

Objectives 5-7 address major, interrelated challenges that San Diegans face in achieving food security, accessing traditional, healthy, nutritious, and culturally appropriate foods, and recovering wasted food.

OBJECTIVE 5

Food insecurity is a public health crisis that affects hundreds of thousands of San Diegans—and millions of Americans—on a daily basis. Food insecurity is a deep and persistent issue, amplified by the 2020 COVID-19 pandemic, that costs billions of dollars in education and healthcare annually.

OBJECTIVE 6

Residential segregation—evident across San Diego County—impacts the availability of food options. To a large extent, nutritional inequities and diet-related health problems impacting low-income communities and communities of color across the region are the result of unequal access to traditional, healthy, nutritious, and culturally appropriate food.

OBJECTIVE 7

Wasted food is wasted resources. Food is landfilled by the ton every day while thousands of San Diegans experience food insecurity. Food recovery—the practice of redirecting edible food that would otherwise go to waste, and distributing it to hunger relief organizations—provides local organizations with additional, and possibly more diverse food resources for feeding those in need.

OBJECTIVE

Scale Up Food Waste Prevention, Recovery, and Recycling Initiatives

STRATEGIES AT A GLANCE

- Coordinate efforts and collaboration to scale up food waste prevention, recovery, and recycling
- Enable consumers to more easily minimize household food waste
- Expand food waste prevention technical assistance
- Scale up food recovery logistics
- Support upcycling entrepreneurs
- Increase food waste recycling efforts at all scales



Introduction

You're digging around the back of your refrigerator, looking for the ketchup, when you suddenly find a pack of forgotten, moldy strawberries. Sound familiar? You're not alone. We all waste foodmost of the time, inadvertently. However, wasteful habits have a serious cumulative impact—one that has grown exponentially over the years. In the last three decades, the amount of food wasted per person in the U.S. has nearly doubled.1 Today, between 35-40% of food produced in the United States goes to waste.²

Food loss and food waste occur at every step of the supply chain, with the root cause traced back to concentration within the marketplace. Our industrial food system moves large quantities of food along lengthy supply chains that create distance between producers and consumers. Long, consolidated supply chains have made it difficult to adapt to shifting market demands, and have also created unrealistic cosmetic standards for food. The widespread perception of food as a commodity has also led to an overall culture of waste and prompted wasteful habits at home. Consumers are by far the greatest food waste generators across the entire food supply chain.3

¹ U.S. EPA. National Overview: Facts and Figures on Materials, Wastes, and

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² ReFED, February 2021, Roadmap to 2030: Reducing U.S. Food Waste by 50 Percen and the ReFED Insights Engine.

3 ReFED, February 2021.

FOOD IN OUR WASTE STREAM

Municipal solid waste has increased over 200% in the United States over the past 60 years, from 2.68 pounds per person per day in 1960 to 4.9 pounds per person today.4 Although recycling and diversion options have increased over the years, the majority of our waste stream still goes to landfills.

Food waste is the top source of landfilled waste in the nation, and the third largest source in California and San Diego County. Of the 146 million tons of waste landfilled nationally in 2018—the most recent year of available data—food made up the largest component at 24%, dwarfing other materials such as paper and paperboard, metals, plastics, wood, textiles, and yard trimmings.5

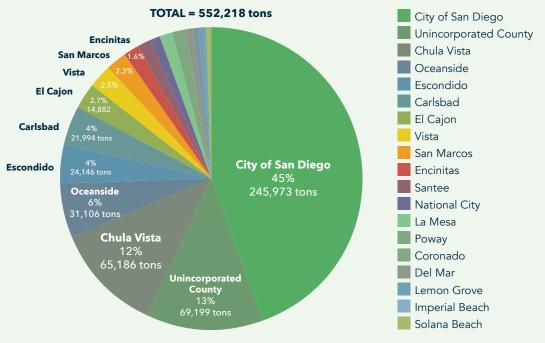
according to CalRecycle's Waste Characterization

Study, California saw nearly 6 million tons of food enter its waste stream, or approximately 15% of the state's total waste.6 Of the 94 material types analyzed in the study, Food - Not Donatable - Non-Meat—a subcategory of food that includes half eaten items, items in opened packages or not in their original packaging, scraps, and indistinguishable food-was the most prevalent in the entire disposed waste stream, at 9.5%.

In San Diego County, 552,218 tons of food waste were sent to landfills in 2018 (Figure 1). Within the County, the most populated cities-the City of San Diego, communities in the unincorporated County, Chula Vista, and Oceanside-account for the greatest generation of waste.7

FIGURE 1

San Diego County Wasted Food by Municipality



Source: County of San Diego Department of Public Works, May 2021, Organics Regional and County Capacity.

FIGURE 2

4 Municipal solid waste

is the EPA's term for all

are landfilled, recycled,

managed in other ways.

CalRecycle Publication

⁷ CalRecycle, Multi-year

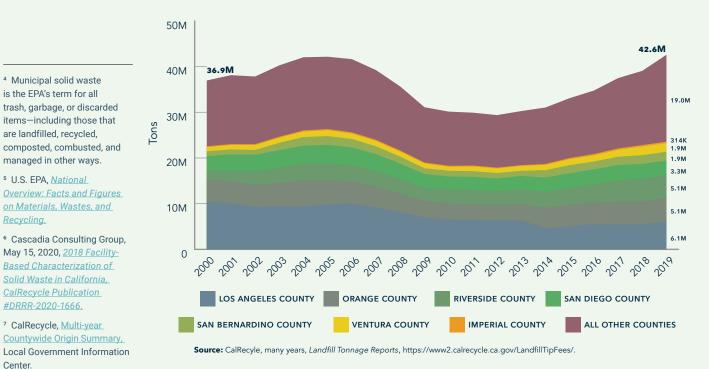
#DRRR-2020-1666.

⁵ U.S. EPA, National

Recycling.

Center

Southern California Waste Sent to Landfill



Similar trends can be seen in California. In 2018.

Food Waste and Climate Change

When food is wasted, so are all of the resources that went into producing it, including the water, fertilizer, and labor needed to grow food, along with the energy required for transportation and processing. In 2019, the value of uneaten and unsold food in the United States was estimated to be \$408 billion,8 which is roughly 2% of the United States' GDP, and equivalent to the entire GDP of countries like Norway and Austria. In the United States, wasted food is estimated to consume 14% of all freshwater use, 18% of all cropland, and 24% of landfill space.9

When food ends up in landfills, it decomposes and emits methane gas, a climate super pollutant 28-36 times more potent than carbon dioxide. Landfills are the third largest emitters of methane emission in the United States (after energy generation and animal agriculture). In California, organic waste in landfills emits 20% of the state's methane. According to CalRecycle, reducing short-lived climate super pollutants like organic waste will have the fastest impact on the climate crisis.

Project Drawdown has identified 82 high-impact strategies to address climate change. Food waste reduction is listed as the top strategy to reduce carbon emissions by 2050. By reducing food waste by 50-75% globally, Project Drawdown estimates that 87 to 95 gigatons of carbon dioxide equivalents can be reduced or sequestered from the environment. That's the equivalent of about 14 times the total GHG emissions that the United States produced in 2018.¹¹

8 ReFED, February 2021.

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Food Waste and Food Insecurity

- ¹² San Diego Hunger Coalition, November 17, 2020, 2nd Annual State of Hunger.
- ¹³ County of San Diego, Live Well San Diego Food System Initiative, June 2018, Food Donation Action Plan for the San Diego Region.
- ¹⁴ The federal government is the largest funder and supplier of supplemental nutrition (mainly commodity, non-perishable food) through a variety of programs, including the Supplemental **Nutrition Assistance** Program (SNAP), Commodity Supplemental Food Program, and the National School Lunch Program. In a 2017 study, the San Diego Hunger Coalition analyzed food assistance programs across the County and found that about 91% of meals were accessed through federal nutrition programs, while the remaining 9% were accessed through private charity programs like food banks, food pantries, and gleaning organizations.

