



# State of Recycling and Disposal in California

Robert Carlson  
CalRecycle

Recycling Council of Alberta's 2016 Conference



# California at a Glance

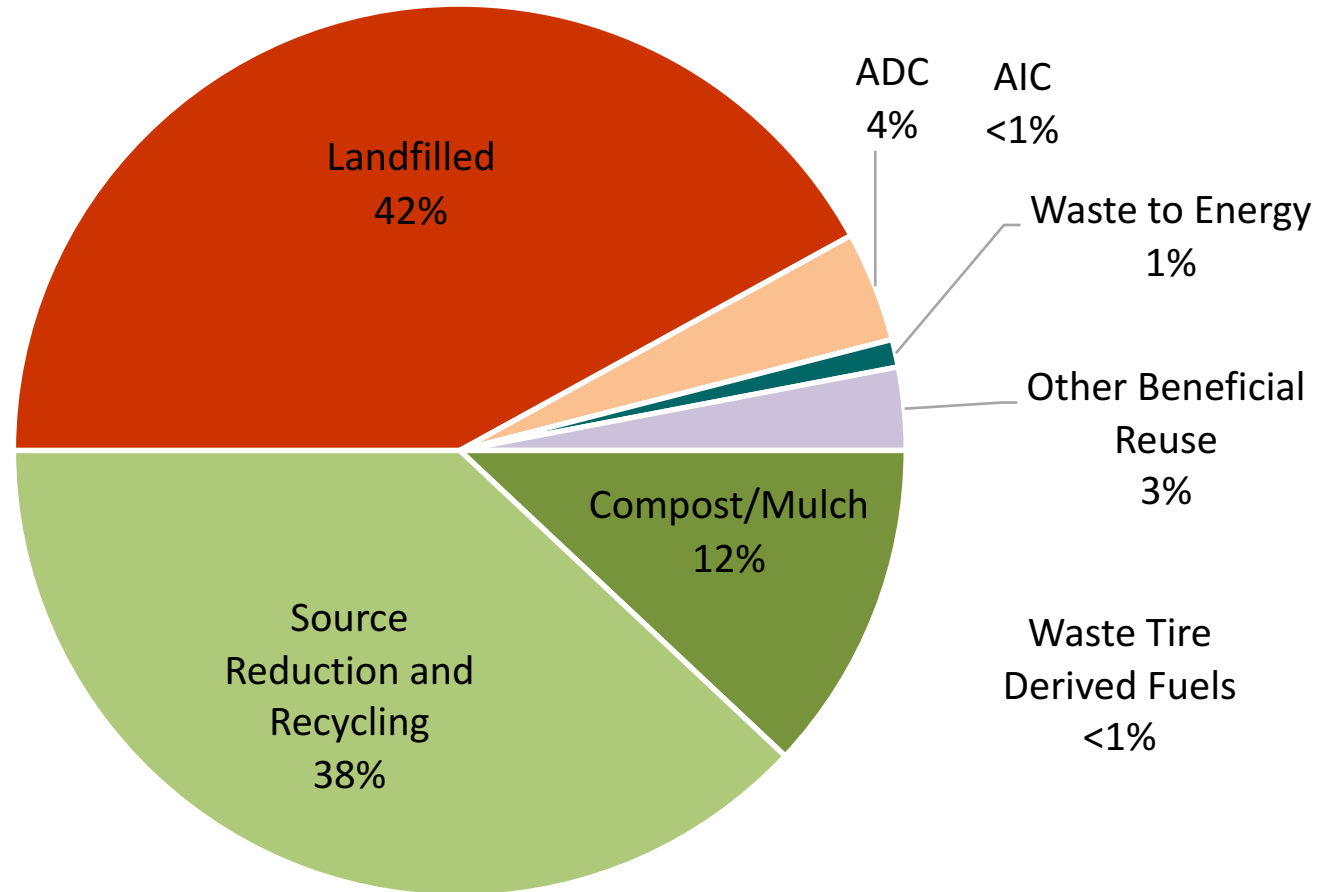
- Land Area = 163,696 sq mi
  - Alberta = 255,541 sq mi
  - England = 50,346 sq mi
  - Spain = 195,364 sq mi
- Approximately 40 million people
  - 244 people/sq mi state-wide (Alberta = 14/sq mi)
  - Population density ranging from 2,100/sq mi (LA County) to 1.6/sq mi (Alpine County)
    - Calgary Region = 616/sq mi
- Climate ranges from desert to coastal to temperate rainforest to alpine mountains.
- Some of the wealthiest counties (Santa Clara and Marin) and most impoverished (Imperial)



