



**Feeding People
& Feeding Soil
w/ SB 1383**

Nick Lapis



CAVW "Extended Family"
2022

The mission of Californians Against Waste is to **protect communities** by eliminating the pollution inherent in the extraction and disposal of natural resources.

CAW believes in **preventing waste at its source** and **holding producers responsible** throughout a product's lifecycle to transition California to a thriving circular economy.

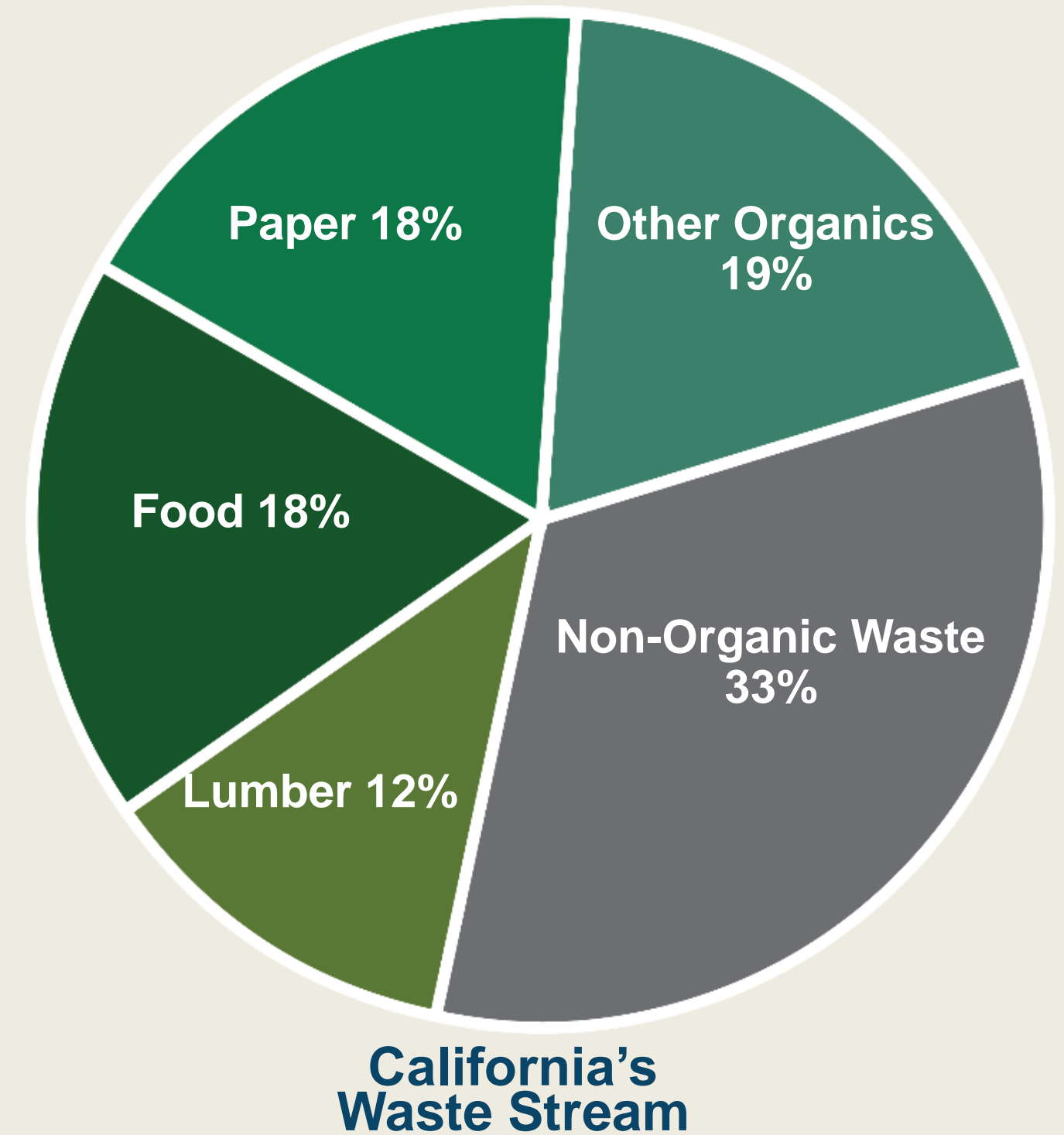
How We Got Here

Policy Drivers & Environmental Goals



AB 341 (Chesbro, 2011)

