



Exploring the benefits of a multi-stream waste & recycling program for your business

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WHILE SINGLE-STREAM WASTE RECEPTACLES OFFER CONVENIENCE, ARE THEY THE MOST SUITABLE CHOICE FOR YOUR BUSINESS, CUSTOMERS, AND THE ENVIRONMENT?

In an era focused on environmental sustainability, consumers are seeking out responsible businesses, with majority willing to pay a premium for products and services that make a positive environmental impact. Businesses can monopolize this demand while also taking steps to reduce their carbon footprint in their daily operations. One key metric for measurably achieving this is to implement a successful waste management program, with a particular focus on the amount recycled.

While many organizations have already executed initiatives that encourage regular recycling, there are alternative strategies that could enhance recycling rates, improve the quality of recycled materials, and potentially reduce costs. Moving away from traditional single-stream recycling in favor of multi-stream recycling can bring a whole host of benefits.

Not every business may find this approach suitable, yet it notably reduces recycling contamination and landfill waste. Reduced contamination allows for more recycled materials to be resold to retailers, cutting costs.

So we ask, how can a business decide if multi-stream recycling fits their needs? And once identified, how can a business implement a multi-stream waste and recycling program that appeals to consumers, benefits their business, and prioritizes the environment?

Let's find out.

ANALYZING AMERICA'S RECYCLING



The U.S. has set a national recycling goal to increase the rate to 50% by 2030

Source: epa.gov

It's no secret that the process of recycling can be perplexing at times. Unsurprisingly, single-stream recycling has long been the favored method for many Americans. Throwing all items into the same recycling bin takes away the pressure to correctly identify and split out different materials.

Single-stream recycling is the collection of all recyclables in one container. It may also be referred to as mixed recycling, commingled recycling or single-sort recycling.

The act of recycling has a long and complex history. From [collecting and reusing materials during World War II](#) to the adoption of curb side household collections in the 1970s; recycling continues to be an important part of American life. Between 2005 and 2015, the percentage of municipalities using [single-stream recycling rose from 29% to 80%](#). Preferred for its convenience and straightforward process, consumer participation is high when it comes to single-stream recycling.

However, the most recent data from the Environmental Protection Agency (EPA) could emphasize the need for change. The rates of recycling and composting of Municipal Solid Waste (MSW) in the United States have remained stagnant at approximately [32% to 34% for nearly a decade](#).

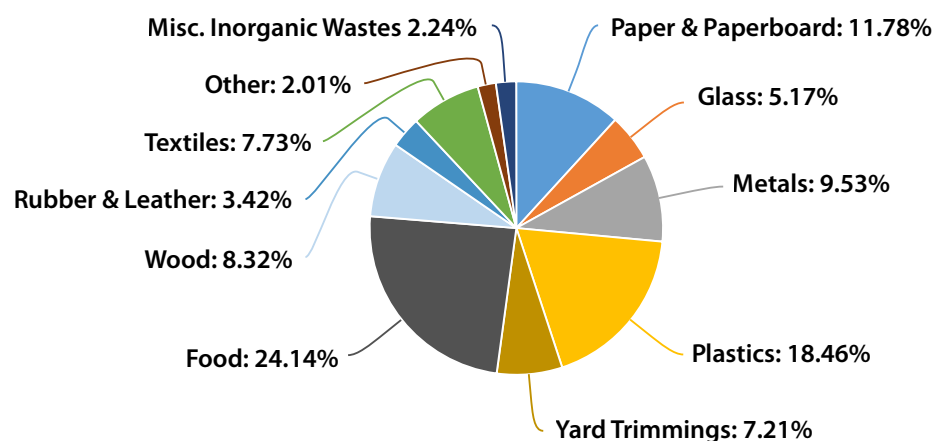
In 2018, a total of 292.4 million tons of MSW was generated...

Together, almost 94 million tons were recycled and composted...

... and more than 146 million tons (50%) were landfilled.

Total MSW Landfill by Material, 2018

146.1 million tons



One of the primary causes of these harmful rates can be linked to Recycling Contamination, a result of improper recycling. But what exactly is this phenomenon, and what can we do to change it? Do we need to enhance our understanding of the methods and materials used in recycling? Some states are already becoming more cautious about their recycling practices. In 2016, [California passed Senate Bill SB 1383](#) to reduce waste going to landfills by 75% by 2025. This bill requires all residents and businesses to separate recyclable and compostable materials, such as food and wood scraps.



