

# Reducing Food Waste

Why it matters, who it helps, and how to do it

## INSIDE

**Page 3**  
Environmental  
impact

**Page 4**  
Food insecurity

**Page 5**  
How the new  
system works

## SENATE BILL 1383

Signed into law in 2016,  
SB 1383 mandates:

**75%** Reduction of  
organic waste  
disposal in  
landfills by  
2025.

**20%** Rescue of  
currently  
wasted surplus  
food by 2025.

### HERE'S HOW IT WILL WORK:



#### ORGANIC WASTE

Beginning Jan. 1, 2022, residents and businesses will be required to recycle all organic waste. These organic materials will be recycled at:

- Anaerobic digestion facilities that create biofuel and electricity.
- Composting facilities that make soil amendments.

Local governments will be required to use the recycled products, such as renewable energy, compost, and mulch.



#### FOOD RESCUE

Beginning Jan. 1, 2022 for large food service businesses (and by 2024 for smaller ones), edible food must be donated to food recovery organizations instead of thrown away. These businesses include restaurants, schools, hotels, hospitals, grocery stores, etc. This will help feed the almost 1 in 4 Californians without enough to eat.

# Why It ..... Matters



Food waste creates serious problems for our environment and our community, but our region has the answers

by  
Allen Pierleoni

**T**he science is simple, the consequences are devastating, the solutions are long-term but clear.

Essentially, decomposing organic waste in landfills emits greenhouse gases—particularly methane—that are main contributors to global warming. The result is climate change, making our world increasingly hostile: rising temperatures, intensifying drought, more extreme weather events, and a nearly year-round wildfire season.

In California, however, statewide mandates are coming Jan. 1, 2022, requiring a 75% reduction in organic waste disposal and a 20% increase in edible food waste recovery by 2025. The genesis is Senate Bill 1383, signed into law in 2016 and heralded at the time as “a revolution for organic waste.”

One piece of it is organic collection services for all residents and businesses to reduce organics in landfills, helping fight the impact of greenhouse gases and the resulting climate change.

“That’s especially pertinent to Solano County, as it and surrounding counties have seen wildfires and the pollution that came with them,” says Corey Beavers, Management Analyst for the City of Fairfield Public Works Department.

Another piece is redirecting donated excess edible food to the food-insecure, rather than disposing of it in landfills, he says.

Leading that effort are food recovery and hunger relief

**“I liken this to when recycling was first introduced. I imagine that was a huge cultural shift, trying to teach the overall population what to do with glass, plastic, and aluminum cans.”**



**Corey Beavers, Management Analyst**  
Fairfield Public Works Department

organizations that collect and distribute excess edible food. The mandates require businesses to participate in edible food recovery programs, which will cut into the 6 million tons of food that is wasted in California each year, Beavers says.

“Feeding America (a nationwide network of food banks) reports that one in seven children in Solano County faces hunger, while the Food Bank of Contra Costa and Solano distributes more than 68.8 million meals each year,” Beavers says.

Reducing greenhouse gases by eliminating organic waste from landfills is also a goal of the mandates.

“Jurisdictions will be required to take organic

material to recycling facilities that create biofuel and electricity, and to composting facilities to make soil amendments,” Beavers says.

Not only does this benefit soil, water, and air quality, and reduce greenhouse gases, it also extends the life of landfills. Right now, the estimated organic content of landfills ranges from 40% to more than 60%.

What about the sociological impact of the programs?

“I liken this to when recycling was first introduced. I imagine that was a huge cultural shift, trying to teach the overall population what to do with glass, plastic, and aluminum cans,” he says.

Beavers sees the new model as a matter of teaching people what to do with organic waste, and why.

“Hopefully, these small changes...will lead to positive results for all of us and future generations,” he says.

# The Environmental Impact



Immediate action can turn around the devastating effects of food waste in our landfills

by Allen Pierleoni

The Department of Resources, Recycling and Recovery—better known as CalRecycle—has a storied tradition as the steward to California’s environment.

That role has never been more essential or visible than now, as climate change worsens and a rollout of revolutionary mandates are poised to debut Jan. 1, 2022.

Rooted in Senate Bill 1383, signed in 2016, the new regulations will require a 75% reduction in organic waste disposal and a 20% increase in edible food waste recovery by 2025. The laws will require cities and counties to be responsible for implementing the programs while reporting to CalRecycle. Recycling specialists expect a massive behavior change for residents and businesses alike.

