SFTA CASE STUDY SERIES
ACTION AREA: WASTE REDUCTION

PACIFIC FOODS
MATERIALS RECOVERY PROGRAM

September 2017
**MAKING SUSTAINABILITY ACTIONABLE**

SFTA’s mission is to help the organic food industry transition to truly sustainable business models. To reduce confusion and create a clear road map to this goal, SFTA has developed a systems-based sustainability reporting framework. Companies can use this framework to begin measuring—and hence improving— their sustainability performance. The framework consists of 11 clear Action Areas that reference actionable best practices and help integrate sustainability into a company’s fabric.

The Case Study Series highlights some of the programs and initiatives that have brought these Action Areas to life. They highlight SFTA members who have implemented real – and sometimes highly innovative— solutions to improve their social and environmental impacts. Enjoy reading about how it was done and the impacts attained.

*To submit an idea for a case study, or for other questions and information, please email info@sustainablefoodtrade.org.*

**ACTION AREA: SOLID WASTE REDUCTION**

One of SFTA’s Sustainability Action Areas is solid waste reduction. The primary goal in this area is to eliminate any type of waste from going to the landfill – either eliminating waste at the source, or converting waste into the raw material for new products and uses. This includes any type of waste a food company can produce, such as food, packaging, office supplies, equipment, and electronics. Ideally, any waste outputs from a company can be re-used, donated, recycled, or composted. Otherwise, when sent to the landfill, decaying trash emits greenhouse gas emissions into our atmosphere. Pollution is another concern; trash escapes into our environment and causes significant contamination that threatens wildlife and our future healthy seas, such as the Great Pacific Garbage Patch. Finally, materials that go into the landfill represent resources that have been taken out of our earth’s coffers, never to be used again.

As reported in SFTA’s 2017 Member Progress Report, its members continue to excel in waste reduction practices. Reported waste diversion has reached an average of 83%, including 42% being sent to recycling, and 24% composted. Read on to find how Pacific Foods contributed to these results and transformed the management of the outputs from their manufacturing operation through their Material Recovery Program.
ABOUT PACIFIC FOODS

Pacific Foods, a subsidiary of Campbell Soup, was originally a family-owned business founded in 1987. This organic foods manufacturer has over 500 employees, and over 800,000 square feet between its multiple processing facilities in its Tualatin, OR campus, and a distribution center in Wilsonville, OR. Pacific’s products include organic soups, broths, purees, sauces, and non-dairy beverages.

Pacific has a strong commitment to organic food and sustainability, and integrates them into the fabric of the company: 85% of its sales are from certified organic products. Company strategy addresses sustainability goals, programs, and performance targets to ensure that Pacific increases its social and environmental performance. Even its mission statement embeds the triple bottom line. This dedication naturally led to the development of the Sustainability Department in 2006.

One of Pacific Foods’ strongest sustainability programs is the Materials Recovery Program. This data-driven management system collects nearly 100% accurate information on the weights of all recovered (compost, recycling, re-use) materials and the majority of landfill data. It’s a key component of the executive reporting system, and boasts impressive results:

SUCCESS AT-A-GLANCE: PACIFIC’S MATERIAL RECOVERY PROGRAM

✓ Recovery rate has increased from 40% in 2006 to 86% in 2016!
✓ 500 tons = amount of material tracked each month
✓ > 6,000 tons = amount of waste diverted from landfill each year
✓ > 1200 tons of carbon emissions avoided each year
✓ Five full-time “green collar” jobs have been created to support the community.
✓ Annually, Pacific generates over $140,000 of profit from the sale of recovered materials, and over $600,000 of landfill tipping fees are avoided. This means nearly ¾ of a million dollars back in the pocket of the company each year!

However, this journey to diverting 86% of its materials from landfill didn’t just happen overnight. A combination of leadership, assessment tools, internal investment, and process improvement all came together to make it happen. Read on for more. →
**PACIFIC’S WASTE DIVERSION OPPORTUNITY**

As the sustainability team began their work, they used *Process Mapping* to help identify waste reduction opportunities. Using this process, they analyzed how various inputs were creating different material stream outputs. The team quickly realized that some of their biggest opportunities lay in common recyclables like cardboard and plastic, but also in more challenging items like packaged product. In particular, the team knew opportunity had to exist around its largest volume items—cardboard boxes and Tetra Paks.

After weeks of work, the team calculated that only 40% of Pacific’s waste was diverted from landfill in 2006. This translated into real and significant financial and environmental costs—hundreds of thousands of dollars in annual landfill tipping fees, and hundreds of tons of greenhouse gas emissions. The team knew they had to set scalable waste reduction systems in place.

**SIZING UP THE SITUATION**

To begin addressing this challenge, the sustainability team approached top management with their assessment and see if the company could commit resources to waste diversion improvements. After explaining the potential improvements—both environmental, social, and financial—leadership took the leap to invest in resources for material recovery.

To begin the process, the sustainability team reviewed the flow of waste streams across the 15-acre, 12-building campus. This meant sketching out all potential waste outputs from its various facilities, understanding where recycling and trash bins were located, identifying any equipment (forklifts, balers, pallets, bins, etc.) used to help handle recycling and trash, and noting any employees that were partially or fully dedicated to helping manage waste materials. They also performed a waste audit in order to understand what percentage of production and office waste was being directed to landfill, but could in reality be diverted to an alternate location—either via composting, recycling, or
re-purposing in some way. Finally, the larger volume of recycling materials Pacific handles meant that selling recyclable materials to an end-market was a real option. They asked: are we selling all possible recyclable materials to an end-market? And if so, is this the best option or do better ones exist that are closer and may pay us more?

