



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 of 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.



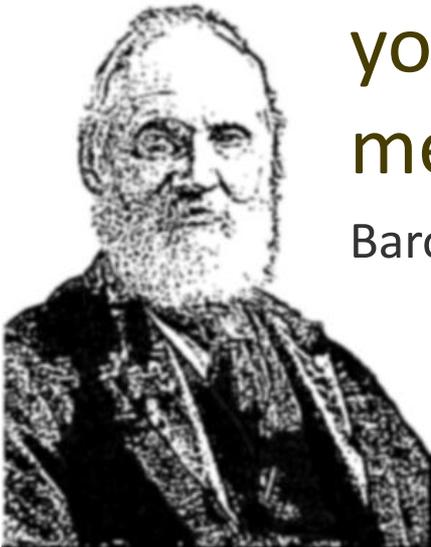
75% Recycling

- 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

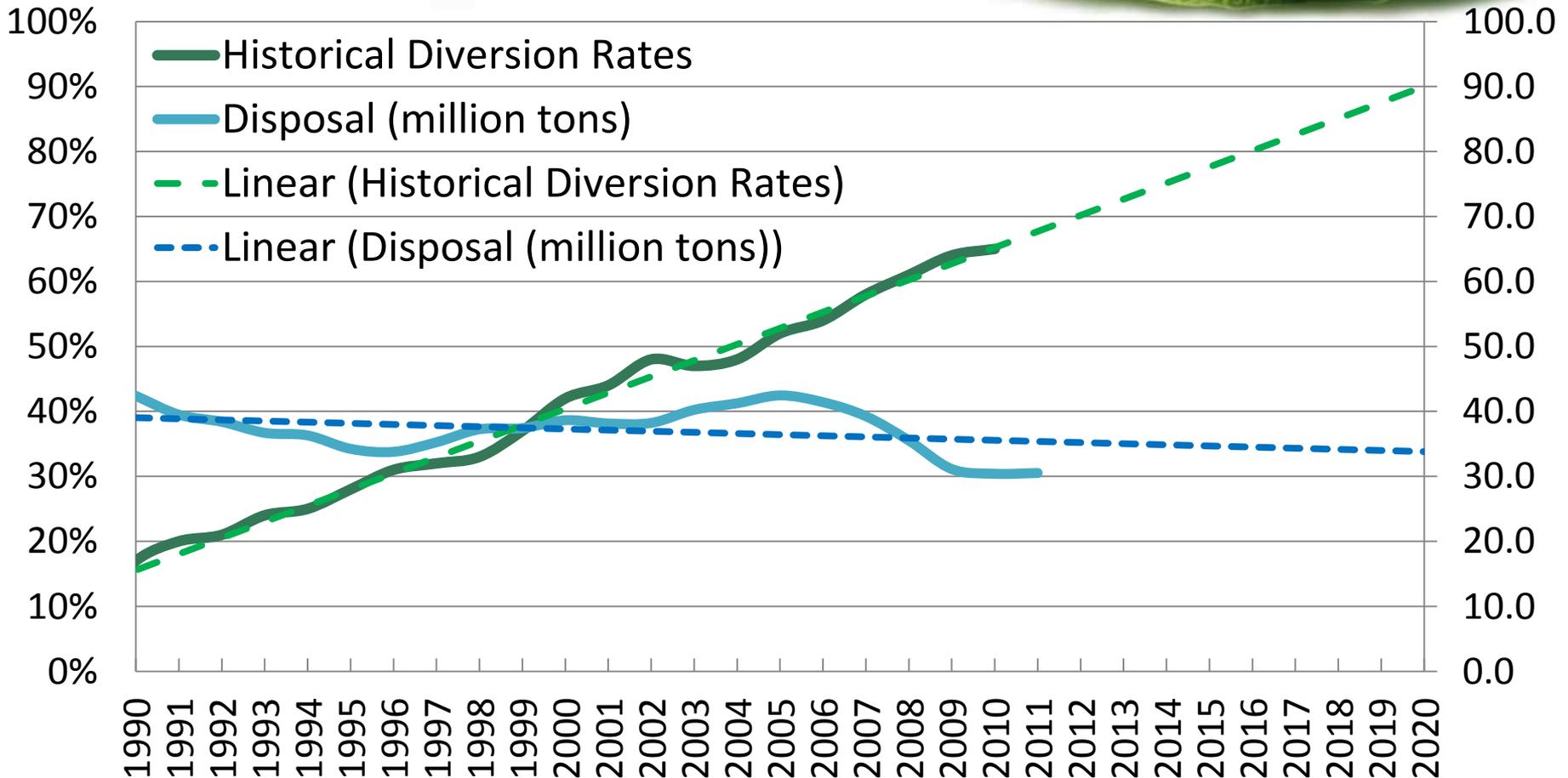




Option 2. Adjustment Method

- 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

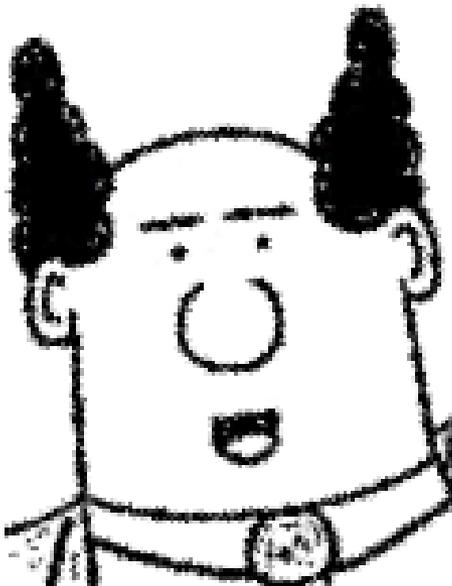
- 129 landfills
- 3 transformation facilities
- 79 ADC/AIC Users
- 61 beneficial reusers
- 4 tire-derived fuel users



Ongoing Reporting

“Everything is measurable if you try hard enough.”

