

FOOD WASTE REDUCTION & SURPLUS FOOD RECOVERY

- ❑ CHALLENGES
- ❑ HIERARCHY
- ❑ STRATEGY
- ❑ INCENTIVES
- ❑ LEGISLATION & INFRASTRUCTURE
- ❑ EXAMPLES

From
1943!!



CHALLENGE



Me??!! ...I don't waste food!!

IS IT FOOD WASTE OR WASTED FOOD?

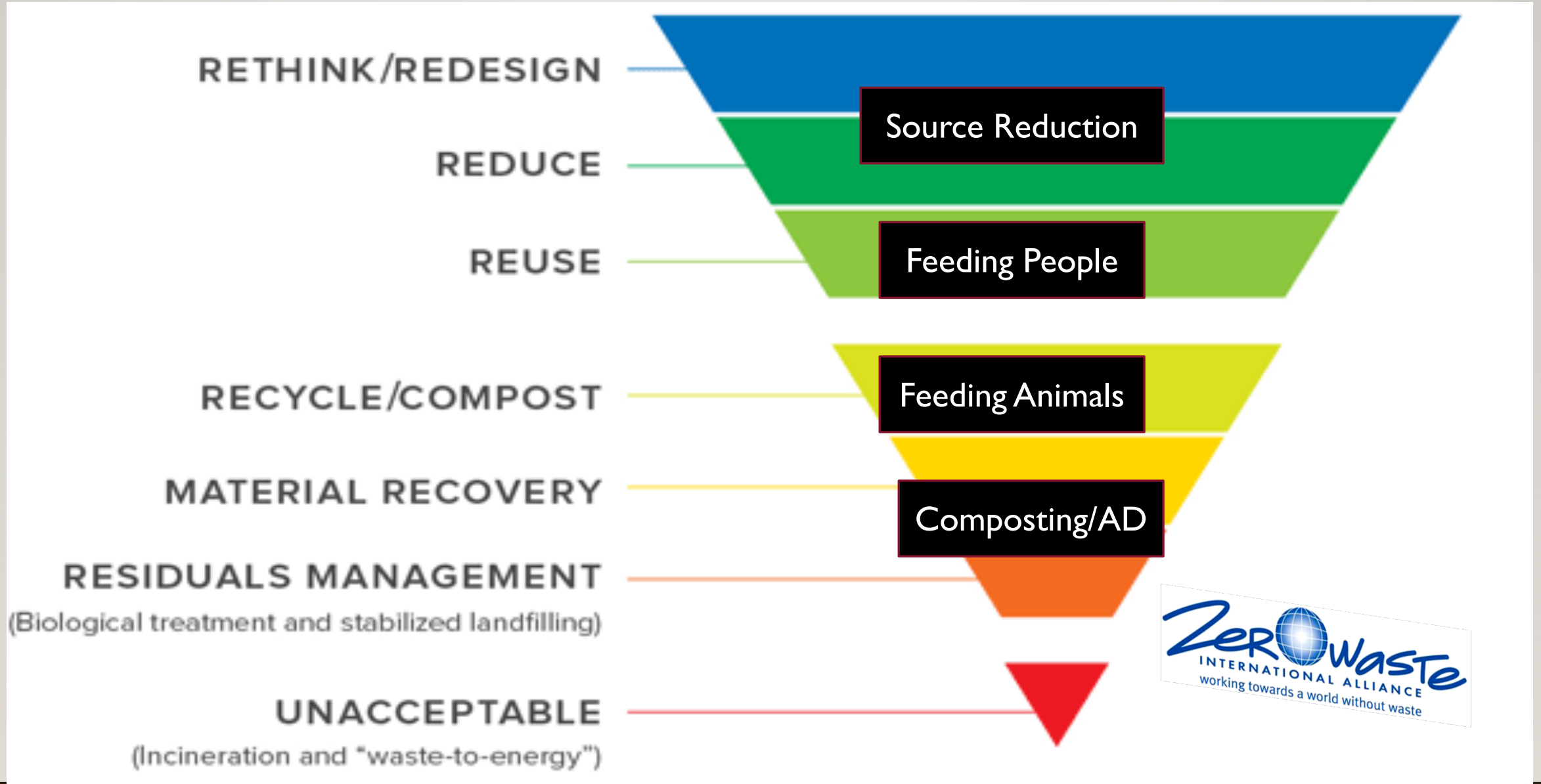
Commercial Food Waste Loads at the City of San Diego's Miramar Greenery

Feeding Soil

Feeding Animals

Repurposed/Feeding People &/or Animals

ZERO WASTE INTERNATIONAL ALLIANCE HIERARCHY



PREVENTION/RETHINK/REDUCE



Cook It All!

