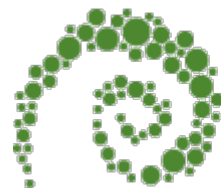


# Achieving Climate Action Through Purchasing

Alameda County

Green Purchasing Roundtable

May 31, 2018



Alameda County

**SUSTAINABILITY**

*Local Action, Global Impact.*

# Agenda

§ Introductions

§ Purchasing and Climate Action Plans

*Miya Kitahara, StopWaste*

§ Why Purchasing?

*Karen Cook, Alameda County*

§ Climate-Friendly Procurement – Case Studies and What To Buy

*Rebecca Parnes, Dublin*

*Erik Pearson, Hayward*

*Shari Hamilton, Berkeley*

*Karen Cook, Alameda County*

§ **Workshop: Applying It**

# Introductions

# Climate Action: Where Global is Local

# Local Governments and Institutions are Leaders

SUBSCRIBE

SCIENTIFIC AMERICAN. English - Cart

SUSTAINABILITY

## Local Governments Lead Efforts to Combat Climate Change

Local governments serve as idea labs for federal lawmakers as national climate and energy reform

By Douglas Fischer, The Daily Climate on May 21, 2010

**WE ARE STILL IN**



- Home
- Research
- Special Reports
- Gallery
- Videos
- States of Change

## This Is How Climate Change Will Shift the World's Cities

 *By Brian Kahn*

Summers around the world are already warmer than they used to be, and they're going to get dramatically hotter by century's end. That problem will be felt most acutely in cities.



# STOP WASTE

at home • at work • at school



## Purchasing and Consumption in Climate Action Plans



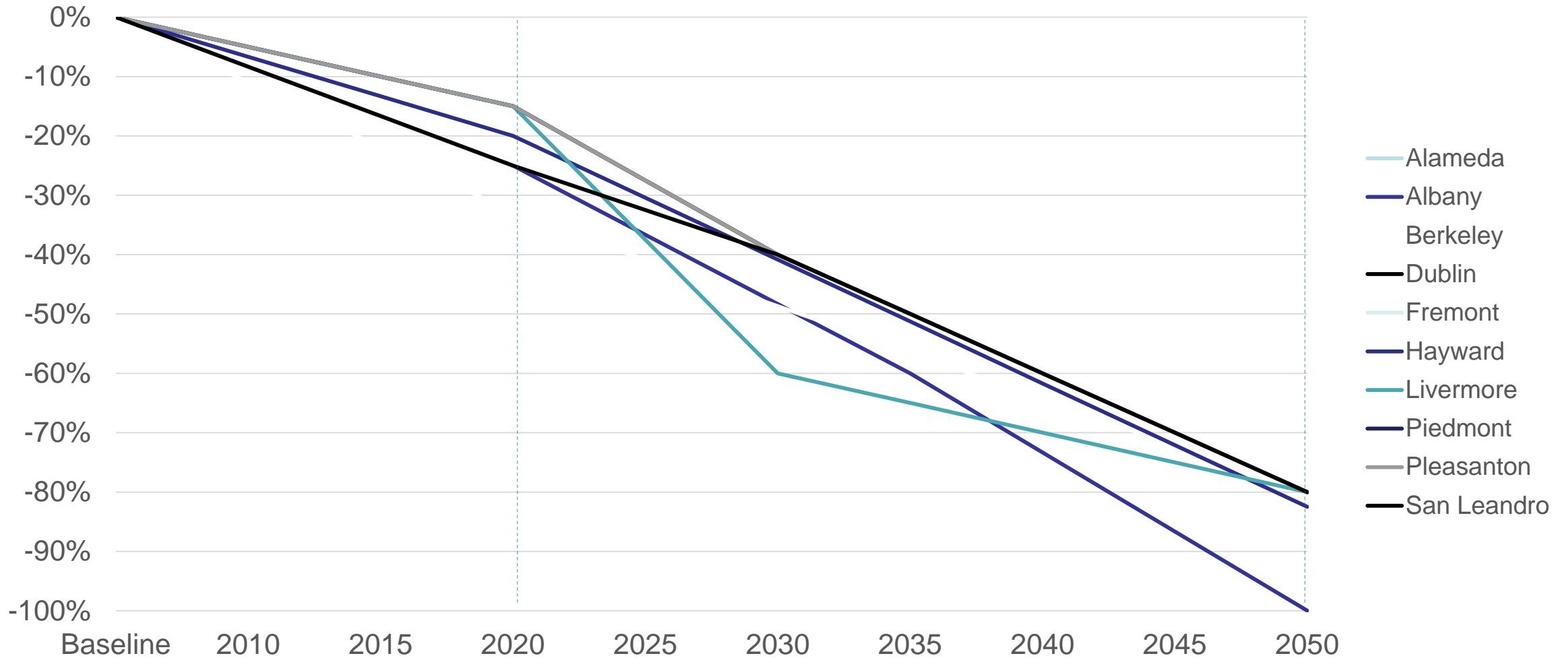
Green Purchasing Roundtable  
May 31, 2018



# Original CAPs

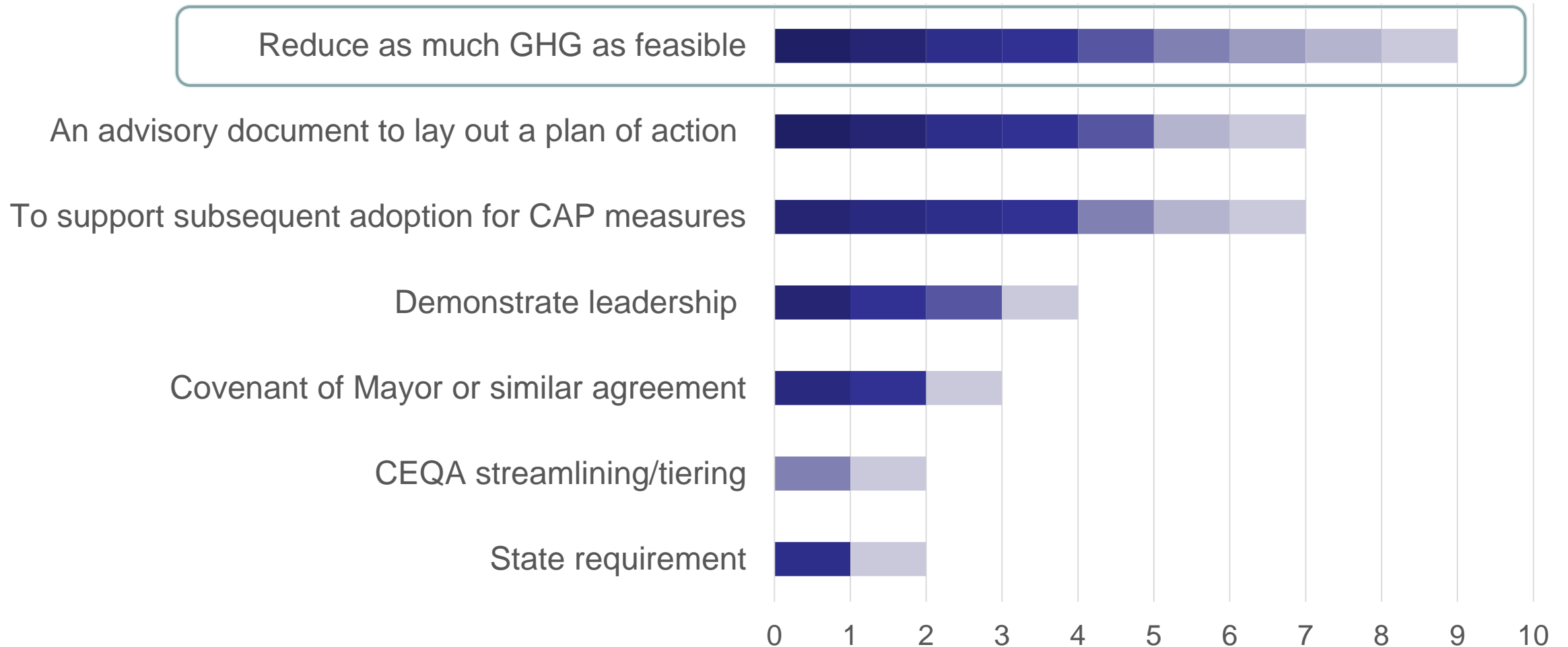
	Alameda	Albany	Berkeley	Dublin	Emeryville	Fremont	Hayward	Livermore	Newark	Oakland	Piedmont	Pleasanton	San Leandro	Union City	County
2020 Target "below baseline"	25%	25%	33%	15%	25%	25%	20%	15%	15%	36%	15%	15%	25%	20%	15%
Baseline Year	2005	2004	2000	2010	2004	2005	2005	2008	2005	2005	2005	2005	2005	2005	2005
Year Adopted	2008	2010	2009	2013	2008	2010	2014	2012	2012	2012	2010	2012	2009	2010	2014
Consultant	PMC	AECOM	internal	PMC	n/a	AECOM	Ascent	ICF	n/a	internal	AECOM	ESA	KEMA	AECOM	AECOM

