## MAKING

Airport Food Scraps Recycling Programs Do A World Of Good

BY SALLY KRAL





San Francisco International Airport (SFO) is on track to becoming the world's first zero-waste airport, a goal set in 2016.

Zero waste, as defined by the Zero Waste International Alliance, is to divert at least 90 percent of waste from landfills and incinerators using methods like recycling and composting.

SFO currently diverts 65 percent of its waste from landfills and has a goal of getting to 80 percent by the end of 2023.

Since 2016 SFO has been working with concessionaires on policies to achieve its zero waste goal, including a requirement to provide compostable packaging for singleuse food. In August 2019, SFO became the first airport in the world to prohibit the sale of plastic bottled water, and on April 1, 2021 the policy expanded to all beverages.

"Our zero waste program recognizes the value of unused food as a resource—food waste is leveraged as a feedstock for producing rich, organic compost and is also an input for the renewable fuels that power our hauler's recycling trucks," notes Erin Cooke, sustainability and environmental policy director for SFO. "By ensuring a valuable end of life for these food resources, SFO is also reducing the embodied carbon across each of these meals, aligned with the resources it takes to produce and transport these ingredients, the energy it takes to cook and package them and the staff time to prepare them."

SFO isn't the only airport addressing food waste.

Portland International Airport (PDX) has been diverting food scraps from local landfills since 2003, with all of its

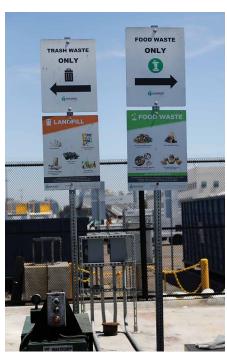
Left: Dallas/Fort Worth International Airport began its pilot composting program in March 2021 at Lorena Garcia Tapas Y Mas in Terminal A and it has since grown and become permanent. Photo Credit: Chris Bousselot

Right: San Diego International Airport began diverting organic material to a composting facility as part of the City of San Diego's pilot organics composting program in 2014. In addition to the sustainability benefits, diverting waste from landfills also saves the airport money, since it pays for trash by weight.

restaurants participating and collecting pre-consumer, back-of-house food waste, which is sent to both an anaerobic digestion facility that processes the material into a renewable natural gas, and an organics processing facility that uses a natural biological process to transform food scraps into compost for soil amendment.

The food waste recycling program at Minneapolis-St. Paul International Airport (MSP) began in 2009 and focuses on composting organic food products produced from airport food and beverage tenants. All MSP food and beverage concessionaires are required by lease obligations to compost in their back-of-house area, with waste collected daily by a contracted waste hauler and transferred to a commercial compost site.

San Diego International Airport (SAN) began diverting organic material to a composting facility as part of the City of San Diego's pilot organics composting program in 2014. "We started with composting coffee grounds from our concessions, and over time the program grew to include pre-consumer food waste from all food and beverage concessions, post-consumer food waste from sit-down concession restaurants, food waste from



prep kitchens and food waste from Airport Authority break rooms," notes Paula Morreale, environmental specialist for the San Diego County Regional Airport Authority.

More recently, Dallas Fort Worth International Airport (DFW) joined in with a composting program launching in March 2021. "Since this was when passenger traffic was still recovering and concessionaires were facing staffing shortages, initially it was challenging to convince concessionaires that the initiative to separate food waste was worth the investment of time and training for their employees," notes Sarah Ziomek, enterprise sustainability programs manager for DFW's environmental affairs department. "But, ultimately, the program gained momentum and popularity."

Below: In November 2021 Long
Beach Airport launched its food waste
collection program in response to
a government mandate. Treating
food scraps in an anaerobic digester
instead of a landfill or incinerator
results in methane capture for use
as a biofuel versus release into
the atmosphere, which reduces
greenhouse gas emissions and puts
the off-gas to good use.





DFW's program began as a pilot last spring at Lorena Garcia Tapas Y Mas in Terminal A. The program quickly grew and is now permanent, including more than 30 concessionaires spread across all five of the airport's terminals.

In November 2021 Long Beach Airport (LGB) launched its food waste collection program in advance of the implementation of California's Senate Bill 1383 (SB-1383), which mandates the separation and collection of food waste at businesses and its diversion from landfills and incinerators.