“The implementation of SB 1383 is one of the fastest and easiest ways Californians can fight climate change, feed Californians in need, conserve water, and move the state toward a future with less pollution and more green jobs,” says Lance Klug of CalRecycle’s Office of Public Affairs.

“CalRecycle is here to help jurisdictions overcome local implementation challenges,” Klug says.

CalRecycle has gathered input from cities and counties to help shape pathways to compliance, he says. The process is ongoing, as the

agency continues to develop new resources and planning tools in partnership with

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**Lance Klug, Public Information Officer**  
CalRecycle’s Office of Public Affairs

jurisdictions.

At the heart of the issue is the overabundance of organic material in landfills. About 56% of landfills’ content is food waste, food-soiled paper, green waste, and other organic waste, Klug says. As organic waste decomposes, it produces methane gas, a climate super-polluter that’s 84 times more potent than carbon dioxide.

“(Among other benefits of) transforming organic

material into electricity, low carbon fuel, and compost is helping eliminate methane and supporting local green job growth and recycling infrastructure,” Klug says.

“Meeting the state’s organic diversion goals will protect public health and support economic growth,” Klug says. For instance, 17,600 jobs have been created around the organics diversion industry, with health and social benefits valued at \$10.5 billion.

“California can’t afford to delay its climate fight,” Klug says. “We’re experiencing extreme drought, extreme wildfires, and record heat waves.”

A look at California’s latest Climate Change Assessment Study expects even more intense impacts by the year 2100:

- Average daily maximum temperature could rise by 5.6 to 8.8 degrees.
- 77% more of the state could experience devastating wildfires.
- The snow pack, which is California’s largest water reserve, could decline by 75% by 2050.

Klug wants to remind all Californians of the bottom line: “We need to take immediate action to turn our trajectory away from this probable future.”

## HOW MUCH FOOD DO WE WASTE?



**40%** of food produced in California goes uneaten



**6 million tons** of food goes into California landfills



**56%** of landfills’ content is food waste, food-soiled paper, green waste, and other organic waste

Municipal landfills are the third-largest source of greenhouse gases in California, and methane is a climate super-polluter that’s **84 times more potent than carbon dioxide**



**1 in 4** Californians go to bed hungry



PHOTO COURTESY OF  
FOOD IS FREE SOLANO

# Food Insecurity

It is a terrible irony that while food rots in a landfill, people in our community don't have enough to eat

by  
Raul Clement

Sometimes the biggest attempts to change the world have modest beginnings. That was the case for Heather Pierini, founder of Food is Free Solano.

"I have a big home garden, and I've always grown too much for my family," Pierini explains. "For years, I would give it away to my neighbors. But beginning with the pandemic, people were going through the baskets on my table, looking for more food. I thought, *Let's see if we can get more.*"

She encouraged others in her hometown of Benicia to start up food stands. Within a month, there were a dozen community stands. But she was still not satisfied. She discovered the USDA Farmers to Families Food Box Program, a pandemic response program that kept farmers in business by getting their food to nonprofits. But in order to take part, she had to be able to receive food by the truckload. This led to setting up a distribution hub at the Solano County Fairgrounds. Soon she was in possession of two refrigerated trucks,

a forklift, a pallet jack, and indoor storage.

In the process, she built a network of people eager to receive food that would otherwise be thrown away. This includes nonprofits, soup kitchens, mutual aid networks, and perhaps more surprising

**"If we can disperse food in more equitable ways, then we have a stronger society. There is no downside."**

**Heather Pierini, founder**  
*Food is Free Solano.*



recipients.

"We have everything from hog farms that can take truckloads to a guinea pig rescue that takes two boxes of salad," she says.

As Food is Free Solano has shifted from distributing USDA boxes to a full-blown food rescue operation, Pierini

is excited about the impact of Senate Bill 1383. She believes that, by regulating the disposal of food waste, the bill will "normalize food rescue."

"Sometimes I'll call a school and say, 'We'll pick up your food that's left over from your lunch services,'" Pierini says. "And they say, 'We can't do that because we'd be responsible.' They don't understand that there are donation laws, that there is protection for them, and that this is now going to be the way things work."