While food is landfilled by the ton each day, thousands of people are simultaneously experiencing food insecurity: 616,000 a year in San Diego County alone, prior to COVID-19, and over 1 million in the County during the pandemic. Food recovery—the practice of redirecting edible food that would otherwise go to waste, and distributing it to hunger relief organizations—provides local organizations with additional, and possibly more diverse food resources for feeding those in need. Although recovered food makes up only a small portion of meals served through charitable food assistance programs, it ensures that good food ends up in bellies rather than in landfills. 14

With a robust network of over 500 food distribution organizations in San Diego County, investing in food recovery programs can play a significant role in bolstering food assistance available to those experiencing food insecurity.

16 Yaffe-Bellany, David and Michael Corkery, April 11, 2020, "Dumped Milk, Smashed Eggs, Plowed Vegetables: Food Waste of the Pandemic." The New York Times.

FOOD WASTE AND COVID-19

The COVID-19 pandemic likely increased food waste across the country. As restaurants, schools, hotels, casinos, and other businesses were forced to close, farmers were suddenly left without customers and limited opportunities to redirect their harvest. Many farmers, including San Diego County farmers, donated surplus food to food banks, but the food recovery system experienced logistical challenges like limited storage and refrigeration capacity, and unpredictable volunteer availability. Forfessional

kitchens around the country such as restaurants, hotels, casinos, caterers, corporate offices, and more were forced to suddenly close and quickly get rid of inventory. In households, food waste fluctuated as empty grocery store shelves led to panic-buying. Although households have reportedly engaged in efforts to minimize grocery trips, more food was being cooked, consumed, and wasted at home.¹⁷

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⁹ ReFED, February 2021.

¹⁰ ReFED, February 2021.

¹¹ U.S. Environmental Protection Agency, <u>Inventory</u> of U.S. Greenhouse Gas Emissions and Sinks.

¹⁵ ReFED, February 1, 2021, How COVID-15 Has Affected Food Waste—and How the Food System Has Responded.

¹⁷ Roe, B.E., Bender, K. and Qi, D., 2021, <u>"The Impact of COVID-19 on Consumer Food Waste,"</u> Applied Economic Perspectives and Policy, 43: 401-411.

SB 1383 TIMELINE

| | 2020 | 2022 | 2024 | 2025 |
|------------------------------------|--|---|---|---|
| 01 | STATE MILESTONES | | | |
| 02 | State Target (Organic Waste Disposal) 50% reduction in organic waste disposal (from the 2014 level of 22.9 million tons) | Regulations & Enforcement Regulations take effect and enforcement begins. | Local Enforcement Local governments take over enforcement | State Target (Organic Waste Disposal) 75% reduction in organic waste disposal (from the 2014 level) |
| 03 | 2014 (evel of 22.5 million tons) | Degris. | Chrotecinett | State Target (Edible Food Recovery) 20% increase in edible food recovery |
| 04 | | LOCAL MILESTONES – ORGANICS DIVERSION | | |
| 05 | | Requirements Take Effect for Jurisdictions Jurisdictions must provide organic waste | | |
| 06 | | collection services to residents and businesses. | | |
| O7 Scale Up Food Waste Prevention, | | LOCAL MILESTONES – FOOD RECOVERY | De suite me unte Teles Effect fou Tieu Teles | |
| Recovery, and Recycling | | Requirements Take Effect for Tier One Generators Tier One Generators* must have an established | Requirements Take Effect for Tier Two Generators Tier Two Generators** must have an established | |
| Initiatives | | relationship with a food recovery organization. | relationship with a food recovery organization. | |
| 10 | | | *Tier One Generators: Grocery stores and supermarkets (≥ 10,000 sq. ft.), food sr **Tier Two Generators: Large venues, Health Facilities (with an On-Site Food Fac Large Venues, Local Education Agencies, Restaurant Facilities (≥ 5,000 sq.ft. or 25f | ility and 100+ beds), Hotels (with an On-Site Food Facility and 200+ rooms), |

A Shift is Underway

The scale at which food waste is happening is shocking. Fortunately, solutions have been identified across the food system and hold significant potential to benefit society, the environment, and our economy.

¹⁸ Integrated Waste Management Consulting, LLC, April 29, 2019, <u>SB 1383</u> Infrastructure and Market Analysis. Political leaders at the regional, national, and international levels have begun to recognize the urgency of food waste prevention, setting targets for reducing food waste over the next several years. The <u>United Nations, U.S. Environmental Protection Agency</u>, and the State of California are a few major entities that have identified and set aggressive targets.

- 19 The 1919 People's
 Ordinance in the City of
 San Diego required the City
 to cover the cost of waste
 hauling for single family
 homes. This could be a
 major barrier to the City
 moving forward with hauling
 food scraps.
- ²⁰ Garrick, David, February 12, 2021, "San Diego Imposes New Recycling Requirements to Comply With State Law, Encourage Diversion of Organic Waste." The San Diego Union-Tribune.

California is the first state in the United States to implement legislation—<u>Senate Bill 1383</u> (SB 1383)—that sets quantifiable goals for edible food recovery. SB 1383 will radically change the relationship between cities, food waste generators, and food recovery organizations. SB 1383 aims to mitigate short-lived climate pollutants like methane by reducing organic waste disposal by 50% from the 2014 level of 22.9 million tons by 2020, and by 75% by 2025—and increasing the recovery of currently disposed, surplus food by at least 20% by 2025.¹⁸

In early 2021, the City of San Diego¹⁹ and the unincorporated County enacted new recycling mandates to meet SB 1383, requiring many businesses and multifamily properties to begin recycling, and existing recycling programs to include organic materials pickup.²⁰ Poway, La Mesa, and other cities are doing the same.

There is also increasing consumer awareness about the issue of food waste. Celebrities like John Oliver, Massimo Bottura, and the late Anthony Bourdain have all used their platforms to help educate the public and center the issue of food waste. National campaigns like savethefood.com and Stop Food Waste Day have increased public support for tackling food waste at home and at larger scales. Data from GoogleTrends indicates that online searches for "food waste" have increased steadily since 2005. Most recently, food waste made national headlines when publishers like the New York Times released stories about the pandemic's impact on wasted food.

Powerful nonprofit organizations like Project Drawdown and ReFED have developed detailed roadmaps and solutions for reducing food waste using the Food Recovery Hierarchy (Figure 3). Detailed guidelines have been developed on designing and implementing organic waste bans and mandatory organics recycling laws.²²

Within San Diego County, there are several prevention, recovery, and recycling organizations and efforts to advance food waste solutions underway (See Table 1, page 13).

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FIGURE 3

The Food Recovery Hierarchy



The key to enacting the hierarchy is a societal shift that places more value on food.

Prevention/Source Reduction: Prevent food from becoming waste in the first place.

Rescue/Feed Hungry People: Capture excess edible food that could not be source reduced and provide it to the community.

