

# **Toolkit Implementation Guide** **for the *Food: Too Good to*** ***Waste* Pilot**



September 19, 2012

West Coast Climate and Materials Management Forum

# Toolkit Implementation Guide for the *Food: Too Good to Waste* Pilot

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Disclaimer: This is a draft product of the West Coast Climate and Materials Management Forum intended to support organizations implementing the *Food: Too Good to Waste* pilot. This guide will be revised in 2013 based on initial pilot results. Please note: All Web addresses in this document were working as of the time of publication, but links may break over time as sites are reorganized and content is moved.

# Toolkit Implementation Guide for the *Food: Too Good to Waste* Pilot

## 1.0 Guide's Purpose

This guide is intended to support implementation of the *Food: Too Good to Waste* Pilot, a project developed by the EPA-convened [West Coast Climate and Materials Management Forum](#). Over 25 state, city and county government partners collaborated to develop this toolkit with support from EcoPraxis and Colehour + Cohen under subcontract to Tetra Tech EM Inc.

This *Food: Too Good to Waste* Pilot toolkit is designed to be adaptable to the needs of the implementing jurisdiction or organization based on objectives and resources. The intent is that this toolkit can be integrated into existing programs for local governments and implementing community organizations.

## 1.1 Community-Based Social Marketing Campaign

The *Food: Too Good to Waste* Pilot is a community-based social marketing campaign aimed at reducing household food waste.

Community-based social marketing (CBSM) is an approach to supporting behavioral change through community initiatives. These initiatives help remove barriers to beneficial activities (behaviors), while simultaneously enhancing those activities' advantages over less desirable activities.

In the model pilot's development stage, five behaviors were selected on the basis of their potential impact on reducing household food waste. The background research on which the selection was based has been published in a report, [Food: Too Good to Waste Pilot, a background research report](#), also available at: [http://bit.ly/Food\\_Too\\_Good\\_To\\_Waste](http://bit.ly/Food_Too_Good_To_Waste)

## 1.2 Model Pilot Objectives

The model pilot aims to engage households in efforts to reduce food waste and its impacts through a CBSM campaign. A second purpose is to analyze results that will help in the design of future CBSM programs to reduce food waste.

The model pilot's data objectives are two-fold:

- Reach: Determine if pilot resulted in desired behavior changes
- Impact: Determine impact of pilot in terms of percentage waste reduction

In addition, the data results may be used to estimate the tonnage waste reduction.

## 1.3 Model Pilot Design Principles

The model pilot has been designed with the following principles in mind:

- Remove/minimize barriers to and emphasize benefits of preferred behaviors

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- Contextualize preferred behaviors
  - Stories motivate behavioral change
  - Reference community values
- Engage at the community level
  - Think about the social networks or webs of relationships, not just target audiences
  - Recruit well-known and respected people as messengers
- Leverage existing resources
- Design for depth and breadth
  - Impact is a function of the average percentage reduction in food waste per person (depth) and the percentage of population adopting new behaviors (breadth)
- Collect evidence for policy-making and program design

## 2.0 Implementation Choices

Before implementing the pilot, consider the following interrelated 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?

### 2.1 Implementing Organization's Objectives

The pilot's implementing organization can benefit from determining specific objectives, both in relation to the model pilot and their longer-term program needs.

### 2.2 Target Population and Sample Size

The target population refers to the demographic the implementing organization hopes to engage in the pilot. The sample size refers to the number of households from which the implementing organization will collect data. Usually, the target population size is larger than the sample size.

Two principal target populations were selected in crafting the model pilot messaging and strategies: families with young children and young adults (ages approximately from 18 to 30). The two principal target populations were chosen on the basis of previous research that indicated these two demographics generate the largest amounts of food waste.

A number of considerations go into selecting a target population and sample size. Among the considerations are the demographics of the implementing organization's area population, the type and

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amount of resources the implementing organization has available, the time frame of the pilot, the implementing organization's objectives, and the model pilot data objectives.

Ideally, the sample size should be large enough to draw conclusions from the implementing organization's objectives. Also, the sample should either reflect the demographics of the target population or be selected to provide additional information for designing programs for other specified demographics.

Resource availability is a significant factor in determining the sample size. If resources are limited, then focusing on a small sample that provides additional information for scaling up the pilot may be the preferred option. Again, representativeness of the sample relative to local demographics is an important consideration in choosing the sample.

EPA can provide pilot communities with guidance on selecting sample sizes and setting goals for measurement. There is also an online discussion forum set up for local governments to share strategies. Please contact the project lead, Ashley Zanolli at [WestCoastForum@epa.gov](mailto:WestCoastForum@epa.gov) if you are interested in implementation.

