



# 2014 UNITED STATES NATIONAL POSTCONSUMER PLASTICS BOTTLE RECYCLING REPORT

#### INTRODUCTION

The 2014 edition of the United States National Postconsumer Plastics Bottle Recycling Report is the 25<sup>th</sup> annual report on plastic bottle recycling. This study is a cooperative effort between the Plastics Division of the American Chemistry Council (ACC) and the Association of Postconsumer Plastic Recyclers (APR), the goal of which is to quantify the amount of high density polyethylene (HDPE) and polypropylene (PP) bottles collected for recycling, as well as the rate of recycling of those bottles. This study includes postconsumer recycling values and comments for polyethylene terephthalate (PET) developed by the National Association for PET Container Resources (NAPCOR) and the Association of Postconsumer Plastic Recyclers (APR). The reclaimer survey portion of the study was conducted by the Moore Recycling Associates, Inc.

#### **HIGHLIGHTS/SUMMARY FOR 2014**

## Plastic Bottle Pounds Collected for Recycling in the United States

- The total pounds of plastic bottles collected for recycling reached a record high 3,003 million pounds.
- The total plastic bottle recycling collection rate was 31.8%, an increase of 1.0 percentage points over 2013.
- The total pounds of plastic bottles collected increased by 97 million pounds for 2014 over 2013, with increases for PET and HDPE and PP bottle resins.
- The annual increase in pounds of plastic bottles collected for recycling was 3.3%.
- The five year compounded annual growth rate for plastic bottle recycling was 4.1%.
- PET bottles collected increased by 14.0 million pounds for a total of 1,812 million pounds in 2014. The recycling collection rate dipped slightly from 31.2% in 2013 to 31.0% in 2014.

- Since 2013 HDPE bottles collected rose by 62 million pounds to 1,107.4 million pounds.
- The HDPE bottle recycling collection rate rose to 33.6% in 2014 compared to the 2013 rate. The numerator rose while the denominator fell very slightly.
- Exports of United States-collected HDPE bottle material rose to 218 million pounds, 19.7% of domestically collected material with approximately 72% of the exports leaving North America.
- Compared to 2013, imports of postconsumer HDPE to the United States dropped by 29% to 52.5 million pounds in 2014, which combined with increased collection and increased exports resulted in slightly smaller purchases for United States reclamation plants, down 15.3 million pounds since last year to 941.6 million pounds.
- PP bottle recycling collection totaled 79.5 million pounds, an increase of 28.3% over 2013 with 57% of the total processed domestically as deliberate PP material, as opposed to mixed material flake combined with HDPE. While the collection rate rose to 44.9% in 2014 compared to 31.8% in 2013, the numerator rose and the denominator decreased in 2014 compared to 2013.

### Plastic Bottle Recycling Overview for 2014

Postconsumer plastic bottle recycling continued to grow in 2014, resulting in an increase in collection rate for recycling of 1.0 %. The numerator of pounds of all bottles collected rose by 3.3%, below the three year running average bottle collection growth rate of 4.6% per year. Light-weighting and 'right-sizing' of PET and HDPE bottle continued as has been the case for several years. Some consumer products are being sold in smaller bottles. The sales of PET for bottles increased over 2013 while sales of HDPE for bottles held nearly steady. The total for all bottles in the marketplace increased by 19 million pounds, or 0.2% which is below the three year running average bottle marketplace growth rate of 1.2%. 2014 was a static year for bottle usage growth compared to the recovery in 2013 from 2012.

Sales of virgin HDPE resin for bottles rose by 0.8% and sales of recycled HDPE resin for bottles fell by 8.3% compared to 2013 results. Sales of virgin PET resin for bottles rose by 2.9% and sales of recycled PET resin for bottles slipped as fiber uses and film uses rose in the same time frame.