Recycling/Feed Animals/Industrial Uses/Composting: Close the loop by turning food scraps into animal feed, soil (composting), renewable natural gas (anaerobic digestion), or fertilizer that feeds back into the food system.

²¹ Collart, Alba J., September 28, 2020, "What Can Google Searches Tell Us About Changes in Consumer Behavior Toward Food and Plants Beyond COVID-19." Mississippi State University Extension Agricultural Economics Blog.

²² Sandson Katie, Emily Broad Leib, July 2019, <u>Bans</u> and <u>Beyond: Designing and</u> <u>Implementing Organic Waste</u> <u>Bans and Mandatory Organics</u> <u>Recycling Laws</u>. Food Law and Policy Clinic (Harvard Law School) and Center for EcoTechnology.

The <u>Hierarchy to Reduce Waste & Grow Community</u> was created by the Institute for Local Self-Reliance, as a modification of the EPA Food Recovery Hierarchy.

Table 1: ReFED Reducing U.S. Food Waste Roadmap With San Diego Examples²³

| Action Areas | on Areas Local Examples | |
|---------------------------------|---|--|
| Optimize harvests | San Diego County gleaning operations like <u>Produce Good</u> and <u>I Love to Glean</u> are gathering surplus food from residential orchards and farmers' markets to connect otherwise wasted food to those in need. <u>Imperfect Foods</u> , a San Francisco based company offers a subscription service in San Diego. | |
| Enhance product distribution | Recotrak is a startup founded by a former hotel employee who struggled to implement a food donation program due to food safety concerns related to temperature. The Recotrack food temperature monitoring technology is designed to improve confidence and encourage food donation through a process centered around traceability, accessibility, and sustainability. | |
| Refine product management | The Alliance's Wasted Food Prevention Program has implemented initiatives that focus on source reduction among institutional kitchens (Smart Kitchens San Diego) and households (EcoChallenge). Emerging software solutions and technology are also lending themselves to supporting food waste prevention. Galley Solutions, a local startup, works with corporate and commercial kitche to help them cut down on food waste through data-driven decisions, including streamlining inventory, purchasing, and recipe management. | |
| Maximize product utilization | San Diego is home to a number of unique upcycling value-added processors including startups upcycling leftover grains into cookies (Soulmuch) and unsubaked goods into vodka (Misadventure & Co.). | |
| Reshape consumer environments | The Alliance spearheads the <u>Save the Food, San Diego!</u> initiative: a county-wide food waste awareness campaign providing education and resources to residents about wasted food. This local campaign focuses on four key strategies for household level food waste reduction: meal planning, smart grocery shopping, proper food storage, and zero waste cooking. | |

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Waste Prevention,

and Recycling Initiatives



| RECOVERY AND RECYCLING | | | | |
|----------------------------|--|--|--|--|
| Action Areas | Local Examples | | | |
| Strengthen food rescue | The Food Donation Action Plan for the San Diego Region was developed to overcome barriers in food donation, address food insecurity, and reduce wasted food. For example, the County of San Diego has waived health permit fees for 85 charitable feeding organizations. | | | |
| | MealConnect is an app used by Feeding San Diego to connect excess food from restaurants, hotels, and caterers with local hunger relief agencies. | | | |
| | Local food recovery kitchens like <u>Oceanside Kitchen Collaborative</u> and <u>Kitchens</u> for Good utilize rescued food to create meals for distribution. | | | |
| Recycle anything remaining | Miramar Greenery and San Pasqual Valley Soils are examples of large-scale composting facilities in San Diego County. A few more are proposed or in permitting. | | | |
| | In 2021, <u>EDCO</u> opened an anaerobic digester that will process organic waste into fertilizer and natural gas for vehicles. | | | |
| | Buckheart Ranch collects inedible food from the San Diego Food Bank and feeds it to their pigs. | | | |
| | Community composting initiatives like <u>Food2Soil</u> and <u>Solana Center</u> bring composting closer to residents. | | | |

With the issue of food waste prevention gaining momentum, the time is ripe to take bold actions.

²³ ReFED, Roadmap to 2030: Reducing US Food Waste by 50%, ReFED, Roadmap to 2030: Reducing US Food Waste by 50%.

OBJECTIVE INTRODUCTION STRATEGIES **SAN DIEGO COUNTY FOOD VISION 2030**

Core Challenges

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The core challenges for scaling up

- Providing business support services
- Accessing centralized data

Transforming Our Culture of Waste

On a per capita basis, the United States is the world's most wasteful country.²⁴ We produce far more waste and recycle far less of it than other countries. Although we have recently made strides in the movement to divert recyclables from being landfilled, wasteful habits and attitudes ("out of sight, out of mind," excess purchasing, normalizing large portion sizes,

Boneless Skinless Chicken Breast

deeply ingrained.

The absence of policy guidance, limited investment in household- and neighborhood-level infrastructure for preventing food waste, and an overall lack of attention paid to food system issues all contribute to this culture of waste. They build upon other prevalent attitudes in American society, including individualism, consumerism, and a colonizer worldview-which all downplay the fact that individual actions have a collective impact, and that there is no true "away" to which things can be thrown. Avoiding the environmental and human costs that come with waste only creates the ecological disruption and injustices we are witnessing. These habits and attitudes nonetheless persist, encouraged by the industrial food system.

regarding food as a disposable commodity, etc.) remain

Other countries have made critical investments to address food waste. For example, South Korea banned food in landfills in 2005, and 95% of food waste is now recycled. South Korea requires each household to put their food waste into biodegradable bags-purchased by residents to fund more than half the cost of collecting

and processing—that are deposited in designated collection containers.²⁵ Concepts like waste equals food, Cradle to Cradle, universal recycling, and circular economies are starting to take root in the U.S., so the tide may be turning.

Transforming the pervasive culture of waste among individuals and households is an essential first step in addressing wasted food solutions.

- Transforming our culture of waste
- Increasing limited food recovery infrastructure and logistics
- **Expanding limited food waste** recycling infrastructure and markets
- to prevent food waste

"The Country Winning the Battle on Food Waste," Huffpost.

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²⁴ Holden, Emily, July 3, 2019, "US Produces Far More Waste

and Recycles Far Less of It than Other Developed Countries,"

²⁵ Kim, Max S., April 8, 2019,

The Guardian.

food waste prevention, recovery, and recycling efforts in San Diego County include:

Increasing Food Recovery Infrastructure and Logistics

San Diego County includes a number of food recovery organizations, mostly nonprofit and volunteer-driven, that are actively rescuing and distributing food to those in need. The San Diego Food Bank and Feeding San Diego have developed a network of food recovery and distribution agencies, and play a key role in facilitating relationships between these agencies and established food donors (e.g., grocery stores). There are, however, few local organizations dedicated to educating and recruiting new food donors.

Research demonstrates that food recovery infrastructure like cold storage, vehicles, and staffing are also limited in the region. In a survey of 162 food pantries in San Diego County in 2018, over 50% indicated that they needed at least one cargo van or truck within the next year to meet their transportation needs, and 60% of respondents indicated a need for more cold storage space.²⁶ As a requirement of SB 1383, the County of San Diego and all jurisdictions will be conducting a capacity assessment of food recovery organizations and services within the region, which will provide detailed information on existing food recovery infrastructure and gaps.

SPOTLIGHT

I Love To Glean

Working across the County, I Love to Glean helps to increase the capacity to recover and distribute food that would otherwise be wasted to agencies serving those in need. The organization works directly with feeding agencies and kitchens who then distribute to end clients.

