

Plastic Bags & Sustainability

Who is the ARPBA?

- Founded by a group of bag manufacturers that believed in sustainable practices, including providing recycling as an end-of-life option for their products.
- Our members are U.S. plastic bag manufacturers and recyclers who employ thousands of Americans.
- We work with states and localities all over the country on plastic bag regulations and support local sustainability initiatives around the country.



Our commitment to sustainability

- Minimum recycled content in all plastic retail bags
 - 2021—All bags will have 10% recycled content
 - 2023—All bags will have 15% recycled content
 - 2025—All bags will have 20% recycled content
- Reuse/recycling targets 95% by 2025
- Education programs, new end markets, sustainable bag use
 - Don't need a bag? Don't take one.



A few facts about plastic retail bags

- 100% recyclable via drop-off bins at grocery and retail stores
- Highly reused 77.7% reuse rate, according to government studies
- Every life cycle assessment of carryout bags that has been done has concluded that they are the most sustainable and least carbon-intensive option at the checkout counter.
- The vast majority of bags are manufactured in the U.S./
- The vast majority of plastic bags & film collected for recycling are recycled in North America.
- While often well-intentioned, banning traditional plastic bags can lead to unintended consequences.



Recycling Plastic Bags & Film





Recycling Locations in Wichita

Dillons Food Stores 3020 E Douglas Ave 640 N West St 1910 W 21st St N 3932 W 13Th St N 3211 S Seneca St 5500 E Harry St 7707 E Central Ave 4747 S Broadway St 2244 N Rock Road Ct 3707 N Woodlawn Blvd 9450 E Harry St 8828 W 13Th St N 10515 W Central Ave 10222 W 21st St N 13415 W Maple St

PRo Kansas Miller Recycling Center 725 E Clark St

Walmart

501 E Pawnee St 2111 N Amidon 3030 N Rock Rd 11411 E Kellogg Dr 5475 N Meridian Ave 10550 W Central Ave 10600 W 21St St **Target** 7575 Maple St 10800 E 21st St N 2727 N Maize Rd

Kohl's 6900 W Kellogg Dr 3561 N Rock Rd

Lowe's 333 S Ridge Rd 11959 E Kellogg Dr 2626 N Maize Rd



Plastic Film Recycling Stream – A Closed Loop!



Will plastic bag bans meaningfully reduce overall litter and waste?



Are plastic bags "filling up our landfills?"

 Per EPA, <u>ALL</u> plastic "bags and sacks" make up 0.3% of municipal solid waste. Plastic retail bags are a fraction of this number.

Advancing Sustainable Materials Management: 2015 Tables and Figures

Assessing Trends in Material Generation, Recycling, Composting, Combustion with Energy Recovery and Landfilling in the United States

July 2018

| 10.070 | 11.170 | 17.470 | 13.770 | 10.4/0 | 13.070 | 13.070 |
|--------|--------|-----------|--|--|---|--|
| | | | | | | |
| | | 0.2% | 0.2% | 0.7% | 1.0% | 1.1% |
| | | 0.2% | 0.3% | 0.3% | 0.3% | 0.3% |
| 0.1% | 0.8% | 0.6% | 0.7% | 0.7% | 0.6% | 0.7% |
| | | 0.3% | 0.5% | 0.7% | 0.6% | 0.3% |
| | | 0.6% | 0.7% | 1.0% | 1.1% | 1.370 |
| | | 0.8% | 1.2% | 1.7% | 1.8% | 1.6% |
| 0.1% | 1.0% | 0.5% | 1.0% | 1.2% | 1.3% | 1.8% |
| 0.1% | 1.7% | 2.2% | 3.3% | 4.6% | 4.9% | 5.4% |
| | 0.1% | 0.1% 0.8% | 0.2% 0.1% 0.2% 0.1% 0.8% 0.3% 0.6% 0.1% 0.8% 0.1% 1.0% | 0.2% 0.2% 0.1% 0.8% 0.6% 0.7% 0.1% 0.8% 0.6% 0.7% 0.1% 0.6% 0.7% 0.1% 0.6% 1.2% 0.1% 1.0% 0.5% | 0.2% 0.2% 0.7% 0.1% 0.2% 0.3% 0.3% 0.1% 0.8% 0.6% 0.7% 0.7% 0.1% 0.8% 0.6% 0.7% 0.7% 0.1% 0.8% 0.6% 0.7% 1.0% 0.1% 0.8% 0.6% 1.2% 1.7% 0.1% 1.0% 0.5% 1.0% 1.2% | 0.2% 0.2% 0.7% 1.0% 0.1% 0.2% 0.3% 0.3% 0.3% 0.1% 0.8% 0.6% 0.7% 0.7% 0.6% 0.1% 0.8% 0.6% 0.7% 0.6% 0.6% 0.1% 0.8% 0.6% 0.7% 1.0% 1.1% 0.6% 0.7% 1.0% 1.1% 1.8% 0.1% 1.0% 0.5% 1.0% 1.3% |



Are they really "everywhere?"