Recycled natural and pigmented HDPE bottle bale prices rose throughout 2014 compared to 2013. PET bottle bale prices rose slightly in the first half of 2014 compared to the latter half of 2013 and then PET postconsumer bale prices eased back in the second half of 2014 in a pattern reminiscent of 2013. The average price for baled postconsumer plastic bottles rose in 2014 compared to 2013 even as crude oil and natural gas liquid prices fell.

Exports of all postconsumer plastic bottle bales rose slightly in 2014 compared to 2013 but fell to the lowest percentage of total exports in six years, 21.9% overall, as the amount collected increased faster than did exports. HDPE exports rose substantially in 2014

compared to 2013. PET exports continued to fall in both absolute tonnage and percentage of material collected. PET exported bales were the lowest in at least 10 years, percentagewise and in actual pounds. The export of recycled PP bottles rose in 2014 to 25% of that collected, even as more material was processed domestically.

The processing of recycled PET, sourced domestically and imported, increased robustly in 2014 over 2013 by 96 million pounds. The processing of recycled HDPE, sourced domestically and imported, fell by 15 million pounds in 2014 compared to 2013. The processing of recycled PP bottles, sourced domestically and imported, increased by 6.5 million pounds in 2014 over 2013.

- Bottle resin use per capita fell by 0.6% from 2013 and was a return to the slow growth seen since the 2008/2009 recession. The growth seen before the recession has been replaced by less use and continual lightweighting.
- Bale prices for recycled bottles moved generally up in the first half of 2014 for PET and HDPE and then fell through the rest of the year for PET but continued rising for HDPE, particularly for natural HDPE bottles.
- Single stream collection of household recyclables continued to grow, generally resulting in higher overall household participation rates and more challenges from contaminated bales of bottles with bale yields as dismal as in recent years. Tension in the reclamation industry continued with the attraction of more available material from such collection and more challenging processing requirements. As an example, PET sleeve labels added to the woe of poor bale yields. Conversely, PET thermoforms represented a growing opportunity for additional raw material for recycling processing.
- California Container Redemption Value redemption centers collected not only PET, but also HDPE, PP, PVC, LDPE bottles and OTHER bottles.
- Plastic bottle recycling continues to be an international business with U.S.-based reclaimers competing effectively in 2014 as they did in 2013.
- Active "all bottle" collection, which takes all bottles regardless of resin identification number, continued the collection of LDPE and PVC bottles, although the tonnage continues to be small. We see a small amount of "#7, OTHER", bottles collected, but we do not have data for the denominators of those bottles. The LDPE and PVC bottles were exported as part of mixed bales.

The plastic bottle resins, as identified by their resin identification codes, are:

PETE Polyethylene Terephthalate, PET

High Density Polyethylene, HDPE

Polyvinyl Chloride, PVC

Low Density Polyethylene, LDPE

Polypropylene, PP



Polystyrene, PS



PET and HDPE bottles continue to comprise 96.9% of the United States plastic bottle market with PP at 1.9% of plastic bottles produced and with LDPE at 0.8% of plastic bottles and PVC at 0.4% of plastic bottles. Together, PET and HDPE are 97.2% of the bottles recycled with PP bottles constituting 2.6% of plastic bottles recycled. Some PP bottles are included with pigmented HDPE bottles for recycling, about 12% of all PP collected. An allowance, based on buyer reports and bale audits, has been included to account for those PP bottles in this report to more represent the PP bottles recycled.

Although bottles made with the #3 through #7 resins are recyclable, and to varying degrees are recycled, the actual level of recycling is limited by the continuing challenge to reach a critical mass of readily recognizable bottles for economical collection and processing. However, it should be noted that bottles made from resins #3 through #7 make up only 3.1% of the plastic bottle market.

Finally, bottles coded with "#7, OTHER" are included in this report as a discrete category, but are not included in the total for TOTAL BOTTLES shown on Table 1. Bottles coded #7 may include, among others, HDPE or PET or PP resins with barrier layer materials. These bottles are often recycled with the primary resins used in each container. Bottles coded #7 may also be made from resins other than those listed above. No information is available for the denominator for "#7, OTHER".