- · I Love to Glean builds capacity for food recovery and distribution in many ways, including the following:
- Providing education to retail stores on food recovery laws and methods and putting in place user friendly systems that include dry, cold, and frozen storage
- Obtaining trucks and drivers to move food across the
- Coordinating volunteers to sort, pack, and distribute food
- Developing a kitchen to store food and prepare value-added products such as fish bone broth and canned jams and jellies from surplus food

In 2020, I Love to Glean helped to distribute over 51,000 USDA Farm to Families boxes, and 600 fresh fish meals delivered weekly through the Fish to Families program.

The 10-year vision for I Love to Glean is to be an integrated resource and food hub serving all of San Diego County. The vision includes expanded dry, cold, and frozen storage space, adequately equipped trucks to move food where it is needed in a safe and timely manner, and an active kitchen and network of

kitchens to prepare meals with surplus food to feed those in need. I Love to Glean also hopes to contribute to the local food economy, creating jobs and becoming a financially self-sustaining organization. And finally, the organization hopes to be an important contributor and vital resource for reducing food waste and diverting food from landfills in San Diego County.



SPOTLIGHT

ProduceGood

"San Diego county is rich with fresh produce that belongs in the food system, not the landfill," said Nita Kurmins Gilson, Co-Executive Director and Cofounder of ProduceGood, a nonprofit that reduces food waste in the region by gleaning fresh fruits and vegetables from small farms, farmers markets, and backyards and distributing the bounty to local feeding organizations. "San Diego is also full of individuals who want to participate in the reduction of food waste and hunger through their time, trees and talent."

San Diego County is in a unique position to support and fully utilize gleaning opportunities because of its long history of agriculture, perfect climate and long growing season. The intermingling of orchards and suburbs allows for integrated solutions to

simultaneously reduce food insecurity and food waste. "Because the majority of citrus trees

are on private land in San Diego, this is a previously untapped source of nutritious produce that, in the past, has been

overlooked," Gilson explained. "We are doing what nobody has done before in San Diego on a scale that nobody can believe. In 2020, we operated 492 gleaning events and diverted 244,000 pounds of fruits and vegetables that would otherwise have gone to landfill. We provided over 730,000 servings of fresh, edible produce to the foodinsecure of San Diego, from a source that has never been tapped."

As a mobile organization with low overhead and a virtual infrastructure, ProduceGood is focused on keeping their carbon footprint as low as possible, while

reducing wasted food and hunger. To this end, the community-based organization coordinates between hundreds of local volunteers and growers who upcycle thousands of pounds of unwanted produce to feed hungry people. Maintaining this intricate network of growers, volunteers and feeding organizations is no easy task.

"Overall growers are conservative, older people, and our volunteers are all progressives. The one thing that binds a lot of people is that they cannot stand waste," Gilson explained. "We are part of a solution to a larger problem. The current food system is inefficient and inequitable. We are solving for the tactical portion (actually getting food from excess to need), but in order for there to be real change, the underlying factors of systemic inequality must be addressed at the same time, by many different stakeholders. All the parts need to work together."

ProduceGood has rerouted truckloads of produce from the dump to those in need and they are committed to having an even greater impact in years to come. "In ten years, we hope to scale our organizations by partnering with cities throughout the county. We would love to see our Food Waste Prevention curriculum being provided to all children six to ten-years-old to increase household awareness. If we could make some sort of legacy fund, then we could ensure that ProduceGood would always exist. We'd also love to see a 'Save the Food' campaign. Why isn't that a campaign already?" she asked. These dreams all lead to one ultimate goal: For food waste reduction and upcycling to become as natural and ubiquitous as recycling is today.



²⁶ County of San Diego, Live Well San Diego Food System Initiative, June 2018, Food Donation Action Plan for the San Diego Region.

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Expanding Food Waste Recycling Infrastructure and Markets

Although efforts are underway, San Diego County does not currently have the recycling infrastructure needed to process food scraps (Figure 4).

Local waste hauler <u>EDCO</u> built an anaerobic digestion facility that will accept food scraps from the residents of Escondido and 11 other cities in San Diego County. And the <u>Miramar Greenery</u>, one of the largest municipally run composting sites in California, received a grant from CalRecycle in 2018 to expand their ability to accept food scraps from residents and businesses within the City of San Diego. However, there is still a need for added recycling capacity to meet the needs of the entire County.

A 2019 study evaluating the potential market development for compost and mulch in San Diego County found both "tremendous potential for improvement" and "substantial and almost unified frustration" from stakeholders. The study estimated that the amount of compost produced in the region could be 4.3 times larger, while mulch produced could be more than twice as large.²⁷ There is a clear need for expanding food waste infrastructure and markets in San Diego County.



²⁷ Hidden Resources, 2020, <u>Compost and Mulch Market</u> <u>Study, County of San Diego,</u> <u>California.</u>

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and Recycling Initiatives FIGURE 4

Organics Recycling Capacity Gaps



Source: County of San Diego Department of Public Works, May 2021, Organics Regional and County Capacity.

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Feeding People, Not Landfills, in Oceanside

Colleen Foster, City of Oceanside

As the City of Oceanside's Environmental Officer, I have been working toward a zero waste community for the past 15 years.

In 2015, I began to recognize how diverting food to feed people instead of landfills was key to meeting the City's zero waste goals and broadening its sustainability actions. By participating—and eventually joining—leadership roles in the local food policy space, I could better understand and help shape state direction and policy on food systems and food recovery, by even just helping define the term in the SB 1383 regulation.

In Oceanside, we are hard at work preparing for the implementation of SB 1383. However, our region faces significant challenges in accomplishing the goals and actions required by this unfunded mandate, since we lack much of the infrastructure or organics capacity needed to recycle organic waste, let alone perform food recovery within the current regulatory timeline. These issues have only been intensified by the economic

devastation caused by the COVID-19 pandemic.

To support compliance with SB 1383 and the overall food system, jurisdictions and local stakeholders need to work now to prioritize efforts on policy building by marrying their SB 1383 action plans with their overall zero waste, community health and well-being, and climate action goals. Our efforts should ultimately guide us toward eliminating food waste and hunger from the system entirely, to promote full economic, social, and environmental sustainability in our communities.

Aside from wanting to best serve my community, region, and state in focusing efforts to recover food, my passion for this crusade is also personal. As someone who has experienced food insecurity at various times in my life, I find this work to be a beautiful and inspiring nexus of social and environmental action that ensures we feed people, not landfills.



Providing Business Support Services to Prevent Food Waste

Addressing food waste as a restaurant, business, or other food service provider is challenging, particularly in the wake of the COVID-19 pandemic. The cost and burden of adding another recycling stream can feel substantial for restaurants and food businesses already suffering staff and economic losses. Implementing food recovery programs and food waste prevention interventions often seem overwhelming.

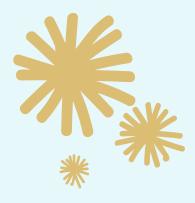
Some restaurant owners and chefs are also hesitant to rise to the challenge of reducing food waste in their kitchens, because no one likes to acknowledge that they are wasting food. "The fear of running out" is also a motivator for restaurants to over-prepare dishes. Expanding business services, technical assistance, and education to support restaurants and food service providers in reducing waste is another clear opportunity.

