

US EPA ARCHIVE DOCUMENT



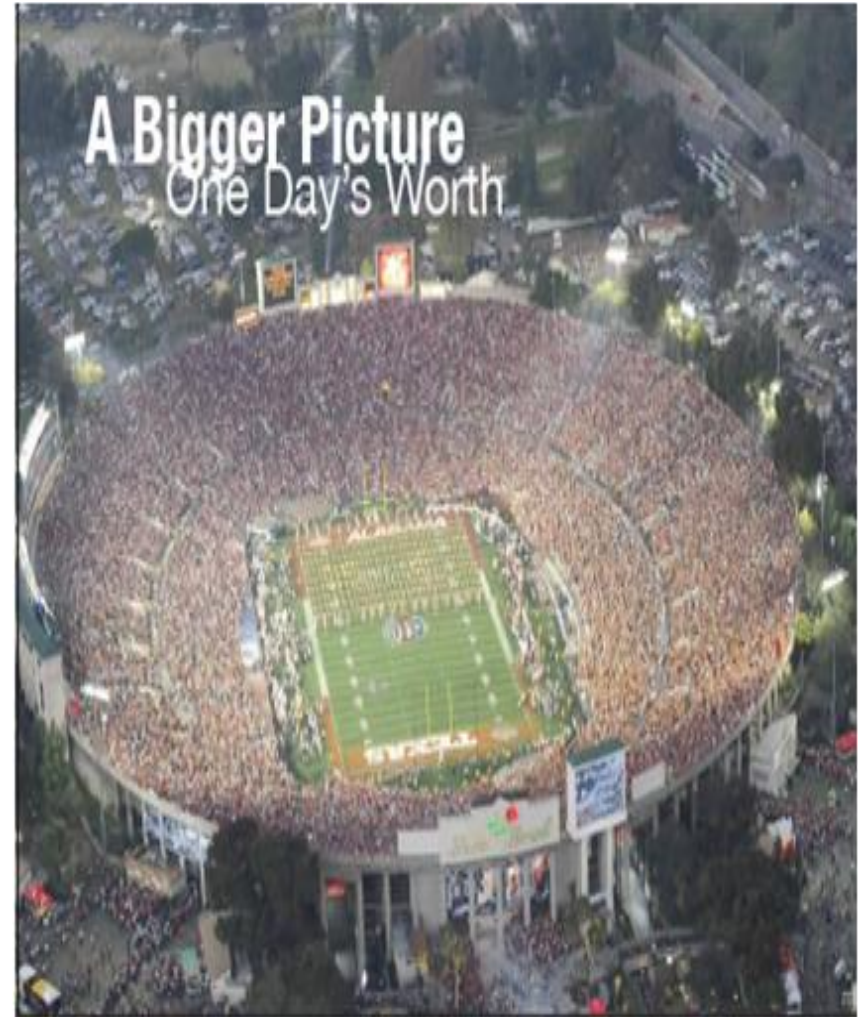
## Food: Too Good to Waste Pilot Toolkit

EPA's Sustainable Materials Management Webinar

November 15, 2012

# The Food Waste Problem

- Americans waste enough food to fill the Rose Bowl every day (Bloom 2010).
- 44% of all food produced or imported for consumption in the U.S. ended up in the landfill or compost pile (USDA, ERS 2010).
- Americans throw away \$124 billion each year in food purchases.





