



ASSOCIATION OF PLASTIC
RECYCLERS

Plastics Recycling Myth Busters

Promoting fact-based information from industry
experts

May 31, 2023

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Today's Team



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Agenda

- ✓ Who is APR?
- ✓ The truth about plastics recycling
- ✓ Myth Busters
- ✓ Q&A



Who is APR?



Who is APR?



APR is a US-based international non-profit and the only North American organization focused exclusively on improving recycling for plastics.



**Reclaimers and Recyclers
are the CORE of APR**

APR Member Sampling

RECLAIMERS/RECYCLERS



AFFILIATES



[View all APR Members »](#)

Together, APR members span the entire value chain and shape the future of our industry.

- Reclaimers/Recyclers
- Brand Owners
- Retailers
- Converters
- Equipment Manufacturers
- Testing Laboratories
- Certifiers
- Label & Ink Manufacturers
- Resin Manufacturers
- Additives Manufacturers
- Researchers
- Technical Consultants
- And more!



APR Primary Goals



Increase Supply

Ensure plastic gets into the recycling system and stays out of landfills and the environment



Enhance Quality

Guide companies on design and processing to reduce contamination and improve recyclability



Expand Demand

Identify solutions to expand the use of post-consumer recycled content and reduce extraction of natural resources



Communicate Value

Ensure policy makers and companies recognize the value of recycled content and the recycling process

What Do We Do?

Our mission is simple:
RECYCLE MORE PLASTICS
to reduce waste.



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Recycling Beyond Bottles

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Slides and recordings available on the
APR website

Webinar

Wednesday, June 21, 2023, 2pm ET

Boosting Demand for Recycled Plastics

**Diverse Applications for PCR and
the Myth of “Downcycling”**

Register today!



**The Association of
Plastic Recyclers**



**“It’s easier for the world to
accept a simple lie than a
complex truth”**

- Alexis de Tocqueville



Recycling Works

It protects the environment and enables the circular economy.



A few numbers to start with...

- Recycling in the U.S. is a \$236 billion industry.
- Our country has over 9,000 community recycling programs.
- There are more than 100 post-consumer recyclers in the US and Canada.
- Plastic recycling alone is responsible for over 200,000 U.S. jobs.



More information:



Recommit, Reimagine, Rework Recycling

How public policy and investment in post-consumer plastic collection and processing can help to meet sustainability ambitions

Recycling is an essential part of building a more sustainable world. When recycling works, it creates a circular economy, one where products and packaging come back to be made into new products.

Recycling in the U.S. is a \$236 billion industry.¹ Our country has over 9,000 community recycling programs.² Material – including plastic – is collected through these programs and sorted and processed by more than 100 post-consumer recyclers in the US and Canada. Plastic recycling alone is responsible for over 200,000 U.S. jobs.³

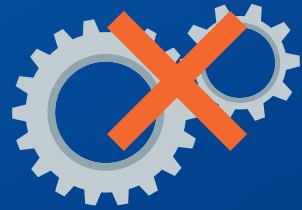
It's important to get the facts straight.

- Is recycling the only answer to tackling plastic waste? NO.
- Can we improve plastics recycling? YES.
- Misinformation and negative media can affect consumer confidence in recycling which could lead to lower participation.
- Let's all work together to improve recycling.



Myth Busters

The Facts About **Recycling**



Myth

Recycling plastics doesn't work and will never work.

Fact

Recycling plastics **WORKS**. In 2021 alone, North American recyclers processed 4.7 billion pounds of post-consumer plastic material.

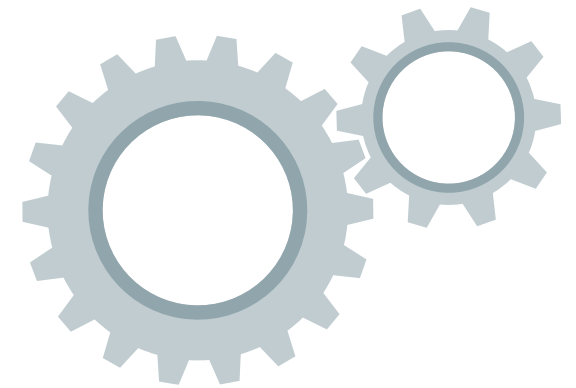
<https://circularityinaction.com/2021PlasticRecyclingData>

Now you know.
#PlasticsRecyclingWorks



Recycling Works!