Accessing Centralized Data

Centralized data around how much food waste is generated, recovered, and recycled in San Diego County does not exist. Local organizations, however, have tried to fill this data gap. The San Diego Food System Alliance, North County Food Policy Council, and Palomar College collaborated to develop a GIS map that highlights estimated food waste using data from waste haulers.

SB 1383 will require cities to collect more information about organics diversion and food recovery, and although these data collection requirements only apply to select food businesses, it is an important first step to developing methodologies and procedures for gathering information about local food waste. Having access to food waste data will be critical for implementing and evaluating food waste prevention, recovery, and recycling strategies.

The Opportunity



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Strategies

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03 EXPAND FOOD WASTE PREVENTION TECHNICAL ASSISTANCE

WASTE PREVENTION, RECOVERY, AND RECYCLING

COORDINATE EFFORTS AND COLLABORATION TO SCALE UP FOOD

34 SCALE UP FOOD RECOVERY LOGISTICS

05 SUPPORT UPCYCLING ENTREPRENEURS

06 INCREASE FOOD WASTE RECYCLING EFFORTS AT ALL SCALES

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Reducing food waste is a key strategy for addressing climate change and food insecurity. With the passing of SB 1383, San Diego County has a unique opportunity to dramatically reduce organic waste disposal and increase food recovery in the region.

Fortunately, momentum has already been building in San Diego County. Data-driven solutions and comprehensive policies have been established to overcome food waste prevention, recovery, and recycling challenges. Several organizations committed to overcoming these challenges are already advancing solutions in the region. Moving forward, there is tremendous opportunity to organize this momentum and position San Diego County as a leader in food waste reduction.



Strategies

01

COORDINATE EFFORTS AND COLLABORATION TO SCALE UP FOOD WASTE PREVENTION, RECOVERY, AND RECYCLING

With SB 1383, San Diego County has a unique opportunity to bring together prevention, recovery, and recycling advocates to collaborate on ways to meet mandated targets for edible food recovery and food waste reduction. Ensuring that each solution scales strategically and successfully requires heightened collaboration and that all food waste stakeholders are at the table.



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Activate Networks to Increase Impact

The Wasted Food Prevention and Recovery Working Group and the County of San Diego's Integrated Waste Management Technical Advisory Committee are existing networks in the region that bring stakeholders together. Although these networks continue to grow in membership, there is an opportunity to identify gaps in representation to foster greater collaboration in the region.

Below are examples of networked food waste reduction efforts from Vermont and California.

Vermont Farm To Plate Food Cycle Coalition

Vermont's <u>universal recycling law</u>, passed in 2012, required the diversion of food scraps from trash bins by July 2020. Vermont's <u>Working Lands Enterprise Initiative</u> provided grant-funding for composting facilities, and the <u>Farm to Plate Food Cycle Coalition</u>—composed of food waste prevention, recovery, and recycling organizations—implemented the universal recycling law. The Coalition has developed <u>educational resources</u>, including <u>guidance</u> for all stakeholders, and a toolkit to support on-farm food scrap composting.

California Resource Recovery Association Edible Food Recovery Technical Council

The <u>California Resource Recovery Association</u> (CRRA, founded in 1974) is California's statewide recycling association. Members include public and private industry organizations and individuals. In 2020, CRRA created a new Technical Advisory Council group focused on <u>Edible Food Recovery</u> in order to bring together stakeholders from across the state in their efforts to implement edible food recovery programs in response to SB 1383.

Food Donation Action Plan for the San Diego Region

In 2015, the University of San Diego's (USD) Caster Family Center for Nonprofit and Philanthropic Research conducted an assessment of the capacity of food pantries in the region. With this assessment, the County Live Well San Diego Food Donation Action Plan for the San Diego Region consulted with the USD research team, food banks, local jurisdictions, and stakeholders to develop a survey for pantries to gather qualitative and quantitative data and help inform infrastructure needs to support food donation.

Strategies

02

ENABLE CONSUMERS TO MORE EASILY MINIMIZE HOUSEHOLD FOOD WASTE

²⁸ ReFED, <u>Reshape</u> <u>Consumer Environments</u>.

²⁹ Roe, B.E., Bender, K. and Qi, D. 2021, <u>The Impact of COVID-19 on Consumer</u> Food Waste, Appl Econ Perspect Policy, 43: 401-411. Despite being the largest contributors to food waste, American consumers perceive themselves as wasting little, with nearly three-quarters reporting that they discard less food than the average American.²⁸ Research from the Ohio State Food Waste Collaborative optimistically suggests that food waste may decline under circumstances stimulated by the pandemic: more time available for household production; accumulated experience and knowledge with home food provisioning and meal preparation; less income available to purchase meal inputs; and higher prices for food.²⁹

In San Diego County, community outreach efforts suggest that residents are actively seeking information to improve their household cooking, storing, and food management habits, representing a key opportunity to engage residents more directly in food waste reduction. In the Food Vision 2030 general survey, the question "What food issues are most important to you?" yielded Minimizing food waste as the second most selected choice, behind Reducing hunger & food insecurity. Additionally, Composting programs emerged as a top choice in response to the question "I would like to see more ____ in my community."



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Change Behavior Through Consumer Education

ReFED has identified resident and household engagement through consumer education campaigns as a primary strategy for reducing overall food waste nationally, with a potential net financial benefit for the economy amounting to over \$6 billion.30 While households have been historically difficult to reach and engage in consumer education campaigns, successful pilot programs have demonstrated their ability to inspire behavior change.

| EPA Food: Too |
|----------------------|
| Good to Waste |
| Challenge |

In addition to the development of the well-known Food Recovery Hierarchy, the EPA is also responsible for Food: Too Good To Waste—an implementation guide for jurisdictions and community organizations, which comes with a toolkit for households that provides guidance for reducing wasteful household food management practices.

Save the Food, San Diego!

Since 2015, the San Diego Food System Alliance has been spearheading the Save the Food, San Diego! initiative—a county-wide food waste awareness campaign providing education and resources to residents about wasted food. This local campaign focuses on four key strategies for household level food waste reduction, in alignment with the content and strategies from the national Save the Food campaign: meal planning, smart grocery shopping, proper food storage, and zero waste cooking.

30 ReFED Insights Engine Consumer Education Campaigns.

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There are many examples of other consumer education programs, including <u>Save More</u> Than Food in Ohio and Love Food Hate Waste in the United Kingdom. According to Josh Kelly, Materials Management Section Chief for the Vermont Agency of Natural Resources, Vermont's universal recycling law is "more than a law. It's rethinking the future." Vermont started by simply using recycling icons and has incrementally invested in consumer education campaigns like Scrap Food Waste.



Strategies

Save the Food, San Diego! EcoChallenge

Households are the largest contributors to the food waste stream—at 43%, they easily outsize waste generated from commercial kitchens, distributors, and producers. While consumer education campaigns have been identified by national food waste think tanks as one of the most effective strategies to reduce food waste, few interventions have documented their impact on household level food waste behavior.

In October 2019, the San Diego Food System Alliance launched the Save the Food, San Diego! EcoChallenge, an innovative social competition engaging individuals and households in food waste tracking challenges through a dynamic, online platform. In partnership with six of San Diego's largest employers and institutions-Qualcomm, SDG&E, University of San Diego, California State University San Marcos, County of San Diego, City of Chula Vista—the EcoChallenge recruited close to 900 participants and tasked them with weighing, recording, and tracking their household food waste over a period of fifteen months. While food waste like

veggie scraps, leftovers, and coffee grounds were being weighed, the Alliance deployed a robust consumer education campaign to participants through emails, newsletters, and social media posts. Topics of focus for the campaign included meal planning, smart grocery shopping, proper food storage, and zero waste cooking.