As the assessment moved forward, several key waste reduction roadblocks were identified. First, recycling bottlenecks existed – they did not have enough cardboard paper balers or trained recycling technicians to keep up with the pace at which recycling (especially cardboard and Tetra Paks) developed. Materials could wait for days or weeks to be bundled and shipped to market.

Another major factor were the locations of trash and recycling centers. Multiple outdoor locations existed to store materials. These non-centralized and separated recycling spaces meant it was very inefficient to both deliver – and collect – materials to those sites.

Research also showed that Pacific could increase the amount of money obtained from their recoverable materials. To date, the only recyclable material for which Pacific was receiving any income was cardboard boxes. Markets existed for other materials as well, including tetra paks and plastic buckets.

Finally, administrative systems like robust material tracking systems, standard operating procedures (SOPs), and training systems had not been fully developed and shared with staff. As new and more optimized SOPs were developed, this last component would be especially important. Training would help ensure that any improvements made would last, and that a culture of material recovery was integrated throughout all aspects of the Pacific Foods campus.

**CREATING SOLUTIONS**

After this initial assessment, the sustainability team, in cooperation with department leads and executive leadership, developed a set of solutions to launch their material recovery program. Once started, the positive returns of the program were obvious and fueled further resource allocation. This process took place over the course of nearly 10 years. Major actions taken over that time include:

*Philosophy Adoption*
Guiding the entire process was the adoption of the Waste Management Hierarchy (WMH). The WMH prioritizes the reduction of materials at the source. In manufacturing, this can translate into steps such as reducing the amount or density of final product packaging, reusing packaging used for ingredients (i.e. reusable buckets, pallets, or food containers), or even redesigning products or manufacturing lines to reduce waste. After source reduction, the WMH states that recycling and composting waste materials is most preferred. Prior to the last option, the WMH advocates that companies try to recover energy from waste materials through a variety of processes, including combustion, gasification, pyrolyzation, anaerobic digestion, and landfill gas (LFG) recovery.

**Optimizing SOPs and Tracking Tools**

One of the first steps to be taken was to begin a rigorous data tracking system. Pacific borrowed the Oregon Department of Environmental Quality (DEQ)’s model for tracking solid waste and recovery, and validated its implementation with DEQ staff. In this system, type, volume, and location of all material that was recovered or sent to landfill is recorded by designated staff in each building across campus.

SOPs were gradually reviewed and renovated. Outcomes included an optimized flow of recoverable materials. Collection areas were established for recoverable product types in key production zones of each building, and then each building given a centralized location where all materials are brought on a regular basis. Finally, a central collection location was established where the entire campus’ recycling and waste streams could be brought, creating a “flow” of materials towards one goal from all across campus.

**Infrastructure & Staff**
One of the first steps that Pacific took was to build a centralized recycling center/warehouse on their campus. This facility is used to bale cardboard, and consolidate and store the various types of recovered materials until they are picked up by private or municipal recycling and waste partners. More cardboard balers were purchased to ensure they could keep up with the “flow rate” of cardboard from Pacific’s various buildings. Finally, several staff members have been hired in order to run the balers, maintain the recycling facility, keep documentation of the facility production, and manage pickups with partners.

**Engagement & Training**

Ensuring that staff was involved in the material recovery program was key. SOPs were documented in writing, and training documents were developed that included recycling instructions. Signs were put up all around the Pacific Foods campus. Company events included education around the major events of the material recovery program, and an overview of recycling protocols.

In addition to working with staff, Pacific Foods reached out to its vendors and customers to raise awareness of the efforts they were making. This led to several operational and strategic advantages. First, it helped Pacific to increase the accuracy of their materials tracking; recovery partners developed systems with Pacific to accurately report on the quantity of materials picked up. It also created a space to identify ways in which source materials could be reduced—in this case, primarily packaging for
raw ingredients. A great example of source reduction was when Pacific worked with their meat suppliers to switch from heavily coated wax boxes to lightly waxed boxes. This maintained product quality and safety, while being fully recyclable.

Perhaps most importantly, informing employees and vendors about the waste recovery program created a cultural shift. Instead of seeing waste as a cost of doing business, it was now perceived as a business opportunity. This led to embedding the program further in company strategy.

*Strategy and Goals*

After seeing the initial success of the program, its performance - and potential goal – were integrated into the company’s strategic planning. Just in 2016, Pacific Foods identified a bold goal: to be a zero-waste to landfill facility by 2021. A five-year plan has been developed that identifies specific projects that can address reducing waste for different types of materials.

**The Results (To-date)**

The solutions (i.e. optimized SOPs, recycling facility, more balers/staff, training) Pacific Foods implemented have created a huge impact. Some of the truly remarkable triple-bottom line results that Pacific Foods has enjoyed since 2006 include:

- Recovery rate has increased from 40% in 2006 to 86% in 2016!
- Five full-time “green collar” jobs have been created to support the community.
- Annually, Pacific generates over $140,000 of profit from the sale of recovered materials, and over $600,000 of landfill tipping fees are avoided. This means nearly ¾ of a million dollars back in the pocket of the company each year!
- Over 6,000 tons of waste from the landfill each year – avoiding 1,200 tons of CO2 emissions!