Pointy Haired Boss - March 8, 1998

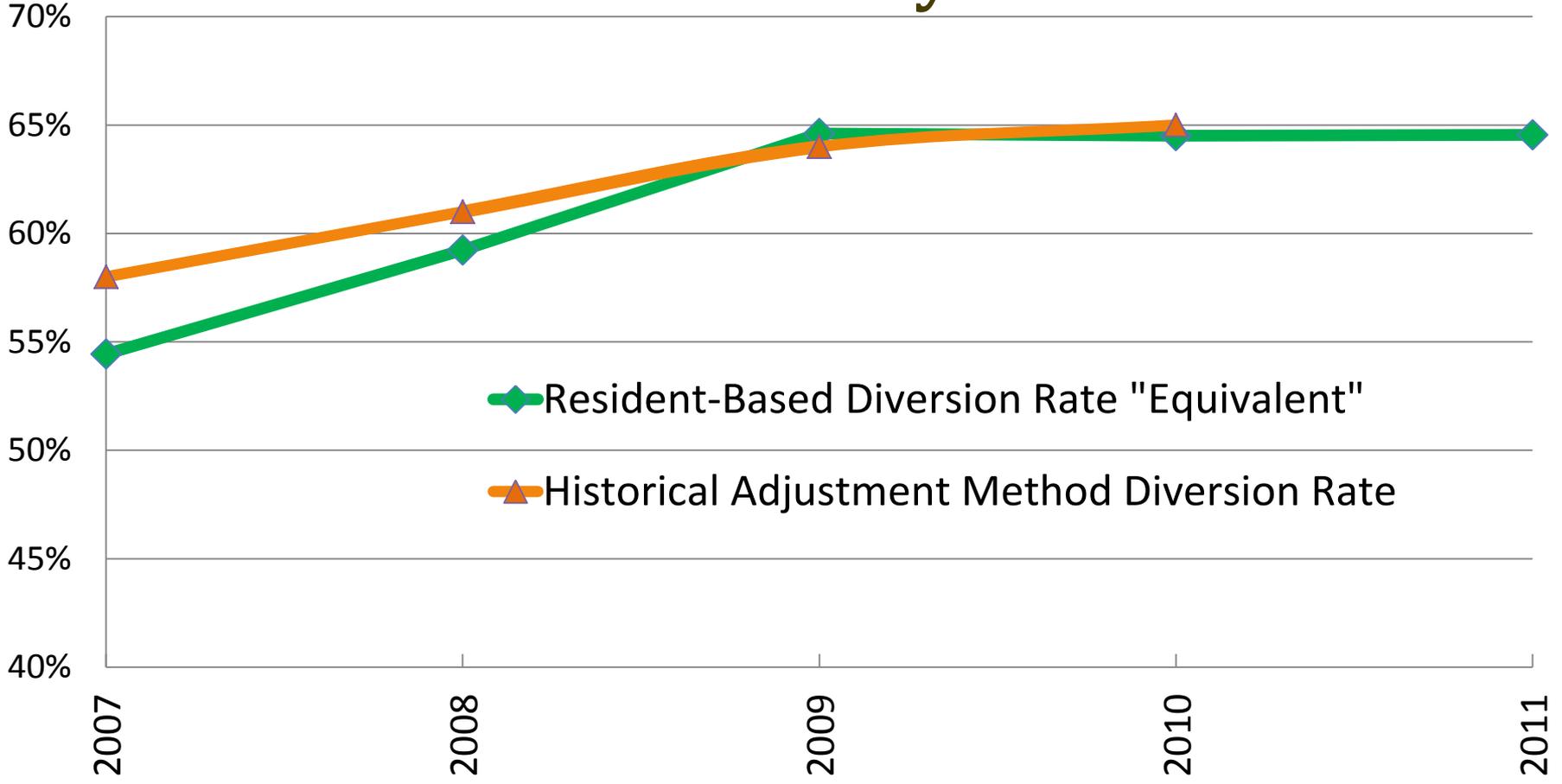




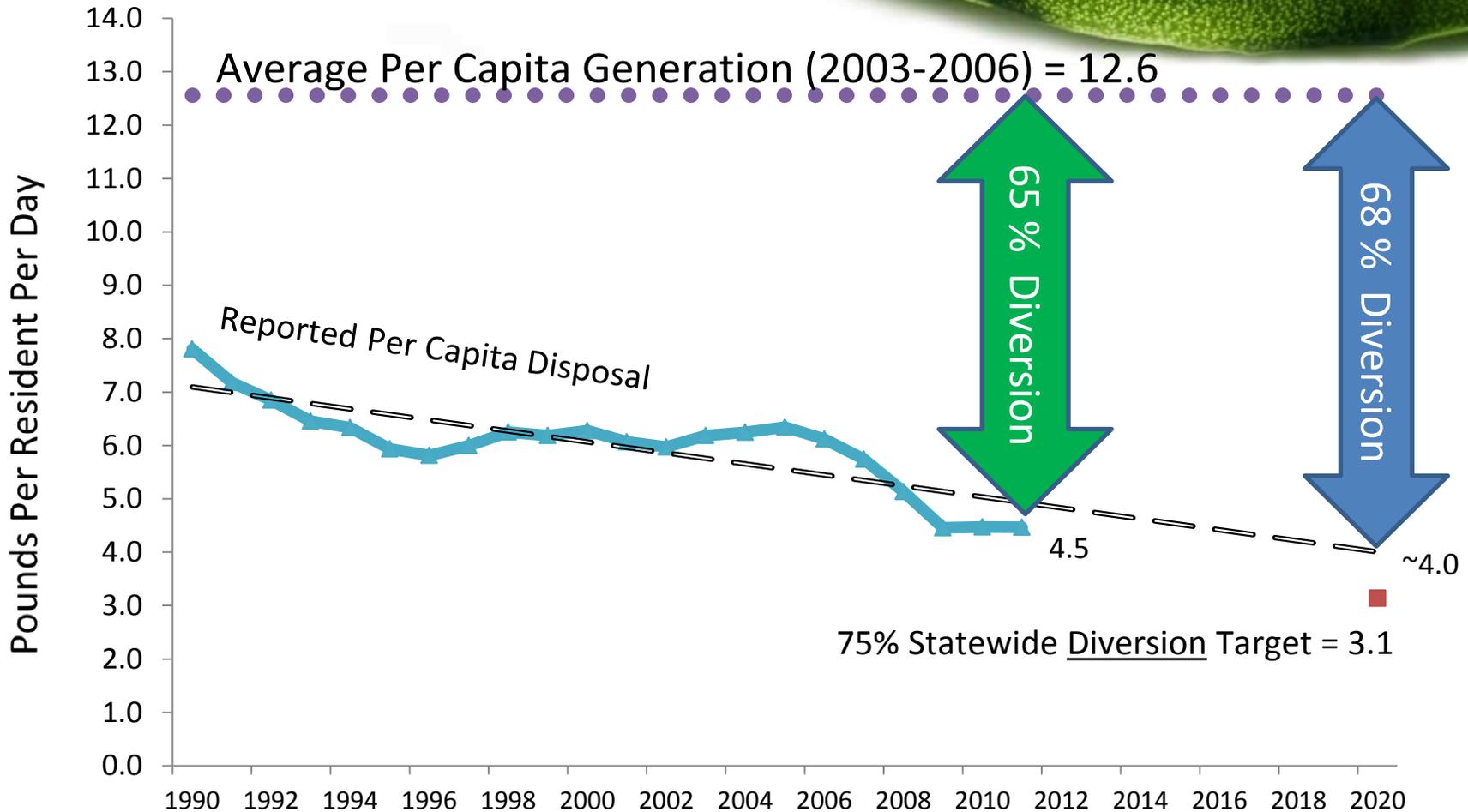
Option 4. Current per capita system

- 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