# Post-2020: Deeper GHG Reductions

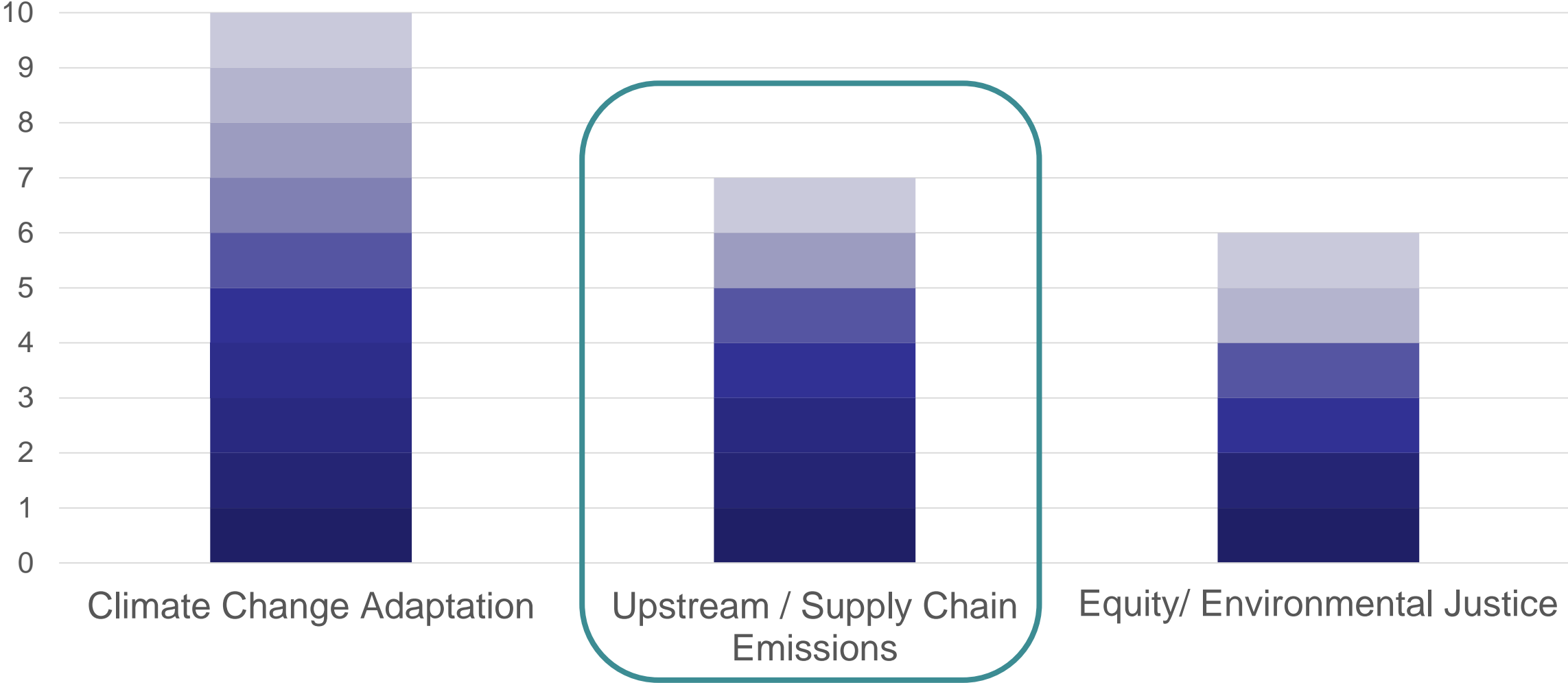




# Why Do You Have Climate Action Plans?



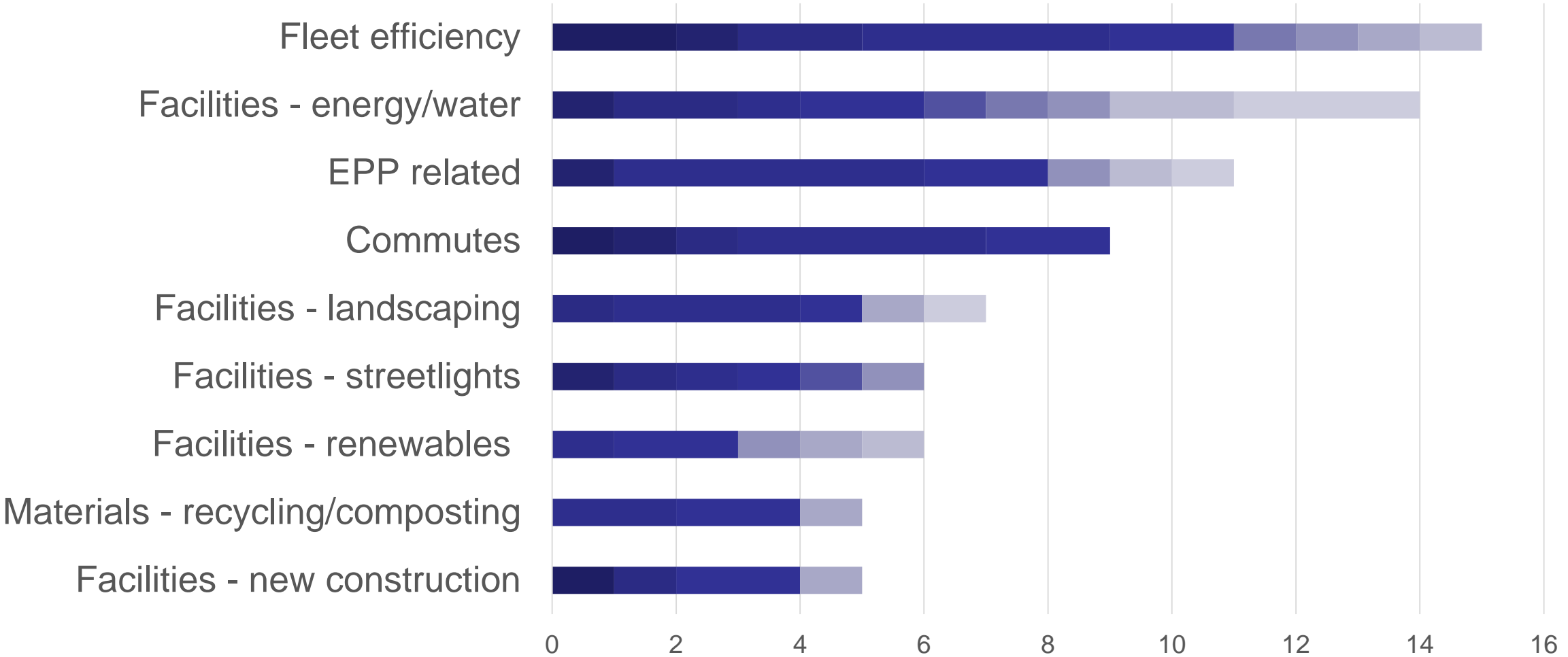
# Climate Action Plan Trends



# Typical Municipal Operations Measures



# Common Municipal Operations Measures (Alameda County)



# Just a sample...

---

- § EPP adoption & implementation (many jurisdictions)
- § Food (Albany, San Leandro)
- § Single-use packaging/bottles (Berkeley, Fremont)
- § Warm mix asphalt/paving (Fremont)
- § Green professional services (Hayward, Fremont)
- § E-documents (Berkeley)
- § Recycled content products (Fremont)

... many others  
across jurisdictions

# Addressing All Emissions Reduction Opportunities

	Operational		Supply Chain
	Fossil Fuels	Electricity	
Facilities – energy efficiency	DECREASE	DECREASE	VARIABLES
Facilities – fuel switching	DECREASE	INCREASE	VARIABLES
Facilities – solar/renewables		DECREASE	VARIABLES
Streetlights		DECREASE	VARIABLES
Fleet – electric vehicles	DECREASE	INCREASE	VARIABLES
Fleet – renewable diesel	REPLACE WITH BIOGENIC		DECREASE
EPP – office supplies, etc.	VARIABLES	VARIABLES	DECREASE
Construction – low embodied carbon	VARIABLES	VARIABLES	DECREASE