## **2.3 Behaviors to Target and Tools to Use**

The workgroup identified five behaviors with a significant potential to reduce food waste in households. In addition, the CBSM literature was reviewed to identify effective tools to support the targeted behaviors. The message map and workshop presentation (see sections 3.1 and 3.5 below) list the five behaviors and supporting messages.

Several tools have been designed to effect specific behaviors, like the fruit and vegetable storage guide, while others, such as the infographic/poster and the community workshop presentation, are designed to promote general awareness of food waste. All of these tools are available at: [http://bit.ly/Food\\_Too\\_Good\\_To\\_Waste](http://bit.ly/Food_Too_Good_To_Waste)

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. There is a likely trade-off between the number of behavior changes that can be implemented at a time and the long-term adoption of the behavior change by the target population.

It should be noted there is limited research on which behaviors will be the most effective at reducing household food waste. Another benefit of the pilot is the opportunity to evaluate the comparative effectiveness of the different behavior changes on reducing wasted food. This will require collecting data across the range of behaviors. By pooling data from the different implementing organizations, it may be possible to compare behaviors and their effectiveness.

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## 2.4 Community Partners

It is assumed that in most cases local government will take the lead in implementing the pilot. However, there is good potential to engage other partners in providing additional resources to carry out CBSM food waste reduction pilots and programs.

Potential partners include other government programs, schools and after-school programs, civic groups and non-profits. Additional partners include food purveyors, such as groceries and restaurants, and other businesses and organizations with a stake in waste reduction.

- Government programs that have expressed interest in food waste reduction include waste management, climate change response, and food programs.
- Schools may wish to integrate information on food waste prevention into their curriculum and colleges and universities often support sustainability programs aimed at the young adult demographic.
- Civic or community groups and non-profits may have constituencies who are parts of the target audience or an interest in related issues. These organizations are able to do outreach through their social networks.
- Food purveyors and other businesses may assist with outreach and also provide incentive goods (see the discussion below on measurement/awareness tools). Farmers markets, community supported agriculture (CSA) businesses and municipal waste management companies are also likely partners.

## 2.5 Pilot Cost

Available resources for implementing the pilot may in part be determined by the fit between the pilot's objectives and existing programs. For example, can staff hours be allocated to the pilot implementation?

Fixed implementation costs include costs to print the CBSM tools, cost of measurement bags (if used) and staff time. Staff time may include time spent in the following: gaining organizational approval for the pilot; modifying the tools for local use; outreach and collecting data; and time spent evaluating pilot results. In addition, the implementing organization may choose to use incentives to engage individual households in the pilot, which includes both the time to procure the items and the cost of the incentives themselves.

## 3.0 Outreach Tools

Tools developed for the pilot include the following:

- Message Map
- Fruit and Vegetable Storage Guide
- Meals in Mind Shopping List Template

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- Infographic/Poster for Community Tabling Events
- Workshop Presentation (for a community audience or pilot participants)
- Challenge Measurement tools

## 3.1 Message Map

The message map is a document to help guide and ensure effective, consistent and impactful campaign messaging across jurisdictions and organizations. It contains the following:

- Campaign's target audiences
- Overall program message and elevator speech
- Value proposition for the desired behavior change
- Messaging for the top five waste prevention strategies being encouraged for adoption. These strategies have been paraphrased as:
  1. Make a list with meals in mind
  2. Buy what you need
  3. Prep now, eat later
  4. Keep fruit and vegetables fresh
  5. Eat what you buy
- Proof points for key messages

The message map can be used to help develop and tailor outreach materials and activities. Implementing organizations may decide to focus on 1-2 of the 5 key waste prevention strategies identified. This message map offers a roadmap for developing a customized messaging campaign in any community.

## 3.2 Fruit and Vegetable Storage Guide

The fruit and vegetable storage guide supports the strategy of keeping fruits and vegetables fresh. The guide can be distributed at tabling and community workshop events.

The guide is intended to be used both as an information product and a prompt. The information on the guide reduces the knowledge barrier associated with keeping fruits and vegetables fresh.

A prompt is a visual reminder to engage the behavior. A good location for the guide would be to place it as close to the action as possible, say, for example, on the refrigerator door or other location in the kitchen where it can be easily referred to. This might be suggested while distributing the guide.

