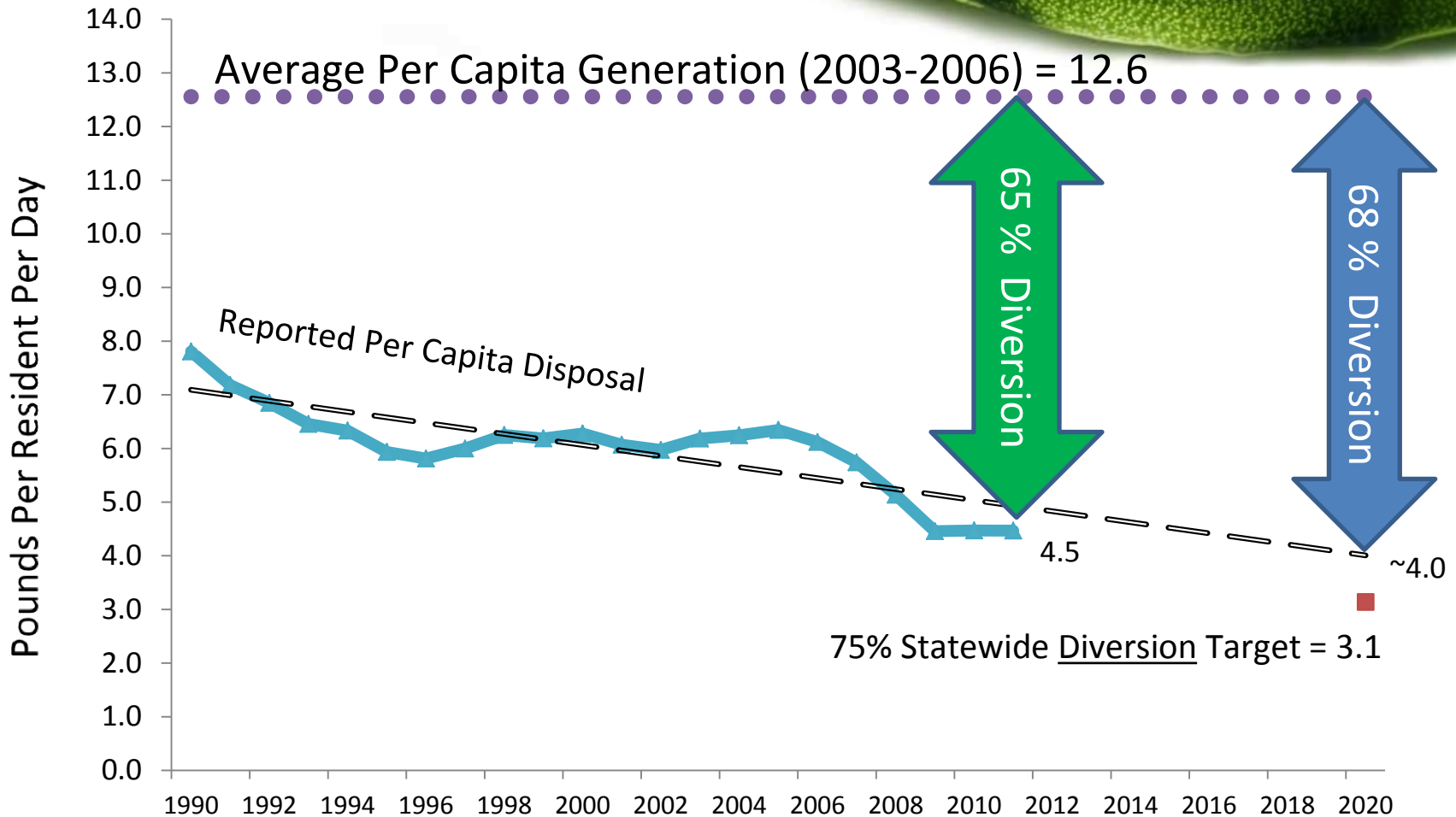
- Official jurisdiction method: PRC 41780.05(a)
- Works well for jurisdictions & 50% mandate
- Reporting in-place
- Simple calculations
- Not ambitious enough
- Not diversion goal → “recycling” goal
- Not all activities are the same