By the end of the program, EcoChallenge participants achieved a 38% reduction in household level food waste as compared to their baseline food waste levels. Qualitative survey data collected from participants found that 90% of survey respondents reported an increased awareness of food waste and that they are implementing strategies they learned from the EcoChallenge to reduce their food waste. The EcoChallenge program not only demonstrated the efficacy of consumer education campaigns on behavior change, but also supports future program development engaging individuals and households.



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Include prevention in composting and food scrap recycling education

In a study conducted at Ohio State University, researchers found that the availability of composting or other food scrap recycling options could actually lead people to feel less guilty or responsible for throwing away food, and in some cases, actually increase their food waste.³¹ Participants in the study who were told that their food scraps would be composted left significantly more food on their plates than those who were told their food scraps would end up in landfill. On the other hand, it has also been found that when people engage in composting themselves—for example, by creating a vermicomposting bin in their backyard or participating in a community composting program—they are forced to see how much food they waste, which incentivizes them to waste less.

Community composting groups have also long encouraged participants to learn about soil and growing food, which may inspire a shift in placing more value on food.

As food scrap recycling bins and services are provided to residents and businesses across the region, educational efforts will be necessary to educate participants about best practices and contamination, while being careful to still encourage prevention as the most effective strategy for reducing food waste. Cohesive and coordinated messaging is also essential and can provide an opportunity to elevate community composting solutions and food waste prevention solutions as complementary practices.

Brian Roe and Laura Moreno,"

USDA Blog.

and Recycling

Initiatives



Incorporate food waste education into school curriculums

Educating kids is an important way to cultivate life-long food waste warriors and begin to eliminate our culture of waste. Across the country, lessons about food waste are being folded into existing standards and curriculums. In San Diego County, organizations including Love A Clean San Diego, Solana Center, and ProduceGood all teach kids about the impacts of food waste through classroom learning and after-school programs. Areas of opportunity for our region include expanding food waste prevention education countywide, incorporating at-home waste audit activities into lesson plans, and creating teacher training programs. Below are additional examples of integrating food waste education into schools.

StopWaste School Programs

In Alameda County, the organization <u>StopWaste</u> developed a 5th grade curriculum, <u>The Amazing Garbologist Adventure Journal</u>, that is available in English, Spanish, and Chinese. The organization also developed the <u>Stop Food Waste Challenge</u>, a program that combines the curriculum with school-wide food waste reduction activities like conducting a waste audit.

Urban Green Lab Sustainable Classrooms Program

In Nashville, the nonprofit organization Urban Green Labs runs a <u>Sustainable Classrooms</u> program that trains teachers on how to incorporate sustainability lessons within their classrooms. A sample curriculum is provided, as well as at-home activities.



³¹ Nguyen, Jimmy, September 9, 2019, "The Psychology of Food Waste: An Interview with

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EXPAND FOOD WASTE PREVENTION TECHNICAL ASSISTANCE

For food businesses and institutions that are operating on thin margins, changing "business as usual" to implement food waste prevention strategies is hard work. It requires time, effort, and resources to develop new procedures, adjust workflows, train staff, and invest in new technology. Research and data, however, demonstrate that for businesses, preventing food waste can result in greater efficiencies and savings. A review of over 1,200 international food businesses by the research coalition Champions 12.3 found that for every \$1 invested in food loss and waste reduction, the median site realized a \$14 return. In the U.S., the top 5 food waste prevention solutions identified by ReFED for the foodservice sector—solutions like waste tracking, supporting imperfect produce channels, and varying portion sizes—have the potential to save companies over \$7 billion.

Technical assistance programs can help relieve businesses of the legwork of adopting food waste prevention strategies, playing an important role in getting them to feel confident in making long-term shifts that waste less food. For example, the San Diego Food System Alliance pilot program Smart Kitchens San Diego provided fifteen commercial kitchens with direct and site-specific technical assistance. Several other San Diego businesses and organizations, including the airport and local school districts, have been recognized for championing food waste prevention programs. Similar technical assistance programming could be part and parcel with economic development initiatives and small business support systems. The World Wildlife Fund provides an example of food waste prevention technical assistance, delivered digitally. Their free, interactive toolkits for hotel kitchens and restaurants are available online and include case studies, best practice tip sheets, and calculator tools, making it easier for businesses to locate resources in a single place.



Strategies

Smart Kitchens San Diego

What would it look like to pile up all of the food waste from a commercial kitchen over the course of a week, a month, or a year? The Alliance got a glimpse into the answer to that question by analyzing the food waste stream of fifteen local sites through the Smart Kitchens San Diego (SKSD) program. Starting in 2018, the Alliance recruited institutions from various sectors-including hospitals, hotels, universities, casinos, and event centers—to start tracking all of their food waste. Chefs, dishwashers, cooks, and other kitchen staff at these sites used advanced tracking systems developed by the company Leanpath to weigh, categorize, and photograph every food item that got tossed.

The data captured by the Leanpath trackers was invaluable. For the first time, chefs got a birds-eye-view of all food waste in their kitchens, gaining insights into what types of food were commonly wasted, for which reasons, at what times of day, and how often. By measuring the food wasted in their

kitchens, chefs were able to identify strategic opportunities for addressing the root causes of food waste. At the end of the two-year program, tracking data revealed that the sites participating in SKSD reduced their food waste by 42%.

In addition to stopping food waste at the source, the SKSD program also set up food recovery relationships for each site. In partnership with the San Diego Food Bank, each institution was connected with a local food recovery organization that would pick up nutritious and delicious surplus meals from the sites and redistribute them to community members in need. Since 2018, over 170,000 meals have been rescued and distributed through Smart Kitchens San Diego partnerships.

By measuring wasted food, implementing efficient kitchen strategies, and donating excess, this collaborative project is reducing waste, helping the environment, and improving the bottom line for institutions.



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SCALE UP FOOD RECOVERY LOGISTICS

Food recovery is the practice of redirecting surplus food that would otherwise go to waste, to hunger relief organizations—thus addressing two issues at once. While we know food waste is best tackled through prevention, and food insecurity through building sovereignty and eliminating systemic injustices, food recovery is one actionable way to address immediate needs and emergency situations.

The <u>Natural Resources Defense Council</u> has conducted studies in Denver, Nashville, and New York City that model the potential of expanded food rescue to meet the meal gaps within each of these communities. The results are promising. The study found that Denver and Nashville could meet an additional 46-48% of their cities' meal gap by increasing food rescue initiatives, while New York City could meet an additional 23% of its meal gap.³²

SB 1383 includes a mandate to recover at least 20% of edible food that otherwise would be disposed of, by 2025. Meeting this goal in San Diego County will require increased coordination across all food recovery stakeholders in the region.



Increase Coordination and Streamline Logistics

According to ReFED's July 2020 report, Scaling Food Recovery and Hunger Relief: Learnings from ReFED's Nonprofit Food Recovery Accelerator, best practices that need to be implemented include ensuring efficiency and consistency in logistics, transportation, and distribution; establishing strategic partnerships and collaborations; and developing robust food safety procedures and education for donors about liability protection.³³ Food can be recovered from a variety of places, including restaurants, grocery stores, dining facilities, farmers' markets, or even backyard fruit trees, and donated to hunger relief organizations and agencies of all sizes, serving many different communities.