- The U.S. recovered 5.1 billion pounds of post-consumer material for recycling in 2021
- Of that, 4.7 billion pounds was acquired by re-processors (reclaimers) in North America:
 - 60% = bottles
 - 20% = non-bottle rigids (primarily HDPE and PP, then PET)
 - 19.6% = film
- North American reclaimer purchases of post-consumer plastic has increased by over 1.5 billion pounds since 2012
- SMR processed over 100,000,000 lbs. of plastics at its northeast facilities.



The Facts About Recycling



Myth

Most of the plastics put in the bin do not actually get recycled.

<https://www.ball.com/getattachment/37f5f87f-d462-44c5-913f-d3075754741a/50-States-of-Recycling-Eunomia-Report-Final-Published-March-30-2021-UPDATED-v2.pdf>

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Fact

The vast majority of plastics collected for recycling get recycled. Programs vary across the U.S. Recycle only what your program accepts to ensure non-recyclables don't interfere.

Recycling Sorting Image by macrovector on Freepik

Plastics are Recycled

- As part of recycling collection programs, accepted recyclables DO get recycled.
- Plastics that end up in the trash DO NOT get recycled.
- Sortation technology exists and is commonly found in most major MRFs to maximize the recovery of accepted plastics at high volumes.
- Maximizing Recovery of Plastics:
 1. Consumer education on what is acceptable to place in the bin.
 2. Access to those bins.



The Facts About Recycling



Myth

Plastic is practically impossible to sort for recycling.

Fact

Rigid plastics are rapidly and accurately sorted by NIR Optical Sorters at MRFs everyday. Sorting plastics is standard practice in the recycling process.

<https://plasticsrecycling.org/sortation-nir-metals-size>

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MRFs Sort Plastics Everyday

- MRFs were a key provider of the 3.8 billion pounds of baled, rigid, post-consumer packaging recovered for recycling in 2021, primarily HDPE, PET, and PP
- Accurate and efficient sortation of accepted commodities is critical to a successful recycling program.
- Reduced contamination optimizes the proper sortation and recovery of valued plastics.
- Plastics are typically about 7-10% of the single-stream mix. (Paper 50%, Glass 25%)
- Plastic resins have value and market demand



The Facts About Recycling



Myth

Most plastics are exported for recycling.

Fact

Exports have decreased since 2012. Through continued investment in domestic manufacturing, less than 8% of recovered plastics were exported in 2021.

<https://circularityinaction.com/2021PlasticRecyclingData>

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Exports Continue to Decrease

- Although SMR has facilities easily accessible to NY/NJ ports, domestic demand is strong enough to keep these plastics here in the U.S.
- Exports of post-consumer plastics have been trending down since 2012, declining steeply from 2017.
- PET bottle bales were heavily exported in the 2000s, with exports at over 50% of total collection in 2008 and 2009.
- PET exports began trending down in 2010; only 3.1% of PET was exported overseas in 2021
- North American reclaimers purchase ~97% of the non-bottle rigid plastic that is sorted *by resin*.

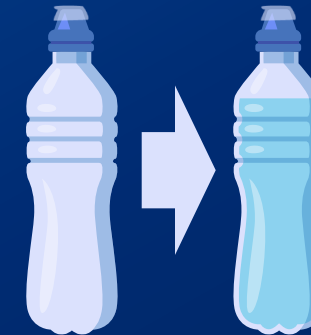


The Facts About Recycling



Myth

Bottle-to-bottle recycling does not exist. Most plastics are “downcycled.”



Fact

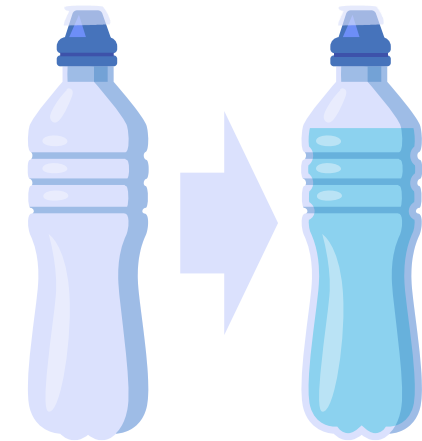
More PET bottles are made into new bottles than any other application. Markets have significantly shifted in recent years to more bottle-to-bottle recycling.

<https://circularityinaction.com/2021PlasticRecyclingData>

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Bottles are Recycled into New Bottles

- 2021 is the second year that the bottle end markets surpassed fiber for recycled PET.
- For HDPE, the vast majority of Natural HDPE Bottles went into new bottles.
- The largest end use market for Color HDPE Bottles was pipe, followed by bottles.
- Other HDPE applications include construction, lawn/garden, automotive, film/sheet, and lumber/decking.
- Consistent durable goods markets remain important to increase market breadth and depth for mixed color recycled post-consumer materials.