# Statewide Diversion Rates: Not much difference yet



# Statewide Diversion

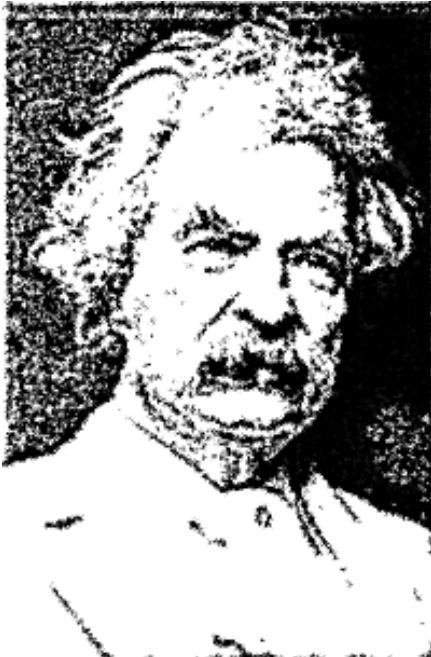




# Current per capita Diversion System

“Facts are stubborn things, but  
statistics are pliable.”

*Mark Twain - Undated*





## **Option 5. Modify Current System for 75% Statewide Recycling Goal**

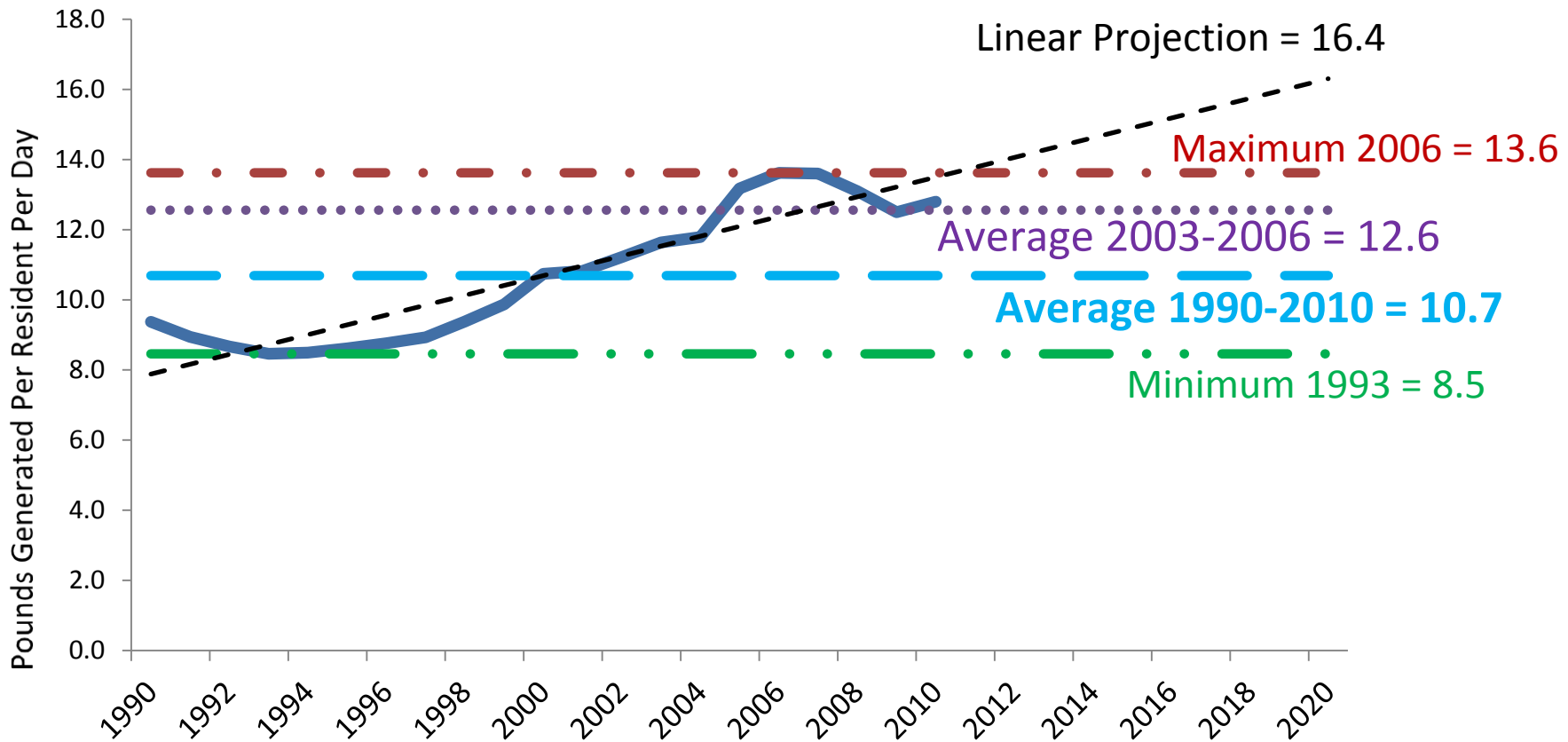
- Per resident target
- Allows for population growth
- No multiplier for economic growth