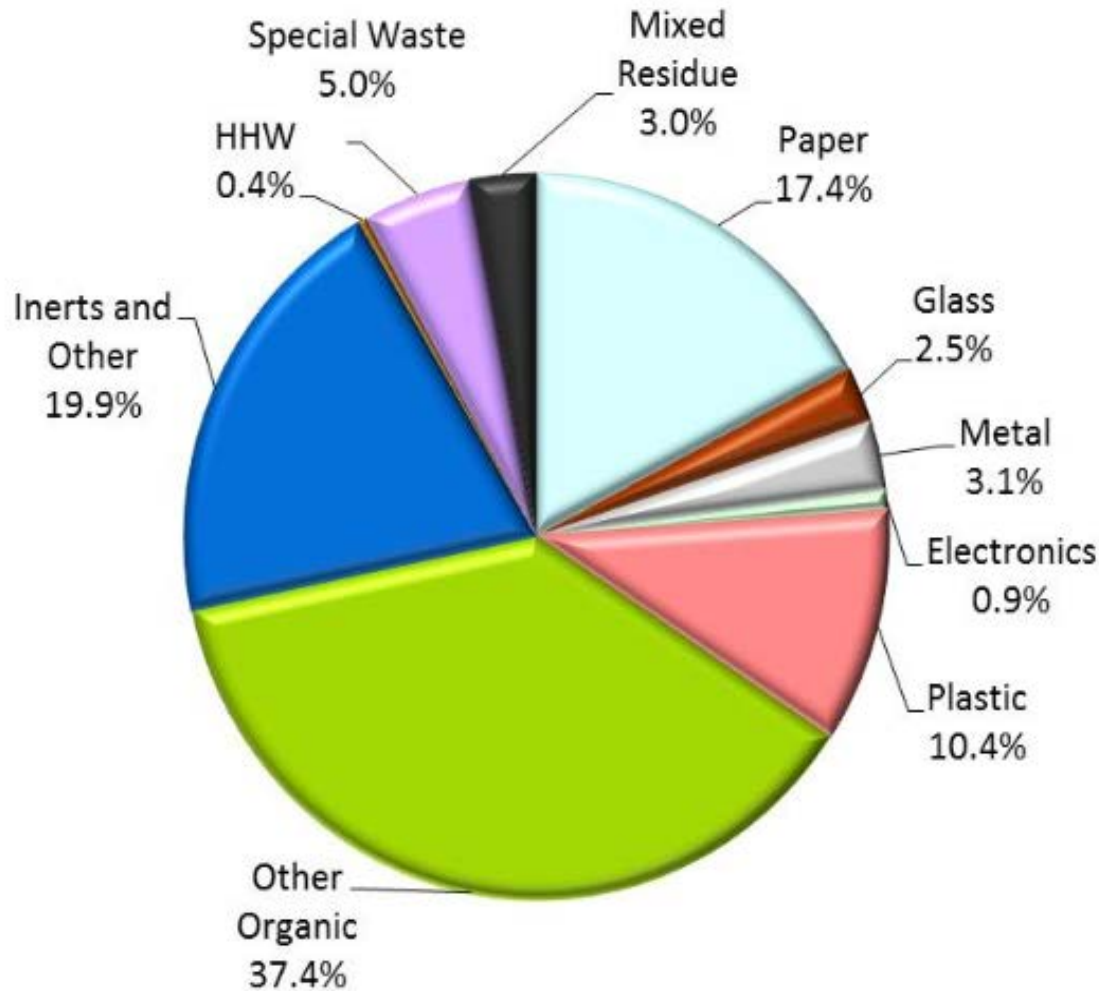
# California at a Glance

- Waste Generation
  - 75 million tons – 1.87 tons/capita
- Waste Disposal (Landfill)
  - 31.5 million tons - .78 tons/capita
- Recycling/Reuse/Compost rate
  - 50%