# Connecting Climate to Purchasing

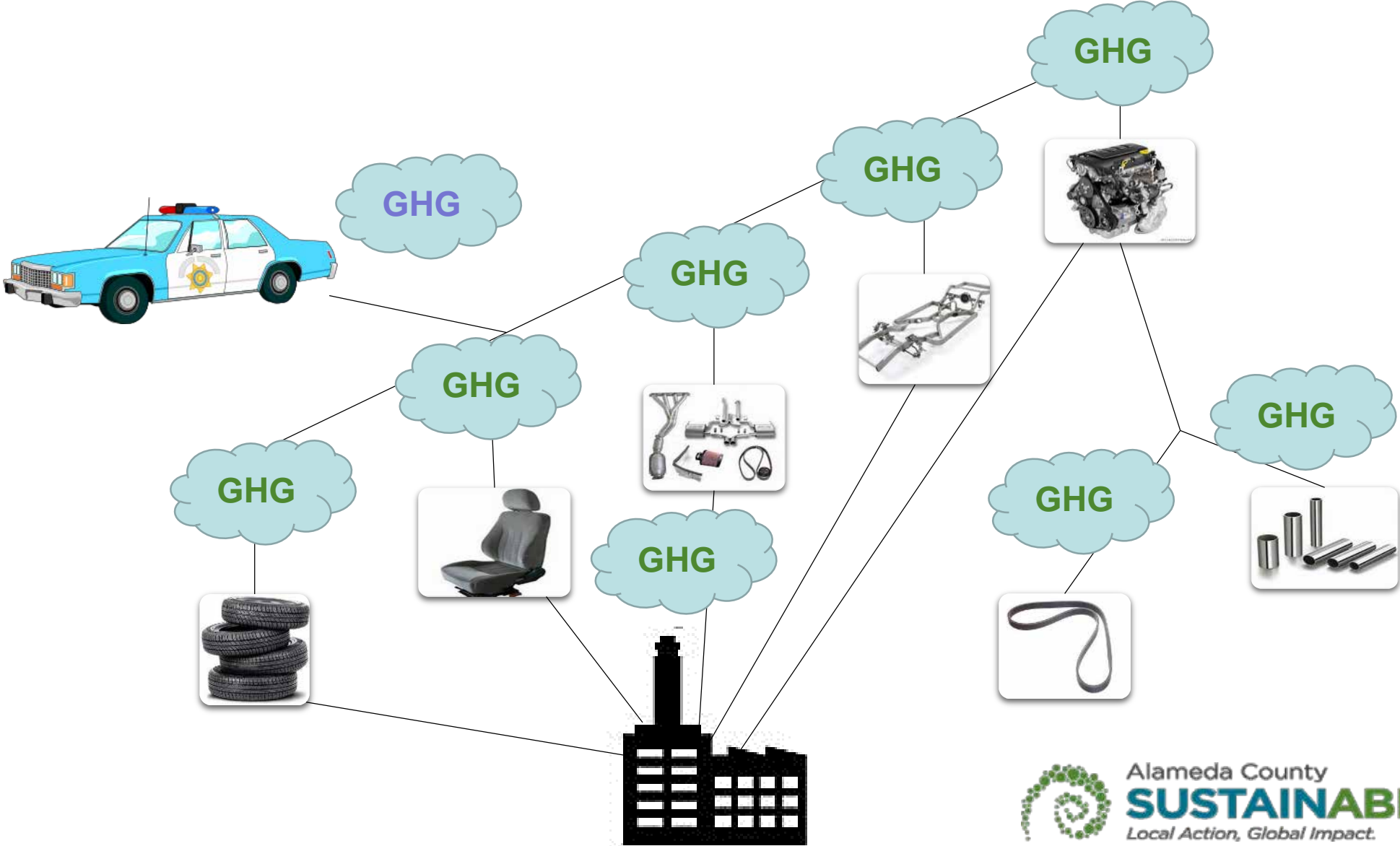
# Connecting Climate to Purchasing



- § Supply chain impacts can dwarf operational impacts
- § These are emissions that occur outside organizational borders

