



FOOD IS TOO GOOD TO WASTE

ASHLEY ZANOLLI - OREGON DEQ

ON TEMPORARY ASSIGNMENT FROM EPA REGION 10

Overview

- Why Framing and Mindsets Matters
- Why Household Wasted Food Matters
- The Power of Collaborative Design through Community-Based Social Marketing
- Food: Too Good to Waste Evaluation
 - Successes
 - Lessons Learned
 - Opportunities in Your Community



Mindset Matters



What's Wrong With This Picture?

Food Waste



All food waste and coffee grounds

 No compostable products, cardboard, waxed paper, liquids, grease, cooking oil, plastic, metal, glass, yard debris, wood

www.oregon.gov/oregon

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The True Cost of Food Waste

**Visible
costs**

**Disposal
costs**

**Invisible
costs**

Lost
materials

Energy cost

Natural
resources

Liabilities and
risks

Lost
labor

Nutrients

Other
costs

On average, the true cost of wasted materials is about 10 times the cost of disposal

(Hall, PLOS 2009)

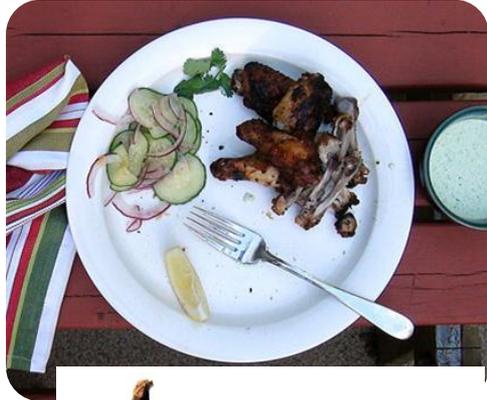
In one month, a family of 4 wastes ...



Bill Marsh and Kari Haskell/The New York Times; Photograph by Tony Cenicola/The New York Times

[ReFED Report](#) estimates **43%** of all the food wasted in the US comes from households

Why do we waste food?



Food: Too Good To Waste

Facts and Impacts

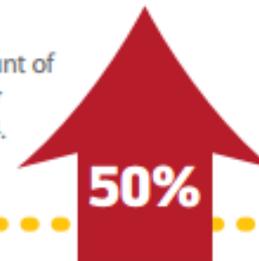
Food waste is a growing problem with profound financial and environmental impacts.

Food is typically wasted when we buy more than we need, store it incorrectly, throw away leftovers or cook too much.

Americans waste **25 percent** of the food they purchase.



Increase in amount of food **wasted** per capita since 1974.



Wasted Food = Wasted Resources

Average **amount spent** each year by a family of four on wasted food.

When we throw away food, we also waste all the water and energy used to produce, package and transport food from the farm to our plates. U.S. food waste uses:

25% of all our **fresh water.**



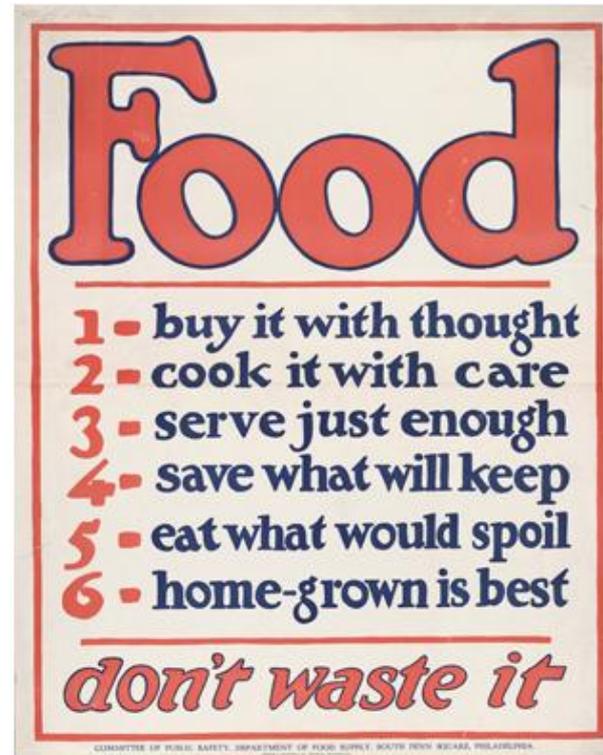
Enough **energy** to power the country for more than a week.