## Postconsumer Plastic Bottle Recycling Collection Results

Table 1 Postconsumer Plastics Bottles Recycled in Calendar Year 2014 Compared to Calendar Year 2013 Results [1,2,3,4,5,6,7] (in millions of pounds per year)

	Calendar Year 2013			Calendar Year 2014		
Plastic Bottle Type	Plastic Recycled [2]	Resin Sales [3,4]	Recycling Rate	Plastic Recycled [2]	Resin Sales [3,4]	Recycling Rate
PET [4]	1798	5764	31.2%	1812	5849	31.0%
HDPE Natural	440.4	1571	28.0%	464.4	1551	29.9%
HDPE Pigmented	605.0	1733	34.9%	643.0	1747	36.8%
Total HDPE Bottles	1045.4	3304	31.6%	1107.4	3298	33.6%
PVC [5]	0.4	76	0.5%	0.3	36	0.7%
LDPE [5]	0.3	78	0.4%	3.6	76	4.7%
PP [6]	62.0	195	31.8%	79.5	177	44.9%
Other [7]	3.8			1.6	•	
TOTAL BOTTLES	2906	9417	30.9%	3003	9436	31.8%

<sup>[1]</sup> These data provide a snapshot of plastic bottle recycling collection trends from the national perspective. The data are useful in identifying national trends and highlighting changes that have occurred from year to year, and may be a useful tool for planning

purposes. While national data may be useful as a comparison with local waste characterization and recycling data, significant differences will likely exist from locality to locality, and from state to state. If communities or states are making decisions where precise knowledge of the amount, composition and disposition of MSW is crucial, e.g., where a solid waste management facility is being designed, or for local or state regulatory enforcement, etc., then local characterization of the quantities of individual components generated, recycled and disposed is essential.

- [2] Data are based on surveys performed by Moore Recycling Associates, Inc. and include bale composition data provided by Moore Recycling Associates, Inc. and others.
- [3] Based on data provided by the American Chemistry Council's Plastics Industry Producers Statistics Group. HDPE resin sales include both the virgin and recycled plastic pounds used to produce new bottles. Imports from non-ACC members are not included.
- [4] Source: 2014 Report of Postconsumer PET Container Recycling Activity, National Association of PET Container Resources, Sonoma, California
- [5] The majority of PVC and LDPE recycled were as part of commingled bottle and container bales
- [6] About 85% of polypropylene bottles were deliberately recycled as polypropylene bottles.
- [7] Limited data for bottles of other resins are shown. Material sold as part of mixed export bale. No denominator values are available.

The 2014 PET bottle denominator increased by 85 million pounds to 5,849 million pounds compared to the 2013 value. The 2014 PET bottle numerator, not including thermoforms, grew by 14 million pounds to 1,812 million pounds collected. Many natural homopolymer HDPE milk bottles are pigmented, the usual visual indicator of the use of copolymer, and those bottles are included in the usually pigmented copolymer bottles. The split for recycled HDPE between natural HDPE (presumed to all be homopolymer) and pigmented HDPE (usually presumed to be copolymer) was based on buyer estimates. The "Total HDPE Bottles" values on Table 1 are likely more accurate numbers. In comparison with 2013, the 2014 HDPE denominator (bottles in the market place) decreased by 6 million pounds, or -0.2%. This near static loss still was welcomed compared to weak years 2010 through 2012. The HDPE numerator (bottles collected for recycling) increased by 62.0 million pounds, or 5.9%. The collection rate for HDPE bottle recycling rose in 2014 versus 2013 to 33.6% with more pounds recycled and the denominator steady. Natural HDPE recycling, as defined, rose in 2014 versus 2013 and pigmented HDPE recycling also Overall, HDPE bottle recycling saw an increase in pounds collected for increased. recycling.