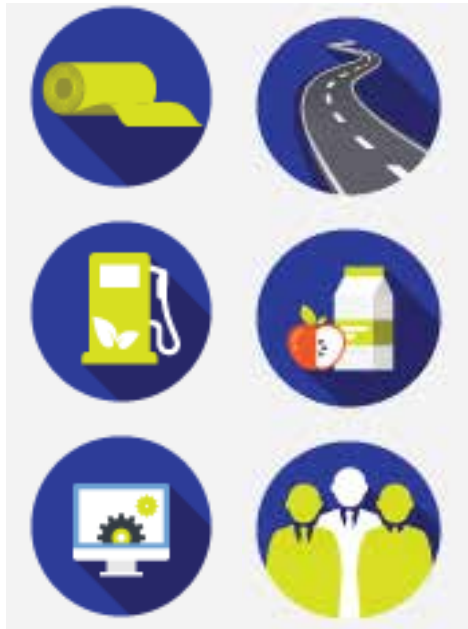


# Supply Chain GHG Emissions



# Total Carbon Footprint

## Supply Chain

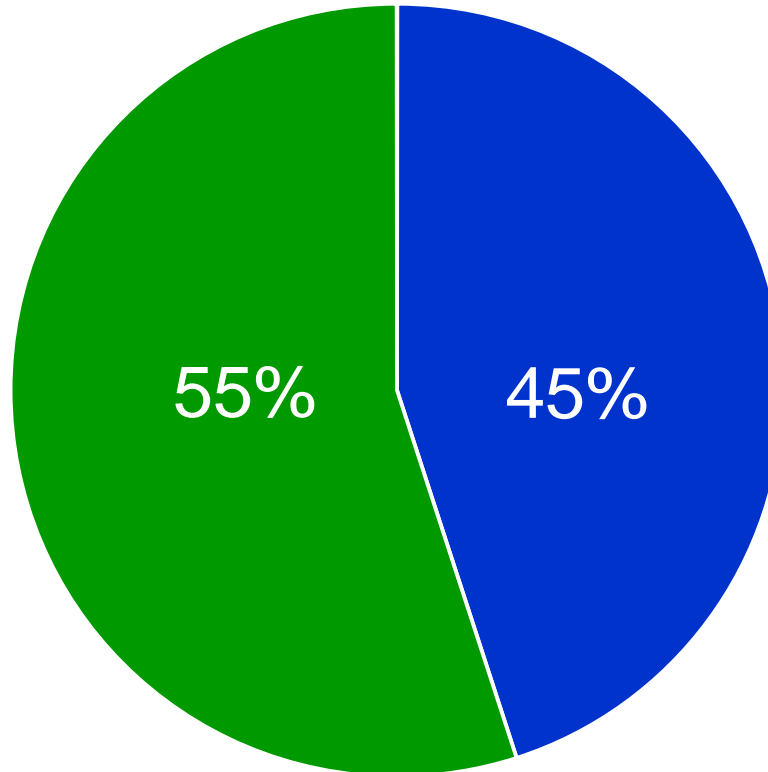


Examples:  
Goods and services,  
including construction

## Operations

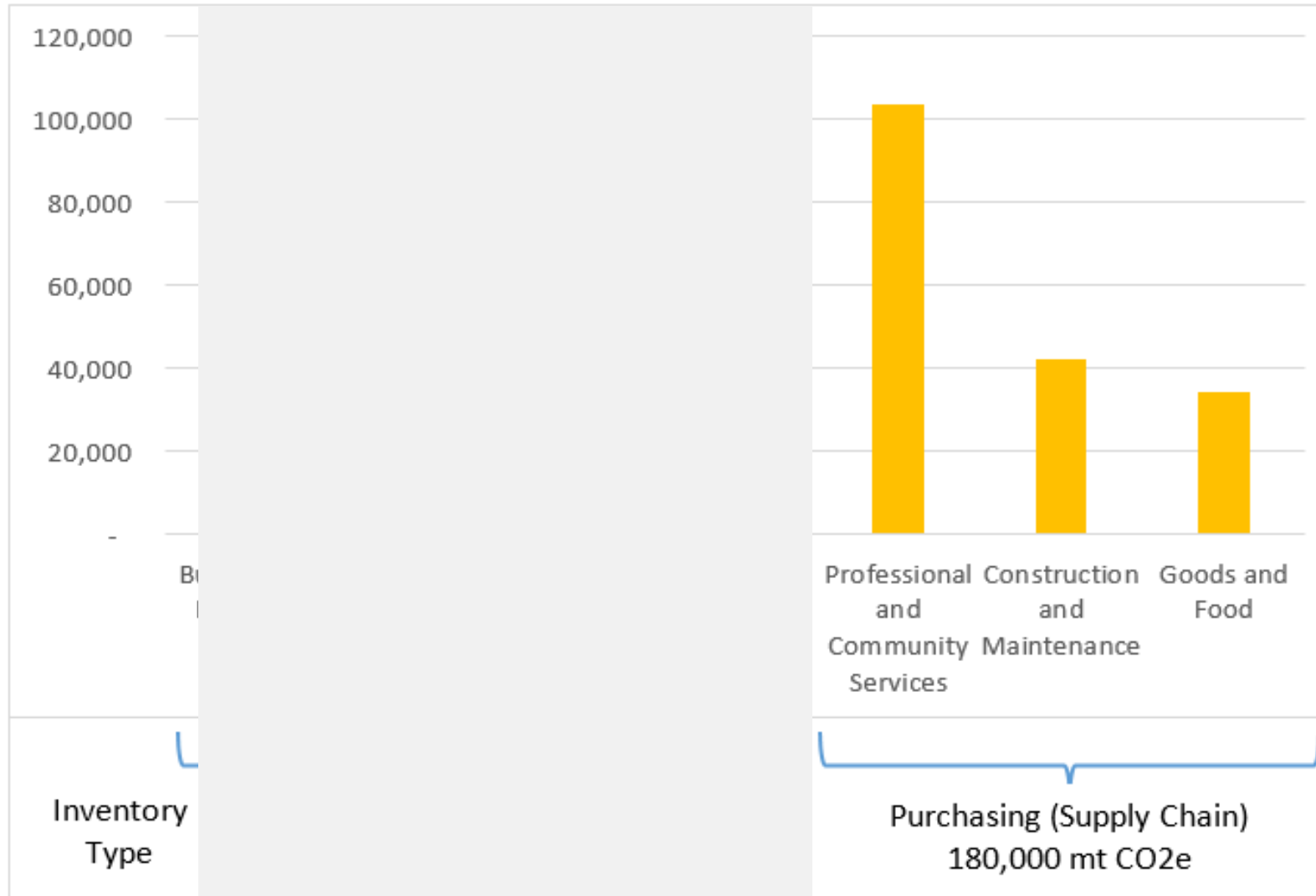


Examples:  
Use of electricity, company  
owned cars, etc.



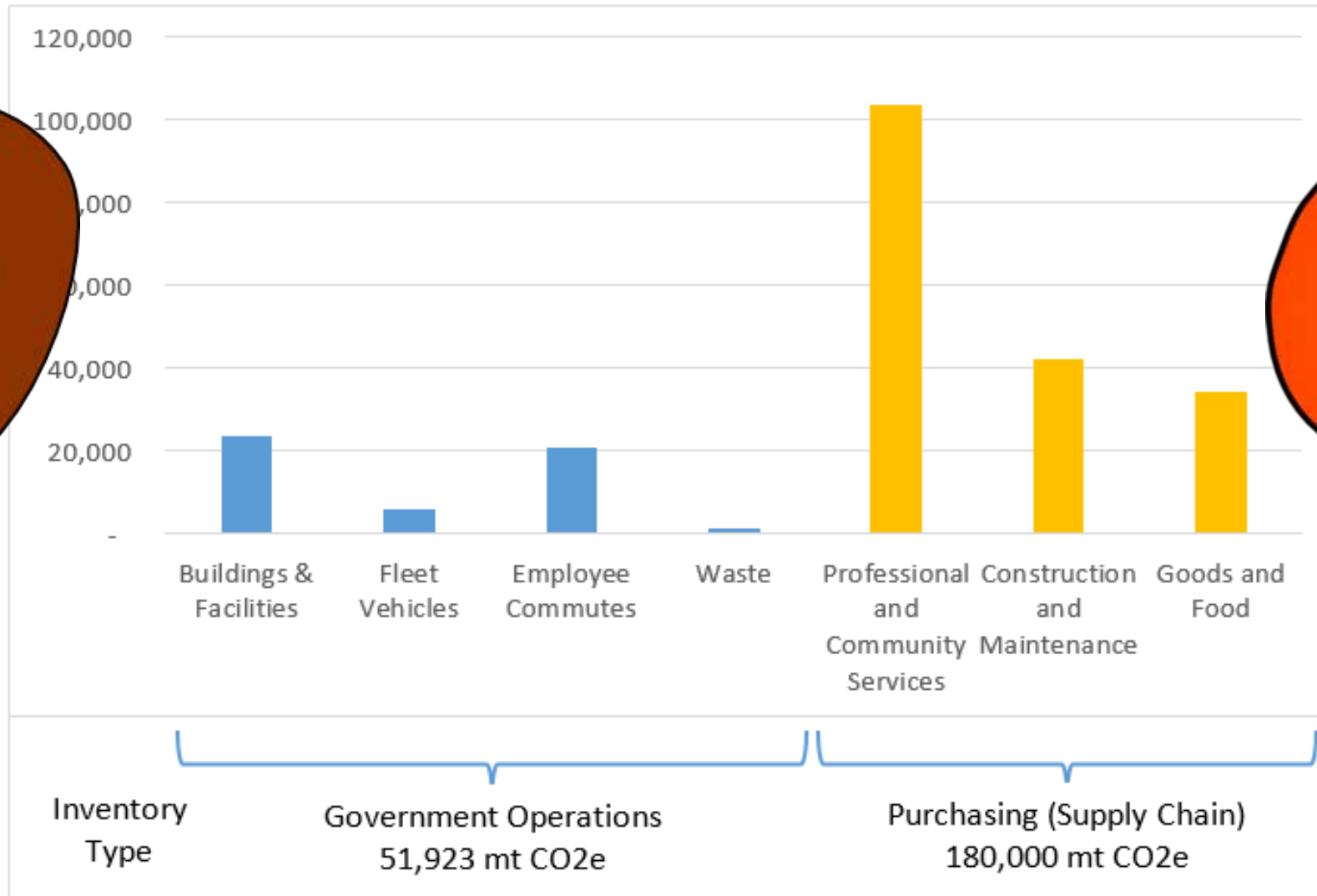
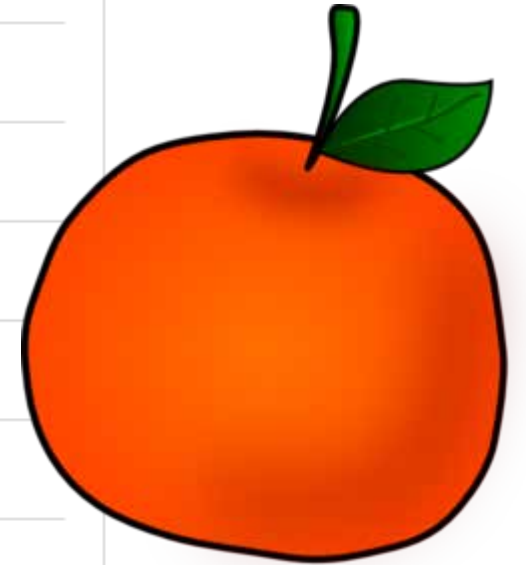
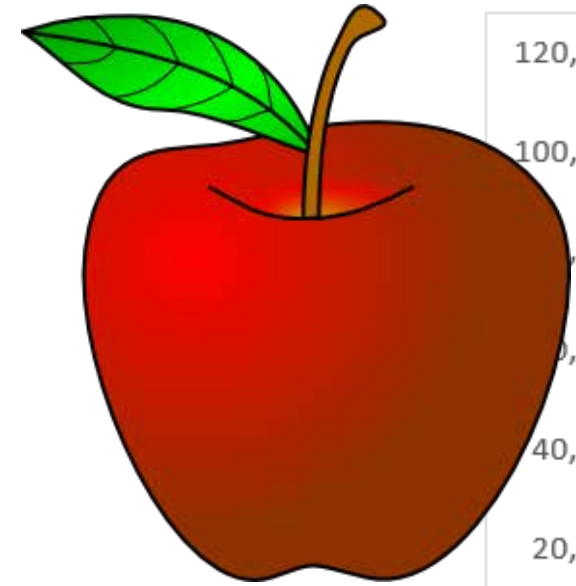
# GHG Emissions (FY2010)