By Keeping Good Food from Going to Waste ...

We can:

- Toss less
- Eat well
- Simplify our lives
- Save money
- Teach children healthy habits



National Agricultural Library, Special Collections, State poster, Pennsylvania, 1917

Food: Too Good To Waste Toolkit

Strategy: Develop and test scalable model featuring a Community-based Social Marketing (CBSM) approach to foster food consumption behaviors that reduce wasted food in households

Target Audience: families with young children and millennial workers.

Key Behaviors to Reduce Wasted Food:

- **Get Smart:** See how much food (& money) you're throwing away
- **Smart Shopping:** Buy what you need
- **Smart Saving:** Eat what you buy
- **Smart Storage:** Keep fruits and vegetables fresh
- **Smart Prep:** Prep now, eat later





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2014-2015 West Coast Climate Forum Webinar Series

The West Coast Climate Forum hosts an annual webinar series featuring speakers who are experts in the field of climate change, sustainable materials management, life cycle analysis, sustainable consumption and production, and other relevant areas. Our webinar series is intended to get participants thinking and talking about new strategies for achieving our environmental goals.

Webinars from the 2014-2015 Series:

Topic	Date	Speakers	Files
Reducing Greenhouse Gas Emissions in the Construction Sector	May 12, 2015	Wes Sullens, Stop Waste in Alameda County (Moderator); Aaron Toneys, Good Company; Stacy Ludington, Oregon Department of Environmental Quality; Jennifer Willer, City of Eugene	<ul style="list-style-type: none"> • Webinar recording • Slides
Community-Based Social Marketing and Food Waste Training	March 24, 2015	Amanda Godwin, Colehour + Cohen; Ashley Zanolli, EPA Region 10	<ul style="list-style-type: none"> • Webinar recording • Slides
Food: Too Good to Waste - Successes and Lessons from Communities	February 10, 2015	Ashley Zanolli, EPA Region 10; Miki Sonntag, Ph.D, FTGTW lead researcher; Karen May, King County Solid Waste; Jennifer Jordan, Iowa City Landfill & Recycling Center; Dave Rocheleau, Rhode Island Food Policy Council (Speaker bios)	<ul style="list-style-type: none"> • Webinar recording • Slides
Measuring Public Attitudes About Consumption	January 27, 2015	Wendy Philleo, Center for New American Dream; Tom Bowerman, PolicyInteractive; Babe O'Sullivan, City of Eugene (moderator)	<ul style="list-style-type: none"> • Webinar recording • Slides
The Role of Cities in Advancing Sustainable Consumption	December 2, 2014	Babe O'Sullivan, City of Eugene (moderator); Maurie Cohen, SCORAI ; Brenda Nations, USDN , Iowa City; Terry Moore, ECONorthwest	<ul style="list-style-type: none"> • Webinar recording • Slides
Funding and Managing Organics and Recyclable Materials to Reduce GHG Emissions	October 21, 2014	John Davis, Mojave Desert and Mountain Recycling Authority; Pete Pasterz, Oregon Department of Environmental Quality - See Oregon DEQ's report on environmental impacts of food waste management	<ul style="list-style-type: none"> • Webinar recording • John Davis' slides • Pete Pasterz's slides
Climate Change: Current and Future Impacts, and the Link between Climate	September 16, 2014	Dr. Philip Mote, Oregon State University, co-author of National Climate Assessment Northwest section; David Allaway, Oregon	<ul style="list-style-type: none"> • Webinar recording • Dr. Philip Mote's slides