# Food Recovery Hierarchy

[www.epa.gov/foodscraps](http://www.epa.gov/foodscraps)

## Source Reduction

Reduce the volume of surplus food generated

## Feed Hungry People

Donate extra food to food banks, soup kitchens and shelters

## Feed Animals

Divert food scraps to animal feed

## Industrial Uses

Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

## Composting

Create a nutrient-rich soil amendment

## Landfill/ Incineration

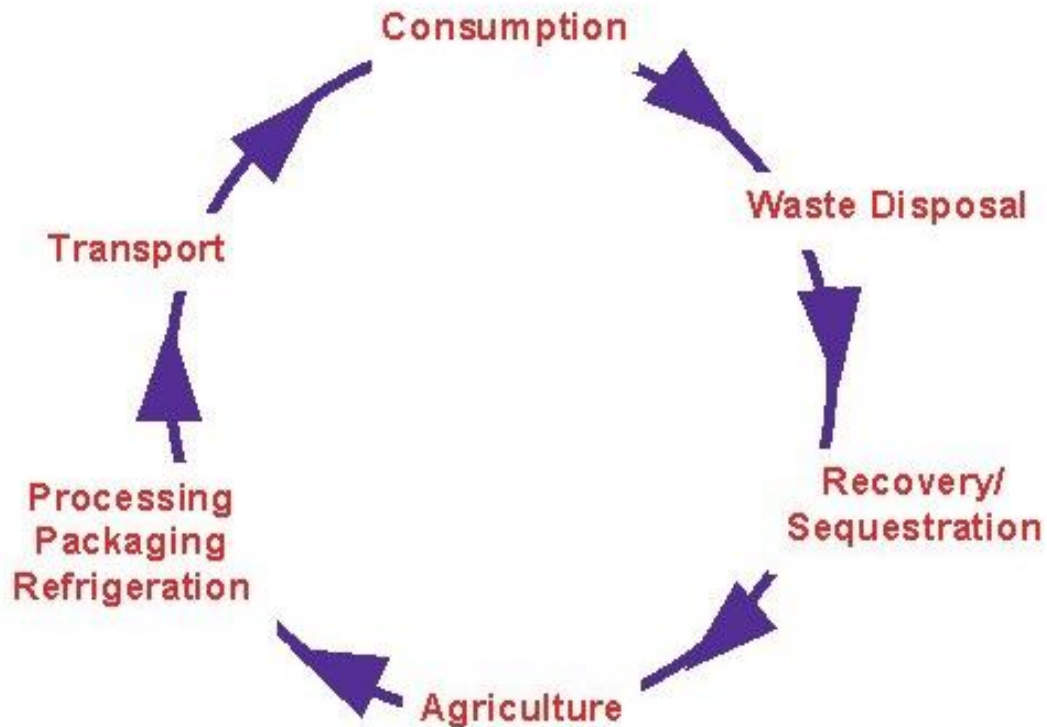
Last resort to disposal

# Community Food Waste Prevention Pilot

## Purpose

- To reduce wasteful household food consumption by focusing on social marketing incentives and messages directed at individuals within targeted communities to consume less by wasting less food.

## The Food Cycle



# Community Food Waste Prevention Pilot

## Focus

- Remain focused on households and individual behavior. There are already numerous programs tailored for the business community

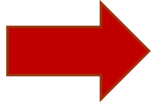
## Target Audiences

- Families with young children
- Young full-time workers

## Strategy

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

# 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 (Q4 2012)



# How Did We Get Here?

- Started in late 2010: EPA (OSWER) Innovations Workgroup Grant

- Thanks to Our Planning Team!

Tetra Tech and Subcontractors – Viki Sonntag , Tommie Jean Valmassey, Joanna Canepa, Amanda Godwin and Julie Colehour

EPA HQ – John Cross, Amy Lile, Jean Schwab

EPA R9 – Shannon Davis, Olof Hansen

EPA R10 – Ashley Zanolli, Vicky Salazar, Theresa Blaine, Daniel Brody, Dore Mangan

## **Over 20 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



# Overarching Measurement Objectives

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

- Measure impact of CBSM campaign on behaviors (intermediate result)
- Measure impact on food waste reduction (outcome)
- Calculate cost effectiveness and environmental and economic benefits of pilot
- Identify fit with current strategic plans and programs