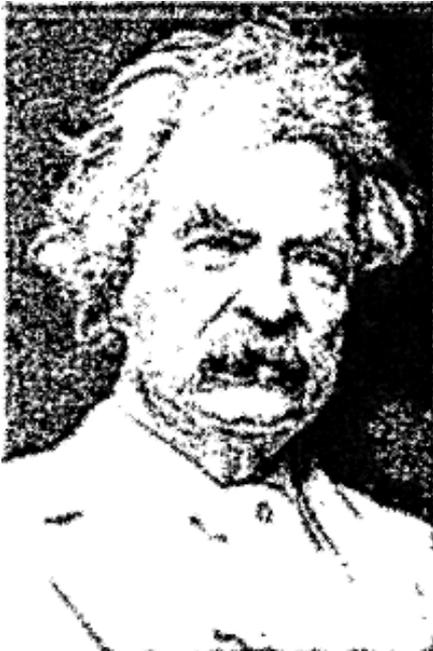




Current per capita Diversion System

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

Mark Twain - Undated





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

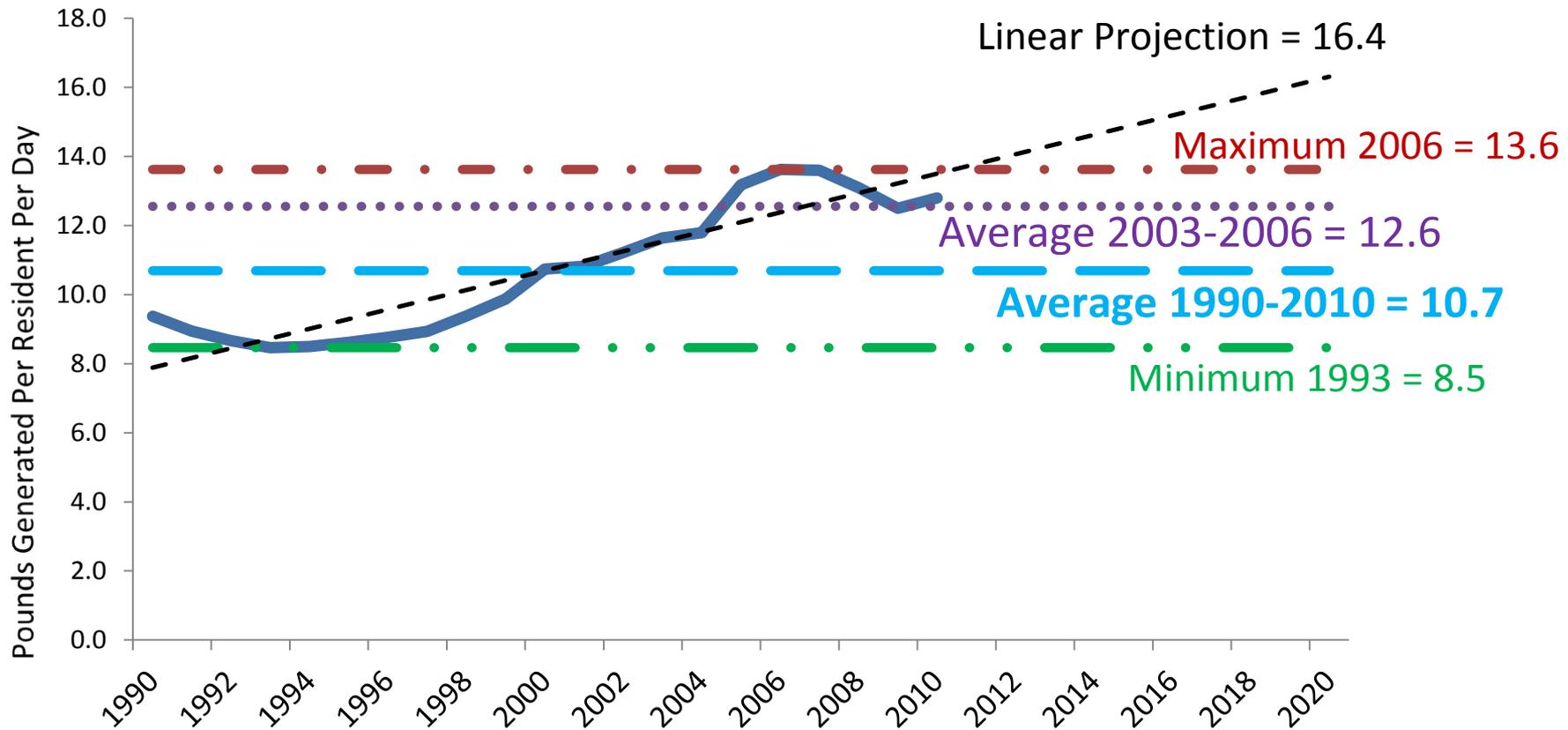
- Per resident target
- Allows for population growth
- No multiplier for economic growth