(Free!) CBSM Training! →

Background on FTGTW Toolkit Development →

Remove Barriers/Emphasize Benefits

- **Significant Barriers**

- Automatic Behavior
- Dynamic Lifestyle
- Time/Convenience
- Knowledge/Skills

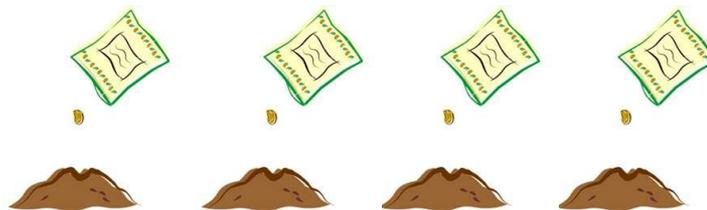
- **Significant Benefits**

- Waste Aversion (getting value out of what you have)
- Health
 - Focus group participants significantly likely to spend a little more time and money if healthier for their families

Food: Too Good to Waste Toolkit Components

Goal: To prevent household wasted food

- **Main message:** *Food is too essential to throw away.*
- **Implementation guide**
- **Message map**
- **Behavior change tools, including:**
 - fruit and vegetable storage guide
 - shopping list template with meals in mind
 - “eat first” refrigerator prompt
- **Outreach Tools, including:**
 - Infographic /poster
 - Facts on supply chain impacts
 - workshop presentation for community participants



Community-Based Social Marketing Outreach Methods

- Campaigns to engage social norms were more effective
- Engage at the community level
 - Personal recruitment with public commitment is most effective
 - Work through trusted community leaders
- Speak to community values
- Leverage existing networks to build capacity
- Contextualize preferred behaviors
 - (ex. prompts, feedback to overcome barriers)
- Collect evidence to evaluate impact and cost-effectiveness
 - Refine approaches and fill research gaps



Photo Credit: King County Solid Waste

Implementing Partners

Original 2012 Implementing Partners:

- King County (WA)
- San Benito County (CA)
- Boulder County (CO)

Evaluation Results:

Based on 17 pilot campaigns, it is possible for households **to reduce preventable food waste up to 50% or more by weight** (~0.5lb/person/week).

Creating food waste awareness is key to lasting impact in food waste reduction – **measurement is key!**

Saves the average family of four **\$1600** (USDA estimate)

Recent/Future Implementing Partners:

- Oregon
 - Gresham
 - Beaverton
 - WA County
 - City of Portland
 - OR Metro
- Washington
 - Seattle Public Utilities
 - King County
 - Thurston County
- Others
 - Iowa City
 - RI
 - Vermont
 - Honolulu (HI)
 - Capital Regional District (British Columbia)
 - Ann Arbor (MI)

Major Findings

- There are strong indications that households have a significant interest in reducing their wasted food.
 - 96% of the participants said they are likely to continue to use the strategies and tools
- FTGTW behavioral changes are relatively easy for households to make.
- Creating awareness is key to motivating people to sustain their behaviors.
- It is possible for households to reduce preventable food waste up to 50% and more by weight.
 - **A 50% reduction is roughly a half pound per person per week or 20% of total food waste.**
 - In addition, it is likely that the inedible fraction of waste is also reduced as households purchase less food.

Opportunities to Get Involved

You can 'Take the Challenge' with your Co-workers or Neighbors!

State and Local Governments

- Implement Food: Too Good to Waste as a state or county-wide campaign and leverage the national Ad Council/NRDC Campaign

Producers, Retailers, Restaurants, Haulers and other businesses

- Provide outreach and incentives to help consumers waste less and leverage the national Ad Council/NRDC Campaign

Colleges, Universities , and K-12 Schools

- Integrate information to support sustainability programs aimed at the young adult demographic. Additional opportunities with K-12 Schools.

Community groups or non-profits

- Link with food system efforts, social media outreach. Partner with local governments and mayors for a community-wide challenge.

