

Case Study: Prepared Food Donation

Food donation connects surplus food to those in need while also reducing waste. In the past, food donations have focused on the grocery store and retail industries, comprised mainly of canned food items and whole produce. In recent years, a clear need has developed to increase the scope of food donations to include prepared, hot food items from kitchens such as restaurants, hospitals, hotels, universities, and other food production sectors.

This case study provides an example of a prepared food donation program—**Smart Kitchens San Diego**—led by the San Diego Food System Alliance in partnership with the San Diego Food Bank, Leanpath, 15 institutions and 4 non-profit partners.

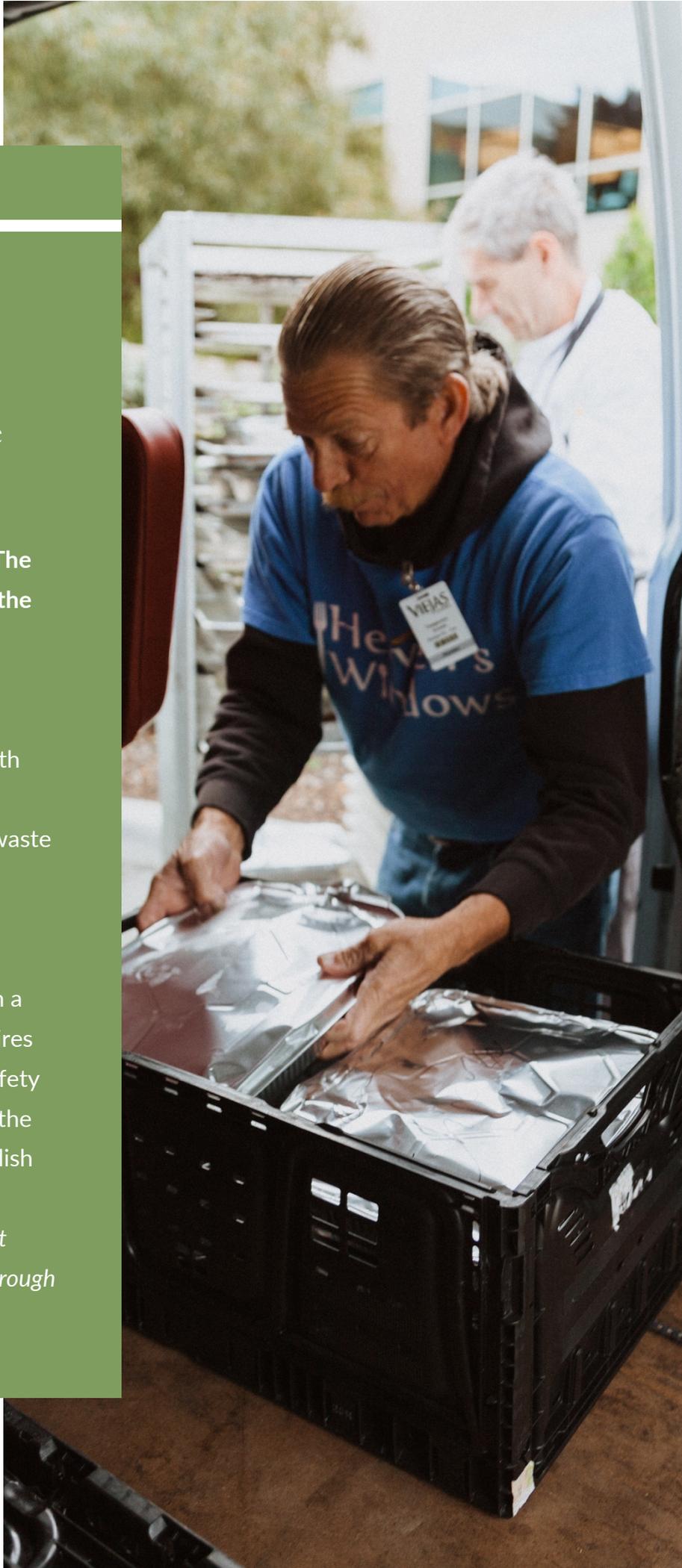


**SMART
KITCHENS**
SAN DIEGO

BACKGROUND

Over 500,000 tons of food are wasted in San Diego County every year, while at the same time over 500,000 residents face food insecurity.