# WHAT COUNTS

	<b>AB 939* &amp; Diversion Rate</b>	<b>AB 341* &amp; Recycling Rate</b>
<b>+</b>	<u>Diversion</u> Source Reduction, Recycling, Composting, ADC, AIC, Beneficial Reuse, & Transformation	<u>Recycling</u> Source Reduction, Recycling & Composting (includes Anaerobic Digestion)
<b>—</b>	<u>Disposal</u> Landfilled, Exported Disposal & Excess Transformation	<u>Disposal-Related Landfilled</u> , Exported Disposal, Transformation, ADC, AIC, Beneficial Reuse, Waste Derived Fuel

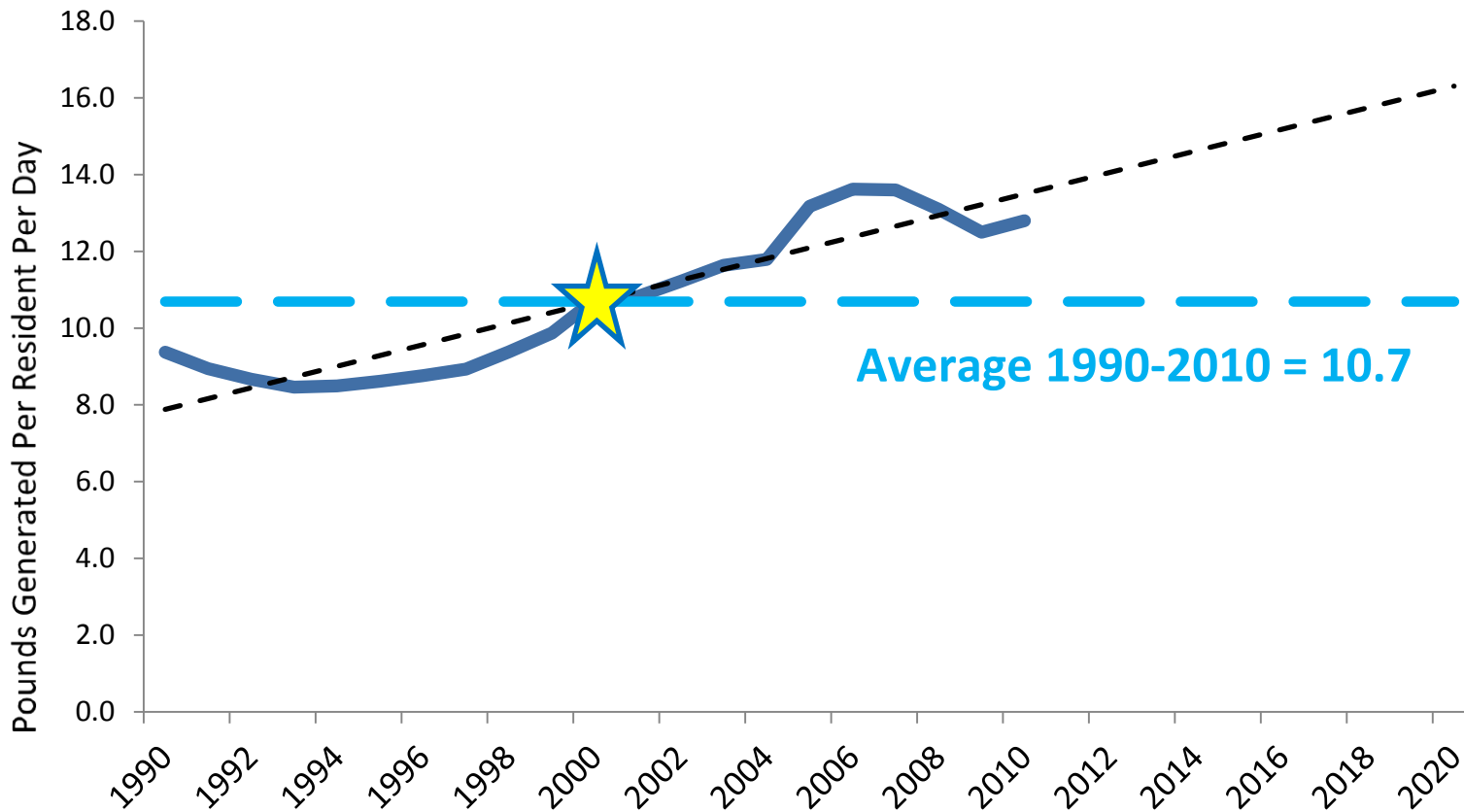
\*Biomass not included in the base – but future increases to biomass reduce disposal so it falls into Diversion and Recycling categories.