National “Save the Food” Campaign

Spread the Word With the Ad Council!

HOME | JOIN US | INFO | CONNECT

WE WASTE

40% OF THE FOOD
PRODUCED IN AMERICA.

SAVETHEFOOD.COM

LET'S SAVE THE FOOD

The good news: there's something we can do. The better news: it's easy. And we've already got everything we need—it's right in the refrigerator. Let's do this.

<http://socialmediakit.adcouncil.org/presskit/save-the-food/>

My Lessons Learned

1. Focus on mutual goals
2. Check your assumptions
3. Maintain a “beginners mind” during project formulation
4. Relationships are the currency of collaboration
5. Implementable innovation requires a tirelessly persistent champion(s)
6. You go fast alone or much farther together



Ashley Zanolli
*US EPA Region 10**

**Temporarily assigned from EPA Region 10 to
Oregon DEQ until 2018*

Extra Slides for Questions

Takeaways

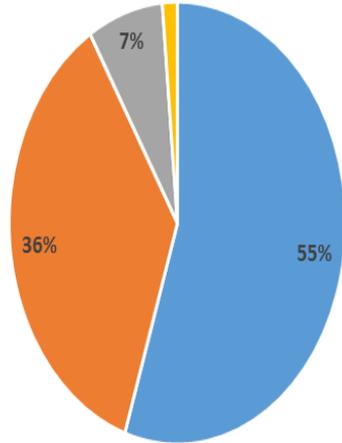
Collaboration can:

- Leverage financial resources and people power
- Increased likelihood of replicating scalable solutions
- Lead to creative results
- Tap into shared values to achieve results
- Bring diverse groups together
- Serve individual and greater good

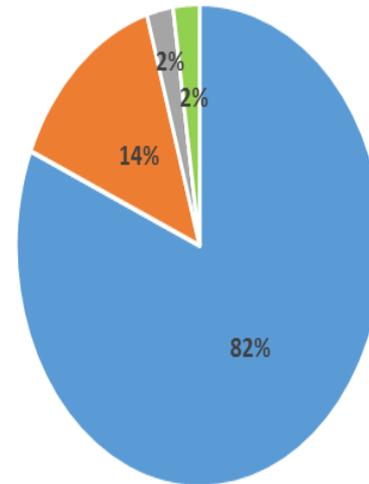


Challenge Effectiveness

Effect on Increasing Awareness of Wasted Food in Household
"I am now more aware of food going to waste in my household"



Likelihood of Continuing to Use Strategies and Tools



■ Strongly agree ■ Agree ■ Neutral ■ Disagree ■ Strongly disagree

■ Agree ■ Somewhat agree ■ Somewhat disagree ■ Disagree ■ Don't know/unsure

Leveraged Resources

- Planning Team
 - Including communities that implemented the pilot
- Other food waste prevention pilots
 - UK WRAP Love Food, Hate Waste
 - City of Portland's Be Resourceful Campaign
 - Minnesota food waste prevention pilot with Eureka Recycling

Community Food Consumption Pilot

Focus

- Remain focused on households and individual behavior
- Residential is a gap – focus there and potentially partner with grocery stores.

Target Audiences

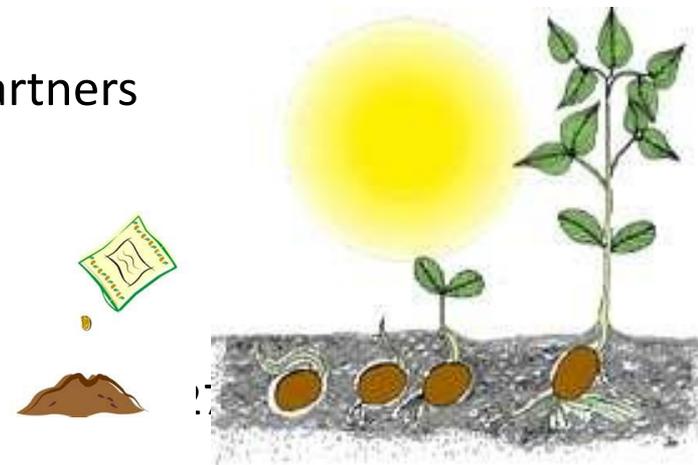
- Families with small kids
- Young full-time workers

