

CHARTING THE ISSUES EFFLUENTS + WASTE

OUR VISION: A CIRCULAR ECONOMY

In a perfect world, no waste would be generated in our operations, or anywhere else in our supply chain. That would mean eliminating all forms of waste going to all types of destinations: from packaging only being used once and going to municipal landfill, to food waste getting trucked to municipal landfill, to water exiting our sites destined for a river or the local treatment plant. The basic concept for this, known as the circular economy, is that any outputs from our system should be inputs into another system. It's a simple premise in theory, but it requires creative thinking and collaboration — and we recognize that we have a big role to play on that team. Although the components of a circular economy may be absent in some of our operations, we believe that we can continue to drive the conversation around creating new markets and technologies to improve packaging repurposing, recycling, or upcycling; more sophisticated forecasting and resource management systems so production is ever-more efficient and inventory is tightly controlled; or on-site anaerobic digestion for energy generation from organic byproducts.

We also play an active role in the conversation outside of our own operations. In our verified and certified sustainable supply chains, we encourage recycling and composting as part of good agricultural practices to protect the soil, water, and human welfare in and around farms. Together with our customers and industry partners, we are working to develop cost-effective, large-volume take-back programs for some of the byproducts of our beverage manufacturing and distribution.

WHY IS WASTE MANAGEMENT IMPORTANT TO US?

Waste byproduct requires an investment of resources and energy to produce. From an economic perspective, this may result in an unnecessary expense for Farmer Brothers. It may also indicate an inefficiency in the system, either where resources are being used that aren't needed, or where materials leaving a system could find a productive use somewhere else. By paying attention to our waste, we believe we can find opportunities to save money and generate new revenue streams.

A similar line of thinking applies from an environmental and human health perspective. Waste impacts our world by consuming space when it's landfilled, demanding resources when it's treated, and polluting our air when it's incinerated. Additionally, the production of this wasted material requires natural resource inputs—such as water, natural gas, petroleum, fiber—that could be preserved for other things. Eliminating waste from our supply chain would

bring us one step closer to a world that's cleaner, safer, and more healthful for our generation and many generations to come.

Already, we've diverted a large amount of recyclable and organic material from the landfill. By avoiding landfill of organics, we are creating a lesser amount of greenhouse gas emissions that we believe contribute substantially to climate change. Methane is a potent greenhouse gas with a global warming potential that is 25 times greater than CO₂. According to the Environmental Protection Agency (EPA), municipal solid waste landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 18.2 percent of these emissions in 2012, and at the same time, methane emissions from landfills represent a lost opportunity to capture and use a significant energy resource.¹ This is why we're committed to keeping as much waste as possible, including organic material, out of landfills.

WHAT OUR FRIENDS SAY ABOUT IT

"Farmer Brothers is genuinely committed to waste reduction. Throughout their processes, they are actively working to increase recycling and composting and to find new opportunities to reduce waste. Waste Management is proud to be partnering with Farmer Brothers and we look forward to continued success and helping them reach zero waste."

Trevor Kitchen, Major Account Manager, Waste Management

¹ <http://www.epa.gov/methane/lmop/basic-info/index.html>

“There are large opportunities for cost savings related to wasted resources.”

Mark Nelson, *Chief Finance Officer, Farmer Brothers*

“Working with Farmers Brothers, we assure them that no product will ever find its way into the market. Instead, we document the destruction and subsequent recycling of all materials.”

Jodi Keller-Wheeler, *Vice President of United Scrap Metal*

HOW WE MEASURE IT

Farmer Brothers tracks waste in two topline categories: landfill and landfill diversion. We track landfill site-by-site through quarterly data collection and auditing from the metric tons listed in our municipal solid waste bills. In 2014, the total landfill-bound waste was 3,069,618 kilograms. Of the landfill-bound waste, we do not show in our solid waste bills that any of the metric tons were bound for incineration. We track landfill diversion site-by-site through quarterly data collection and auditing from the recycling and composting metric tons listed in our municipal solid waste bills. Additionally, we aggregate numerous diversion reports, such as scrap metal, packaging waste, farm donations, food bank product donations, paper shredding, lightbulb disposal, and e-waste disposal. In 2014, the total landfill diversion was 2,284,808 kilograms. In addition to waste data management and analysis, we track the recyclability and biodegradability of our finished and shipping packaging. At this time, we do not typically label products as recyclable or biodegradable. However, the percentage of recyclable and biodegradable finished and shipping packaging has grown year over year.

“From an environmental and social perspective, we should be good stewards and do what we can.”

Randy Helsley, *Long Haul Driver, Farmer Brothers*

We are a member of the EPA's Food Recovery Challenge (FRC), which tracks our food waste prevention, food donation, and food recycling, and requires us to set annual goals for diverting food waste from landfills. This program seeks to reduce the environmental impact of materials through their entire life cycle, including how they are extracted, manufactured, distributed, used, reused, recycled, and disposed. This voluntary program challenges Farmer Brothers to save money, help communities, and protect

the environment by purchasing less, donating extra food, and composting. Through the FRC scorecard, we can index our progress year over year.