³² Berkenkamp, JoAnne and Caleb Phillips, October 2017, <u>Modeling the Potential</u> to <u>Increase Food Rescue:</u> <u>Denver, New York City, and</u> <u>Nashville</u>, Natural Resources Defense Council.

³³ Coari, Alexandria and Angel Veza, 2019, <u>Scaling</u> <u>Food Recovery and Hunger</u> <u>Relief: Learnings from</u> <u>ReFED's Nonprofit Food</u> <u>Recovery Accelerator</u>, ReFED. Scheduling pickups and physical infrastructure have often been barriers when it comes to logistics and distribution. For example, a restaurant that has surplus food to donate at the end of its dinner service at 10:00 p.m. may not be able to find a volunteer to pick up the food at that specific hour or an agency that is open to accept the food. In other instances, when offered a large amount of surplus food, some food agencies may not be able to accept it due to large packaging sizes (e.g., a 5 gallon bag of yogurt versus individual 5 oz. containers), as well as limited or no refrigerator space. In other instances, farmers may find themselves with a surplus of perfectly edible and nutritious produce, but no way to economically pack and transport that food to the local food bank.

There is also a continued opportunity for innovative, cost-effective last-mile delivery solutions to get the food directly from food donors to end recipients. For most food businesses, transportation has been one of the most common barriers to donating more food, illustrating the need for last-mile logistics solutions.

Mutually beneficial partnerships with like-minded organizations can help drive scale—expanding networks, physical capacity, and expertise. Increasing coordination within a network, sharing and leveraging existing logistics, adopting a common platform or infrastructure to fill resource constraints, is one practice that has helped food recovery organizations overcome challenges as well as expand their reach to new markets.

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LEARNING FROM OTHERS IN THE FIELD

To expand food recovery efforts in the region, it will be critical to learn from others and explore innovative and sustainable funding models for San Diego County. Examples of innovative food recovery programs that are scaling up food recovery logistics include:

Chefs to End Hunger

Chefs to End Hunger is a back-haul food donation program of Vesta Foodservice, a food distributor servicing most of California, Nevada, and Arizona. Vesta Foodservice already has trucks delivering to hundreds of food service clients (like hotels, offices, and restaurants) daily. Vesta Foodservice clients have the option to participate in the Chefs To End Hunger program by requesting a "Hunger Kit," which includes boxes and foil sheet pans. Food service clients simply package and label food donations into the requisite Hunger Kit boxes, store them in their coolers, and hand over full boxes to their Vesta Foodservice driver during their regularly scheduled deliveries.

San Mateo County Edible Food Recovery Program

The Office of Sustainability in San Mateo County implemented an edible food recovery program based on geography. The County divided up their region into geographic zones, and assigned one food recovery organization to become the sole food rescue provider for food donors within that geographic area. Everyday, a food distribution event happens within each zone, so that food that is rescued can be immediately distributed, minimizing the need for cold storage.

Abound Food Care

Abound Food Care is a nonprofit that facilitates food donations in Orange County and beyond. Previously Waste Not OC, the organization uses ChowMatch food recovery software to optimize recovery efforts, and has piloted innovative models like partnering with Yellow Cab off-duty drivers to conduct food rescue runs. Other key activities include educating food donors on food safety through partnership with Environmental Health Inspectors and providing food access information (e.g., map of food pantries) to folks at risk of food insecurity through a food insecurity screening program at hospitals.





Strategies

Adopt Technology

Technology can also play a role. Digital platforms like <u>MealConnect</u>, which is currently used in San Diego County, <u>Food Rescue US</u>, and <u>Copia</u> allow food donors to post when they have surplus food available and quickly connect with local food banks or other potential recipients. <u>ChowMatch</u> takes this to the next level by matching surplus food with agencies that are best suited to accept the type and quantity of food available. With a region as geographically large as San Diego County, these digital food recovery platforms can also optimize the distance that food travels.



Increase Financing for Food Recovery

Scaling up food recovery efforts in the region will require additional funding to purchase equipment and cover staffing expenses. The current food recovery landscape in San Diego County relies heavily on volunteers. In general, food recovery is seen as charity work, but it requires significant people power to pull off. While there are some grant opportunities for refrigerators, freezers, trucks, and other food recovery equipment, smaller food recovery operations often lack the same access to these opportunities as compared to larger, more established organizations. Also, it is uncommon for grant opportunities to fund staff time, a key resource for food recovery.

The long-held belief that food recovery is charity requires an entire paradigm shift towards sustainable funding and jobs creation. Exploring sustainable funding models for scaling up food recovery efforts is essential moving forward. SB 1383 regulations include a permissive provision that a jurisdiction may fund edible food recovery programs through franchise fees, local assessments, and other funding mechanisms. The provision supports the development of sustainable funding sources—like increased landfill tipping fees—to continuously fund programs.

In Los Angeles, the recycLA Franchise Program facilitates funding and collaboration for food scrap recycling and food donation throughout the city. The recycLA program requires commercial haulers to contribute \$1,000 for each 100 customers to a fund that gets distributed to food recovery and community composting organizations. The unique model of requiring service providers to help finance local nonprofit organizations has expanded required infrastructure.³⁴

³⁴ Rosengren, Cole, October 25, 2018, "Next Up for the RecycLA Experiment — Optimization." Waste Dive.

"Using our precious and finite

resources to grow food, only to

simply discard it in a landfill that

results in climate change-causing

methane, is simply unreasonable

indifference toward the health of

our planet. Not making the effort to

donate surplus food to places where it

is needed adds a layer of indifference

and disrespectful. It reveals our

toward our communities' most

Other examples of sustainable funding through cities or the County include incorporating food recovery fees into waste hauler contracts and solid waste fees, as well as accessing state funds.

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> and Recy Initiatives

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> Manuel Medrano, Environmental Services Manager, City of Chula Vista

vulnerable individuals."



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SUPPORT UPCYCLING ENTREPRENEURS

An emerging concept in food recovery is upcycling, which refers to using ingredients that might have gone to waste—like spent grains from brewing beer—to create new products. For example, <u>SoulMuch</u> uses surplus brown rice and quinoa from restaurants as ingredients to make vegan cookies. Conversations with upcycling processors and manufacturers, as well other processors and manufacturers, highlighted the need for increased support services—business services, technical assistance, and financing—to enhance the viability of such food businesses. The strategies detailed in Objective 2 also support upcycling entrepreneurs.

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INCREASE FOOD WASTE RECYCLING EFFORTS AT ALL SCALES

Even when all actions have been taken to prevent the generation of surplus food in the first place—and divert it toward hunger relief when it does happen—food waste will still occur. Scraps, or inedible parts of food, also remain and need to be managed. Tiers 3 to 5 of the EPA Food Recovery Hierarchy include the three final alternatives to landfills: feeding food scraps to animals, diverting waste to industrial uses, and composting.

All communities, San Diego County included, can benefit from increasing investment in facilitating these processes. SB 1383 requires jurisdictions to plan for organics and fund infrastructure if needed. By ensuring that infrastructure for these final alternatives to landfilling food are in place, we can reduce methane emissions, turn food waste into renewable energy, produce compost for improving soil health, and encourage communities to take part in regenerating their food system.

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Increase diversion opportunities through animal feed programs

Information about animal feed operations is limited in San Diego County. Most of the animal feeding taking place occurs through direct relationships between farms and generators or through animal feed brokers. Other examples include connections between food waste generators and livestock producers.