# The BASE:

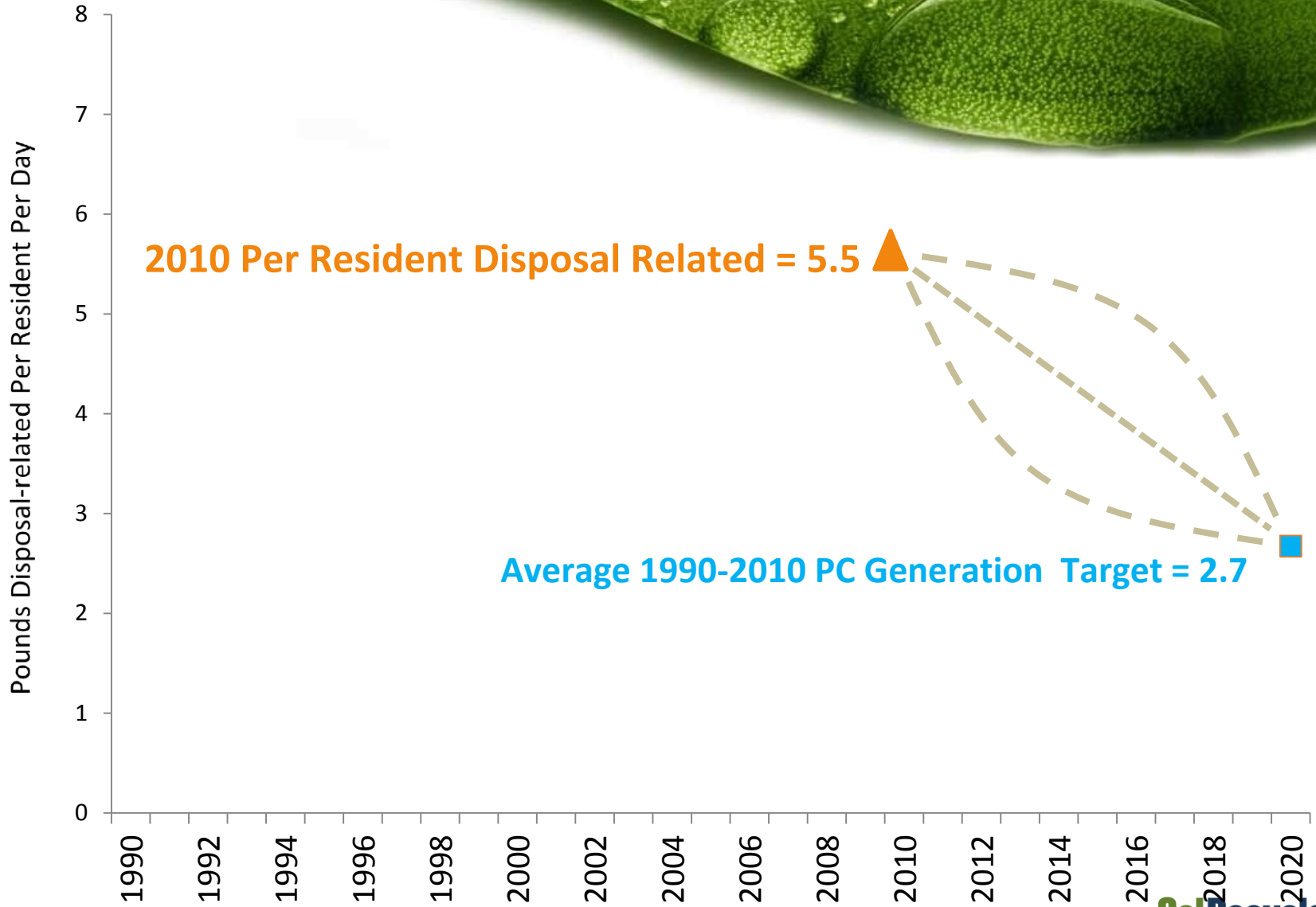




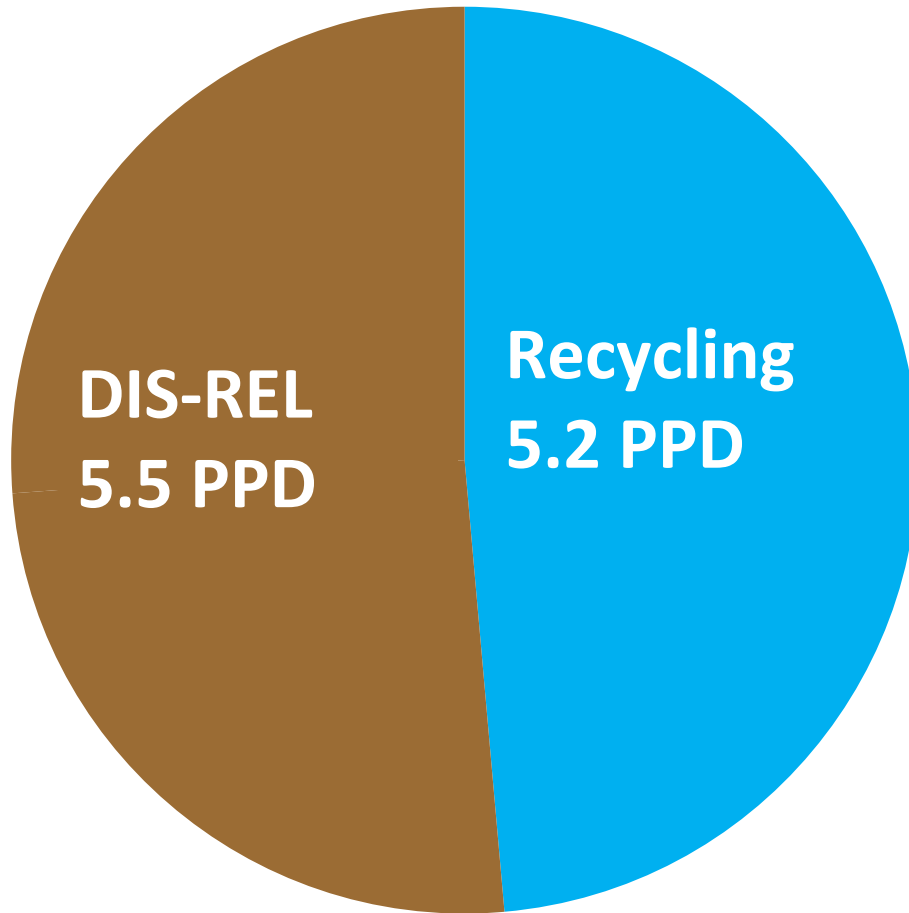