Strategy

- Develop/modify existing waste reduction tools and apply Community Based Social Marketing techniques to drive behavior change and reduce wasteful consumption

Collaborative Elements

- West Coast Climate Forum structure
 - Collaboration between EPA R9 & 10 and state, local & tribal government partners
- Planning Team
- Background Research and Other Pilots
- Design Principles
 - Integration into existing programs
 - Adaptable to meet goals of implementing organization
- National Peer Learning Network
 - EPA supported learning forum for project partners
 - EPA Regional contacts
- Evaluation



Where Are We?

- Step 1: Identify and Select Behaviors for Change
- Step 2: Identify Barriers and Benefits of Selected Behaviors
- **Step 3: Design Pilot**
 - Pilot Interviews
 - Social-psychological Tools
 - Objectives
 - Communication/Messaging
 - **Data Collection Methods**
 - **Pilot Design**
- Step 4: Pilot Implementation and Evaluation (Q3 2012)

Planning Team

- **Planning Team:**
 - Tetra Tech and Subcontractors
 - EPA HQ
 - EPA R9
 - EPA R10
- **Over 25 State and Local Government partners from:**
 - CA – San Benito County, Oakland, San Francisco, Chula Vista, Cupertino
 - WA – Seattle, King County, WA Ecology, Tacoma, Redmond, Bellevue. Clark County, Snohomish County. Thurston County
 - OR – Dept. of Env. Quality, Portland, Oregon Metro, Gresham, Eugene, Washington County
 - MN State pollution Control Authority
 - ICLEI, Green Cities CA

Oregon DEQ Strategy to Prevent Wasted Food

(Draft) GOALS

- ❑ **Develop the state of knowledge and building blocks to help reduce wasted food** in Oregon, and elsewhere, in the most cost-effective and environmentally beneficial manner.
- ❑ **Increase business and consumer actions to prevent wasted food**, consistent with the Oregon DEQ's 2050 MM Vision.
- ❑ **Reduce GHG emissions, water use, energy use and wasted resources by reducing the generation of wasted uneaten food** by 15% by 2025 and 40% by 2050.

***Oregonians in 2050 produce and use materials responsibly
conserving resources • protecting the environment • living well***