Pierini anticipates that, as schools, hospitals, and restaurants become aware of SB 1383, the process will become more streamlined. In the meantime, she is happy to do the work of educating people on the benefits of food rescue.

"If we can disperse food in more equitable ways, then we have a stronger society. There is no downside."

*More information, including how to volunteer or donate, can be found at [foodisfreesolano.org](http://foodisfreesolano.org).*

## BY THE NUMBERS

Prior to the COVID-19 pandemic, **10% of Solano County residents (or 43,650) were food insecure**<sup>1</sup>

 That number may rise as high as **15%** as a result of the pandemic

Not all people who are food insecure live in poverty, and not all those who live in poverty are food insecure. **Other contributing factors include:** lack of transportation; chronic disease; disabilities; living in "food deserts"; social isolation; age



Solano County has **5 fewer grocery stores per 100,000 residents** than California as a whole

**Around 45%** of Solano County residents have limited access to healthy and affordable food<sup>2</sup>

**17%** of children in Solano County experience food insecurity

**38%** of these children are ineligible for federal nutrition programs

**11 million tons** of food alone is estimated to be thrown away in California each year

**Around 30-40%** of food is thrown away in the US annually

# How the New System Works

New law gives citizens the tools to stamp out climate change and hunger

by Gail Allyn Short

Starting in January 2022, a new law goes into effect that will help stop food waste in its tracks.

In 2018 alone, U.S. homes, commercial entities, and institutions generated about 63 million tons of wasted food. Meanwhile, 35 million Americans experienced hunger in 2019.

Uneaten food that ends up in landfills produces methane, a greenhouse gas. A buildup of greenhouse gases is warming the planet, resulting in climate change, such as wildfires and increased temperatures.

California's new legislation, SB 1383, mandates that the state reduce the amount of organic waste going into landfills by 75% by 2025.

"That's important because organic waste like food scraps, yard trimmings, paper, and cardboard make up half what Californians dump in landfills," says Samantha Brown, the City of Vacaville's Recycling Coordinator.

The law will require residents to separate their organic waste from their trash and recyclables.

Organic waste includes traditional green waste such as grass clippings, leaves, tree and shrub prunings, and weeds, as well as fruit and vegetables, bread, seafood and shellfish, egg shells, pasta, meat, poultry, bones and food-soiled paper products.

Residents will continue placing items like plastic containers, cardboard, and glass bottles into the blue recycling bin while all other garbage goes into gray or black trash bins.

Under SB 1383, businesses must require workers to properly sort waste, and provide labeled organic waste bins for patrons to use.

**"A small action can make a big difference. With everybody doing their part, you can have a domino effect and create a larger change."**

**Samantha Brown, Recycling Coordinator**  
City of Vacaville

But Brown warns that every municipality is different, so residents and businesses should check with their local recycling service to learn what waste materials haulers in their area will accept.

In addition, SB 1383 requires large food-generating businesses—such as supermarkets, grocery stores, and food distributors—to donate edible food items that would otherwise be thrown away.

To do that, these companies will need to contract with food recovery organizations and food banks that can collect and distribute the food.

To donate food, impacted businesses should consult their local recycling coordinator for a list of food recovery organizations in their area, Brown says.

"SB 1383 will provide food to those who need it while simultaneously reducing the amount going to the landfill," she says.

Brown says that citizens coming together can help make the environment cleaner.

"A small action can make a big difference. With everybody doing their part, you can have a domino effect and create a larger change."

## ORGANIC WASTE EXPLAINED

**Beginning Jan. 1, 2022**, all cities and counties in California will be required to collect the following types of organic waste. In fact, several cities in Solano County already accept some or all of these items--check with your hauler or your Recycling Coordinator to find out.



### LAWN DEBRIS

- Grass clippings
- Leaves
- Weeds
- Shrubs
- Branches and pruning



### FOOD \*

- Food & vegetable scraps
- Coffee grounds
- Tea bags
- Egg shells
- Bread
- Pasta
- Meat, poultry, and fish
- Bones



### PAPER AND WOOD PRODUCTS

- Paper bags
- Coffee filters
- Food soiled tissue, napkins, and paper towels
- Non-coated paper plates
- Paper cups that contain no plastic or plastic coating
- Wooden chopsticks
- Wooden coffee stir sticks
- Pizza boxes



### HERE'S WHAT SHOULD NEVER GO INTO THE ORGANIC WASTE BIN:

- Concrete, rocks, and dirt
- Electronics such as computers, cell phones, mercury switches, batteries, and fluorescent light bulbs
- Hot ashes or coals
- Paints solvents, motor oil, cleaners, corrosives, fuel tanks, and propane tanks
- Metal, glass, and plastic

\*Acceptable materials will vary by hauler prior to SB 1383 implementation.