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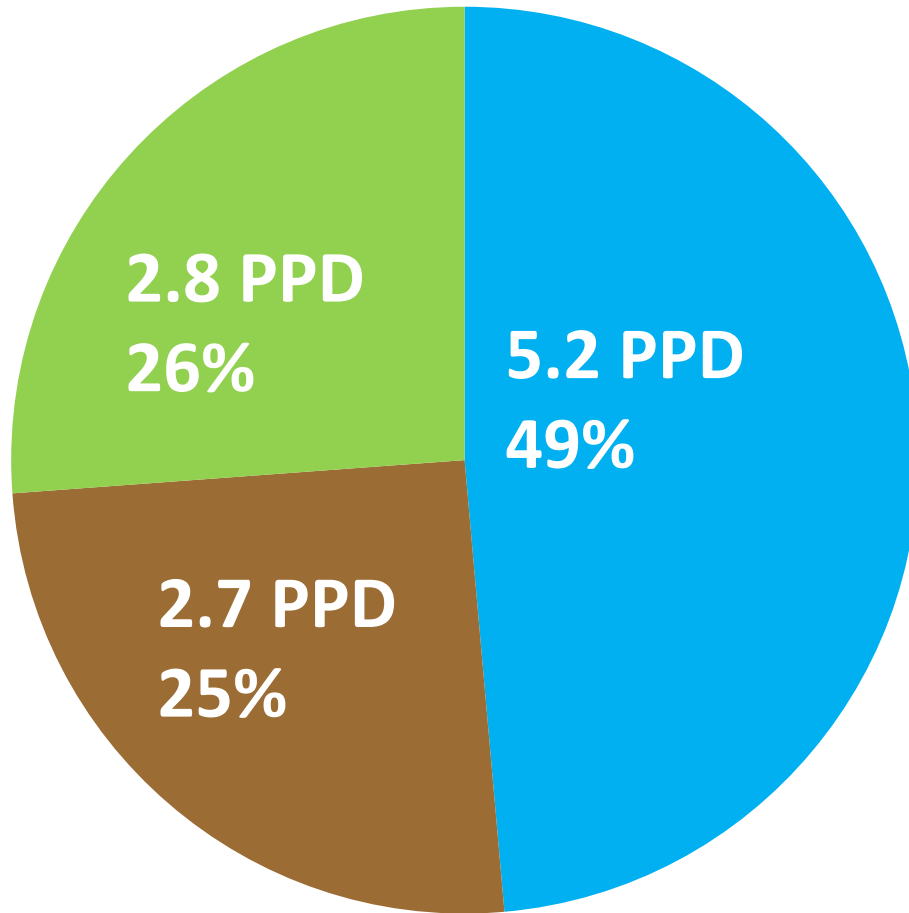
# The TARGET:



# 2010 Per Capita Status



# 2020 Per Capita Targets

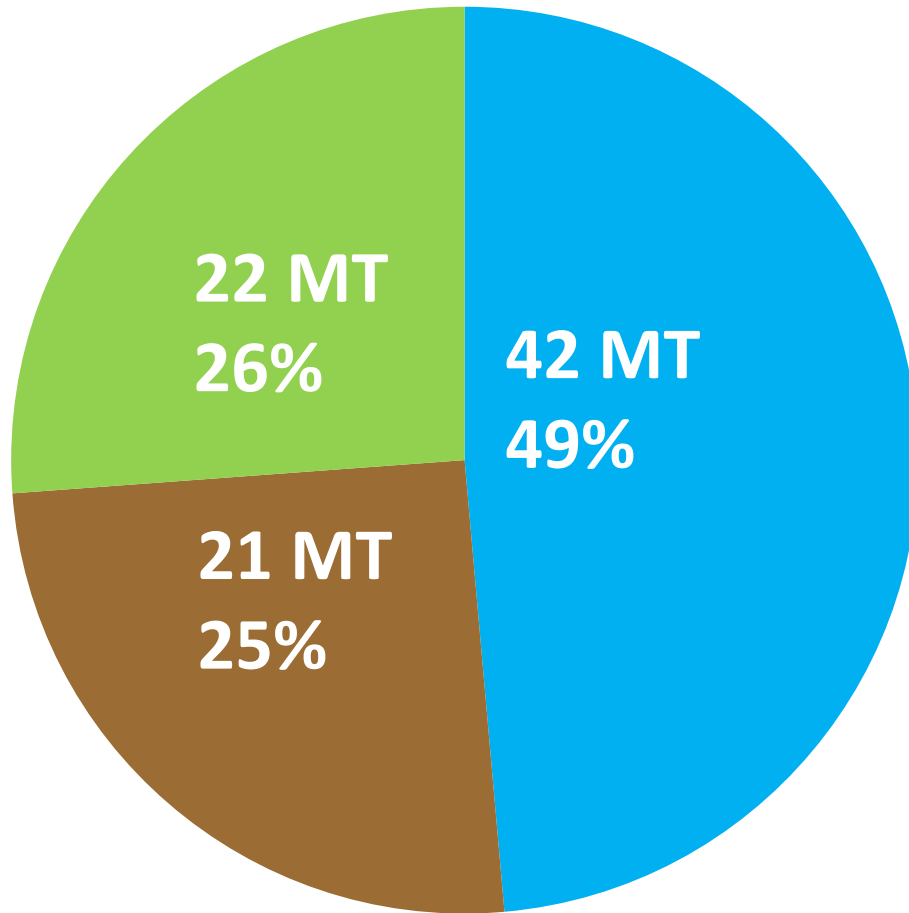




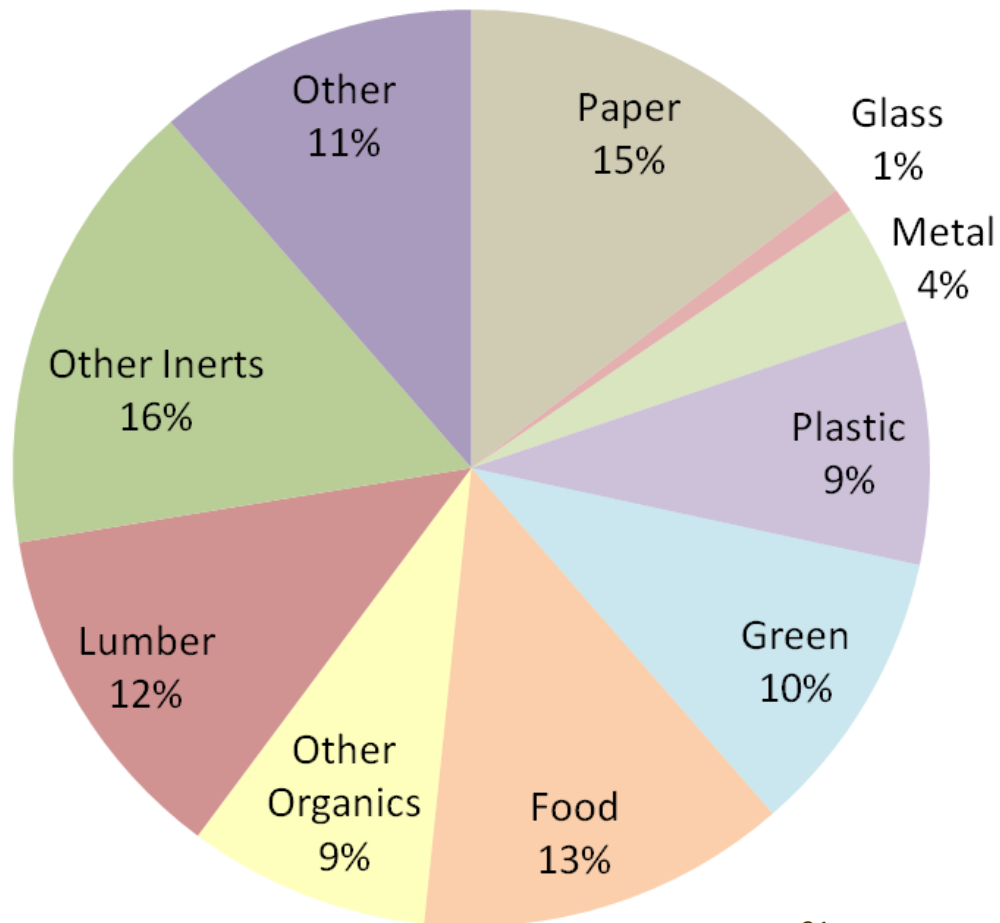
## **Option 5. Modify Current System for 75% Statewide Recycling Goal**

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# 2020 Tonnages



# 2020 Composition of potential disposal-related



# Call Me Maybe...

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“The government are very keen on amassing statistics. They collect them, add them, raise them to the nth power, take the cube root and prepare wonderful diagrams. But you must never forget that every one of these figures comes in the first instance from the village watchman, who just puts down what he damn pleases.”

*Sir Josiah Stamp - Undated*