About 0.1% of the total #2 through #7 bottles collected was part of commingled bottles bales, which decreased from 2013, showing greater capture of value in the sorting operations. About 0.5% of the total #2 through #7 bottles was from mixed rigids bales. None of the total #2 through #7 bottles were from bales characterized as "other bottle" and known to contain all possible bottles. For HDPE bottles the contribution from commingled bottles bales and mixed rigids was about 1% of the total HDPE bottles collected in 2014. For PP bottles the contribution from commingled bottles bales and mixed rigids was about 3% of the total. For PVC bottles the contribution from commingled bottles bales and mixed rigids was about 100% of the total. For LDPE bottles the contribution from commingled bottles bales and mixed rigids was about 100% of the total.

Domestic processing of postconsumer PP bottles totaled 65.3 million pounds, an 11% increase over 2013. The deliberately isolated PP bottles for domestic recycling as PP increased from 44.2 million pounds in 2013 to 45.6 million pounds in 2014. PP recycling collection saw a substantial increase in tons collected and a decrease in tons of PP used for initial bottles, resulting in an increase in the collection rate for recycling to 44.9%.

In addition to bottles, PP from injection molded closures was also recycled, but that amount is not part of this report on bottles. For information on PP from injection molded closures, please refer to Moore Recycling's Non-Bottle Rigid Plastic Recycling Annual Reports.

3,500 3,000 2,500 1,500 1,000 500 500 500 7 Years

Figure 1
Growth in Postconsumer Plastic Bottle Recycling

SOURCE: NAPCOR, all years, for PET. For other bottle resins, R.W. Beck, Inc., 1990-2006; Moore Recycling Associates, Inc., 2007-2015

The growth in total pounds of postconsumer bottles collected for recycling continued in 2014. A total of 3,003 million pounds of #1 through #6 plastic bottles were reported as collected for recycling. The change from 2013 was an increase of 97 million pounds of recycled bottles, or an increase of 3.3%. This happened with slight increase in plastic bottle resin usage and the moderate real GDP growth of 2.4% for 2014.

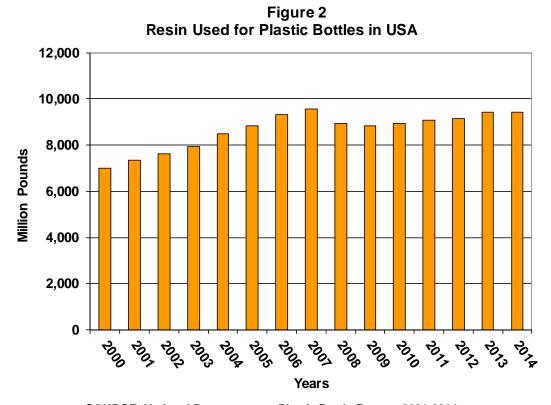
#### **Bottle Resin Sales**

The denominator used to calculate the recycling rate is composed of both virgin resin and recycled resin used for bottle making.

Plastic bottle light-weighting continued to occur for all bottle resins. Light-weighting helps companies to meet economic and sustainability goals and is a relentless force in bottle making. Many HDPE bottle applications are using product concentrates, which means an increasing number of smaller bottles, or fewer bottles made for the total number of uses, such as laundry loads. Recycling is denominated by weight and reduced weight per

container adversely affects recycling economics. Reclaimers have noticed a decrease in available bales of HDPE milk bottles, perhaps showing a shift in packaging types

The change in total resins used to make bottles resulted in an increase of 19 million pounds, or an increase in bottle polymer production of 0.2%. Use of HDPE to make bottles decreased by 6 million pounds, or -0.2%, down from the amount used in 2013, but was still greater than the amount used in 2008, 2010, 2011, and 2012. Use of PET to make bottles increased by 85 million pounds, or 1.5%. An annual gain is seen over the last five years for all resins used to make bottles, but not yet reaching the usage level of 2007.