## Alameda County Government Operations

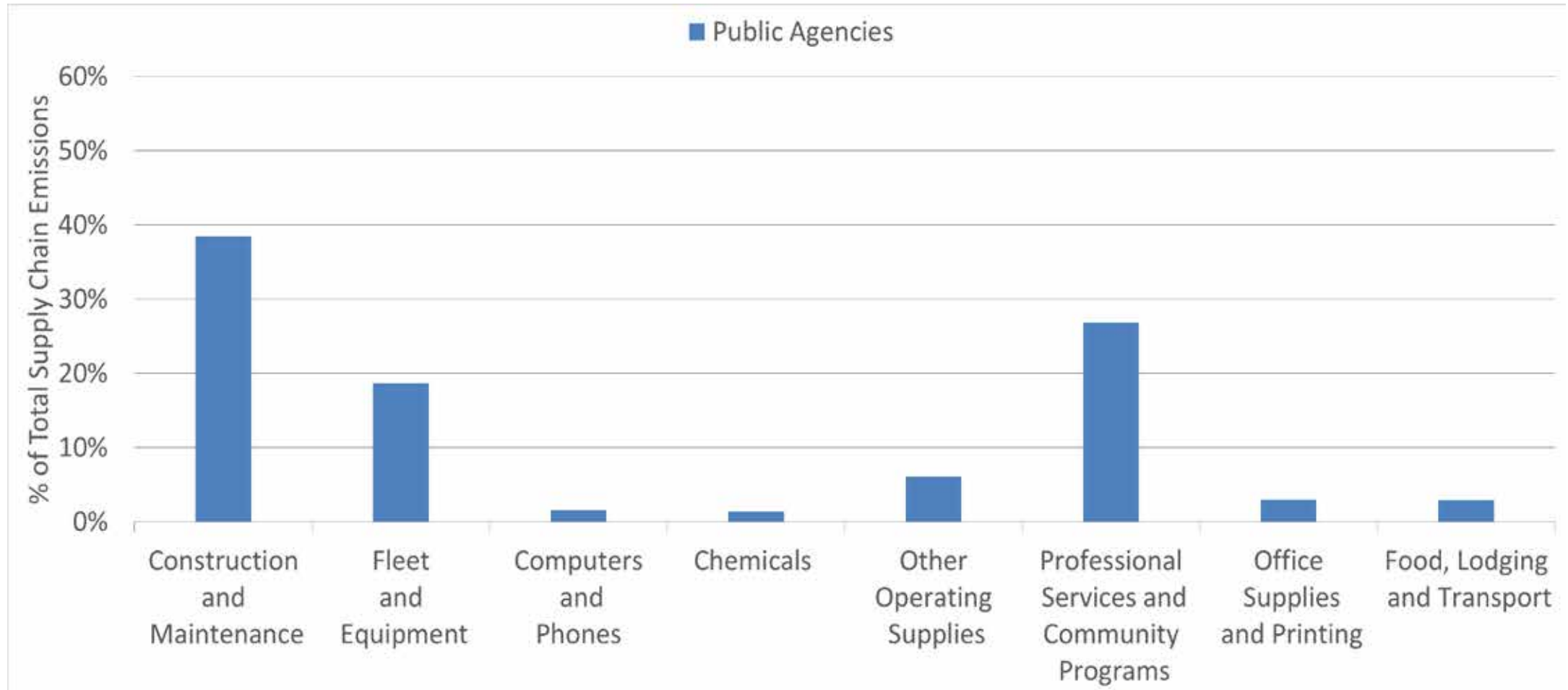


# GHG Emissions (FY2010)

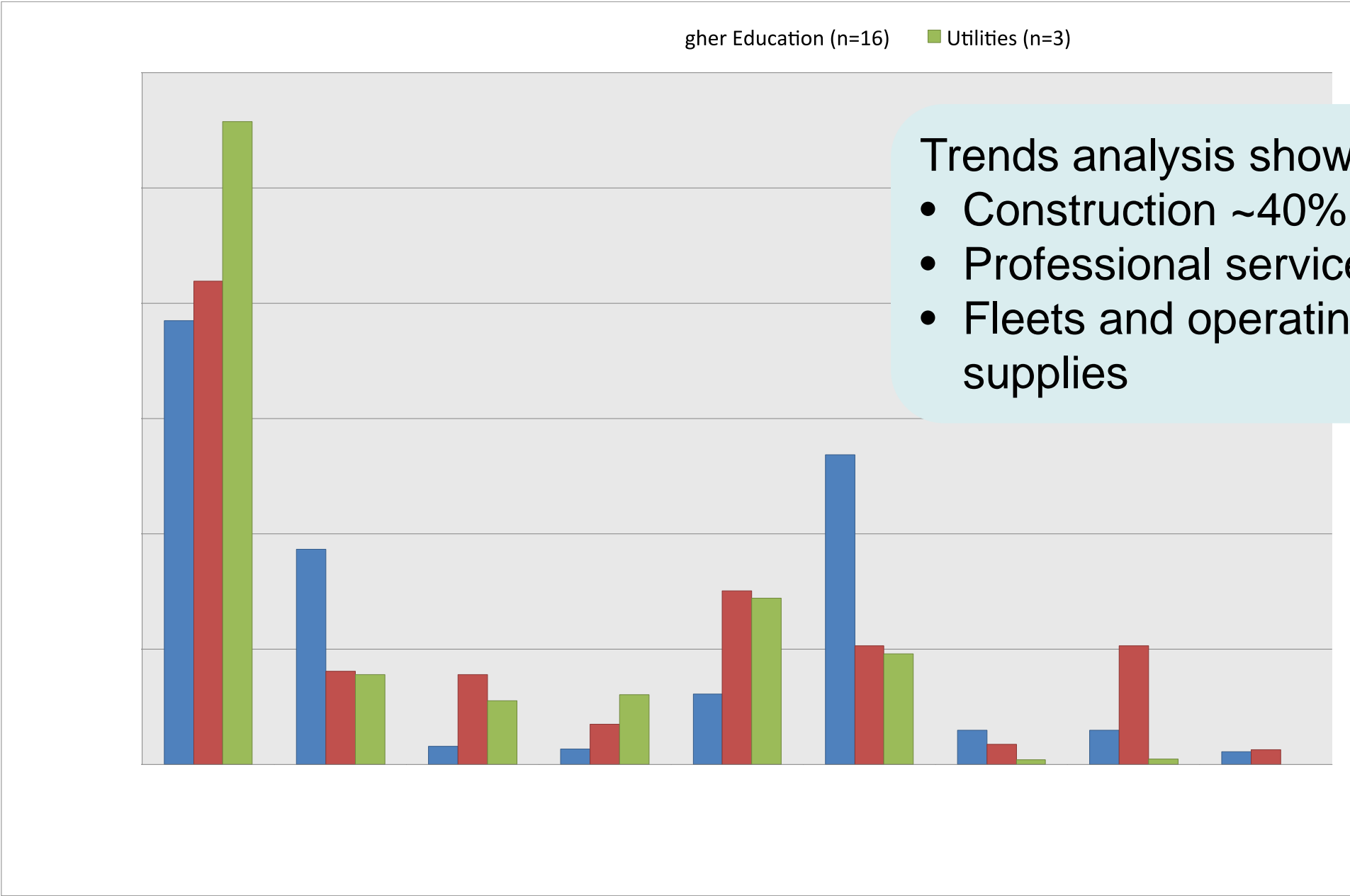
## Alameda County Government Operations



# Significant Purchasing Categories (as % of total supply chain emissions)



Source: Good Company on behalf of StopWaste (2015).  
[Supply Chain Greenhouse Gas Inventory Meta-Analysis](#)



Source: Good Company on behalf of StopWaste (2015). *Supply Chain Greenhouse Gas Inventory Meta-Analysis*  
 Download at: <https://westcoastclimateforum.com/cfpt>