# Community-Based Social Marketing

- Step 1: Identify and Select Behaviors for Change  
Deliverables: Background Research Report
- Step 2: Identify Barriers and Benefits of Selected Behaviors
  - Background Research
  - Focus GroupsDeliverables: Strategies and Messaging
- Step 3: Design Pilot
  - Pilot Interviews
  - Social-psychological Tools
  - Data Collection MethodsDeliverables: Pilot toolkit for Food: Too Good To Waste

# Summary: Steps 1 and 2

Behavior	Benefit	Barrier
<b>1. Make a shopping list with meals in mind</b>	<b>Waste aversion</b> Saving money	<b>Dynamic lifestyle</b> Time Automatic behavior
<b>2. Eat older stuff first</b>	<b>Waste aversion</b>	<b>Gratification</b> Convenience
<b>3. Prepare items sooner</b>	<b>Convenience</b> Saving money Health	<b>Skills</b> Knowledge
<b>4. Buy less at a time</b>	<b>Waste aversion</b> Saving money	<b>Automatic behavior</b> Dynamic lifestyle Packaging Time (if increased need to shop more often)
<b>5. Keep Fruits and Vegetables Fresh</b>	<b>Waste aversion</b> Health Saving money	<b>Knowledge</b> Time Not enough room in fridge

# The Toolkit Includes:

- **Research Report** which provides an analysis of food loss research, the selection of key waste prevention behaviors, and an analysis of focus group results to determine barriers and benefits to key waste prevention behaviors.
- **Message Map** with messaging for all 5 key waste prevention behaviors selected;
- **Implementation Guide** designed for a local government or other implementing organization;
- **Behavior Change Tools** including a storage guide, shopping template, poster and workshop presentation; and
- **Measurement Tools** including food waste measurement bag design, photo diary template, and centralized data collection system. Through the measurement tools, households can see the impact of their actions immediately; and

All files are available for download from our FTP site at:

# Implementation Guide

- This guide provides a comprehensive description of the purpose of the Pilot, the toolkit, and how your organization might launch a new food waste prevention challenge or incorporate this campaign into existing programs



# Before implementing the pilot, consider the following questions:

- **Objectives:** What are the implementing organization's objectives for the pilot?
- **Target Population and Sample Size:** Who is the target population for the pilot? What sample size will provide sufficient data to model desired outcomes?
- **Behaviors to Target:** Will the pilot focus on one or more of the five selected behaviors?
- **Tools to Use:** Which tools will be used?
- **Community Partners:** Who are the community partners that the implementing organization will engage in the pilot?
- **Cost:** What resources are available to implement the pilot?

# Messaging



**TOO GOOD  
TO WASTE**

- Note: Implementing organizations may choose to focus on one or more of the behaviors in the pilot along with the corresponding tools. In general, selecting fewer behaviors to focus on simplifies the outreach messaging and data collection
- Message Map (English and Spanish versions):  
[ftp://ftp.epa.gov/reg10ftp/Food\\_Too\\_Good\\_To\\_Waste/Messaging/04\\_Message\\_Map\\_08\\_18\\_12.pdf](ftp://ftp.epa.gov/reg10ftp/Food_Too_Good_To_Waste/Messaging/04_Message_Map_08_18_12.pdf)

# Behavior Change Tools



- **Fruit and Vegetable Storage Guide**
  - Spanish version available
- **Shopping list template with meals in mind**
  - Spanish version available
- **Infographic/Poster**
- **Workshop Presentation for Community Participants**



# Fruit and Vegetable Storage Guide

## SMART STRATEGY:

Know which fruits and vegetables stay fresh longer inside or outside the fridge.

By storing them for maximum freshness, they will taste better and last longer.

