



EM is expanding its content coverage of waste management issues with a special section of waste-themed articles, called *Waste Management Corner*. In this month's article, we consider two successful edible food recovery programs in California that provide benefits by supporting the local community and reducing the amount of food waste sent to landfill.



A White Pony Express employee shows off a box of recovered produce.
Credit: Eve Birge, White Pony Express

Collaboration Is the Key to Successful Edible Food Recovery

by Elizabeth Purington, Amber Duran, Lisa Coelho, and Michelle Leonard

A look at two successful edible food recovery programs in California that provide benefits by supporting the local community and reducing the amount of food waste.

Every year in the United States, 30-40% of food produced for human consumption goes uneaten.¹ Over the past decade, food waste awareness has led to innovative policies and programs to manage these resources through organics recycling, food waste prevention, and edible food recovery. Edible food recovery redirects surplus food suitable for human consumption onto people's plates before it becomes waste. Redistribution of edible food to people, not the waste stream, can be mutually beneficial to many stakeholders. The decomposition of food waste in landfills is a significant source of methane, a potent greenhouse gas. Edible food recovery is a sustainable resource management method that will help reduce greenhouse gas emissions from landfills. However,

this is not the primary benefit perceived by food recovery organizations and services, food service businesses, or the local community members receiving food assistance. Successful food recovery programs have many advantages, but they also face numerous obstacles. As illustrated in this article, waste professionals can help local governments implement food recovery programs with a holistic and collaborative approach that respects the community members who receive food assistance.

Surplus Edible Food in California

The California Department of Resources Recycling and Recovery (CalRecycle; <https://www.calrecycle.ca.gov/>)

conducted a waste characterization study in 2018 to estimate the types and quantities of organic waste sent to California landfills, including food waste. This study sorted food waste into eight categories, five of which are types of potentially donatable food. The study found that edible food comprises about 10% of the organics sent to landfill in California, which equates to approximately 1.1 million tons of potentially donatable food every year.²

In California Senate Bill 1383 (SB 1383; <https://www.calrecycle.ca.gov/organics/slcp>), the state established ambitious organics management goals, including a target to recover

20% of the edible food that currently gets thrown away, yet is fit for human consumption, by 2025. Food businesses that generate significant quantities of food, like restaurants and grocery stores, must recover and donate the maximum feasible amount of edible food. SB 1383 directs local government officials, waste managers, and food recovery organizations and services to collaborate and develop turnkey food recovery programs.



Edible food in a waste collection cart.

Credit: Lisa Coelho, SCS Engineers

Barriers to Edible Food Recovery

While edible food recovery is a new focus in waste management, it is not a new concept. Edible food recovery is part of a complex and sensitive system. The goal is to recover food before it becomes waste (is thrown away) and provide nutritious edible food to people and communities in a dignified manner. Edible food is not waste, and edible food recovery is not simply an alternative for organics recycling. As waste industry professionals, we are responsible for supporting food recovery in an effective and considerate way.

In this article, we illustrate how waste industry participants can engage with municipalities and regional solid waste agencies to develop programs to recover the maximum amount of edible food possible. The concept of community-based social marketing (CBSM) shapes how we help communities engage effectively in food recovery. CBSM is a proven and effective method of affecting attitude and behavior change. It focuses on working closely with community members to identify the barriers associated with a particular desired behavior change and develop programs that reduce these barriers and highlight the behavior's benefits. In this case, waste industry professionals used CBSM to identify the challenges food businesses experience with donating food.

Many food businesses generate more food than is sold on a particular day. Restaurants may have unused edible food that is not served to customers, or a canceled meeting may leave a catering company with untouched, pre-made sandwiches.

Grocery stores generate large quantities of food that has reached its "Sell-By" date yet is still perfectly suitable for human consumption. While still edible, this surplus food is traditionally considered waste or compost. Food recovery requires these businesses to engage in the behavior change of donating their surplus edible food. It is important to understand the barriers each of these businesses face so that recovery programs can leverage the motivations that encourage a business to participate in donation.

Food Recovery Organizations and Services

Food recovery organizations and services collect surplus food donated by businesses and distribute that surplus food to the community. Food recovery organizations and services include, but are not limited to, food pantries, food banks, soup kitchens, and meal distribution sites. Food banks recover millions of pounds of food and support smaller organizations and services that locally distribute surplus food.

To foster the effective and sustainable expansion of food recovery programs, focus on building relationships between local governments and food recovery organizations and services. Local governments must understand both the barriers and the benefits that food recovery organizations and services experience when expanding their operations. These organizations and services must carefully balance their available funding, infrastructure, and labor to operate successfully. Redistributing edible food to the community requires warehouses, industrial kitchens, collection vehicles, fleets of volunteers, and dedicated employees.