# EPP Opportunities for Reductions



Source: NASA Earth Observatory

## § Operational emission reductions:

- Electric vehicles
- Energy Star products
- Building energy efficiency products

## § Supply chain reductions:

- Building materials
- Goods & services

***Goal is absolute reductions!***



# *Questions*



# Climate Friendly Purchasing Strategies



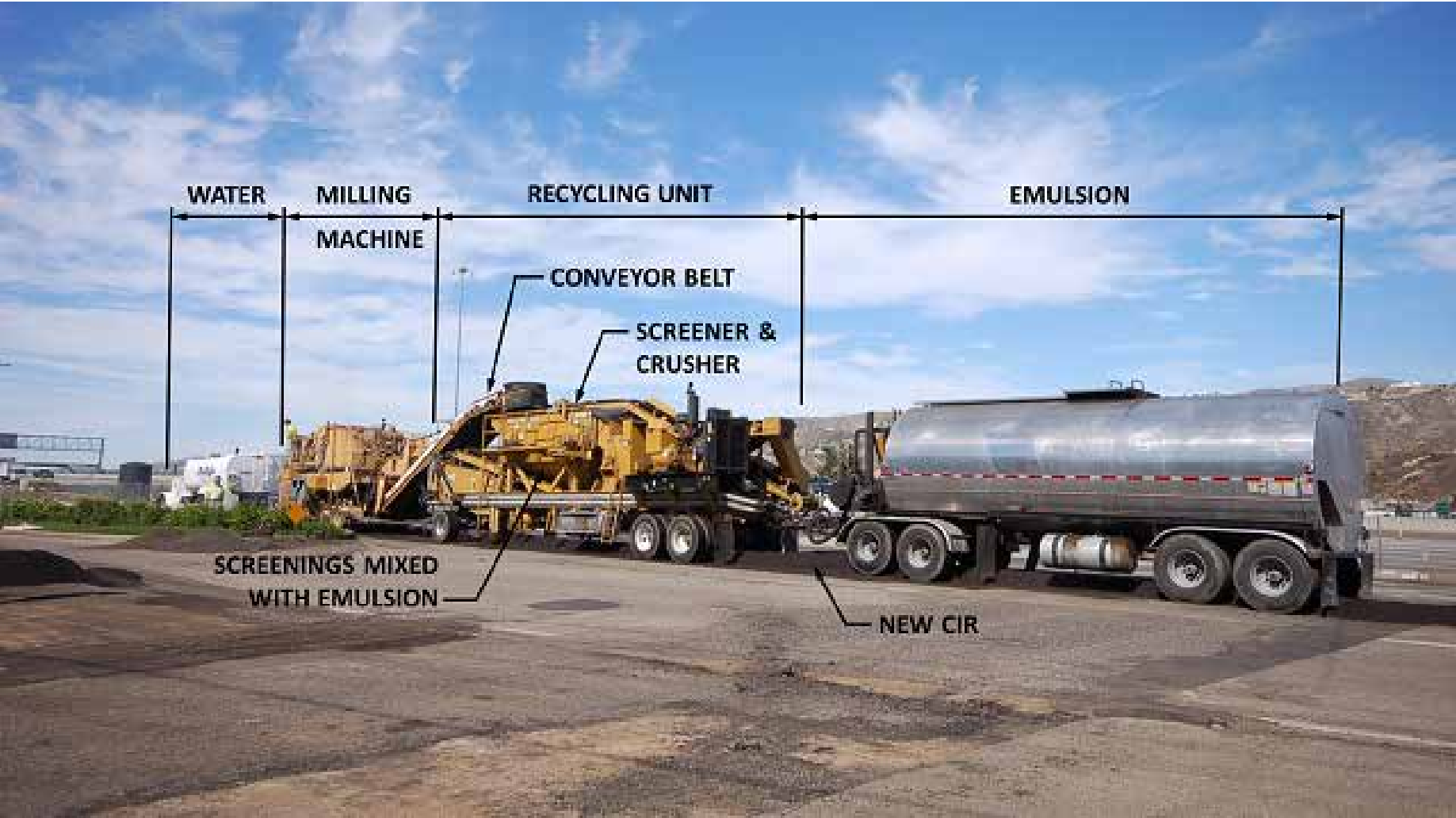
# Window Film on Public Buildings

## *City of Dublin*

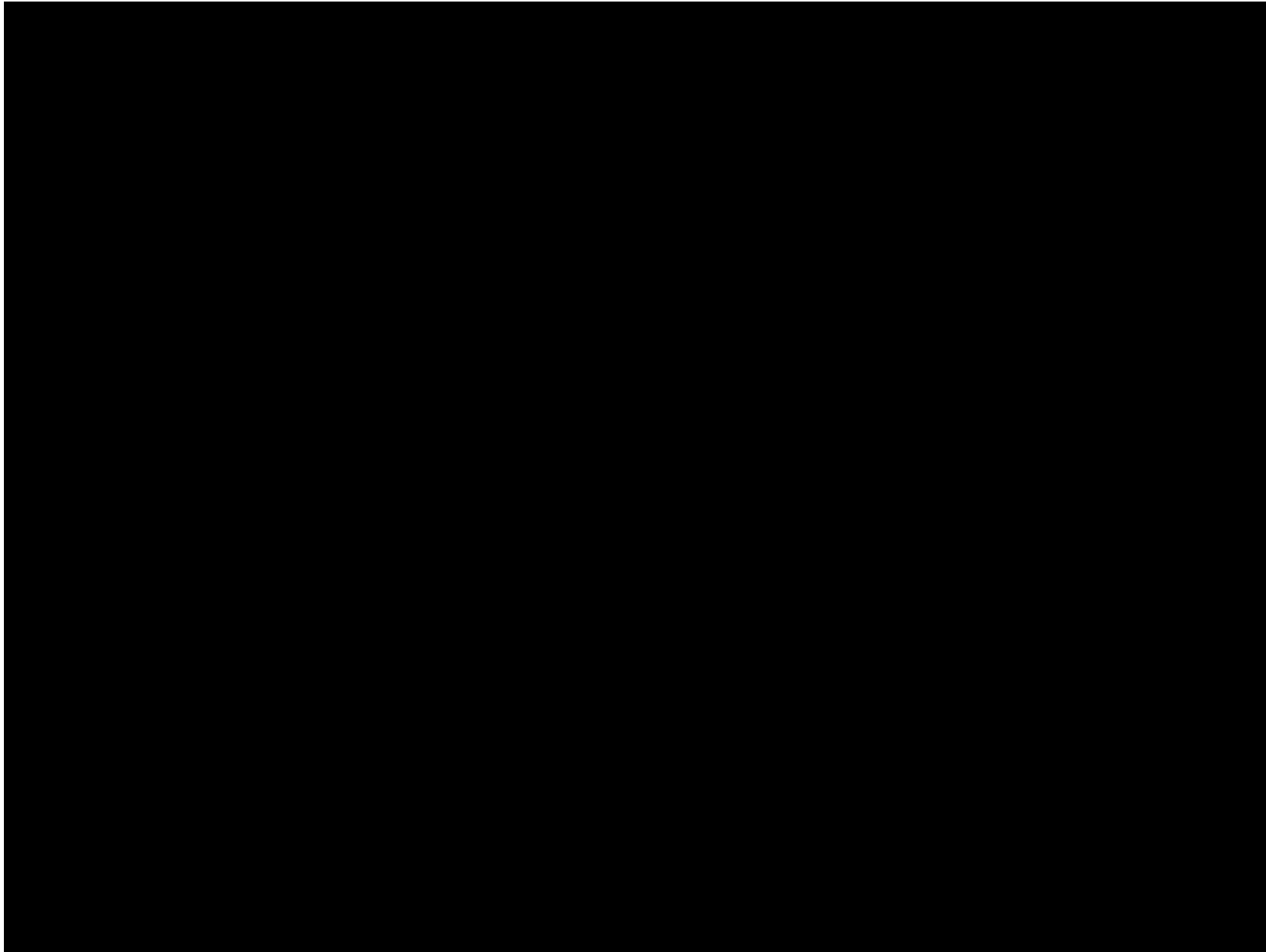
- § Mentioned specifically in Climate Action Plan
- § Promotes building energy efficiency



# Cold In-Place Recycling (CIR) Asphalt *City of Hayward*



# CIR Asphalt



# Consolidated Delivery Services

## *City of Berkeley*



### § Office Supply Order Delivery

- Before 2015 deliver 5 days per week
- 2015-present deliver 1 day per week
- Distributed ordering, centralized release

### § Copy Paper Order Delivery

- Before 2015 deliver 5 days per week
- 2015-present deliver 2 days per month
- Dedicated truck/intelligent routing