Use Rot-to-Stalk & Nose-to-Tail Coking

- Proper purchase & storage
- Good knife skills
- Smart batches or just-in-time cooking
- Avoid refreshing chafing dishes
- Small portions
- Weekly menu planning

STRATEGY: HIGHEST DIVERSION AND OUTREACH COMMERCIAL LARGEST GENERATORS

- Military Bases*
- Airports (terminals & airlines)*
- School Districts*
- Universities Campuses*
- Hospitals*
- Retail Distribution Center*

- Food Banks*
- Large Hotels*
- Convention Centers*
- Farms*
- Grocery Stores*
- Malls*

INCENTIVES - RECOGNITION

- Education
- Website
- FB/Instagram/Tweet
- Seal of Participation
- Awards
- Articles



LEGISLATION - USA EXAMPLES

- ❑ **Bill Emerson Good Samaritan Food Donation Act, 1996**
- ❑ **Internal Revenue Code (IRC) Section 170**
"Allowable Deduction for Charitable Donations to Ordinary Income Property"
- ❑ **USDA & EPA Goal to Decrease Food Waste by 50% in 2030**

LEGISLATION - CALIFORNIA EXAMPLES

AB 32

California Global Warming Solution Act 2006
Decrease Greenhouse Gas Emissions (GHG) to 1990 levels by 2020

*
1ton surplus food donation avoids 2.08 MTCO_{2e}
1ton food waste to compost avoids 0.32 MTCO_{2e}
*Source CARB

SB 1383

Short-Lived Climate Pollutants (SLCP):
Organic Waste Methane Emissions
Reductions

1/1/20 - 50 % reduction in statewide disposal of organic waste from 2014 level

1/1/22 - Becomes enforceable

1/1/25 - 75 % & no less than 20% edible food must be donated

INFRASTRUCTURE

Infrastructure Needed

- **Collection capabilities**
- **Commercial composting facilities**
- **Decentralized composting facilities**
- **AD facilities**

EXAMPLES OF ON-SITE COMPOSTING



EXAMPLES - SOURCE REDUCTION



EXAMPLES - SOURCE REDUCTION



Trayless Dinning

Small University Campus
Decreased
22% tons/week

Large Hotel in SD



Reduced 63% pre-consumer food waste
(~ 13 tons/year)

Avoided 9.74 MTCO₂e (= removing CO₂
emissions from 1,092 gal of gasoline)

Saved ~ \$29,000/year on food purchasing

Additional saving on hauling & tipping fee costs

EXAMPLE - REPURPOSING

SoulMuch

Collecting daily from restaurants & juice bars

~ 40 lbs of leftover quinoa and rice

~ 20 lbs of juice pulp

Making 22 lbs. of grain flour turned into 3 different cookie flavors

Start with a prize from How Green Is Your Dream Challenge - Youth Innovation Challenge Category a North American competition hosted by the Commission for Environmental Cooperation, which grew out of NAFTA.



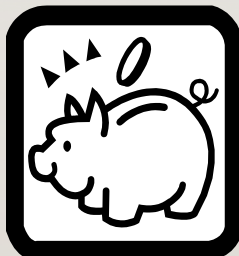
*Reyanne Mustafa and Kristian Krugman of SOULmuch,
San Diego, CA, USA*

*“Wasted” Food Business Opportunity, by Marsha W, Johnston,
BioCycle July 2018*

EXAMPLES - HOTELS' DIVERSION WITH SURPLUS FOOD DONATION

Hilton BayFront Hotel
San Diego, CA
2012 - 0.65 lbs food waste/cover
2018 - 0.2 lbs food waste/cover

Source: Winning Food Waste Reduction Strategy, by Ana Carvalho – BioCycle Magazine June 2019



Tipping fees & hauling costs



Sheraton SD Hotel & Marina
San Diego, CA
Donating 4,000lbs/mos.
~3,000 meals/mos.

Moving Generators Towards Food Donation, by Ana Carvalho – BioCycle Magazine, Oct. 2017

Source: Winning Food Waste Reduction Strategy, Ana Carvalho BioCycl Magazine, May/June 2018

EXAMPLE – FEEDING ANIMALS



Konyn Dairy Farm ~ 1,600 cows

Collects ~ 155tons/week food waste from local business

- bakery products
- brewer spent grains
- fruit peels

Must Consider:

Types of Food - Distance to Farms - Cost Effective

FOOD WASTE REDUCTION & SURPLUS FOOD RECOVERY

THANKS!
Ana Carvalho
anaazoury@yahoo.com