PARTNER  
LOGO HERE



**TOO GOOD  
TO WASTE**



# FRUIT AND VEGETABLE STORAGE GUIDE

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## INSIDE THE FRIDGE

- Apples, berries, and cherries
- Grapes, kiwi, lemons, and oranges
- Melons, nectarines, apricots, peaches, and plums (after ripening at room temperature)
- Avocados, pears, tomatoes (after ripening at room temperature)
- Almost all vegetables and herbs

## OUTSIDE THE FRIDGE

- Bananas, mangos, papayas, and pineapples: store in a cool place
- Potatoes / onions: store in a cool, dark place
- Basil and winter squashes: store at room temperature—once cut, store squashes in fridge

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## MORE STORAGE TIPS

- If you like your fruit at room temperature, take what you will eat for the day out of the fridge in the morning.
- Many fruits give off natural gases that hasten the spoilage of other nearby produce. Store bananas, apples, and tomatoes by themselves and store fruits and vegetables in different bins.
- Consider storage bags and containers designed to help extend the life of your produce.
- To prevent mold, wash berries just before eating.

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FOR MORE TIPS VISIT: <http://makedirtnotwaste.org/prevent-wasted-food>  
LEARN HOW TO STORE WITHOUT PLASTIC: <http://ecologycenter.org/factsheets/veggie-storage.pdf>

# SMART STRATEGY:

## Make a Shopping List with Meals in Mind



**TOO GOOD  
TO WASTE**

- Think about how many meals you'll eat at home this week and how long before your next shopping trip.
- Next to fresh items on the list, note the quantity you need or number of meals you're buying for.
- Shop your kitchen first and note items you already have.



### FOOD ITEM

### AMOUNT NEEDED

### ALREADY HAVE

Salad greens

Lunch for a week

Enough for one lunch

2% milk

Gallon

None

# WHAT'S UP WITH ALL THE FOOD WASTE?

## Infographic/Poster

- Can be used online, or as a poster or handout
- At community events and venues

### CONSIDER THE TOMATO...

31% of fresh tomatoes bought by U.S. households are thrown out—that's 21 tomatoes a year per person!



Throwing out that many tomatoes costs us a bundle—**over \$2.3 billion a year.**

If only it was just tomatoes... the cost of all U.S. household food waste = \$166 BILLION!



### WASTED FOOD = WASTED RESOURCES

#### U.S. FOOD WASTE ACCOUNTS FOR:



By making small shifts in how we shop, store, and prepare food, we can keep the valuable resources used to produce and distribute food from going to waste.

Sources: USDA Economic Research Service(ERS) Total and Per Capita Value of Food Loss in the United State (2012); USDA ERS , The Value of Retail- and Consumer-Level Fruit and Vegetable Losses in the United States (2011); Venkat, The Climate Change and Economic Impacts of Food Waste in the United States (2012); Hall et al. The Progressive Increase of Food Waste in America and Its Environmental Impacts (2009)



**TOO GOOD TO WASTE**

# Workshop Presentation for Participants

## Workshop Purpose

**Examine the problem of food waste including:**

- **How much goes to waste**
- **Why waste happens**
- **Why waste matters**
- **Strategies to reduce waste**



# Measurement Tools

- **Measurement Bag (waste/impact)**
- **Photo Diary**



The *Food: Too Good to Waste Challenge* tools are intended to help collect data during the pilot to answer these research questions:

- Did the pilot reach the intended audience?
- Did pilot change behaviors? How often and by how much?
- What was the impact of changed behaviors on reducing food waste?



# What's Next?

- EPA will support an evaluation of this pilot and provide an updated report in 2013
  - Projected annual cost savings for a family of four: \$1600
  - Per capita food waste reduction potential will be evaluated after initial pilots and used to set goals for 2013 implementation and measurement studies
- Contact Ashley ([zanolli.ashley@epa.gov](mailto:zanolli.ashley@epa.gov)) if:
  1. You are interested in implementing this pilot program, OR
  2. If you are already implementing this pilot program and would like to voluntarily share your results and anecdotal feedback from participants



Thank You!

Questions?

Comments

Contact:

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206-553-4425

Zanolli.ashley@epa.gov