# 2014 Statewide Generation



# What's in our waste?



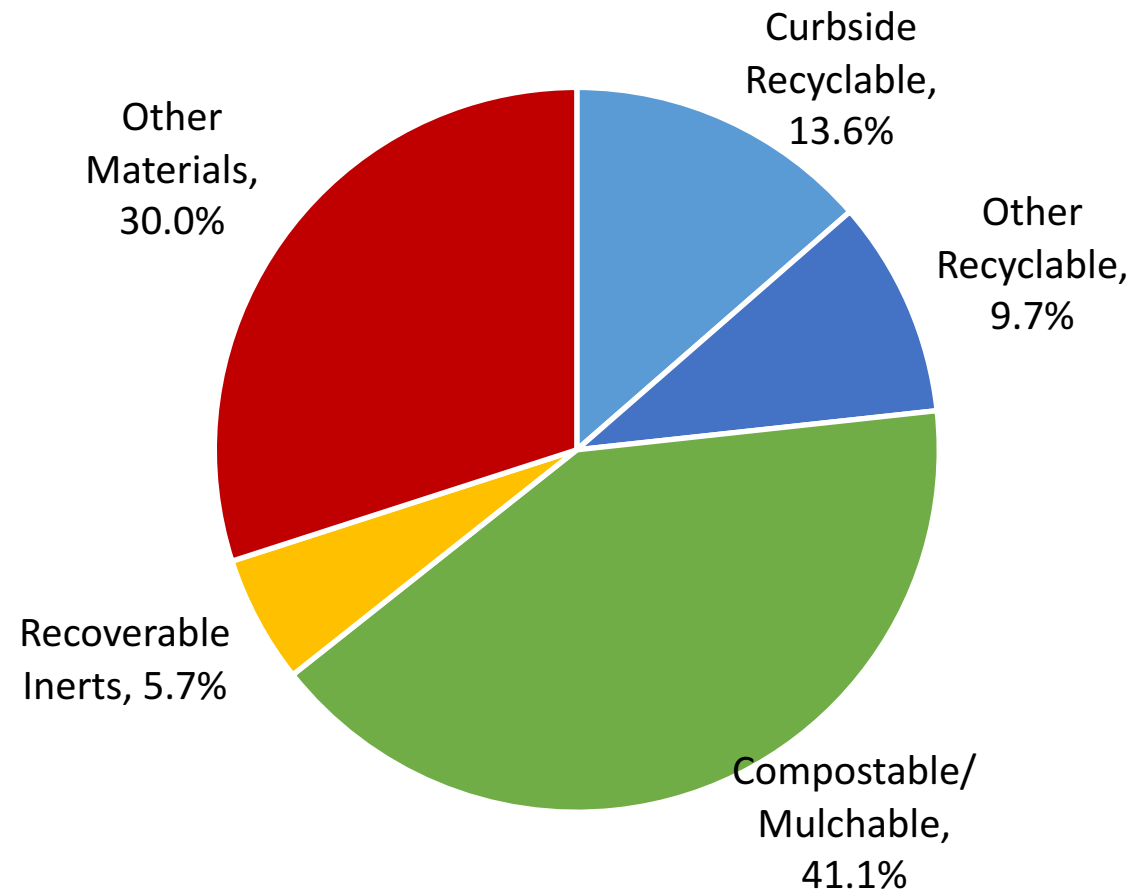
Material Class	Est. Percent
Paper	17.4%
Glass	2.5%
Metal	3.1%
Electronics	0.9%
Plastic	10.4%
Other Organic	37.4%
Inerts and Other	19.9%
HHW	0.4%
Special Waste	5.0%
Mixed Residue	3.0%
<b>Total</b>	<b>100%</b>