WHAT COUNTS

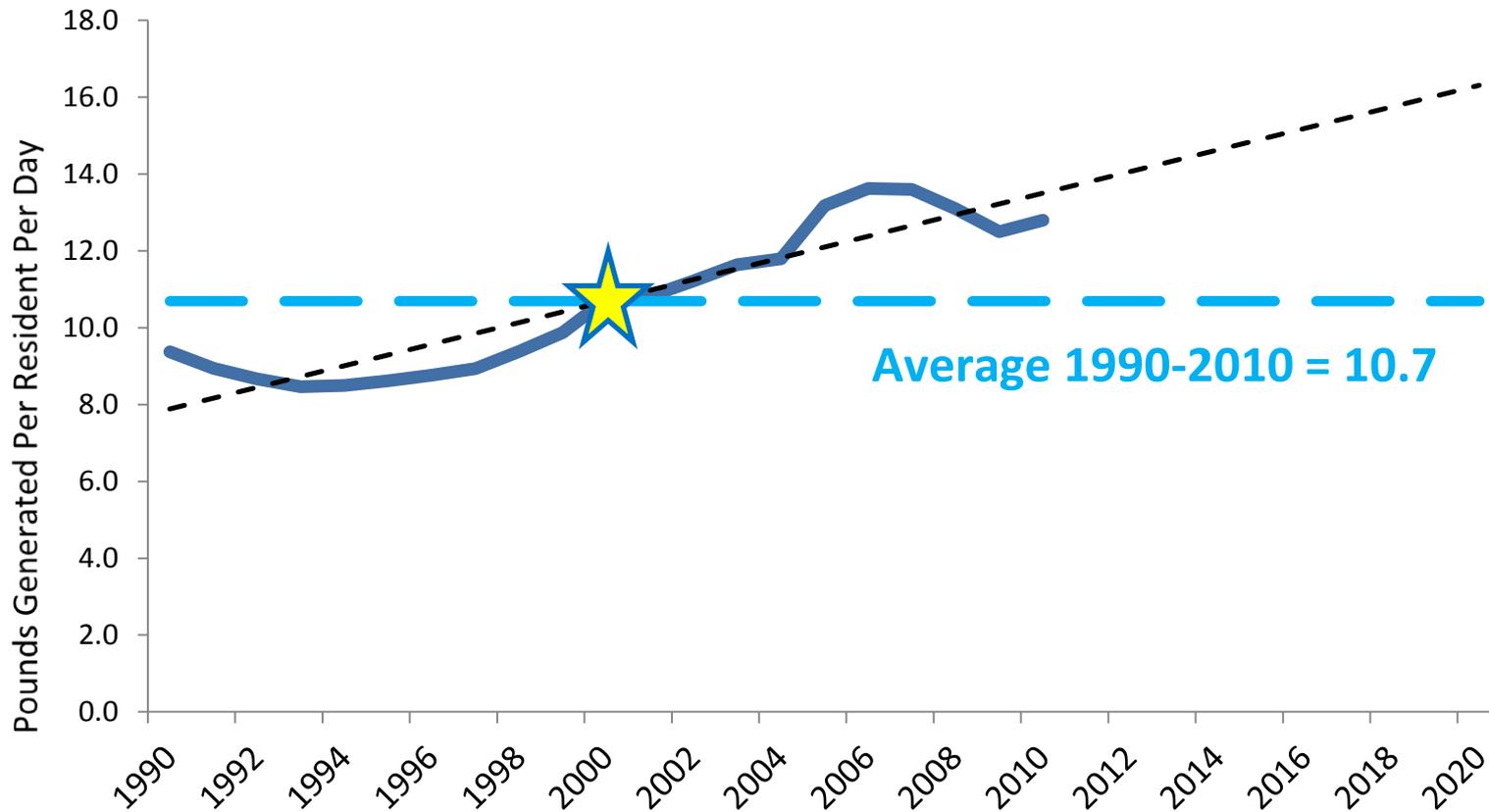
| | AB 939* & Diversion Rate | AB 341* & Recycling Rate |
|----------|--|---|
| + | <u>Diversion</u> Source Reduction, Recycling, Composting, ADC, AIC, Beneficial Reuse, & Transformation | <u>Recycling</u> Source Reduction, Recycling & Composting (includes Anaerobic Digestion) |
| — | <u>Disposal</u> 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.