Smart Kitchens San Diego (SKSD), a “Save The Food San Diego” initiative spearheaded by the San Diego Food System Alliance, is here to change that. Fifteen of San Diego County’s largest hotels, hospitals, and universities participate in SKSD, which provides sites with subsidized Leanpath food waste tracking technology. In addition to preventing food waste at the source, SKSD creates an additional diversion opportunity by setting up food donation programs at each participant site. Prepared food donation has previously been a barrier in food recovery networks as it requires additional layers of coordination for food safety and transportation. The Alliance developed the Smart Kitchens San Diego program to establish best practices for donating prepared foods, specifically from large food producers. *Smart Kitchens San Diego is funded by CalRecycle through California Climate Investments.*



PARTNER OVERVIEW

SAN DIEGO FOOD SYSTEM ALLIANCE

PROGRAM MANAGER

Role: Program coordination, administration, technical assistance

15 PARTICIPATING INSTITUTIONS

FOOD DONORS

Role: Track food waste via tracking device, participate in food donation program

15 Participating Institutions: Fairmont Grand Del Mar, Harrah's Casino, Hilton San Diego Bayfront, InterContinental San Diego, Padres at Petco Park, Palomar Medical Center, Park Hyatt Aviara Resort, Seacrest Village Retirement, Sharp Chula Vista Medical Center, Sharp Memorial Hospital, Tri-City Medical Center, UC San Diego, UC San Diego Health - Hillcrest & La Jolla, Viejas Casino

NON-PROFIT FOOD RECOVERY PARTNERS

FOOD RECIPIENTS

Role: Pick up excess food from Participating Institutions and distribute it to community members in need

Heaven's Windows, People Assisting the Homeless (PATH), The Foundry, New Alternatives Inc (NAI)

SAN DIEGO FOOD BANK

PROGRAM PARTNER

Role: Identify non-profit partners, support non-profit partners, ensure best practice food safety protocols are in place

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IDENTIFYING PARTNERS

First, SDFSA identified **Food Donors** (food establishments with prepared food to donate) and **Food Recipients** (non-profit food recovery organizations that feed the community) that were interested and capable of participating in SKSD. The following considerations were taken into account when selecting participants:

PARTICIPANT

CONSIDERATIONS

FOOD DONOR

- Staff capacity to package, label and store donated food items
- Storage space in a fridge to hold donated items for 2-3 days before pickup and/or freezer space
- Food containers to package and transport food
- Reliable contact to coordinate donation efforts (Director of Food and Beverage, Executive Chef or Sous Chef, General Manager, etc.)

Outreach method: Cold calling/emailing Executive Chef, Director of F&B, General Manager

Sectors targeted: Hotels, event centers, hospitals, elder care facilities, casinos, corporate dining, universities

FOOD RECIPIENT

- Fridge and/or freezer capacity to receive perishable prepared foods
- Transportation to pick-up donations on a regular basis
- Ability to transport food safely/hold at proper temperatures (freezer blanket, cooler, etc.)
- Frequent (minimum twice a week) food distributions
- Reliable contact to coordinate donation efforts (Executive Director, Volunteer or Kitchen Coordinator, Facilities Manager, etc.)

Outreach method: San Diego Food Bank facilitated food recipient identification

Sectors targeted: Food pantries, feeding kitchens

PARTNER CONCERNS

Although there were concerns from participating institutions about the time staff would spend on packaging food, the cost of food containers, and food safety, most concerns were eased at the prospect of their food going to San Diegans in need. Below are some of the common concerns that Food Donors brought up, as well as the program benefits that ultimately outweighed the concerns.

| CONCERN | BENEFIT OUTWEIGHING CONCERN |
|--|--|
| STAFF TIME SPENT PACKAGING FOOD | <ul style="list-style-type: none">• Utilize donations as a staff engagement tool that can improve employee satisfaction by developing a sense of doing good• Press and community recognition elevate brand and make employees proud of their workplace |
| COST OF FOOD CONTAINERS | <ul style="list-style-type: none">• Enhanced Tax Deductions provide financial return for food donations• Food donations allow chefs to see where overproduction is occurring, providing an opportunity to cut back on overproduction and realize reduced food costs as a result |
| FOOD SAFETY | <ul style="list-style-type: none">• Close partnerships with the San Diego Food Bank and Department of Environmental Health ensure food safety• A number of state and federal legal protections exist to protect food donors from liability |



FOOD SOURCES AND TYPES OF FOOD

After partners were identified and relationships established, the next step was to clarify the sources and types of food acceptable for donation.