<http://tinyurl.com/OregonJourneyVideo>



SELF-IMPROVEMENT



COMFORT



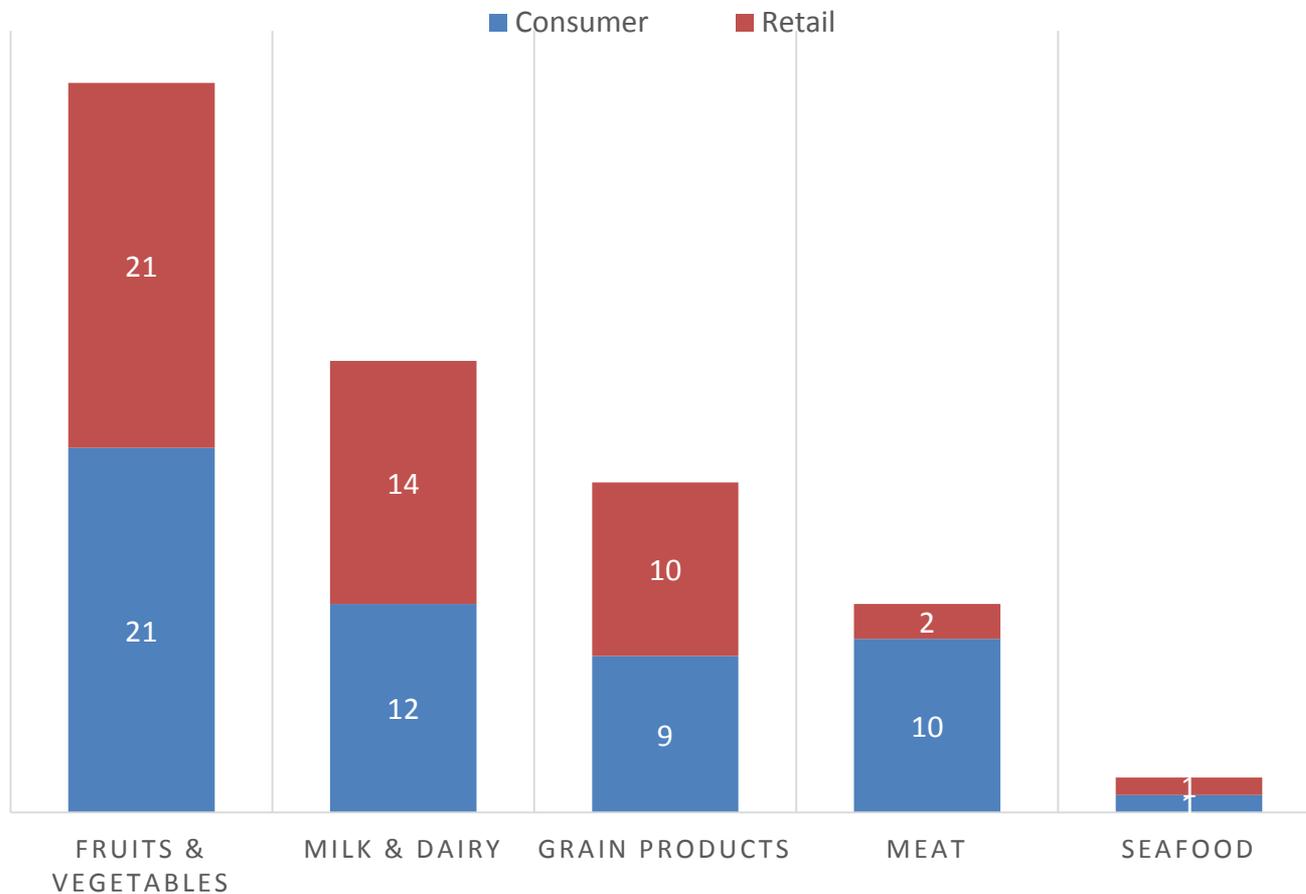
SECURITY



THOUGHTFULNESS

Our aspirations to be good caretakers, generous hosts, healthy and adventurous eaters lead to food waste.

FOOD WASTE BREAKDOWN (BY WEIGHT AND TYPE)



In Summary

Sustainable Materials Management (SMM) provides significant opportunities to:

- Target work where environmental impacts are the greatest
- Build strong coalitions, communities and economies
- Provide national and international leadership
- Demonstrate measurable and impactful results

What's in it for Business Partners?

- **Cost savings** for your business and your customers
- **Build brand value and a better customer experience** by helping your customers stretch their food budgets further and feel good about wasting less
- **A more efficient production life-cycle**
- **Help raise public awareness** and expand the conversation on sustainability
- **Exhibit leadership** and provide new products and services your customers need
- **Learn from peers and experts** and increase your competitive advantage

EPA Sustainable Food Management



Resources listed at end of panel presentation

Food: Too Good to Waste Toolkit

Access the Food: Too Good To Waste Toolkit:

<https://www.epa.gov/sustainable-management-food/food-too-good-waste-implementation-guide-and-toolkit>

Access the Food: Too Good to Waste Evaluation:

http://westcoastclimateforum.com/sites/westcoastclimateforum/files/related_documents/FTGTW_FinalReport%204_26_16.pdf