# Mail Delivery Services

## *City of Berkeley*

- § Zero Carbon Impact
- § Local worker-owned cooperative
- § Expanded Services



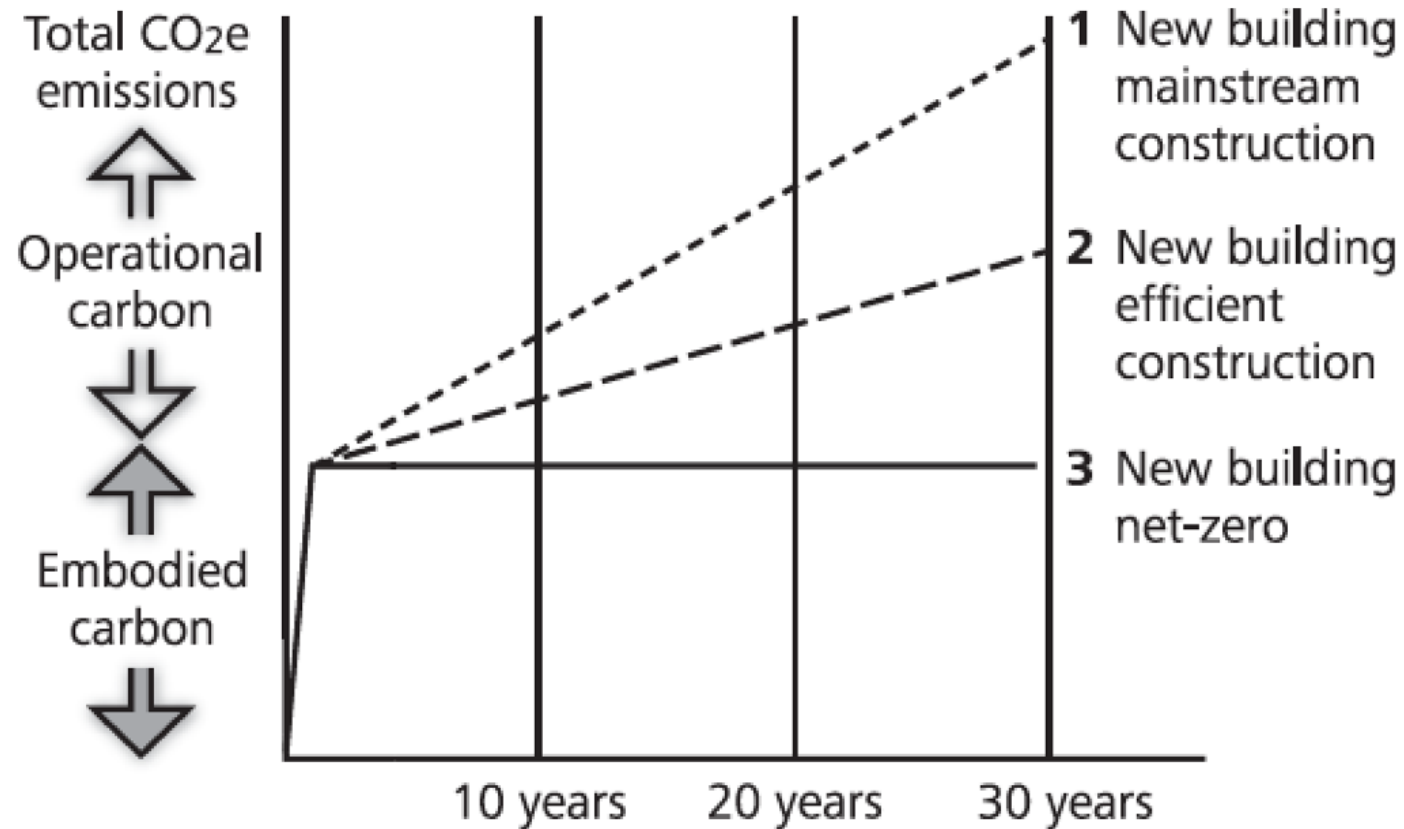


# *Questions*

# Built Environment



# Growing Importance of Embodied Carbon



Source: Bruce King, *The New Carbon Architecture*

# Low-Carbon Building Materials

- § California passed AB 262 in 2017  
“Buy Clean California Act”
- § Certain infrastructure goods\* must have average or lower carbon pollution
- § Levels playing field & advances state priorities

\*Materials include structural steel, carbon steel rebar, flat glass and “mineral wool” insulation.



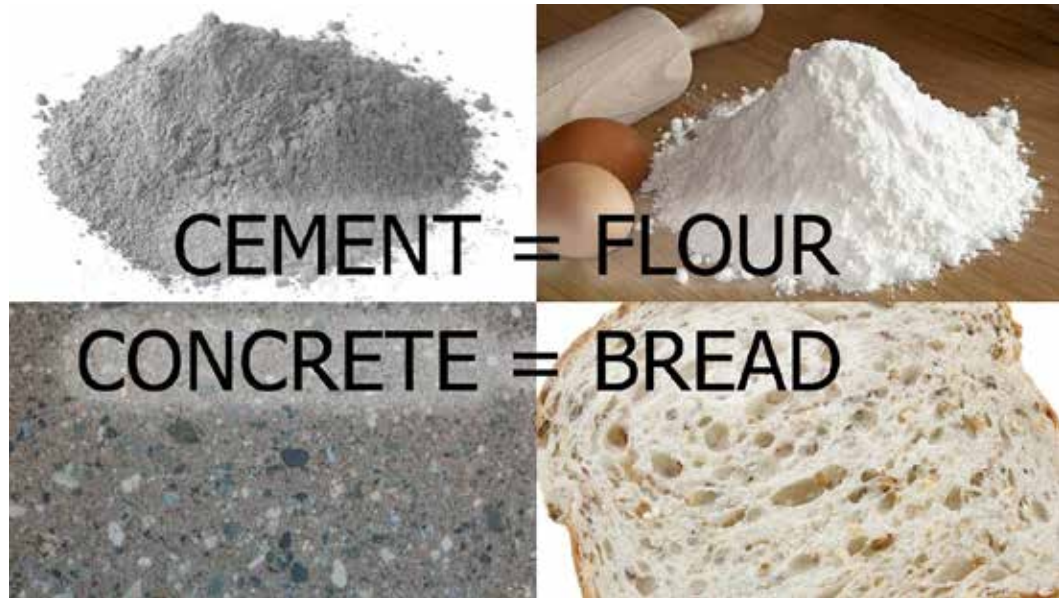
## GOV. JERRY BROWN SIGNS BUY CLEAN INTO LAW

With Gov. Jerry Brown's signature on AB 262 - Buy Clean, California becomes the first jurisdiction on earth to address imported carbon emissions.

[buycleancalifornia.org/](http://buycleancalifornia.org/)



# Low-Carbon Concrete



§ Cement is highly carbon intensive:

- 5% global emissions
- 80% of concrete footprint

§ Replace cement for low-carbon concrete

§ Marin County & StopWaste leading grant proposal for multi-stakeholder effort to develop specs and codes

# Warm Mix Asphalt Concrete (WMAc)

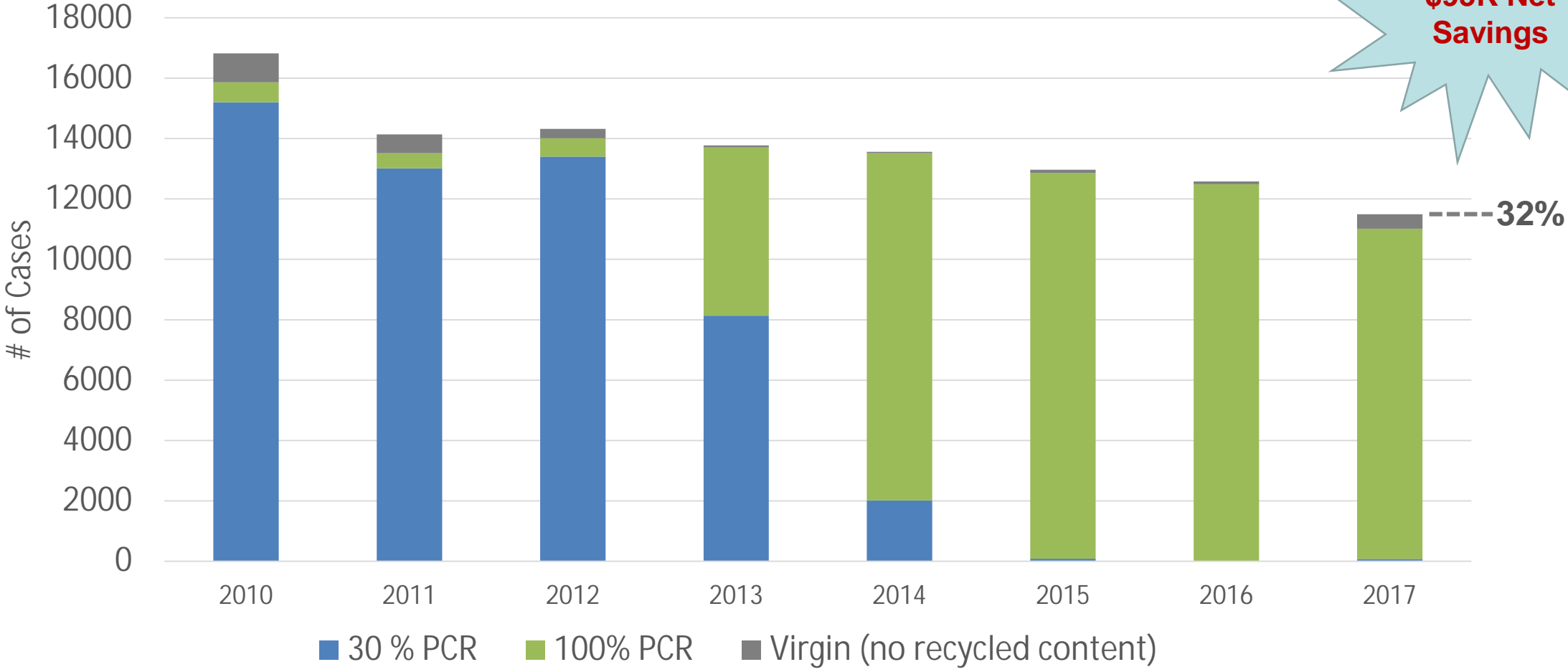
- § Asphalt production is GHG intensive
  - 10% of construction material emissions
- § Replace traditional Hot Mix Asphalt with WMAc
  - Reduces heat/energy required to bind
  - Improved working conditions