Statewide Goal: 75% Source Reduction,
Recycling and Composting



CALIFORNIA CLIMATE STRATEGY

An Integrated Plan for Addressing Climate Change



VISION

**Reducing Greenhouse Gas Emissions
to 40% Below 1990 Levels by 2030**

GOALS



**50%
renewable
electricity**



**50%
reduction
in petroleum
use in vehicles**



**Double energy
efficiency savings
at existing buildings**



**Carbon
sequestration
in the land base**



**Reduce
short-lived
climate pollutants**

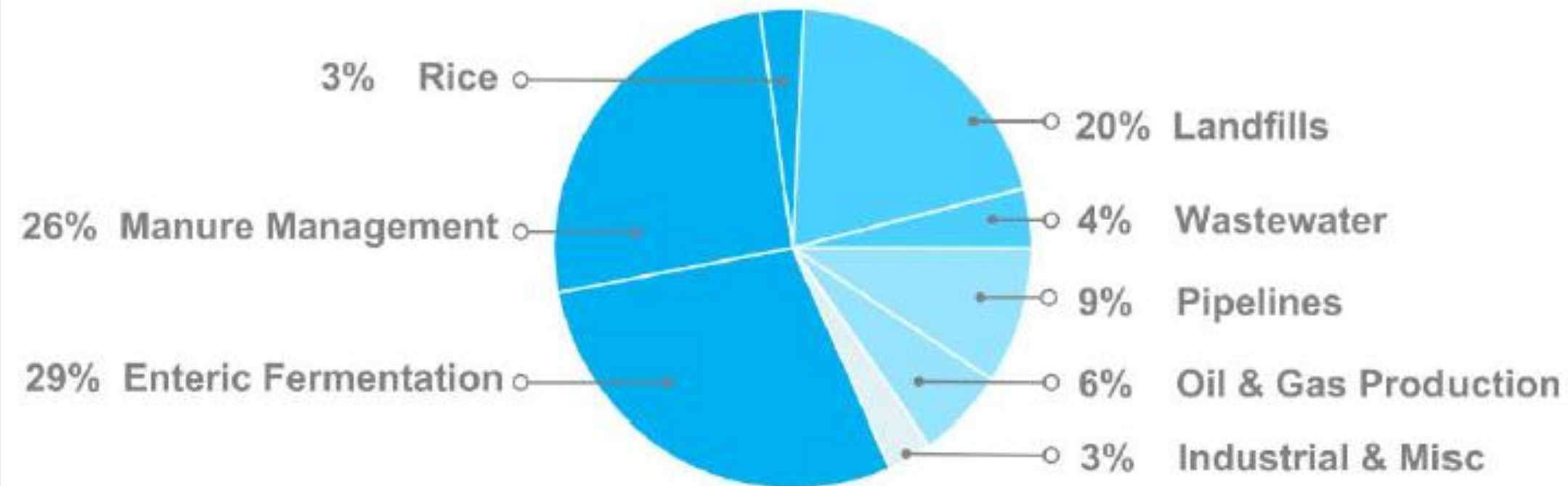


**Safeguard
California**



California must achieve deep reductions in short-lived climate pollutant (SLCP) emissions by 2030 to meet future greenhouse gas emission targets and air quality goals. In addition, intensified, global action to reduce these emissions is the only way to immediately slow global warming and is necessary to keep warming below 2°C through at least 2050, which is a critical threshold to manage the damaging effects of climate change. Short-lived climate pollutants, which include methane, fluorinated gases (F-gases), black carbon, and tropospheric ozone, are among the most harmful to both human health and global climate.

Figure 2: California 2013 Methane Emission Sources





Effectively Eliminate Disposal of Organic Materials at Landfills

Organic waste constitutes more than one-third of California's waste stream. Food waste alone accounts for about five million tons of landfilled organics each year. Efforts to divert organics from landfills, and to develop an organics infrastructure that makes best use of the material, are a key element of integrated strategies to increase production and access to renewable energy, reduce air pollution, improve agricultural soil health, and reduce GHG emissions from a broad array of sources throughout California.

CONCEPT PAPER



CALIFORNIA'S HEALTHY SOILS INITIATIVE

California's Healthy Soils Initiative is a collaboration of state agencies and departments, led by the California Department of Food and Agriculture, to promote the development of healthy soils. A combination of innovative farm and land management practices contribute to building adequate soil organic matter that can increase carbon sequestration and reduce overall greenhouse gases.