COMBATTING CONTAMINATION

To recycle is to safeguard the environment: The practice of reusing materials, reducing the consumption of new resources, and minimizing the disposal of waste in landfills. Nevertheless, one of the most detrimental occurrences in the recycling process is the contamination of materials, which inadvertently renders the entire process futile.

In addition to a stagnant recycling rate, the nation's contamination rate poses a persistent threat to recycling infrastructure. At present, the [average rate of recycling contamination rests at 25%](#). Meaning on average, one out of every four items designated for recycling is contaminated and consequently cannot be recycled.

To fully comprehend the effects of recycling contamination, it is essential to gain a deeper understanding of waste processing.

Following disposal, all waste is subsequently conveyed to a Materials Recovery Facility (MRF), including papers, plastics, metals, glass, and non-recyclable items. Throughout this process, from transportation to the stages of human and machine separation, it is typical for certain materials to intermix, merge, or become embedded with one another.

An example of such occurs in waste collection vehicles. In this context, materials undergo compaction, leading to the potential entrapment of glass shards within plastic or paper. Consequently, workers at a Material Recovery Facility (MRF) may encounter difficulties in extracting glass shards from



materials such as cardboard fibers during the separation process. Another instance occurs when a plastic bottle or aluminum can is compressed so much, that automated machines are unable to discern its properties and may mistakenly categorize it as paper.

In both instances, it can render a batch of materials challenging or even impossible to process, thereby diminishing the overall quality and value of recyclable materials. In the majority of instances, these batches will probably need to be disposed of in a landfill.

THE 5 MOST COMMON CONTAMINANTS OF RECYCLING

1

Plastic Waste

While plastic bags are typically capable of being recycled, they are also the primary source of contamination in the recycling industry. They often clog equipment and have the potential to halt operations in a facility. Moreover, the recycling rate for plastics is only 9% as a result of contamination.

2

Styrofoam

Styrofoam, a type of plastic, is commonly used in a variety of products, including packaging and egg cartons. Owing to its minuscule fibers, the material is resistant to breakdown and can pose challenges for Material Recovery Facilities (MRFs) in terms of management. Additionally, it does not decompose, exacerbating its harmful impact in landfills.

3

E-Waste

Frequently, electronic waste contains hazardous materials, including lead, mercury, cadmium, and arsenic, which pose significant risks to both the environment and human health when deposited in landfills. Moreover, electronic wires and cables, referred to as “tangles” in the industry, have the potential to significantly disrupt the operations of a recycling facility.

4

Food Waste

Substances such as oil, grease, and sticky materials can pose significant challenges as they have the potential to permeate with other materials.

5

Compostable & Biodegradable Items

These items should not be disposed of in regular trash, as nature can effectively recycle them. Converting it into compost to cultivate other foodstuff.

THE MULTIPLE BENEFITS OF MULTI-STREAM RECYCLING

While multi-stream recycling demands a more proactive approach from consumers, it has the potential to yield higher-quality recyclable materials. With the requirement to segregate different material types at the point of origin, such as paper, plastic, and glass, it significantly reduces the potential for material contamination, thereby greatly diminishing the likelihood of contributing to landfill waste. In addition to its positive environmental impact, multi-stream recycling offers numerous advantages for both businesses and their customers.

Eco-Conscious Economics

According to reports, [82% of consumers express a desire for brands to adopt sustainable and people-centric practices](#). In addition to attracting customers, organizations can also foster a sense of pride and commitment among their employees by implementing green initiatives aimed at environmental conservation. Research indicates that 71% of job seekers are inclined to seek employment with environmentally responsible employers, and [67% are more likely to apply for positions in sustainable companies](#).

Cost Effective

An immediate advantage of implementing a multi-stream waste and recycling program is the potential for reducing costs. Businesses have the potential to reduce landfill disposal expenses by diverting a substantial amount of waste from landfills through the implementation of efficient recycling practices. The mean tipping fee for municipal solid waste (MSW) at landfills in the [United States rose by 8.2% in 2022 to reach 58.47 U.S. dollars per ton](#).

Space Savings

Having a reduced number of individual containers results in a smaller spatial footprint, making this option more appropriate for workplaces with constrained space or open floor layouts.

Educational Opportunities

Establishing a communal area for centralized recycling, featuring a single large-capacity container offers the potential to educate and raise awareness among individuals utilizing these spaces. Educational signage and programs can also be employed in these situations to enhance public awareness of the significance of recycling.



Lake Worth Beach, Florida – A Success Story.