- § Requires a local market
- § Inside-County producers:
  - *Berkeley Asphalt Co.*

# Office Operations

# Copy Paper : Buy Less & Buy Better



# We're Making a Difference

Avoiding carbon pollution equivalent to removing 94 cars from the road for one year.



Using fewer trees equivalent to 102 football fields of forest.

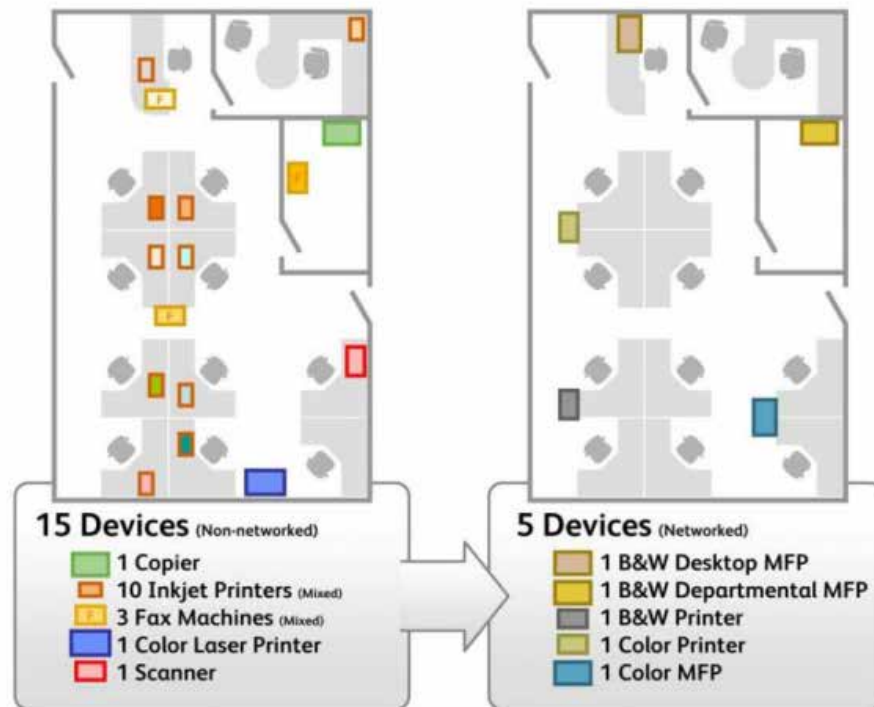


Environmental impact estimates were made using the Environmental Paper Network Paper Calculator Version 3.2.1. For more information visit [www.papercalculator.org](http://www.papercalculator.org). Based on 2010-2017 paper use reduction, accounting for transition to 100% PCR.  
Actual reductions over baseline are: 473 mtCO<sub>2</sub>e and 6639 fewer trees

# Information and Communication Technology

## Focus on Efficiency

Good MPS strategy may consolidate existing devices for increased efficiency



- § Energy Star and EPEAT certified equipment
- § Reduce overall equipment:
  - Managed print services
  - Cloud-based services

Learn more at the Climate Friendly Purchasing Toolkit:  
<https://westcoastclimateforum.com/cfpt/ict>



# Modernizing Government Services



**Mobile Work Environment**



**Copy Paper**



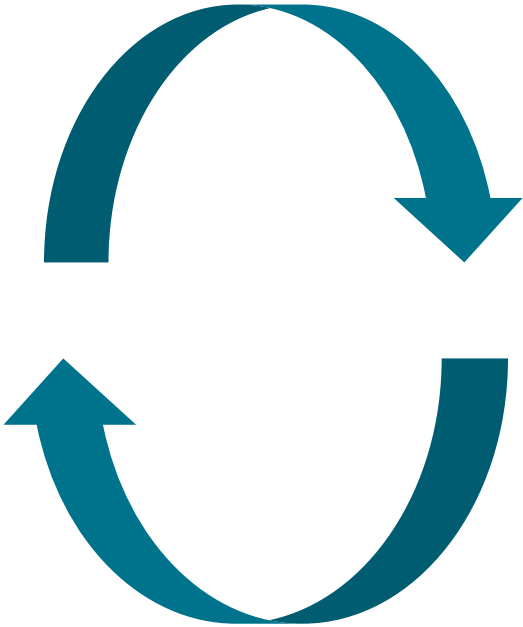
**Offsite File Storage**



**Digital Documents**



**Deskside Printers and Toner**



# Professional Services

# Source of Emissions

- § Building energy use by vendor
- § Fuel use by vendor
- § Business travel by vendor



# Promote Business Efficiency

- § Conduct vendor outreach to raise awareness
- § Include information in bid language



# Food & Food Service

# Green Event Strategies

*City of San Rafael*

## **The Zero Waste GYM Bag is here!**

*(Green Your Meeting)*

Ready to be checked out by your department  
for your next meeting or small event

***Contains everything you need for a Zero Waste meeting:***

- 12 plates
- 2 large serving plates
- 12 forks
- 12 spoons
- 2 knives
- 2 serving spoons
- 1 dirty dishes tote



***And all in a stylish, ready-to-go tote!***

*Alameda County*



Find out more at:

<http://acgov.org/sustain/documents/type.htm#cases>

# Collaboration with Vendor

## Meat Reduction

- § Sustainability Plan
- § Shifted casseroles:  
50% vegetarian  
protein
- § Equivalent to 50 cars  
removed from the  
road for a year



Calculations sources:

CleanMetrics - Environmental Working Group Meat Eater's Guide Methodology, 2011

[https://static.ewg.org/reports/2011/meateaters/pdf/methodology\\_ewg\\_meat\\_eaters\\_guide\\_to\\_health\\_and\\_climate\\_2011.pdf](https://static.ewg.org/reports/2011/meateaters/pdf/methodology_ewg_meat_eaters_guide_to_health_and_climate_2011.pdf)

US Environmental Protection Agency Greenhouse Gas Equivalencies Calculator

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>



Alameda County

**SUSTAINABILITY**

*Local Action, Global Impact.*

# Diesel Fuel



# Diesel: Shift to Renewable

§ Purchase from Alameda County  
– fill up in Dublin or Hayward

§ State of CA contracts available:

Contract Name: **Renewable Diesel**

Contract ID/Number: **1-15-91-31(A-D)**

Contract Name: **Fuel, Bio-Diesel (B5 & B20)**

Contract ID/Number: **1-15-91-08 (A-B)**

§ Renewable diesel now mandated  
for State vehicles

§ Same chemical structure – no blending, no  
temperature sensitivity, no storage issues



# Where to Learn More

## *Climate Friendly Purchasing Toolkit*

### Targeting Tools

To help government target their efforts on the most significant GHG emissions in the supply chain.



#### *How to complete a supply chain GHG inventory*

This detailed primer shows how to combine purchasing data and available LCA tools to get a complete picture of the GHG emissions in your organization's specific supply chain.



#### *Trends Analysis*

Instructions are provided on how to use the data from trends analysis to target GHG reductions. It is a compilation of more than 40 supply chain GHG inventories, sortable by organization type, size, and total supply chain budget.

### Sector-specific strategies

Each module includes background on how the sector contributes to GHG emissions, and guidance on specific purchasing strategies to reduce GHG emissions.



Flooring



Diesel Fuels



Information and Communication Technology (ICT)



Construction:  
Asphalt, Concrete,  
and More



Food



Professional Services

<https://westcoastclimateforum.com/cfpt>



# *Questions*



# *Activity*