"As the leading agricultural state in the nation, it is important for California's soils to be sustainable and resilient to climate change.... the Administration will work on several new initiatives to increase carbon in soil and establish long term goals for carbon levels in all California's agricultural soils. CDFA will coordinate this initiative under its existing authority provided by the Environmental Farming Act."

EDMUND G. BROWN JR.
GOVERNOR OF CALIFORNIA

WHY SOILS?



Improve plant health and crop yields*

Soil organic matter suppresses disease organisms and increases plant nutrient availability and uptake.



Increase water retention and infiltration*

Healthy soil can hold up to 20 times its weight in water. Increasing soil organic matter 1% can increase soil available water holding capacity by 3.7%.



Prevent erosion and reduce sediment and dust*

Soil organic matter helps build soil aggregate stability and structure and make it more resistant to wind or water erosion.



Sequester carbon and reduce greenhouse gas emissions*

Soils contain approximately 75% of the carbon pool on land—three times more than the amount stored in living plants and animals.



Improve water quality*

Increasing soil organic matter increases infiltration and biological activity that make soil a more effective filter.



Improve biological diversity and wildlife habitat*

At least a quarter of the world's biodiversity lives in the soil; healthy soils improve habitats and other natural resources.

* Click to see supporting research

San Francisco Chronicle

SFCHRONICLE.COM AND SFGATE.COM | Sunday, October 19, 2014 | PRINTED ON RECYCLED PAPER | \$1.00 *****

CLIMATE CHANGE



Photos by Leah Mills / The Chronicle

Compost gets carbon out of air and into soil

By Carolyn Lochhead

A compost experiment that began seven years ago on a Marin County ranch has uncovered a disarmingly simple and benign way to remove carbon dioxide from the air, holding the potential to turn the vast rangeland of California and the world into a weapon against climate change.

The concept grew out of a unique Bay Area alignment of a biotech fortune, a world-class research institution and progressive-minded Marin ranchers. It has captured the attention of the White House, the Brown administration, the city of San Francisco, officials



Recology spokesman Robert Reed holds a handful of compost, made from Bay Area food scraps and yard trimmings, at Jepson Prairie Organics near Vacaville. Top: John Wick walks through invasive weeds on his Nicasio ranch.

in Brazil and China, and even House Republicans, who may not believe in climate change but like the idea that "carbon farming" could mean profits for ranchers.

Experiments on grazing lands in Marin County and the Sierra foothills of Yuba County by UC Berkeley bio-geochemist Whendee Silver showed that a one-time dusting of compost substantially boosted the soil's carbon storage. The effect has persisted over six years, and Silver believes the carbon will remain stored for at least several decades.

The experiments were investigated by John Wick and his

Compost continues on A12

SB 1383 (Senator Ricardo Lara, 2016)


Short-Lived Climate Pollutants (“Climate Super Pollutants”)

Los Angeles Times

SEPT. 19, 2016, 12:09 P.M.

Vowing to protect the lungs of Californians, Gov. Brown signs law cracking down on soot and methane

John Myers



Gov. Jerry Brown signs SB 1383, a law to impose new reductions on soot and other pollution, in an event in Long Beach. (Luis Sinco/Los Angeles Times)

Likening the challenge of climate change to that of the biblical flood that prompted Noah to build an ark, Gov. Jerry Brown signed into law Monday an aggressive new plan to tackle pollutants like methane and soot.

"When Noah wanted to build his ark, most of the people laughed at him," said Brown during an event in Long Beach. "We've got to build our ark too, by stopping climate change, by stopping dangerous pollutants."

Senate Bill 1383, [introduced in the weeks after lawmakers traveled to Paris last year](#) for the United Nations conference on climate change, sets new state goals for cutting so-called "short lived" climate pollution from methane, soot and hydrofluorocarbons.

Monday's event was the third signing ceremony for bills related to climate change, with Brown having already approved a broad [expansion of climate goals](#) and new efforts aimed at [helping low-income communities](#).

Emissions of soot pollutants, also known as black carbon, would be

THE SUPER POLLUTANT
REDUCTION ACT SENT TO
GOVERNOR JERRY BROWN!