FOOD SOURCES

- Overproduction holding: food being held for service
- Overproduction line: excess food on a buffet line or other point of service
- Excess catering production: overproduction due to a catering guarantee
- Pre-packaged foods (i.e. pasta salads) past the expiration date but still good to eat
- Excess inventory
- Dated inventory: past the expiration date but still good to eat

TYPES OF FOOD DONATED

- Prepared dishes: lasagna, casseroles, enchiladas, soup, etc.
- Prepared meats: baked chicken, cooked fish, etc.
- Breakfast foods: scrambled eggs, pancakes, gravy, bagels, etc.
- Pre-packaged foods: deli sandwiches, yogurt/parfaits, cut fruit, snack items
- Vegetables: cooked and uncooked
- Fruit: cut and whole

TYPES OF FOOD NOT DONATED

- Any food with signs of mold
- Any food that was in the “danger zone” (40°F–140°F) for over 2 hours
- Any food that was not handled in accordance with standard kitchen health and safety protocols
- Liquid drinks (i.e. coffee, juices, tea)

FOOD SAFETY RULE FOR DONATION OF BUFFET-LINE FOODS

Provided by the County of San Diego Department of Environmental Health

In order for food on the buffet line to be safe for donation:

- Cold food must be held at 41°F or below the entire time, and hot foods must be held at 135°F or higher the entire time.
- AND the buffets must be managed safely. Specifically, new plates are required every time and there must be a staff member attendant at the buffet line to ensure food safety.



FOOD SAFETY AND STORAGE

As with any form of food preparation and handling, food safety was a high priority when developing the logistics of the SKSD initiative. Systems were established for proper cooling techniques, temperature holding and safe transportation.

COOLING, HOLDING, AND STORAGE STRATEGIES UTILIZED BY SKSD SITES:

COOL DOWN

- Blast Chiller, OR
- Directly into freezer, OR
- Directly into cooler, OR
- Cooler first, then freezer

PACKAGE AND LABEL

- Transfer food immediately into donation containers, OR
- Cool down food in original container and transfer after
- All donations labeled with food item and date packaged

STORE DONATIONS

- Designated double door fridge (full fridge or specific shelves), OR
- Designated and labeled speed rack in cooler, OR
- Designated and labeled speed rack in freezer, OR
- Designated shelves in cooler or freezer

WHEN TO FREEZE

Prepared, unfrozen foods must be consumed within 5 days of preparation.

In order to ensure this rule was followed, any foods that were prepared 3 days prior to a pickup or more were frozen. For example, if a site is scheduled for one weekly pickup on Wednesday, prepared foods produced on Monday, Tuesday, and Wednesday can be donated cold. Any foods produced on Thursday, Friday, Saturday, or Sunday, must be frozen for donation.



DOCUMENTING PROCEDURES

The Alliance worked with each Food Donor institution to develop a Standard Operating Procedure (SOP) for prepared food donations. The SOP outlines exactly what the donation process will look like at that site, including:

- Identification of the 'donation station' area and outlining materials that should always be stocked (i.e. pans and labels)
- Definition of what types of food within the establishment are eligible for donation
- Description of the step by step process for how to properly package, label and store food for donations
- Food recipient pickup schedule and contact information



FOOD CONTAINERS

For the pickup model described above, it was best suited for the kitchen staff to package and label all prepared foods for donation. Food Donors are equipped—in equipment and environmental health department permits—to handle, portion, and package food, while many Food Recipients are not.