Numbers may not total exactly due to rounding.

<b>Material</b>	<b>Estimated Percent</b>	<b>Cumulative Percent</b>	<b>Estimated Tons</b>
Food	18.1%	18.1%	5,591,179
Lumber	11.9%	30.0%	3,676,710
Remainder/Composite Paper	7.5%	37.6%	2,325,048
Bulky Items	4.4%	42.0%	1,365,340
Remainder/Composite Organic	4.3%	46.3%	1,323,465
Textiles	4.0%	50.3%	1,234,711
Other Miscellaneous Paper	3.9%	54.2%	1,215,919
Leaves and Grass	3.8%	58.0%	1,172,925
Uncoated Corrugated Cardboard	3.1%	61.1%	964,942
Prunings and Trimmings	3.1%	64.3%	962,262
<b>Total</b>	<b>64.3%</b>		<b>19,832,501</b>

# How much of the disposal stream is recyclable?

## *2014 Waste Characterization Study*



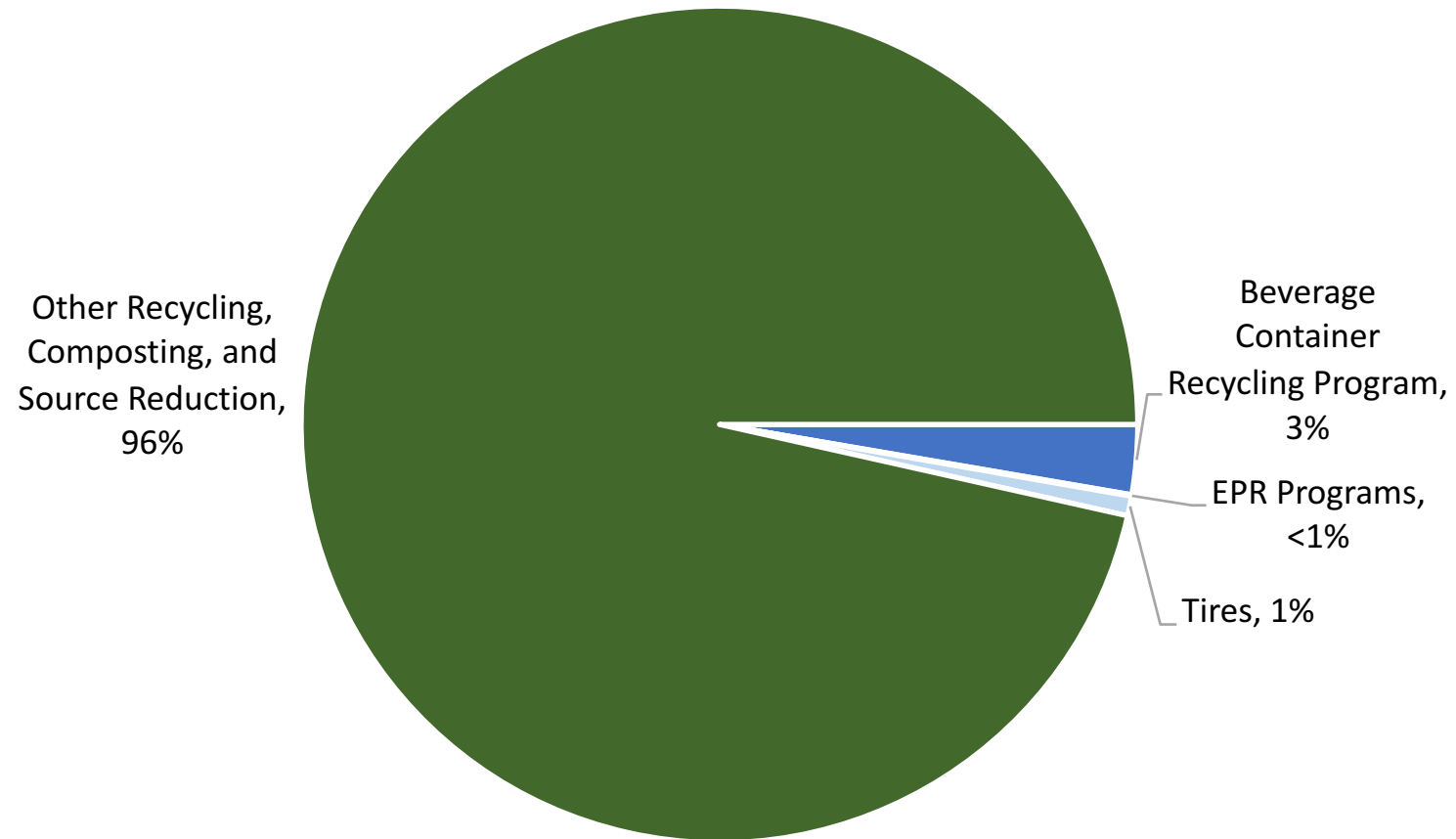


# California's Recycling Programs

- Beverage Containers – 9 million tons recycled, 81% recycling rate
- Used Tires – 35.8 million waste tires recycled, 80.9% recycling rate
- EPR
  - Carpet– 172,500 tons generated
  - Mattresses - 1.9 million (48,000 tons) generated
  - Architectural Paint – 2.7 million gallons recovered
- Covered Electronic Waste – 87,500 tons recycled
- HHW
  - Used Lubricating Oil – 77.7 million gallons recycled, 80.7% recycling rate
  - U-Waste



# How much recyclable material are we tracking?





# California's Goals and Challenges

- 75% recycling by 2020
  - Mandatory Commercial Organics
  - Mandatory Commercial Recycling
  - Beverage container, tipping fee, used oil, e-waste reform
- Challenges
  - Decoupling disposal and economy