The Facts About Recycling



Myth

It is not beneficial to the environment or recycling if plastics are “downcycled.”



Fact

“Downcycling” is recycling! Using recycled content in place of new plastic reduces energy consumption and GHG emissions. We need to recycle plastics back into packaging and other long-lasting, useful applications.

<https://plasticsrecycling.org/images/library/2018-APR-LCI-report.pdf>

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Diverse Applications are Essential

- While bottle markets are growing, recycled resins vary in their potential applications and market maturity.
- Long-lasting, durable goods end markets remain important for recycled market diversity and resilience
- They also provide options for mixed color and/or non-food grade materials
- Using recycled resins to replace virgin inputs reduces environmental impacts including GHGs and energy



The Facts About Recycling



Myth

Plastics can cause fires at Material Recovery Facilities (MRFs).

Fact

Lithium-ion batteries that are inappropriately included in recycling bins can cause fires at MRFs. Plastics do not cause fires.

<https://plasticsrecycling.org/news-and-media/facts-about-fires-at-material-recovery-facilities>

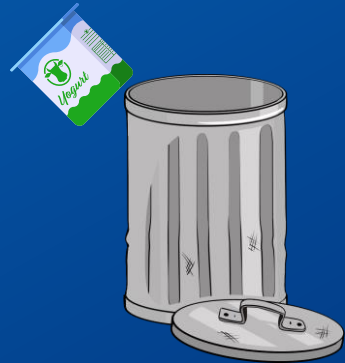
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Plastics do not Cause Fires

- Statistically, SMR sees a fire every single day.
- Although plastics do burn, they are not the source of these incidents.



The Facts About Recycling



Myth

Post-consumer Polypropylene (PP, #5) packaging and products have never been recyclable or recycled.

Fact

In 2021, 333.6 million pounds of PP were recovered for recycling including cups, tubs, and bottles.

<https://circularityinaction.com/2021PlasticRecyclingData>

Now you know.
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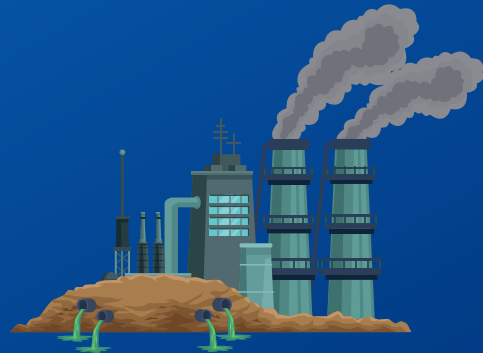


Polypropylene can be Recyclable and Recycled

- Most of that 333+ million pounds comes from recovered non-bottle material, with just under 26 million pounds from bottles
- End use markets for PP include automotive products, pallets, buckets, crates, and injection molded containers.
- SMR has been sorting and selling PP for over 10 years; buying 3-7 as capacity allows.



The Facts About Recycling



Myth

Recycling enables the production of new plastics.

Fact

We can use less plastic by recycling more. Recyclers have the capacity to process much more material. When we collect and process more post-consumer plastic, we can make more products from recycled content and less from new plastic.

<https://plasticsrecycling.org/images/library/APR-Report-Recommit-Reimagine-and-Rework-Recycling-2022-8-9.pdf>

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We Can Produce Less and Recycle More

- Back to the basics of the 3 R's: Reduce, Reuse, and Recycle are all important.
- Reducing our use of plastic and reuse programs are appropriate strategies in some contexts.
- For much of the plastic we use every day, recycling is the best option.
- Recyclers have the capacity to recycle more plastics TODAY.



The Facts About Recycling



Myth

There's nothing I can do to improve recycling.

Fact

Everyone has a role to play. Producers can design for recycling and include recycled content, government can provide consistent and equitable collection services, and consumers can recycle right and buy recycled.

Now you know.
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Everyone Can Help Improve Recycling

- APR works to develop resources to improve recycling.
- Producers can utilize the APR Design® Guide for Plastics Recyclability to ensure their packaging is truly recyclable.
- Producers can manufacture products with PCR. APR's PCR Certification Program provides the transparency to ensure recycled plastics come from post-consumer sources.
- The government can provide consistent and equitable access to collection programs, as well as pass other laws to improve recycling.
- Consumers can recycle and buy recycled.



RECYCLING WORKS



when we all work together



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LISTEN



Thank you!



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