We discovered that half-size foil containers were the favored size for packaging food. From the Food Donor perspective, the half-size container is large enough that it is not too tedious to portion. For the Food Recipients, the half-pan size can be directly distributed to community members as a family-sized portion.



TYPES OF CONTAINERS

| |  |  |  |  |  |  |  |
|-------------|--|---|---|--|--|---|---|
| | Full Size Foil Pan w/ Foil Lid | Half Size Foil Pan w/ Foil Lid | 2 Gallon 'Freezer' Bag | 2 Quart Deli Container w/ Lid | Full Size Hotel Pan w/ Rubber Lid | Half Size Hotel Pan w/ Rubber Lid | 12 Quart Cambro w/ Lid |
| PROS | Holds large quantities of food. Less purchasing/cost effective. | Good size to donate to one household. Remains sturdy when full. Stacks easily. | Freezes well and good for liquids. Cost effective. Transports easily for partner and recipient household. | Holds liquids well. Transports well. Good size/quantity to donate to households. | Reduces plastic waste by being reusable. Holds large quantities of food, good for meal services. | Reduces plastic waste by being reusable. Transports well. Good for meal services. | Reduces plastic waste by being reusable. Transports well. Good for meal services. Hold liquids. |
| CONS | Too much food to donate to one household. Full pans can get heavy for transport and become flimsy. Not good for liquids. | Requires purchasing & packaging of more containers. Not good for liquids. | Requires more work for kitchen to package food. Food must be cooled before packaging. | Does not hold large quantities of liquid. Does not transport well. Uses more plastic in total. | Heavy for transport when full. Not suited for take home donations. Need to be washed. | Not suited for take home donations. Need to be washed. | Not suited for take home donations. Will wear down and stain easily from soups. |
| | 55cents/each (purchased in bulk) | 41cents/each (purchased in bulk) | 13 cents/bag (purchased in bulk) | 39 cents/each (purchased in bulk) | \$7-10/pan \$9-10/rubber lid | \$4-6/pan \$7-8/rubber lid | \$11-12/each \$3/rubber lid |
| | All Donations | All Donations | Special Foods | Special Foods | Meal Services | Meal Services | Meal Services |

All Donations
Meal Services

Containers that are versatile and work for nearly all donation relationships and types of food
Reusable containers that can be used for a hot meal service, cleaned, and returned to the Food Donor

Special Foods

Containers only used for a specific type of food (i.e. soups and liquids)

SPECIALTY PACKAGING TO CONSIDER

- Pizza boxes for any cooked pizzas and/or flatbreads
- Heavy duty freezer bags for soups and liquids - try laying flat and freezing
- Storage boxes for pre-packaged foods, breads, cans, etc.
- Foil covering in place of foil lids is viable for packaging solid foods only



TRANSPORTATION LOGISTICS

The selected Smart Kitchens San Diego Food Recipients now pick up donations directly at the Food Donor sites and transport the food back to their pantries or kitchens for distribution. A portion of the CalRecycle funding for the SKSD initiative was used to purchase supplies for Food Recipients like cargo vans, commercial coolers, and food transport containers to increase their pickup capacity.

TRANSPORTATION STRATEGIES UTILIZED BY SKSD SITES TO ENSURE PROPER TEMPERATURE HOLDING

- Donation recipients keep a temperature log, recording temperatures at time of pickup and drop-off (in order to ensure food is not in the danger zone for over 2 hours)
- Utilize temperature holding tools and containers like insulated boxes and freezer blankets
- Keep pickup routes short to ensure food is back in a cooler or freezer as quickly as possible

HOW WE ESTABLISHED SUCCESSFUL AND CONSISTENT PICKUPS

- Set a regular pickup schedule - day & time
- Allow the driver regular & easy access to the donor kitchen
- Identify one fridge or freezer space as “donations only”
- Label all donations clearly with the date of packaging and item description
- Open lines of communication allows for easy rescheduling or skipping pickups
- A few Food Donors operate ‘On Call’ with their recipient organization



MATERIALS USED FOR TRANSPORTATION

- Foam Cambro boxes or other temperature holding container
- SKSD Food Recipients had success with front- and top-loading Cambro GoBox's (pictured below)
- Freezer Blankets for cool times of the year
- Hand carts for transporting food between kitchens and vehicles
- Gloves to protect hands when handling large amounts of foil pans