SOURCE: National Postconsumer Plastic Bottle Report, 2001-2014

It is vital for the growth of plastic bottle recycling that bottles are present in the marketplace and consumers appropriately recycle used bottles. The pounds of material in bottles used by consumers shown in Figure 2 include recycled content. Without available pounds of recycled material to be industrial feedstock, plastics recycling may grow in recycling rate, but not in the tons needed for a robust industry. Inability to secure wanted feedstocks has increased reclaimer interest in additional resins and non-bottles including such as PET thermoforms.

Figure 3 shows the United States per capita consumption for plastic bottles since 2000. In 2014 the per capita consumption of bottle resins, virgin and recycled plastic, showed a slightly lower amount than the per capita consumption in 2013. This chart shows that use

of plastic bottles for more applications is offset by the continuing lightweighting and use of product concentrates with smaller, lighter bottles.

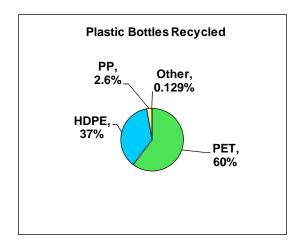
Jeek John John John John John John John Years

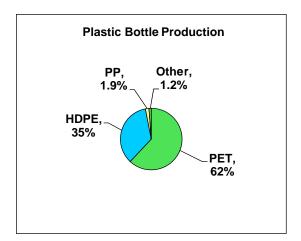
Figure 3
USA Per Capita Consumption of Plastic Bottles

SOURCE: National Postconsumer Plastic Bottle Report, 2001-2014; US Census

PET and HDPE continued to dominate as selected resins to produce plastic bottles: 96.9% by weight of produced bottles were made of PET or HDPE. PET and HDPE bottles also continued to dominate the bottles collected for recycling, collectively at 97.2% and PP at 2.6% of the total bottles recycled.

Figure 4
2014 Plastic Bottles Recycled and Plastic Bottle Production by Resin





Source: Moore Recycling Associates, Inc. 2015 NAPCOR. 2015

### Barriers to Increased Plastic Bottle Recycling

As noted for 2005 through 2013, one barrier to plastic bottle recycling is that too many consumers continue to be unaware of the significant usefulness, demand, and value of recycled plastic including HDPE and PET and PP. Data and experience show that plastic bottle recycling can be increased through sustained local education campaigns. Municipalities also need to understand that they also can benefit from the sale of bales of bottles, including revenue sharing to fund educational programs and other costs of collection.

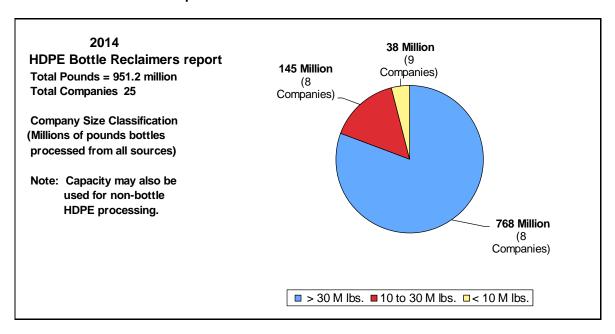
Another barrier to increased recycling is lack of sufficient convenient access to recycling collection opportunities for products used away from home. Consumers respond to additional opportunities to be able to recycle such as at public venues, offices, recreational sites, schools, and retail establishments. In a time of low commodity prices, including collected recyclables, materials recycling facilities, MRF's, are being considered that would process the entire municipal waste stream for recyclables, not just a collected stream of recyclable packaging.

With the influence of three major factors: the increase in single stream collection of recyclables at household residences, the increased interest to collect more than bottles, and the reduced export material, the quality of available postconsumer bottle material to U.S. reclaimers improved very slightly for HDPE. For PET with an increasing variety of packaging applications, the quality of bales as reflected by bale yields, continued to slip. Use of the APR Design<sup>TM</sup> Guide by packaging designers can help reduce economic and technical barriers to plastic bottle recycling.