- Plastic retail bags are, of course, very visible when the wind grabs them, but they don't make up as much of the litter stream as you'd think.
- Litter surveys show that branded plastic retail bags typically make up less than 1% of litter.
- Just like you, we want this number to be zero. Plastic bags should never be littered they should always be disposed of properly by reusing or recycling.
- We always recommend any city, county, or state considering a ban to conduct a litter study first.

2018 New Jersey Litter Survey

A Survey of Litter along 94 Roadways

Conducted for

New Jersey Clean Communities Council, Inc.

Appendix A - Litter by Item, Material and Percent

| Litter Category | Percent |
|--------------------------------------|---------|
| Vehicle - Rubber | 11.0% |
| Other Paper - Paper | 8.9% |
| Shrink Wrap - Plastic | 4.9% |
| Sweet Snack Packaging - Plastic | 4.7% |
| Water Bottles - Plastic | 3.8% |
| Unbranded Towels/Napkins - Paper | 3.0% |
| Packs, Matches, Lighters - Composite | 3.0% |
| Corrugated Boxes - Paper | 2.9% |
| Block Construction Foam - Foam | 2.7% |
| Cups - Plastic | 2.2% |
| Other Plastics - Hard - Plastic | 2.1% |
| Cup Lids - Plastic | 2.1% |
| Straws/Wrappers - Plastic | 2.1% |
| Glass - Other | 1.9% |
| Vehicle - Composite | 1.8% |
| Unbranded Retail Bags - Plastic | 1.7% |
| Soda Bottles - Plastic | 1.7% |
| Beer Cans - Metal | 1.6% |
| Cups - Paper | 1.6% |
| Cups - Foam | 1.6% |
| Vehicle Debris - Plastic | 1.6% |
| Salty Snack Packaging - Plastic | 1.5% |
| Foil Food Wrappers - Metal | 1.4% |
| Sports Drink Bottles - Plastic | 1.4% |
| Wine/Liquor Bottles - Plastic | 1.4% |
| Clothing - Cloth | 1.4% |
| Construction Materials - Metal | 1.3% |
| Newspaper - Paper | 1.2% |
| Tissues - Paper | 1.2% |
| Soda Cans - Metal | 0.9% |
| Ads/Signs/Cards - Paper | 0.9% |
| Peanut Foam - Foam | 0.9% |
| Beer Bottles - Glass | 0.8% |
| Capsy Seals - Plastic | |
| Branded Retail Bags - Plastic | 0.8% |
| Plastic Plastic | |
| Home Articles | 0.8% |
| Broken Bottles - Glass | 0.7% |
| Utensils - Plastic | 0.7% |



But what about marine debris?

 Plastic retail bags typically make up ~1% of beach cleanup material.

• Up to 95% of plastic in the ocean comes from 10 river systems in Asia and Africa as shown on the next slide.



Top 10 Polluters



AN RECYC

What about paper and reusable bags?

- Plastic bags are actually the most sustainable option at the checkout • counter, as long as they are disposed of properly (reused or recycled). **RECYC-QUÉBEC** Québec 🕈 🕈
- Recyc-Quebec:
 - "The conventional plastic bag ... is the one with the least environmental • impacts."
 - "The cotton bag studied is an option that is not recommended ... requiring between 100 and 2,954 uses for its environmental impact to be equivalent to the environmental impacts of the conventional plastic bag."



What about paper and reusable bags?

• Recyc-Quebec:



- "The paper bag is the least performing [disposable] bag with 4 to 28 times greater potential impacts than the conventional plastic bag."
- "The polypropylene woven and polypropylene non-woven bags need an equivalent number of reuses to equal the thin plastic bag ranging from 16 to 98 and 11 to 59, respectively."
- Studies from the UK and Denmark governments came to the same conclusions.







Ministry of Environment and Food of Denmark Environmental Protection Agency

Unintended Consequences



THE UNIVERSITY OF SYDNEY

Research found that California's plastic bag ban increased carbon emissions due to skyrocketing trash bag sales and increased paper bag usage.

What can we do instead?

- Encourage reuse
 - 77.7% of plastic bags are regularly reused.
 - Many reuses: trash bag, pick up after pets, pack your lunch, etc.
- Recycle
 - Usually located at grocery stores and major retail chains.
 - Typically cannot be included in curbside or mixed recycling.
- Recycled content promotion
 - The more recycled content included in any bag, the less virgin material that is used and the more bags that are taken out of the waste stream.



What can we do instead?

- Educate
 - Communities have had success with education campaigns.
 - Don't put plastic bags in your curbside recycling. Take it back to the grocery store or another drop-off location.
 - Don't need a bag? Don't take one.
- Litter laws
 - Be sure any existing litter laws are working as intended. Consider new litter laws if the current ones aren't sufficient.
- Proper waste receptacles
 - Open top garbage and recycling bins are amongst the worst litterers.



The ARPBA is a resource

 We have worked with states and municipalities all over the country, and we are happy to work with you on the best ways to reduce waste and litter, increase recycling, and help you meet your sustainability goals.

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