Black Carbon



50%



Methane



40%



HFC- Gases



40%

BY 2030

#ActOnClimate #SB1383

@SENRICARDOLARA

Overall Targets

SB 1383



CALRECYCLE TIMELINE
2019: REGS ADOPTED
2022: REGS EFFECTIVE
2024: PENALTIES ON
GENERATORS
2025: FULLY IN EFFECT

50%

Organic Waste
Recovery by 2020

75%

Organic Waste
Recovery by 2025

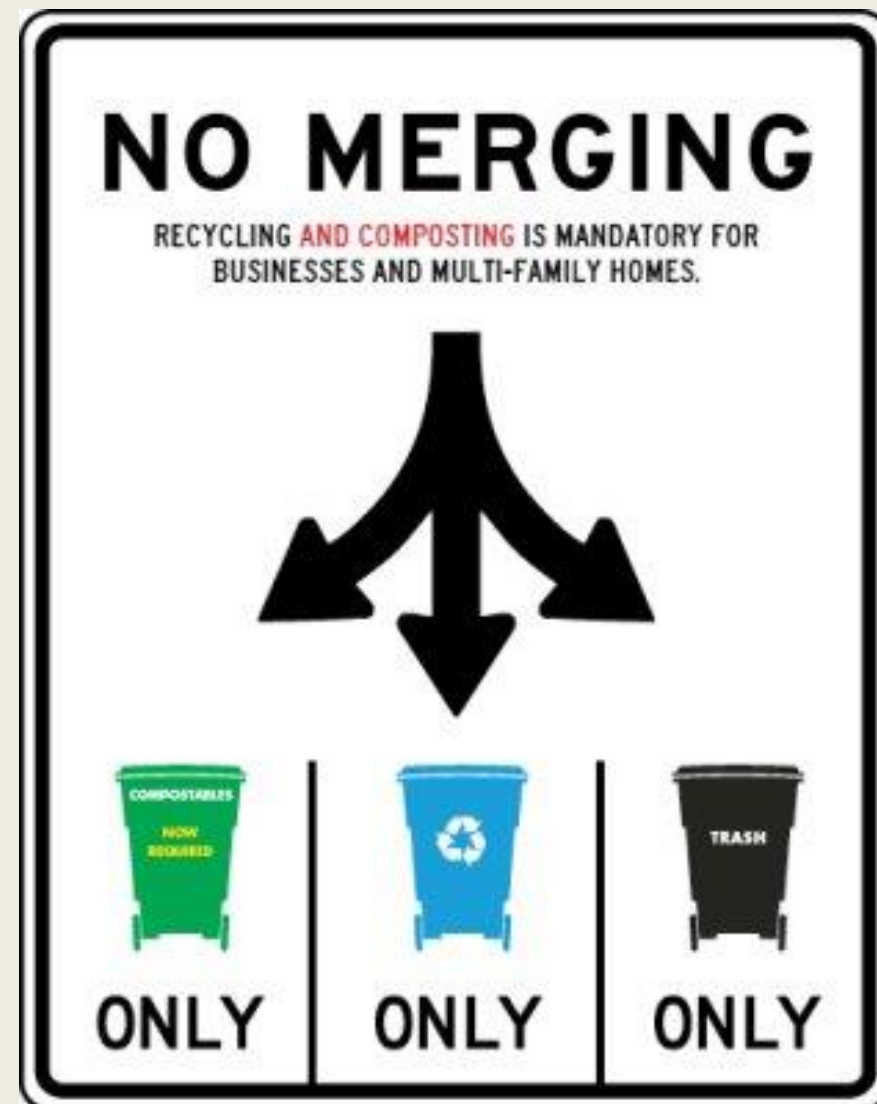
20%

Edible Food
Recovery

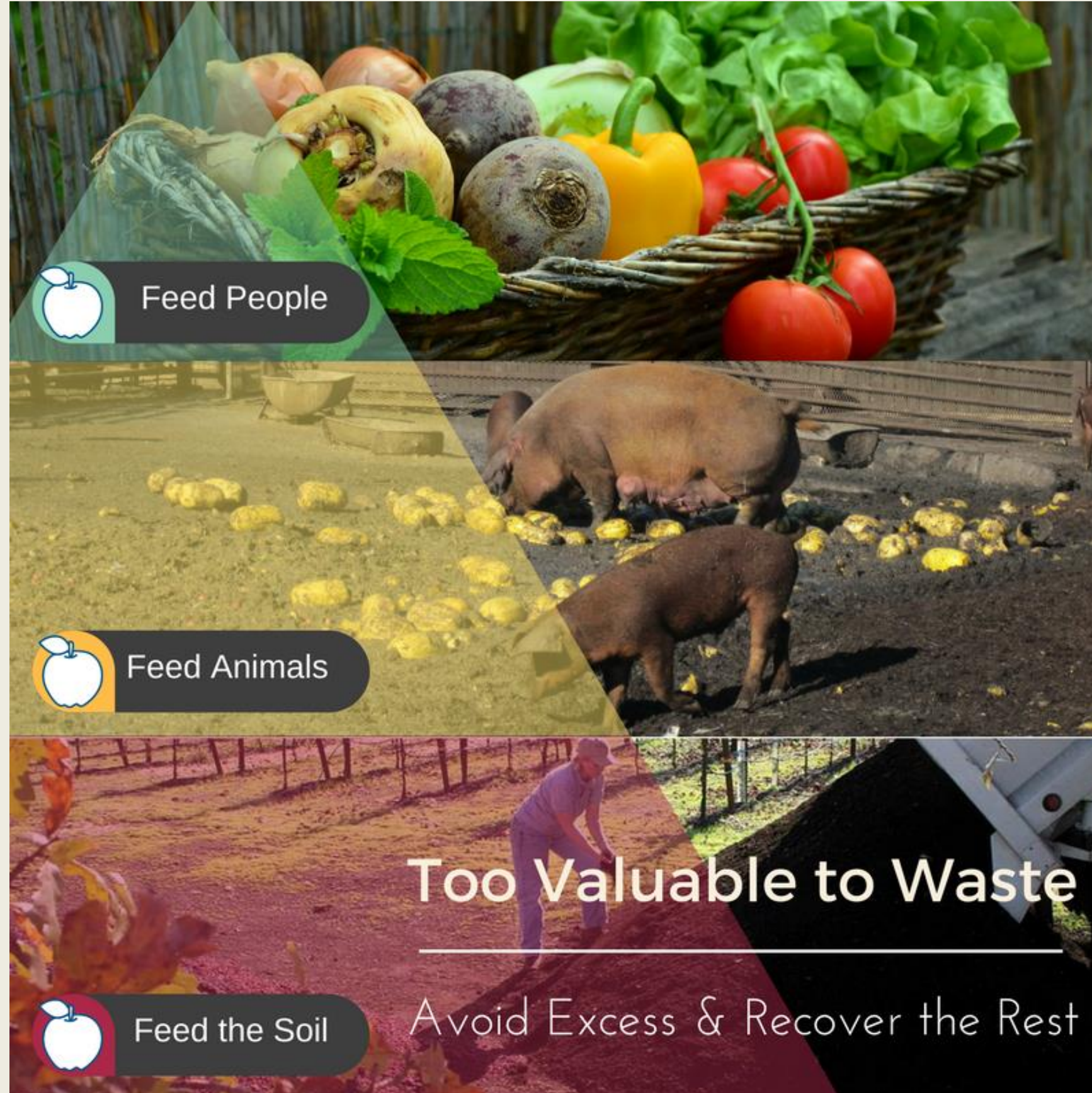
Waste-Specific Targets

Diverting 75% of Organic Waste

Requires a statewide, mandatory, enforceable, universal organics program



Second Goal: 20% of Edible Food Must Be Recovered for Human Consumption



Feed People



Feed Animals

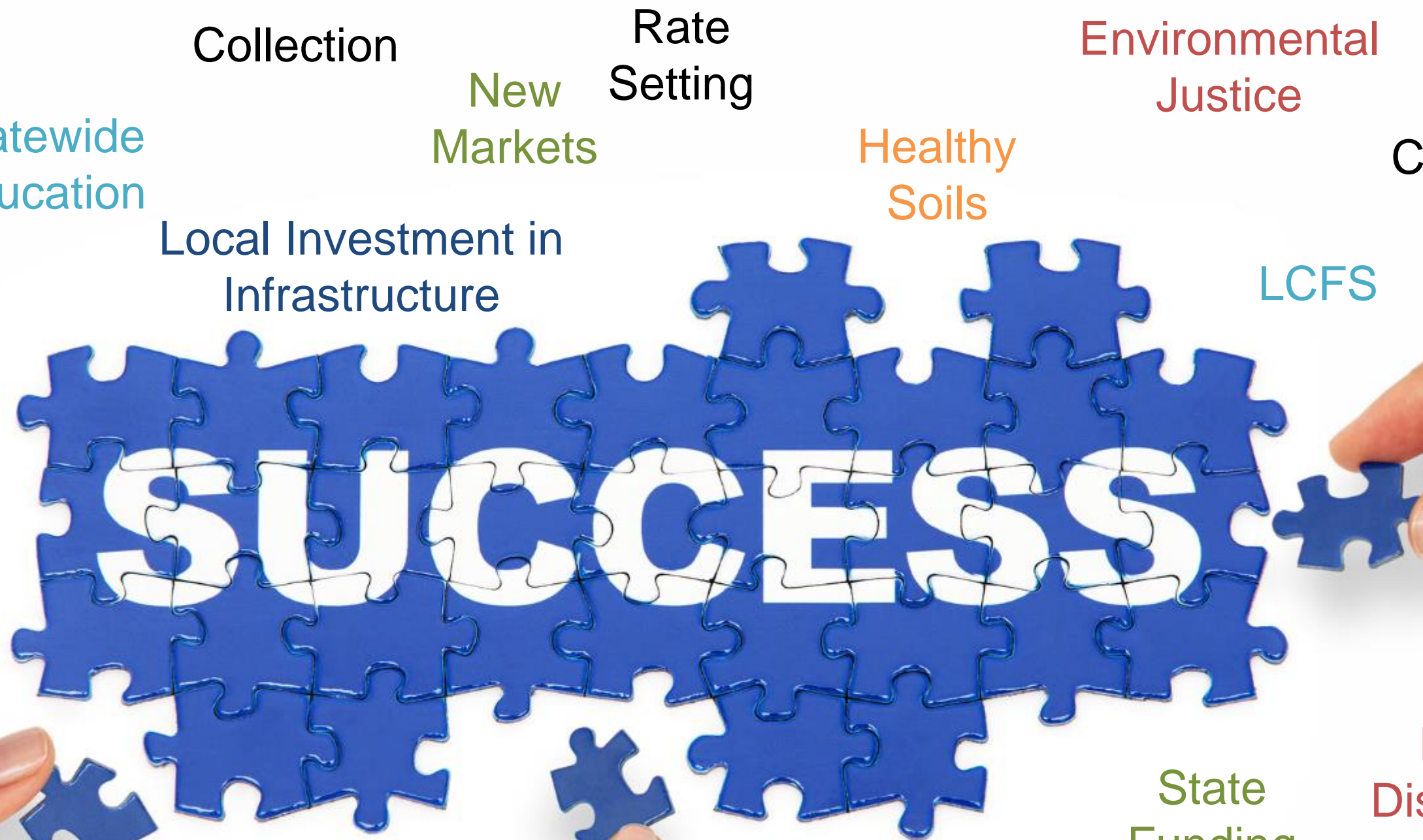