## 3.3 Meals in Mind Shopping List Template

The meals-in-mind shopping list template communicates information on the use of a shopping list to reduce food waste. The tool aims to get households to plan their shopping purchases around how

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many meals will be eaten until the next shopping trip. This tool is an example of priming, where people are more likely to do something when they are asked if they will, in this case, buying only what they reasonably expect to use until their next shopping trip. The tool also focuses on cost-saving benefits of using up what food has already been purchased as communicated by the phrase, “Shop your kitchen”.

Consideration should be given to how many templates will be provided to an individual household to establish the new behavior. Researchers say that it takes 21 days for new behaviors to take hold. Also, people are more likely to use the template if it’s provided to them rather than needing to download it from a web site.

## **3.4     Tabling at Community Events and Infographic Poster**

Tabling at community events and venues provides an opportunity for one-on-one interaction with the target population. Personal contact has been shown to be more effective in delivering messaging than mailed brochures, for example. The infographic’s purpose is to tell a story about why food waste matters and to attract people to your table to learn more. Telling a story gives important context and motivation for behavior change.

Potential events and venues for tabling include sustainability fairs, farmers markets, and local grocery stores. If tabling is a main outreach strategy for your target population, schedule it to coincide with the period of the pilot. You may also want to contact the event organizers to learn about expected event traffic.

Clear objectives for the tabling effort will help in preparation, especially anticipating the number of people reached. Possible handout materials include the storage guide, shopping list template and/or the challenge tools as well as a more general informational piece on your program or on the food waste issue. Other informational pieces on food waste are being developed by implementing pilot partners like King County, WA and will be available on their website in November 2012.

Another goal for tabling may be to collect contact information for follow-up. You will need a sign-up sheet with the pilot branding or you may use challenge cards. This may be a primary tabling activity if you are looking to engage households to participate in the *Food: Too Good to Waste* Challenge (see the measurement/awareness tools below).

The infographic may be adapted for use in a brochure or website.

## **3.5     Community Workshop Presentation**

The workshop presentation tool is a powerpoint slide show with accompanying narrative.

Community workshops are a good way to engage households in thinking through strategies to reduce food waste. They provide the opportunity to both tell the story of why we should care about food waste reduction and give participants strategies to reduce waste. In addition, participants are engaged in creating new social norms through their interactive discussion of the issues and strategies.



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Community-based organizations are good partners to sponsor workshops because many already have formed strong social ties among their members who can support commitment to behavior change. The workshop presentation ends with asking participants to take a challenge (see the measurement /awareness tools discussion below).

Suggested audience size for a workshop would be in the range of eight to twenty to allow ample time for participant discussion. The suggested length for the workshop is 1.5 hours, but it can be tailored for a shorter time frame (see Notes below). Over a third of the time is participant discussion.

Workshop duration can be customized by reducing the content of the presentation or by reducing discussion time. However, it is strongly recommended that some discussion be included to allow people to make an active commitment to the ideas being presented.

## **3.5.1 Notes on the Presentation:**

A suggested presentation script is included in the slide notes. These can be printed out beforehand. The script is in bold font.

Also, in the notes is a time recommendation for each slide and a few preparation notes. It is recommended to practice the presentation and to develop a time agenda before presenting to a group.

Slides 4, 19, and 26 present opportunities to engage the audience in discussion of food waste and how it impacts their families and community. If you want to reduce the time you may consider reducing discussion time by eliminating one or more of the discussions.