For example, the County of San Diego worked closely with the Ramona Unified School District (RUSD) to set up an animal feed food scrap diversion program. Unserved, leftover food from schools in the district is placed in a walk-in freezer and collected weekly by a local pantry that distributes it to food insecure residents and families. Vegetable and bakery food scraps suitable for animal feed go into 3-gallon buckets with screw-on lids which are placed in a walk-in refrigerator and are delivered to the RUSD Agriculture Program's farm the next morning.35 Replicating models like the one in Ramona provides a creative solution for reducing waste in the region.

Scale Up Food Waste Prevention and Recycling

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Remove regulatory barriers for small, mid-scale, and on-farm composting

Breaking down regulatory barriers for composting is a key strategy to increase food recycling efforts in the region. Local regulations limit composting of organic matter in small-scale facilities, resulting in valuable compost feedstock being sent to landfills.

The County of San Diego Planning & Development Services and Department of Public Works are currently developing the Organic Materials Ordinance Update project to support the diversion of organic materials from landfills. The proposed project will amend the text of the County's existing zoning ordinance, regulatory code, and potentially other parts of the County's existing regulations that limit the acceptance of offsite organic materials for composting purposes.

³⁶ Hidden Resources, 2020, Compost and Mulch Market Study, County of San Diego,

The County of San Diego Planning & Development Services and Department of Public Works are currently developing the Organic Materials Ordinance Update project to support the diversion of organic materials from landfills. The proposed project will amend the text of the County's existing zoning ordinance, regulatory code, and potentially other parts of the County's existing regulations that limit the acceptance of offsite organic materials for composting purposes.

Community-based composting solutions are also an important and often undervalued food waste recycling solution. According to Food2Soil, across San Diego County, only the cities of San Diego, Chula Vista, Encinitas, and Vista-out of all 19 jurisdictions-allow community composters to transport food scraps generated by businesses and residents for composting for a fee and allows composters to offer fee-based composting services to residents and businesses who self-haul their scraps to the composter's property.

Throughout the County, regulations are limiting the ability of community composters to operate, as well as limiting on-farm composting options. Removing these barriers for community and on-farm composting operations is critical for residents.



Strategies

Create a market for locally produced compost

The Compost and Mulch Market Study found that "there is tremendous potential for improvement and growth in the compost and mulch sales market in San Diego County."36 Some of the key recommendations that emerged from this study include investing in market development and creating incentives for procuring these valuable end-products from local, permitted facilities.

SB 1383 requires that cities and counties begin annually procuring recovered organic waste products in 2022, including compost, mulch, and renewable energy. This presents a unique opportunity to expand the local compost and mulch market. Coordination and investment are needed to educate cities and counties on our local supply, and connect them with the region's producers.

³⁵ County of San Diego, May 2016, Waste Reduction Resource Options for Schools <u>in San Diego County— a</u> Regional Guide.

³⁶ Hidden Resources, 2020, Compost and Mulch Market Study, County of San Diego, California

OBJECTIVE INTRODUCTION

CORE CHALLENGES

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Introduce more food waste into existing compost facilities

There are 17 compost and mulch operations in San Diego County; however, only a few are permitted to take food scraps. Regulatory barriers and incentives for existing facilities to accept food should be explored as a way to take advantage of existing infrastructure especially due to the barriers in citing new facilities.

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Food2Soil

SARAH BOLTWALA MESINA

Community composting comes with a host of challenges, most notably, the collection of food scraps. San Diego, Chula Vista, Encinitas, and Vista are the only cities in the county that allow community scale composting, but local jurisdictions each have their own regulations with regard to the collection of "solid waste", which includes food scraps. Most cities in the County of San Diego have an exclusive franchise agreement with waste haulers, preventing any other entity to pick up and move waste, including food scraps for composting.

"The journey so far has been riddled with heartache. It hasn't been easy at all. For the first several years we were a policy loophole. We knew we were doing the right thing but we didn't know if we were legal," explained Sarah Boltwala-Mesina, executive director of Inika Small Earth, who launched Food2Soil the day after Thanksgiving in 2015, when she picked up her first ten buckets of kitchen scraps from Ironside Fish & Oyster in Little Italy and took them to Juniper Front Community Garden for

composting. "We tend to not look at the roadblocks in our way and instead focus on finding detours around these roadblocks to find lasting solutions."

Chefs, farmers, businesses, and individuals who participate in the Food2Soil program share the belief that waste is a resource that has intrinsic social, environmental and economic value. Members of the Soil Farmer program self-haul their food scraps to a Soil Farmer who earns an income by processing the scraps into compost. "I'm really proud of what we've accomplished here," Boltwala-Mesina said. "With every bucket we pick up we want to develop the capacity to process close by."

Community composting has only recently gained widespread interest, and around the US, it's largely been a hauling solution that provides a different channel for the food scraps to be transported, but does nothing to facilitate the processing of those scraps. Food2Soil has realized that scaling is conditioned on the convenience of the drop off hub. "We are very careful about how we expand our network," she said. "We have enough examples out there to show that odors and pests are really not issues at drop-off sites, so they can be at cafes or anywhere that property owners are willing to allow us to place a locked cart."

Despite the incredible potential for waste reduction, community composters in the State of California are still considered

outlaws due to franchise agreements cities have in place with large waste haulers. Even in instances where haulers don't offer composting services for food waste, many city officials

will not allow the Soil Farmer program to operate. "I think everyone's waiting to see what happens in 2021," said Boltwala-

Mesina. "Many cities are renegotiating their exclusive franchise agreements with their haulers this year, and CalRecycle has provided a model franchise agreement tool. The language in the Model Franchise Agreement and Model Mandatory

Organic Waste Reduction
Ordinance includes community
scale composting activities, thus
allowing jurisdictions a lot of
flexibility to make provisions for
these activities."

Elimination of policy roadblocks would allow Food2Soil and other community scale composters in the state and across the nation to focus on public education, composting best practices, and soil regeneration, instead of politics. "Food2Soil aims to be the Airbnb of community composting—a network so expansive that anyone can find a place to drop off their food scraps and Soil Farmers can earn an income accepting food scraps and building compost," Boltwala-Mesina explained. "We envision a network where every zip code has a drop-off location, and compost is built where food is consumed."

Boltwala-Mesina believes that the more expansive the network, the more opportunities there are for educational experiences. Thanks to the decentralized nature of the Food2Soil collective, local collection and processing of food scraps facilitates community interaction, knowledge sharing, and knowledge discovery and the program thrives on the creativity and autonomy of the Soil Farmers. "Our relationship with waste reveals underlying class issues with waste. There is this idea that someone else needs to do the dirty work for us," she said. "Drop-offs allow people to take ownership of their waste. And a significant number of people want to participate in the solution."

Moving from Food Waste Prevention, Recovery, and Recycling to Increasing Leadership for Black, Indigenous, and People of Color

Objectives 5, 6, and 7 focus on increasing food security for all San Diegans. Wasting food wastes resources, and squanders opportunities to relieve food insecurity. The key to food waste prevention, recovery, and recycling is a paradigm shift—from a society that doesn't think twice about wasting food, to one that takes responsibility to prevent food waste. Objective 8 turns our attention to another paradigm shift needed in our food system: increasing leadership for Black, Indigenous, and people of color.

SAN DIEGO COUNTY FOOD VISION

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