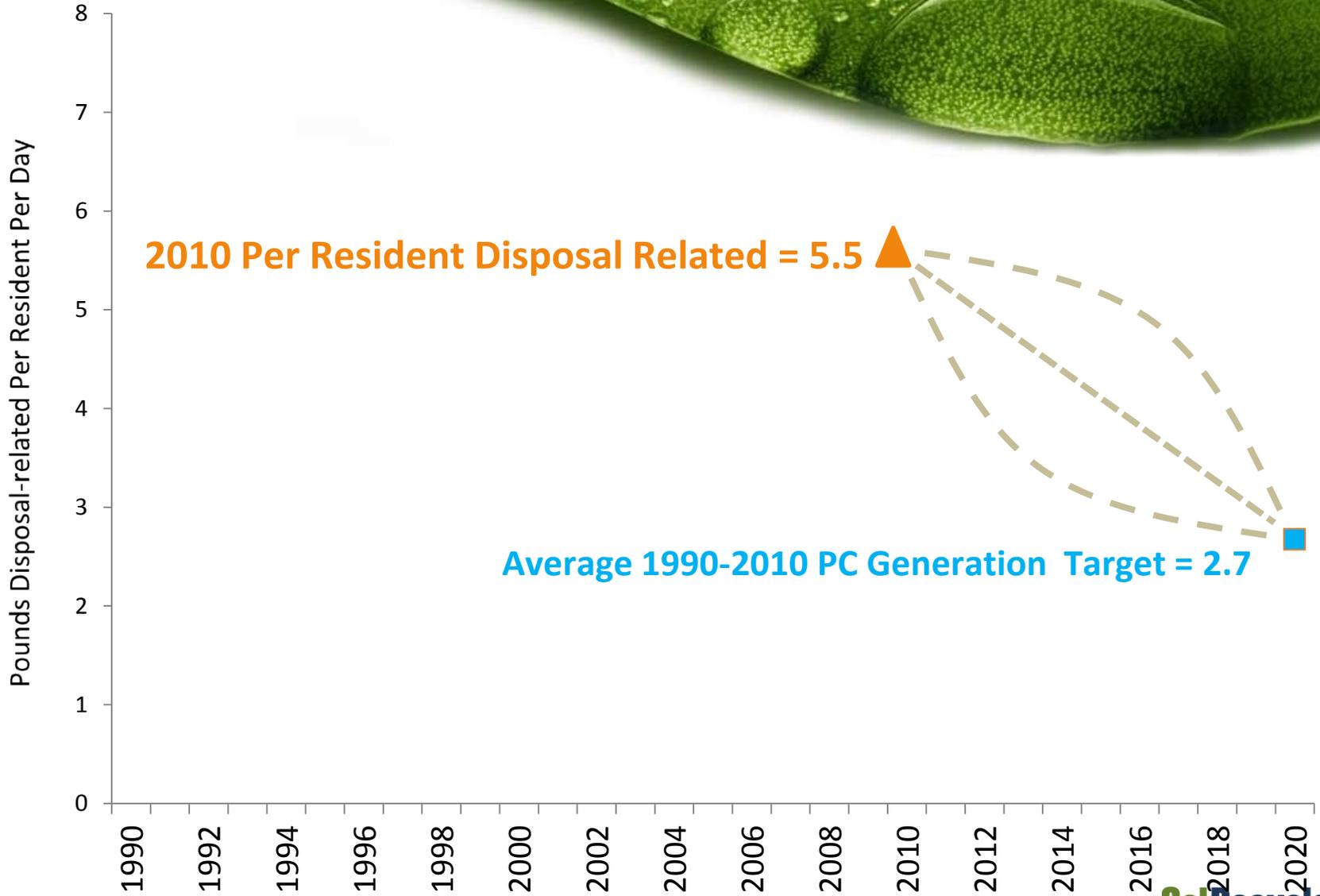
The BASE:



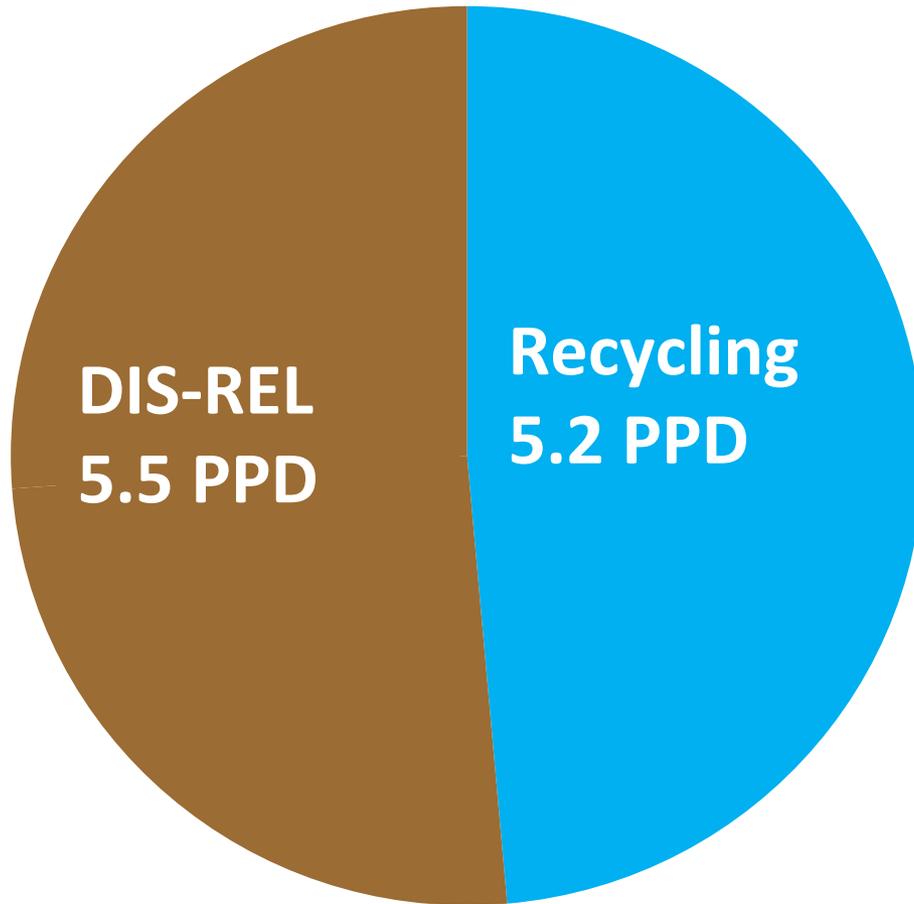
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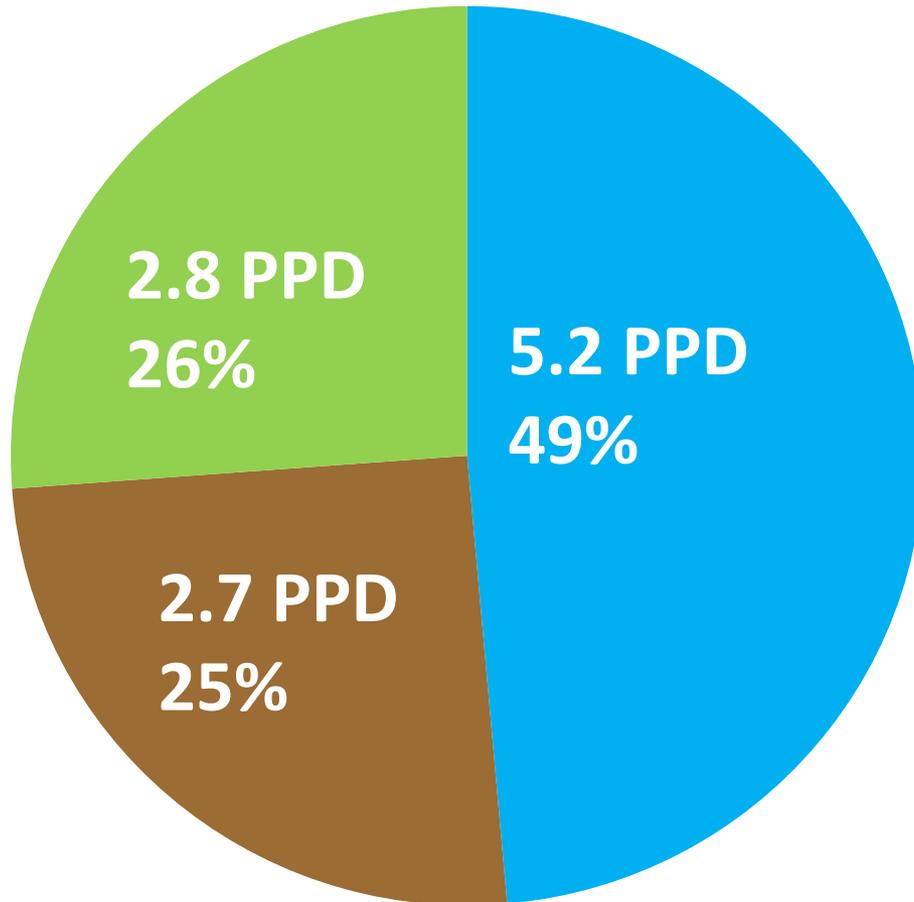
The TARGET:



2010 Per Capita Status



2020 Per Capita Targets

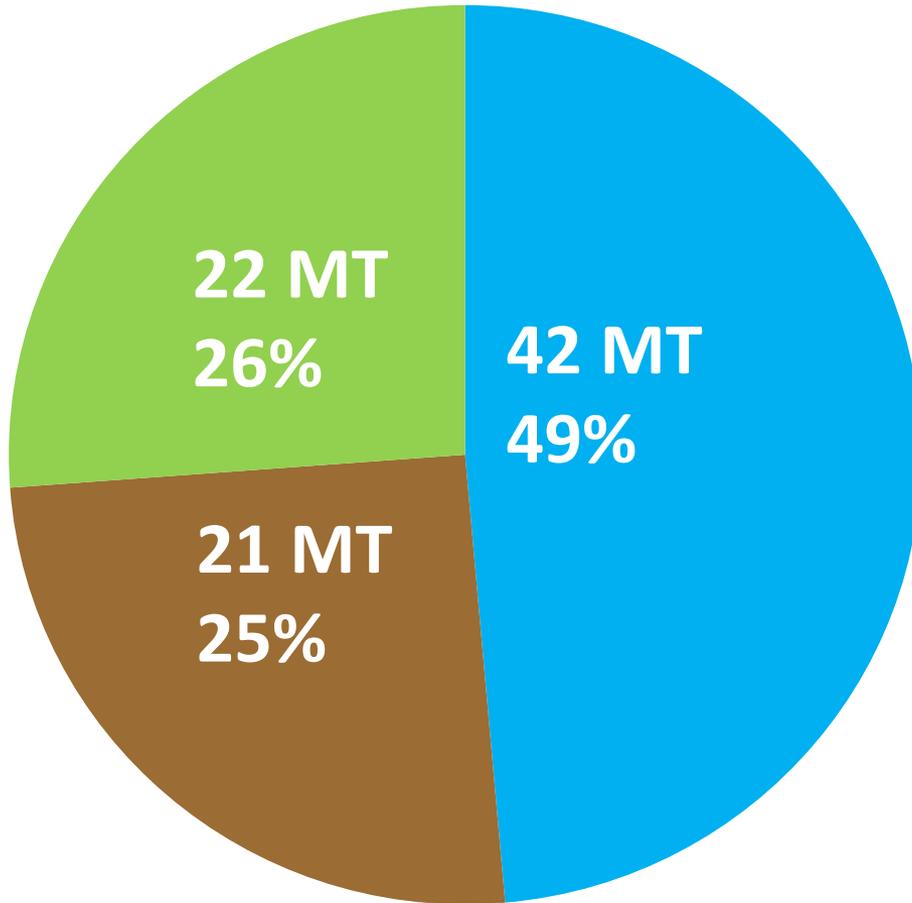




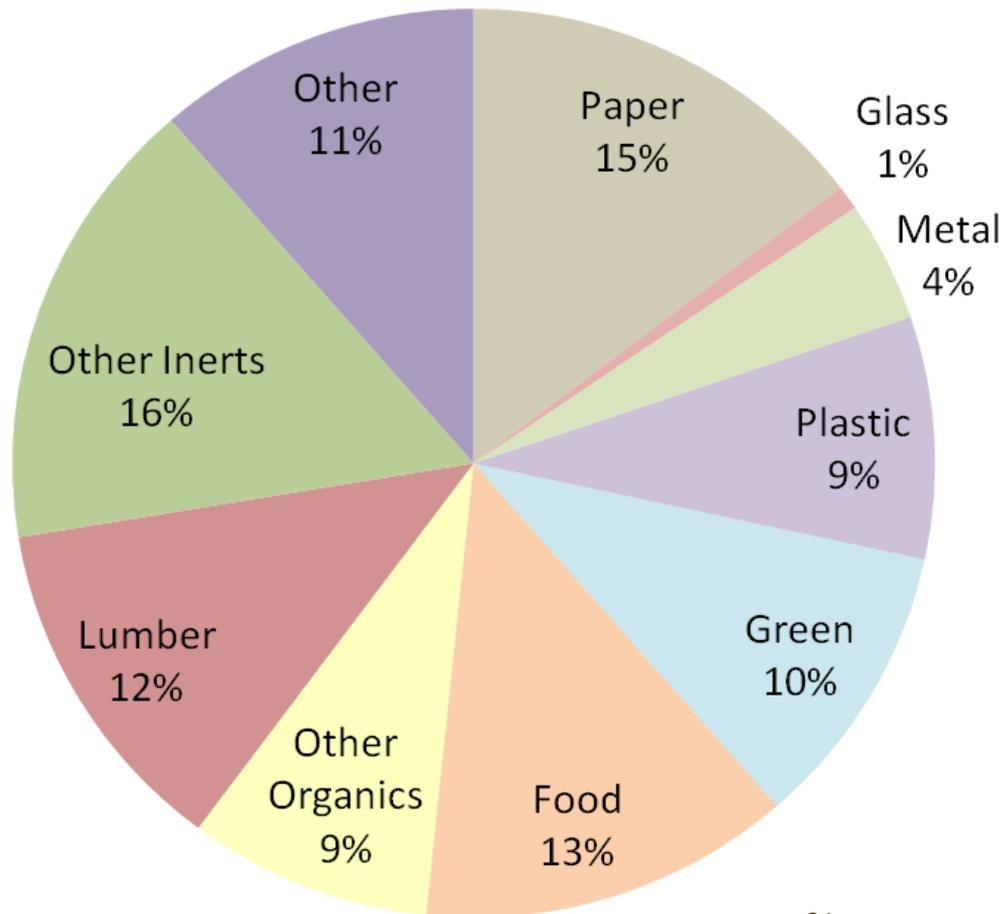
Option 5. Modify Current System for 75% Statewide Recycling Goal

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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