Feed the Soil

Too Valuable to Waste

Avoid Excess & Recover the Rest

Lesson Learned: Chickens & Eggs Co-Exist



“RFP It & They Will Come”

Collection

Rate Setting

Environmental Justice

Donation Incentives

Siting

Statewide Education

New Markets

Healthy Soils

CalTrans

Permitting

Local Investment in Infrastructure

LCFS

Procurement

Landfill Fees

Compostable Packaging

RPS

Regulatory Coordination

Offsets

Good Samaritan Policies

State Funding

Food Systems

Fertilizer Disincentives

Bins & Liners

Wildfire Restoration

Lesson Learned: Use All The Tools In the Toolbox



Lesson Learned: Tell The "Why"



The Mercury News

Opinion: Composting organic waste helps combat climate change

California goals to separate kitchen garbage will reduce methane gas in landfills

By AL COURCHESNE | PUBLISHED: June 16, 2023 at 5:00 a.m. | UPDATED: June 16, 2023 at 5:20 a.m.

Listen to this article

Californians who long ago became accustomed to separating their trash and recycling their cans, bottles and paper are now being asked to separate their kitchen garbage so it can be recycled into compost. Some may be wondering, is it worth the trouble?



Other Lessons Learned



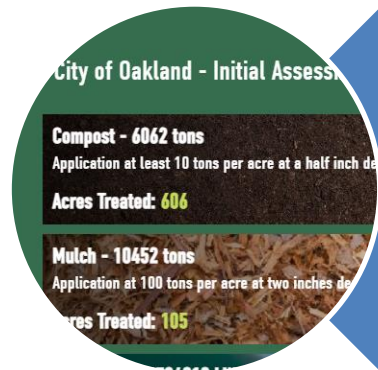
Need to factor in complimentary solutions to municipal collection programs

Can community composting coexist with franchise collection?
Closed loop food dehydrators?