Case Study: Los Angeles County Food DROP

The Los Angeles County Public Works Food Donation & Recovery Outreach Program (Food DROP; <https://pw.lacounty.gov/epd/sbr/food-drop.aspx>) dives into food donation from a business perspective. Common barriers to food donation include fear of liability, lack of storage space and storage containers, the cost of additional employee labor, unfamiliarity with entities that accept food donations, and unwillingness to pay for the collection of food donations. In response, Food DROP provides outreach and technical assistance to businesses in unincorporated Los Angeles County that generate surplus edible food. Technical assistance helps identify the appropriate food recovery organization or service based on the specific types and quantities of surplus food generated at each business. As part of the program, a Food Donation Toolkit (<https://pw.lacounty.gov/epd/sbr/food-drop.aspx>) was developed that includes information on food safety guidelines, an interactive map of food recovery partners, and a tracking form to record business' food donations.

In the future, the Food DROP hopes to develop a grant program to support local businesses procuring the needed tools, such as storage containers and refrigerators. To normalize and encourage edible food recovery by businesses, Food DROP publicly promotes successful businesses as food donation champions and community leaders. More than 30 businesses in unincorporated Los Angeles County are donating

their surplus edible food to local organizations.³ This case study is an example of successfully reducing barriers and increasing the benefits of donating food to a food recovery organization or service.

Case Study: RecycleSmart and White Pony Express

Central Contra Costa County Solid Waste Authority (RecycleSmart; <https://www.recyclesmart.org/food-recovery>) in California interviews local food recovery organizations and services to understand the barriers to expanding operations and the opportunities to support growth. This process aims to understand if and how food recovery organizations and services

can increase the amount of edible food they accept and redistribute from donor businesses. This interview process reveals that food recovery organizations and services maximize their resources and, therefore, do not have a significant excess capacity to recover more edible food without changing their operations. Most food recovery organizations and services quickly utilize their full capacity by recruiting new donors or purchasing food to supplement the donated supply. They can always

find space for new, nutritionally valuable food donations (e.g., protein, dairy, and produce). However, most organizations require more funding, staff, transportation, and warehouse space to recover more edible food consistently. RecycleSmart learned food recovery organizations and services need support to expand their operations.

RecycleSmart then sought expertise in facilitating new types of food donations from White Pony Express (<https://www.whiteponyexpress.org/food-rescue>), a local food recovery organization. RecycleSmart identified shopping centers, restaurants, and smaller businesses willing to donate surplus edible food in relatively modest quantities but wanted to learn more about the logistics required to recover these types and quantities of edible food. White Pony Express explained these types and smaller quantities of food donations are not compatible with their current food recovery model. White Pony Express currently receives food donations from grocery stores

and food distributors that generate bulk quantities of produce, meat, dairy, other commodity items, frozen food, and prepared foods. In 2020, White Pony Express received about 4.8 million pounds of food from their donation partners and distributed 4.4 million pounds of edible food to their recipient partners. White Pony Express uses refrigerated trucks and a centralized distribution center, which is a feasible and efficient model to collect and redistribute large quantities of donated food, but not smaller quantities.

RecycleSmart and White Pony Express developed the Neighbors Helping Neighbors program to expand operations and facilitate edible food donations from smaller businesses. The Neighbors Helping Neighbors program uses ChowMatch (<https://www.communityfoodrescue.org/chowmatch/>), a food recovery application/service, to manage donation requests from businesses generating smaller quantities of edible food. ChowMatch also facilitates volunteers using personal vehicles to collect food donations and distribute them directly to recipient organizations. To fund this program, RecycleSmart and White Pony Express collaborated to pursue grant funding from CalRecycle. The program model's benefits are conveniently offered at no cost to donor businesses and do not overwhelm White Pony Express's distribution center. This case study is an example of successfully expanding a food recovery organization's capacity by reducing the barriers and increasing the benefits.

Conclusion

The case studies from Food DROP and RecycleSmart illustrate the successful collaboration between local governments and stakeholders in food recovery. In both cases, local government staff invested time to understand the barriers and benefits of different aspects of food recovery. The resulting food recovery programs provide local benefits by supporting the community and the collective benefit of reducing the amount of food waste sent to landfills in California.

We believe that environmental professionals can be key collaborators for food recovery programs across the country, whether your role is to help businesses overcome the barriers and participate in food donation programs or support the capacity expansion of recovery organizations and services. We encourage you to learn more about the food recovery organizations and services in your community and start a conversation about how you can best support their work.⁴⁻⁶ **em**

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