## **4.0 Measurement/Awareness Tools**

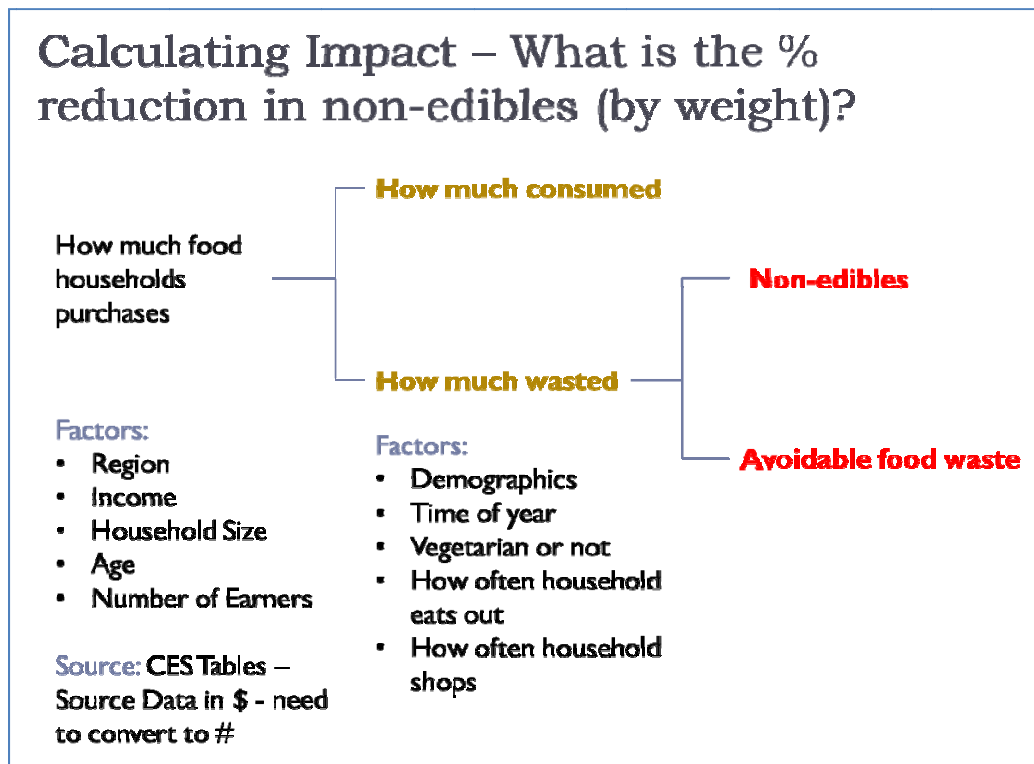
There are two measurement/awareness tools that have been developed for the pilot: the photo diary and the waste impact analysis, which uses a measurement bag. Each tool presents an opportunity for collecting data from pilot participants as well as an opportunity to raise awareness of food waste behaviors. Both tools are referred to as the *Food: Too Good to Waste Challenge*.

The tools are intended to help collect data during the pilot to answer the following 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?

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The diagram below illustrates the calculation used to calculate impact.



Note: The Consumer Expenditure Survey (CES) tables referred to in the diagram provide source data on how much households spend on food and are published by the Bureau of Labor Statistics. This data will be used to analyze percentage reduction of household food waste.

The measurement tools are comprised of instruction sheets for the households, data collection sheets and food waste collection bags (impact analysis tool only). Later the tools may be simplified for use as primarily awareness-raising tools.

The two different tools and how they work are described more fully in their respective instructions for taking the challenge. The photo diary method focuses on which food waste management behaviors were engaged and their respective impacts while the waste impact analysis method provides data on the cumulative impact of behavior changes. The photo diary method takes place over two weeks while the waste impact analysis method takes approximately a month.

Each tool will need to be modified by the implementing organization to match their choices regarding where to recruit participants and how to collect the data. These choices are outlined in the diagram below.

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Tools should be assembled beforehand for handing out at tabling and workshops. It is recommended that challenge cards also be collected.

Please note that there are different versions of the data collection sheets according to whether the implementing organization will be doing online or in-person data collection. The same questions are being asked in both versions, but for online data collection, the take-home data collection sheets only include the data that needs to be recorded. The other questions will be asked online.

Note also that the tool instructions have red font where the urls for online data collection need to be included. Also, include step 6 of week 1 instructions for the waste impact analysis instructions only if doing online data collection.

In addition to the choices represented on the diagram above, implementing organizations may also wish to give incentives for households to participate. These incentives will need to be obtained in advance. Suggestions for incentives related to the theme of this pilot have included:

- Offering a reduction in garbage bills for participants.
- Offer a small item (promotional or otherwise) to all participants. According to our subcontractors at Colehour & Cohen, rates of participation have been found to increase by up to 50% if everyone gets an incentive item.
- Partnering with local businesses to participate and connect with participating pilot community members to offer discounts or other incentives or offer raffle items.

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- Offering contests or raffles (although participation has been found to increase when everyone gets an incentive).
- Offering gift certificates to local restaurants or grocery stores.
- Partnering with a local farmers market to provide a discount or free box of produce to those participating in a pilot.

Each of the tools requires weighing at home with different types of scales. With the impact analysis tool, the implementing organization may wish to consider modifying the instructions to arrange a place where people can come to weigh their waste (such as a table at a farmers' market) with a calibrated market scale.

EPA can provide limited support to implementing organizations in collecting data through at least June 2013. Support includes providing:

- Data collection template forms that are web-based.
- A centralized data management system for voluntary reporting pilot results from participants, including observational and anecdotal evidence.
- Guidance on creating online tools for data collection from participants for data consistency.
- Guidance on selecting sample sizes and setting goals for measurement.
- Data and research on regional and national food waste amounts for comparison.
- Templates with sample language for following up with participants.
- Access to an online discussion forum for implementing government agencies.