No "Article 2" process

Should have been up front that waste-to-energy does not accomplish the multiple environmental objectives of SB 1383.



Procurement should have included more compliance options

Some jurisdictions already had strong markets. Should have allowed alternative compliance strategies like carbon farming, food recovery, and sheet-mulching rebates.
Procurement should be ramped up over time



Los Angeles Times

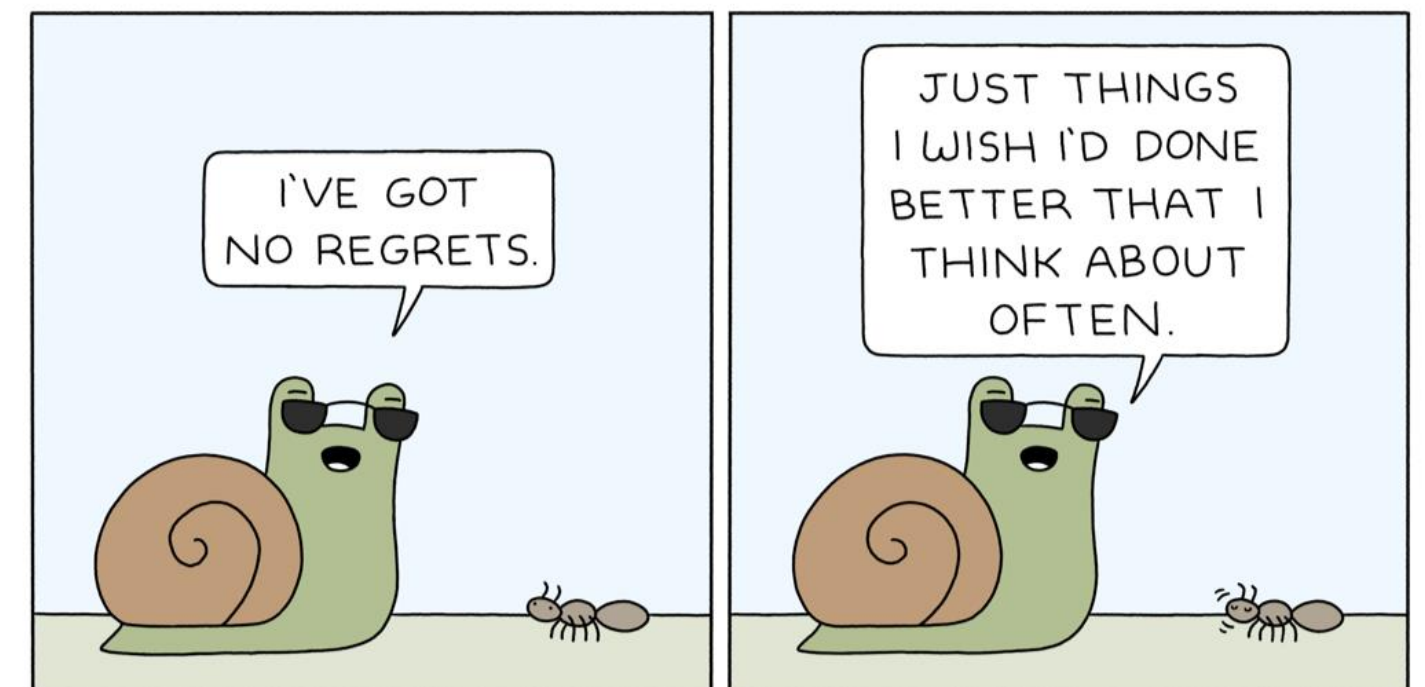
Editorial: Don't stop composting, California can't afford to abandon its methane-busting now

Be prepared to make tweaks, but not to undercut implementation

SB 619 (Laird) created an alternative compliance timelines for jurisdictions,
AB 1985 (Rivas) phased in procurement requirements
But don't undercut regulatory certainty.

**NOTHING WILL EVER
BE ATTEMPTED IF
ALL POSSIBLE
OBJECTIONS MUST
FIRST BE OVERCOME**

Samuel Johnson



POORLY DRAWN LINES



Thank You



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