EXAMPLE SCHEDULE FOR 'THE FOUNDRY' PICKUPS

Monday

11am pickup at Palomar Medical Center in Escondido
12pm pickup at Tri-City Medical Center in Oceanside
1pm pickup at Seacrest Village in Encinitas

Wednesday

11am pickup at Palomar Medical Center in Escondido
12pm pickup at Tri-City Medical Center in Oceanside
No pickup at Seacrest Village (Staff called to notify driver there were no donations)

Friday

11am pickup at Palomar Medical Center in Escondido
12pm pickup at Tri-City Medical Center in Oceanside
1pm pickup at Seacrest Village in Encinitas
1:30pm pickup at Hyatt Aviara Hotel in Carlsbad (Staff called to notify driver of available donations)

LESSONS LEARNED

- Donating food is low labor and high impact
- Logistics matter for everyone
- Money invested is money returned

Feedback from SKSD participants confirms that the effort spent to establish prepared food donation pickups is well worth the environmental, social, and economic impact. Planning logistics before donations begin is crucial to the success of donation relationships. This includes logistics in food packaging, storing, transportation and re-distribution. The needs of both the food donor and recipient must be considered in this process to ultimately serve safe and delicious food to the community in need. Lastly, not only is there a return in investment from inventory saved and purchasing managed, participating food donor sites are eligible to receive tax incentives.

“The fear of food poisoning and legal action has always deterred chefs from giving leftover food to the needy. Since partnering with the San Diego Food System Alliance, we have confidently given over our buffet items to the less fortunate. Instead of filling trash cans we are filling hungry stomachs. Thank you for the support and vision to do what we all should have done long ago.”

—Chef Robert Lippman, Sous Chef, Viejas Casino & Resort



OUTCOMES

- Impacts the community
- Impacts the environment
- Saves money

“The food we pick up from Palomar is greatly appreciated by the Escondido community. I have noticed that we are starting to get more families coming on our Tuesday distribution, which is when we have the most trays to give out!”

—Mary Nielsen, Director, The Foundry

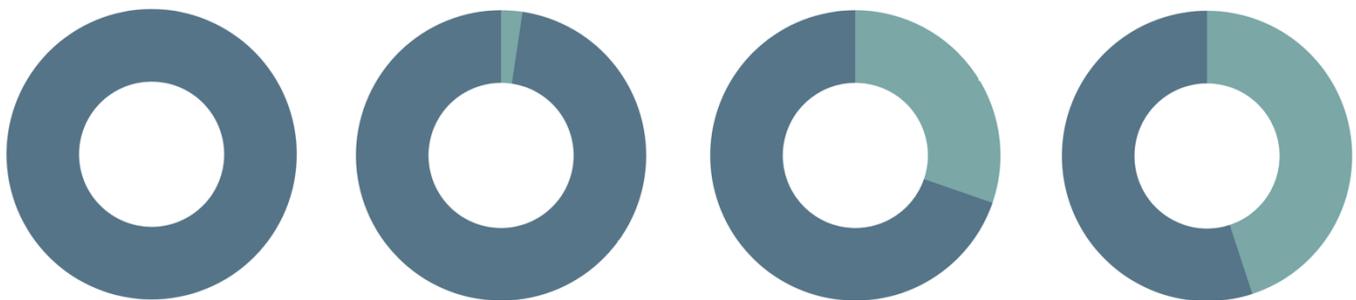
IMPACT

Increase in Prepared Food Donation

Prepared food donation has historically been a barrier in food recovery networks, as it requires additional layers of coordination for food safety and transportation.

With support from Smart Kitchens San Diego, food recipients (nonprofit agencies) were able to both **increase their overall quantity of food rescued** and **diversify donations to include prepared food as well as retail/commodity**.