Please contact the project lead, Ashley Zanolli at [WestCoastForum@epa.gov](mailto:WestCoastForum@epa.gov) if you are interested in implementation. Pilot measurement tools and support documents are available at:

[http://bit.ly/Food\\_Too\\_Good\\_To\\_Waste](http://bit.ly/Food_Too_Good_To_Waste).

## 5.0 Pilot Metrics

In addition to data collection using the challenge measurement tools, implementing organizations are asked to track data on outreach efforts and pilot costs which will be used to evaluate the effectiveness of the CBSM approach. Specific data to be collected are described below.

Outreach:

- Record your observations about the effectiveness of any outreach method used.
- Tabling: Record how many people attended the event and the number of table engagements by type (e.g. how many took handouts; how many people had a conversation with table staff/volunteers; how many signed up for challenge).
- Workshop: Record, as possible, how many people were invited to the workshop, what you know about their demographics, and how many actually attended the workshop.

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## Pilot Costs:

- Record both hard costs and staff and volunteer times by task.
- Record cost of any incentives you provided to household participants.

The West Coast Climate and Materials Management Forum will offer recognition opportunities to organizations implementing this pilot program.

## 6.0 Pilot Acknowledgements

The *Food: Too Good to Waste* pilot toolkit was prepared on behalf of the U.S. EPA Region 10 and the West Coast Climate and Materials Management Forum with support from EcoPraxis and Colehour+Cohen under subcontract to Tetra Tech EMI. Special thanks to all of the EPA staff and Forum members from state and local governments who supported and contributed to this final product. Specifically, we acknowledge the contributions of the Pilot Planning Team:

- Dr. Viki Sonntag of EcoPraxis, the primary researcher for this project and implementation guide (subcontractor to Tetra Tech EMI under EPA contract)
- Julie Colehour and Amanda Godwin from Colehour+ Cohen (subcontractors to Tetra Tech EMI under EPA contract)
- Tommie Jean and Joanna Canepa from Tetra Tech EMI (under contract to EPA)
- EPA Staff
  - Ashley Zanolli (project lead), Vicky Salazar, Lisa McArthur, Sandra Poulson, Melissa Winters, Theresa Blaine and Bill Dunbar from EPA Region 10 with former NNEMS fellow support from McKenna Morrigan, Daniel Brody, and Veronica Pardo and intern support from Doré Mangan
  - Shannon Davis and Saskia VanGendt from EPA Region 9
  - Jean Schwab, John Cross, and Amy Lile from EPA's Office of Solid Waste and Emergency Response
- State Government Partners
  - Leslie Kochan and David Allaway, OR Dept. of Environmental Quality
  - Chery Sullivan and Lori Hewitt, WA State Dept. of Ecology
  - Colleen Hetzel and Madalyn Cioci, MN Pollution Control Agency
  - John Valera, HI State Department of Health
- Local Government Partners
  - Alicia Polacok, Arianne Sperry and Lauren Norris, City of Portland (OR)
  - Karen May and Josh Marx, King County (WA)
  - Carl Woestwin, Seattle Public Utilities (WA)
  - Jeanie Boawn and Tracy Morganstern, City of Seattle (WA)
  - Mandy Rose and Lisa Jensema, San Benito County (CA)
  - Lisa Friend, Boulder County (CO)
  - Sego Jackson, Snohomish County (WA)

## Toolkit Implementation Guide for the *Food: Too Good to Waste* Pilot

- Jetta Antonakos, City of Tacoma (WA)
- Meg Lynch and Jennifer Erikson, Oregon Metro (OR)
- Karen Guillen-Chapman and Tristen Whitehead, City of Gresham (OR)
- Stacy Auer, City of Redmond (WA)
- Scott Keller, City of Beaverton (OR)
- Lynn France, City of Chula Vista (CA)
- Babe O’Sullivan, City of Eugene (OR)
- Calla Ostrander, City of San Francisco (CA)
- Garrett Fitzgerald, City of Oakland (CA)
- John Davis, Mojave Mountain and Desert Recycling Authority (CA)
- Theresa Koppang, Washington County (OR)
- Tanya Gray, City of Vancouver (WA)
- Shannon Parry, City of Santa Monica (CA)
- Pete Dubois, Clark County (WA)
- Other acknowledgements
  - Lynn Hoffman, Eureka Recycling (MN Grantee)
  - Bharat Patel, LA Community College District
  - Dana Gunders, NRDC
  - Monica Gilchrist, ICLEI
  - Dana Fransz, FoodShift
  - Carol Misseldine, Green Cities CA
  - Andrew Parry, UK WRAP