  - Decreasing commodity pricing worldwide
  - Reduced revenues with increased diversion



# 75% Recycling Goal

- Report to the Legislature August 2015
- Five Priority Strategies
  - Organics out of landfills
  - Increase recycling infrastructure
  - Sustainable funding
  - State procurement
  - Extended Producer Responsibility



# California's Challenges

- Focusing on “traditional” materials
  - Paper, food, lumber, C&D, plastic
- Worldwide commodity price decline
- CalRecycle recycling successes result in reduced funding
- Rebounding economy results in rebounding waste generation



# California's Future

- Mandatory Commercial Recycling (and organic recycling)
  - Businesses and multifamily residential dwellings of five or more units
  - 8 cubic yards per week now shifting to 4 cubic yards per week in 2019 for organics
  - 4 cubic yards per week for recyclables
- Beverage Container Reform
- Changes to E-Waste
  - Finding markets for CRT glass



# California's Future

- AB 901 – Disposal, Recycling, Composting reporting
- SB 1383 – Short-lived Climate Pollutants
  - Organics in landfills
  - New funding source consideration
- More Extended Producer Responsibility programs
  - Pharmaceuticals
- Thermal Resource Recovery
  - What is its role?
  - New technologies



# Questions?

**Robert Carlson**

Senior Environmental Scientist

[Robert.Carlson@Calrecycle.ca.gov](mailto:Robert.Carlson@Calrecycle.ca.gov)

916-323-3411