An example illustrating the environmental effectiveness of multi-stream waste management occurred in Lake Worth Beach, Florida. The City had previously been involved in the county Solid Waste Authority's (SWA) dual-stream system, but it chose to switch to single-stream in 2008. A decade later, waste disposal costs and contamination rates had skyrocketed; they had gone from paying \$10 per ton to \$85 per ton, and the contamination rates had reached 40%.

In 2018, the decision was made to revert to a dual-stream system. **Subsequently, the city promptly decreased its average contamination rate to 7-8%.** In the three years following the implementation of the program, Lake Worth Beach has achieved a recycling tonnage that matches the amount collected during its single-stream days, totalling 1,977 tons in fiscal year 2021, as reported by Willie Puz, director of public affairs and recycling at SWA. This showcases that a multi-stream program can collect an equal amount of recyclable material compared to a single-stream system.

Puz said, ***“By keeping to a dual-stream program, we felt that was the smartest move to make knowing we were taking the risk and our contamination was so much lower.”***



<https://www.wastedive.com/news/dual-stream-recycling-wilkes-barre-lake-worth-beach/611493/>



STEPS TO STARTING YOUR MULTI-STREAM RECYCLING PROGRAM

1

Conduct a Waste Audit

Begin by evaluating the present amount of waste produced by your business. Determine the types and quantities of materials generated and comprehend the composition of your waste stream.

2

Employee Education

A successful multi-stream waste and recycling program requires the active involvement of employees. Conducting training sessions to educate staff on the significance of appropriate waste segregation and the environmental consequences of their actions is essential.

3

Collaborate with Waste Management Partners

Engage with waste management partners that endorse multi-stream recycling initiatives. Collaborate to develop effective collection and processing systems customized to the specific waste streams of your business.

4

Infrastructure Investment

Make wise investments in the appropriate solutions. This includes obtaining containers of suitable sizes for respective waste streams and strategically positioning them in suitable locations. Furthermore, the implementation of clear signage for employees can significantly enhance the long-term success of the solution. Keep in mind that the primary objective is to ensure that recycling is easily accessible and convenient, ultimately encouraging adherence.

5

Monitor and Adjust

A monitoring system should be implemented to track the effectiveness of the program. Examine the data on waste diversion rates and recycling contamination to pinpoint areas that require enhancement. Adjust the program as needed to optimize results.



SHOULD I CHOOSE SINGLE-STREAM OR MULTI-STREAM RECYCLING?

The benefits of multi-stream recycling are evident, but this doesn't necessarily make it the right choice.

One of the major pros of single-stream recycling is that it prioritizes convenience and simplicity, making it an excellent way to boost recycling participation. Many businesses have achieved great success with this program, and it can provide significant benefits, especially when participants are actively engaged in it.

We recommend evaluating the pros and cons of both recycling methods based on your organization and region.

There are clear advantages to both single-stream recycling and multi-stream recycling. Ultimately, the decision on which method to use will depend on your specific circumstances.





If you already have a single-stream recycling program in place but would like to further increase your recycling rates, improve the quality of recycled materials, and potentially reduce associated costs, why not consider expanding to a multi-container setup?

Placing additional single-stream containers side-by-side to create centralized indoor recycling stations can be highly beneficial. This can provide flexibility to enable your business to meet the specific requirements of any recycling program. Utilize color-coded aperture panels and dedicated recycling decals to ensure the proper use of the selected waste streams.



Nexus® 36G Recycling Bin



Eco Nexus® 23G Recycling Bin



Nexus® 26G Recycling Bin

READY TO IMPLEMENT YOUR RECYCLING SCHEME?

Let's Talk

At Glasdon, we offer a variety of multi-stream and single-stream recycling containers. We are confident that our wide range of recycling bins will help you to reduce your environmental and economic impact. So, no matter which recycling program you decide is the best fit for your organization, we are sure to help you find the best containers to kickstart your scheme.

Maximize the functionality of your office by utilizing our collection of indoor recycling containers, designed to create an attractive recycling station. These containers serve as a great tool for boosting recycling rates and minimizing contamination within your company.



Nexus® Transform Quad Recycling Station



Nexus® Stack 24G Recycling Bin



Nexus® Style 24G Recycling Station

We also provide outdoor recycling options suitable for external environments external environment. They require low maintenance and are resistant to corrosion.



Glasdon Jubilee™ 58G Duo Recycling Receptacle



Glasdon Jubilee™ 58G Duo Recycling Receptacle



Nexus® Transform™ City Quad Recycling Station

IMPLEMENT YOUR RECYCLING PROGRAM, TODAY

For more assistance and information about how your business can implement a program, please contact us today and talk to our team of experts.



www.glasdon.com

Click here to watch our
product demonstration
videos on YouTube.