"The diversion of food scraps is one of many initiatives the airport is undertaking to reduce its greenhouse gas emissions," says Ryan McMullan, LGB's noise and environmental affairs officer. "Treating food scraps in an anaerobic digester as opposed to a landfill or incinerator results in methane capture for use as a biofuel versus release into the atmosphere. Not only does this reduce greenhouse gas emissions, but it puts the off-gas to good use: The fuel created from the anaerobic digestion of food waste is a clean and sustainable energy source with a reduced carbon footprint compared to conventional fuels."

## **Delivering Results**

Food waste programs don't come without certain challenges, of course. "The biggest challenge we faced in launching the program in 2009 was there were few commercial or residential sites diverting organics from the solid waste stream at that time," notes Emmy Waldhart, sustainability manager for Minneapolis-Saint Paul Metropolitan Airports Commission (MAC). "Not only did we have to set up the infrastructure to collect the waste, but we also had to establish a training and education program for airport tenants and employees."

Waldhart adds that successful composting programs rely on a clean waste stream since many compost facilities can't process materials like plastic, and it's also important to keep the bins and compactors clean to reduce odor and pests. "Continued employee training and waste audits were, and continue to be, imperative to minimize issues," she adds. "It's also important to have a good relationship with the waste hauler and compost facility to understand contamination issues with our waste steam."





**Above:** All Minneapolis-St. Paul International Airport food and beverage concessionaires are required by lease obligations to compost in their back-of-house area, with waste collected daily by a contracted waste hauler and transferred to a commercial compost site.

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Erin Anderson, environmental specialist for the **Port of Portland**, also notes the ongoing challenge of insuring there are no contaminants in PDX's waste stream, and the airport developed an employee recognition program to help with this. Sort It & Win! provides gift cards ranging from \$5 to \$20 to employees who are observed properly sorting food scraps in the kitchen or waste area. "We recognize that food waste and taking out the garbage can be an unpleasant job; our programs wouldn't be successful without the support of all restaurant employees," Anderson says.

But these challenges are minimal compared to the benefits food waste recycling has on airports, their sustainability goals and the environment at large.

"Food waste is a problem worldwide, and it's estimated to account for 8 to 10 percent of global greenhouse gas emissions—reducing this waste has positive economic, environmental and social impacts," DFW's Ziomek says. "DFW's compost program helps save precious space in area landfills, the nearest one of which is estimated to be 35 years from capacity. It's also an investment in the North Texas community, as compost supports healthy soil, healthy food and healthy people. By composting, we're feeding people and soil, not the landfill."

Ziomek adds that once the nearest landfill is at capacity, the airport will need to travel farther to the next available one, which increases costs.

SAN's Morreale also notes the secondary financial benefits of its waste recycling program. "We average just under 300 tons of food waste annually sent out to be composted—this not only keeps methane out of the landfill and turns organic material into something useful, but it also saves us money," she says. "We pay for our trash by weight, so any food waste that we can keep out of the landfill also helps us financially since we aren't paying for that weight sent to the landfill."

In 2021, MAC paid \$23 per ton to dispose of organic material compared to \$69 per ton for trash, saving over \$4,000, Waldhart notes. "However, the diversion of food waste is more than cost savings: Managing waste as compost reduces landfill impacts, lowers greenhouse gas emissions and creates an on-going supply of nutrient rich soil for reuse in the community," she says. "MSP's





Above, Right: Encouraged by the success of its food waste program, Portland International Airport launched the Green Plate Program, which prevents waste from single-use food containers by providing durable dishes for diners in the airport's food court restaurants and also captures food waste from public areas.



program has been an early success story for MAC's overall sustainability program, which has a goal of diverting 75 percent of waste by 2030 through diversion, reduction and reuse efforts,"

Waldhart adds that MAC recently expanded organics collection to administrative offices and to airline lounges. "We're consistently pursuing new ways to reduce trash, including a 2022 pilot project exploring composting paper towels from MSP restrooms," she says. "And our waste working group has been carefully evaluating food waste collection in more

public areas and discussing strategies to also reduce single-use plastics from food and beverage sales at MSP."

PDX recently launched its Green Plate Program, which prevents waste from single-use food containers by providing durable dishes for diners in the airport's food court restaurants and also captures food waste from public areas. Though the program is temporarily suspended due to construction, Anderson says it's been successful in preventing waste and providing an elevated dining experience. "We look forward to the return of the program in the next few years," she says.