WHAT WE'RE DOING ABOUT IT

The bulk of our solid waste comes from Farmer Brothers roasting facilities, in the form of byproduct from the manufacturing process. To eliminate this waste, we've set an ambitious, but attainable, target to be a zero-waste-to-landfill business by 2017. We've already made tremendous progress toward this target and anticipate significant progress in the coming years.

Our zero-waste-to-landfill program has three distinct phases:

- Phase 1: Portland, 2008–2011
- Phase 2: Torrance, Houston, Phoenix, Oklahoma City, Northlake (Illinois), 2012–2014
- Phase 3: All 118 branch sites, 2014–beyond

At each phase, and at all facilities, we are following these guidelines:

- Perform waste characterization (in other words, dumpster diving)
- Analyze recyclability/biodegradability of everything we throw away
- Establish color-coded stations that sort and segregate like kind
- Create community partnerships for new repurposing destinies
- Launch site-wide and provide ongoing employee training
- Develop “Trash Talk” ambassadors to implement the program in keeping with the site culture
- Develop a strong system for monitoring and evaluation

In Phase 1, within the first year, we reduced our waste to landfill by finding better destinations for some of our organic waste. Most of this was accomplished by reusing the burlap bags in which green coffee is shipped for a wide variety of purposes, including weed control in reclamation projects, harvesting of fruits and vegetables by local farmers, beach clean-ups, and bag-and-burlap for tree plantings, to name just a few. Today, we have a waiting list for the bags and have reduced our burlap bag waste by 100%.

Similar success was achieved with our flavoring containers, pallets, and totes. In fact, one dock in the Columbia River is made almost exclusively from Farmer Brothers flavoring containers. We also found a new destination for our coffee chaff (the skin on coffee). It went to a producer of natural fertilizers to provide a critical chemical component to their formula. Finally, we created a partnership for which all of our coffee that did not qualify to be used in our blends went to another organization to be blended into coffee for

prisons. The one major material that was preventing us from being zero-waste-to-landfill in Phase 1 was our flexible packaging film.

By shifting waste from the landfill, we saw a decrease in costs on a per-roasted-kilogram-sold basis in Phase 1. Depending on the plastics and corrugated market, the range in year-over-year savings was 11–22%. And through continuous improvement and new repurposing/recycling partnerships, we hope to continue this trajectory. Not only is this good for the environment, but it creates revenue streams and allows us to manage costs better by reducing waste container size and frequency of pick-ups.

In Phase 2, we scaled our success in Portland to our other roasteries and several of our largest distribution centers. Some of these sites had all waste bound to the landfill before our program was implemented. To begin changing these processes, we partnered with an organization that recycles our packaging waste tailings, including our flexible packaging film, into industrial durables (composite, wood-like products). This diverts a volumetrically large amount of waste from the landfill while extending the life-cycle of our packaging and avoiding virgin material production.

In Phase 3, we scaled our success at our largest sites to all of our sites nationwide. As of January 2015, 97% of the Farmer Brothers sites have a recycling program. Those that do not have it are serviced by municipalities that do not offer recycling.

In order to achieve zero waste to landfill by 2017, we've launched a number of campaigns across our operations.

- We rebuild aging brewers and put them back into circulation in offices and restaurants. If they can't be refurbished, we recycle the parts.
- We take coffee that would otherwise be discarded due to clean-out processes, deviations from specifications, and inventory control and sell it to a partner.
- We recycle everything we can. Some things—such as shrink wrap, packaging waste, and burlap—can't be repurposed at our facilities, so we partner with companies that can recycle or repurpose those materials for us.

- We're using new processes to better manage our inventory so products don't sit on the shelf, waiting to expire. But, when products are close to expiration, we donate them to local food banks that are Feeding America network partners.
- We give pallets an inventory number, so they can be reused again and again and tracked through the system.

In order to reach our zero-waste-to-landfill target by 2017, we have planned quarterly diversion trainings, a library of diversion resources, and a waste scorecard at our quarterly company-wide Town Hall meetings, which are broadcasted to every site.

HOW WE'RE DOING

From 2013 to 2014, our landfill diversion grew 12% across all of our sites. From 2013 to 2014, our recyclable and biodegradable finished packaging went up by 32%. And from 2013 to 2014, our recyclable and biodegradable shipping packaging went up slightly by 26%.

For these efforts, we were awarded McDonald's 2014 Best of Sustainable Supply Award in the Waste Management category and acknowledged for our strategic approach to diverting waste from the landfill.

2015 METRICS

Total Water Discharge by quality and destination

15,100,000

Gallons discharged to sewerage system