## 5 EASY WAYS FOR BUSINESSES TO REDUCE FOOD WASTE

You could be in the business of providing or serving food, or you could be in the business of business. Either way, there are many ways to reduce food waste.

### HERE ARE JUST FIVE:

**1 Monitor inventory and waste.** Knowing what is being wasted is the first step toward reduction.

**2 Monitor before it becomes waste.** Keep your leftovers organized by date to reduce spoilage and waste.

**3 Designate a reduction manager.** Whether it's in the kitchen or the break room, make reduction someone's business.

**4 Be creative in the kitchen.** Look for lunch recipes to bring to the office that use all parts of meat and produce.

**5 Be creative in the break room.** How about a Leftovers Friday potluck? A compost bin? A spot where the green thumbs can share their homegrown produce?



## Already Doing It: One Solano County Business

Learn how a popular local grocery store has long been helping our food insecure residents

by  
Matt Jocks

**F**or Sprouts Markets and other food retailers, priority one will always be the customers coming in the front door.

However, in an age of advancing climate change and food insecurity, there is increasing concern with what goes out the back door.

The enactment of SB 1383 has codified targets and requirements for the management and recovery of food waste. But Sprouts' efforts on that front predate the legislation.

Sprouts passed the 50% mark in food waste diversion in 2017, and according to its Environmental, Social, and Government Report, improved to 68% during the challenging year of 2020.

It is the result of an all-hands-on-board effort that starts in the aisles and shelves, with employees trained to identify products that are appropriate for donation to local food bank operations, or for other purposes, such as animal feed or composting.

"They are looking for product that may be past the code date, or might be bruised, discolored, or misshapen," says Justin Kacer, Sprouts' Sustainability Manager. "It can be collected and it's still edible."

**"Doing the right thing can also be good for business."**

**Justin Kacer, Sustainability Manager**  
Sprouts Markets



The important work is done at the ground level, but the involvement is company-wide. Managers will even spend some time at the outdoor bins, getting a clear picture of what sustainability is about, as well as spending time at the local food banks.

"Having the experience of actually seeing it can be transformative," Kacer says. "And hosting a managers' meeting at a food bank drives

home the culture, that these things have a real impact."

Kacer said there was initial reluctance among some in the company regarding potential liability for problems caused by food-related health problems for recipients. Finding they had legal protection, the efforts got sign-offs from all departments.

Aside from the community and brand benefit, Kacer said there are tangible economic gains as well. The efforts make companies eligible for significant tax benefits and the reduction of food headed for landfills reduces hauling costs.

While there is the human element—and Kacer uses the word "heartbreaking" to describe throwing away good food—the hope is that bottom-line benefits will bring more buy-in from the largest retailers.

"Doing the right thing," he said, "can also be good for business."



# Already Doing It: One Solano County Resident

Pamela Herron isn't just all talk: she grew up on a farm and has been composting her food waste for nearly 50 years by Krysta Scripter

Whether it's taking vegetable scraps from a friend's restaurant for her eight chickens, sharing extra produce with locals, or composting for her garden, Herron prioritizes reducing her food waste as much as she can.

"At our Vallejo home, we have three rotating compost bins. Before going into the compost though, veggie and fruit scraps are fed to my flock of hens," she says. She uses composting to help her garden, where the hard-packed clay soil of her Solano County home poses a problem. Composting allows her to amend the soil and put food waste to good use.

Herron, who grew up on a Kentucky farm, has been interested in composting and sustainable farming for most of her life. "My parents grew mostly organic without even knowing what that meant. In the country, there's no trash pickup or recycling so I was raised to waste as little as possible and reuse everything."

Herron frequently utilizes her community and friends to help reduce food waste in her area, like partnering with a friend's local restaurant to

take their food scraps for her chickens or using the leftover coffee chaff (the by-product of roasting coffee) from local cafes for chicken bedding. She also brings her own takeout containers to restaurants.