Ratio of prepared food to retail/commodity recovered by participating nonprofits, over time:



Food recovered, in pounds

| Q1 | Q2 | Q3 | Q4 |
|-------------------------|--------------------------|--------------------------|--------------------------|
| Total: 1,321 | Total: 21,013 | Total: 22,247 | Total: 29,538 |
| Prepared: 0 | Prepared: 499 | Prepared: 6,739 | Prepared: 13,276 |
| Retail/Commodity: 1,321 | Retail/Commodity: 20,514 | Retail/Commodity: 15,508 | Retail/Commodity: 16,262 |

IMPACT (continued)

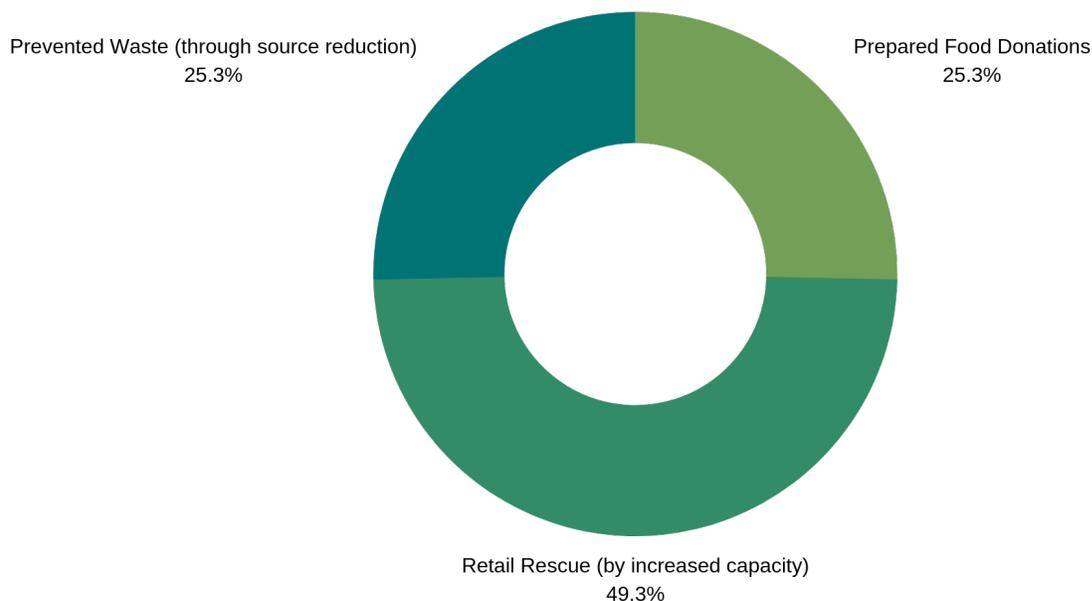
Increase in Source Reduction

While donating prepared foods (that would otherwise go uneaten) is an important way to additionally divert food from landfill and serve individuals in need, **source reduction—not generating the waste in the first place**—is the most sustainable way to minimize wasted food.

With support from Smart Kitchens San Diego, sites were able to measure, analyze, and optimize their operations, increase efficiency, and empower kitchen staff to employ strategies to reduce wasted food at the source.

As of July 2019, an estimated 33,100 pounds of wasted food has been prevented across SKSD’s 15 sites by developing strategies and adjusting practices to prevent the waste from happening.

All food diverted from landfill (from program start through July 2019):



| | In Pounds | In Meals |
|--|----------------|---------------|
| Prepared Food Donations | 33,084 | 33,348 |
| Retail Rescue (by increased capacity) | 64,451 | 64,966 |
| Prevented Waste (through source reduction) | 33,100 | |
| Total | 130,635 | 98,314 |

IMPACT (continued)

Smart Kitchens San Diego cumulative site impact since program start:

Source Reduction



Reduction in wasted food

Food Donation



Pounds of food donated
(prepared food & retail rescue)



... the equivalent of this many
meals

The food diverted from landfill through Smart Kitchens San Diego creates environmental benefits equivalent to the following:



Bathtubs of water saved



Gallons of gas conserved



Miles not driven

FOR MORE INFORMATION

Reach out to Rachel Oporto,
Program Coordinator, at
rachel@sdfs.org, and visit the
Smart Kitchens San Diego
webpage at [sdfs.org/smart-
kitchens-san-diego](http://sdfs.org/smart-
kitchens-san-diego).



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