**"Even urban living can be more sustainable if you accept the fact that all systems are interconnected."**

**Pamela Herron**  
Solano County Resident

"Even urban living can be more sustainable if you accept the fact that all systems are interconnected," she says. Herron participates in several sustainability groups via Facebook, like the Vallejo Buy Nothing Group and a Bay Area gardening group. The Buy Nothing group shares unwanted or extra items with other local members in the area, which can often include extra produce from residents'

gardens like Herron's. "They're fabulous about sharing the wealth," she says. "Anybody who's ever lived on a farm or had anything to do with food production, you know that when it comes, it all comes... you either have the space to process it and can or freeze it, or you give it away to your neighbors."

Composting, finding local sustainability groups, and starting a garden are all ways to reduce food waste, but Herron says it's also about understanding your food buying habits as well.

"There's an old saying that when you go to the grocery store, you shouldn't be looking in the center aisle at all, you should be staying on the outside rows which is where you know the produce, fresh fish, and fresh meat (are)," she says.

Considering most processed foods are heavy packed in plastic and other materials, Herron adds, "the more that you can move away from processed food, then you're reducing waste all around not just food waste but reducing what goes to the landfill."

## 5 EASY WAYS TO REDUCE FOOD WASTE IN YOUR HOME

Reducing food waste can seem like a daunting task, but it doesn't have to be! Consider these easy ways to limit your food waste in your own home.



Start a composting bin for leftover food scraps. You can use compost for a garden, or gift it to someone with their own garden.



Join a local buy-nothing group or sustainability group on social media to see what others are sharing.



Bring your own takeout containers when eating out.



Buy fresh food whenever you can—you can throw out what you don't use in your compost bin.



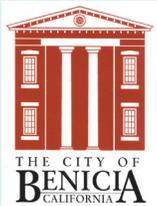
Start a fruit or vegetable garden (and share your bounty with your neighbors!).

# A Change is Coming



New ways to dispose of organic waste—and rescue edible food—will have a huge impact on our environment.

Your local haulers and government officials are the best sources for how your neighborhood or business will collect and recycle organic waste.



## CITY OF BENICIA

### Republic Services Benicia:

(925) 685-4711 | <https://www.republicservices.com>

### City of Benicia

Recycling Coordinator: Sharon Denney  
SDenney@ci.benicia.ca.us



## UNINCORPORATED SOLANO COUNTY

### Republic Services:

(707) 437-8900 (general) | (707) 437-8947 (recycling/organics) | <https://www.republicservices.com>

Senior Planner: Narcisa Untal  
NUntal@solanocounty.com



## CITY OF DIXON

### Recology Dixon:

(707) 678-4026 | <https://www.recology.com/recology-dixon/>

### City of Dixon

Recycling Coordinator: Linda Babb  
lbabb@cityofdixon.us



## CITY OF SUISUN CITY

### Republic Services:

(707) 437-8900 (general) | (707) 437-8947 (recycling/organics) | <https://www.republicservices.com>

Recycling Coordinator: Amanda Dum  
adum@suisun.com



## CITY OF FAIRFIELD

### Republic Services:

(707) 437-8900 (general) | (707) 437-8947 (recycling/organics) | <https://www.republicservices.com>

Recycling Coordinator: Corey Beavers  
cbeavers@fairfield.ca.gov



## CITY OF VACAVILLE

### Recology Vacaville Solano

(707) 448-2945 | [www.recology.com/](http://www.recology.com/)

### City of Vacaville: [www.vacavillerecycling.com](http://www.vacavillerecycling.com)

Recycling Coordinator: Samantha Brown  
Samantha.Brown@cityofvacaville.com



## CITY OF RIO VISTA

### Mount Diablo Resource & Recovery:

(707) 374-5644 | <https://mdrr.com/rio-vista>

### City of Rio Vista

Recycling Coordinator: Sarah Davis  
Sarah.Davis@mdrr.com



## CITY OF VALLEJO

### Recology Vallejo:

(707) 552-3110 | <https://www.recology.com/recology-vallejo/>

### City of Vallejo

Recycling Coordinator: Derek Crutchfield  
Derek.Crutchfield@cityofvallejo.net