## HDPE Reclamation Industry Update – Reclaimers' reporting

- The number of HDPE reclaimers reporting increased in 2014 as compared to 2013 with 25 companies active at year's end. The number of smaller companies may vary year-to-year as industrial scrap companies change their business plans and start-ups and acquisitions continue.
- The amount of HDPE reported processed by the survey of United States HDPE reclaimers slipped by 4 million pounds to 951.2 million pounds. While HDPE recycled bottle domestic collection increased compared to 2013, exports increased and imports decreased to account for the lesser amount of HDPE bottles processed. This value, 951.2 million pounds processed, is slightly different than the 941.6 million pounds of postconsumer HDPE bottles purchased. The processed value reflects inclusion of other pedigree HDPE such as postindustrial or post commercial material in pounds processed.
- Eight larger companies, defined as those processing over 30 million pounds annually, processed 81% of the HDPE processed with a net decrease in the pounds processed.
- The mid-sized companies increased by one in number from eight in 2013 to nine in 2014 and the amount processed in 2014 increased compared to the amount processed in 2013. Small companies, processing less than 10 million pounds annually, increased in number and increased slightly the amount processed compared to 2013.

Figure 5
Size Comparison of Domestic Reclaimers of HDPE Bottles



Utilized Capacity Excess Capacity 1,600 Millions of pounds 1,400 1,200 1,000 800 600 400 200 1000 2001 2005 7006 2001

Figure 6
HDPE Bottle Wash Capacity in the U.S.

The figures shown above are estimates and should not be used for business planning purposes. Utilized capacity includes postconsumer material quantities processed domestically only. Capacity is based on 24 hours per day and 365 days per year.

Years

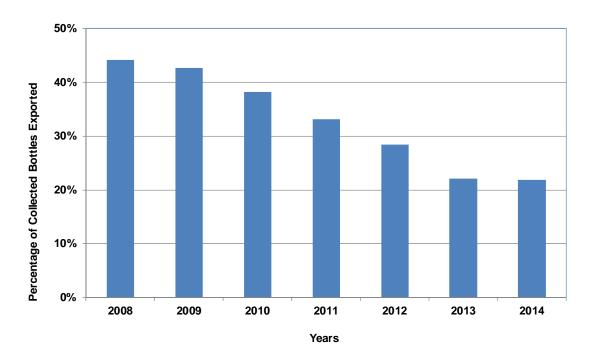
The capacity utilization is shown for the given conditions of hours worked. The capacity utilization, as calculated, dropped to 65% for 2014 as compared to 72% in 2013. Production capacity was added but less production occurred with a net drop in utilization. The HDPE reclaimers continue to use assets to process non-bottle postconsumer HDPE and PP from varying sources. The total utilized capacity eased downward in 2014 to 942 million pounds, compared to 957 million pounds in 2013. The overall United States industry capacity, as calculated, increased to 1,455 million pounds of HDPE postconsumer reclamation capacity.

As reported, United States PET reclamation capacity utilization was about 70%, similar to the capacity utilization in 2013.

## Export and Import Markets

Postconsumer bottles are a valuable commodity and are traded globally. Purchases of United States postconsumer bottles for export continued in 2014. Postconsumer plastic was exported out of the United States as bales of PET, PP, and HDPE bottles; bales of commingled bottles and containers; mixed rigid container bales; and unwashed flake material. A total of 21.9% of collected plastic bottle material of all types was exported in 2014, 656.2 million pounds, compared to 22.1% or 641.5 million pounds in 2013. The exports exceeded 28% of bottles collected in 2012 and before.

Figure 7
Exports of Postconsumer Bottles From the United States 2014



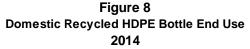
For United States-collected HDPE bottle material, 218 million pounds were exported. This amount represented 19.7% of the total HDPE bottle material collected domestically, an increase of 56 million pounds since 2013. Of those exported pounds, 28% went to Canada. The trade in bales is not one-sided. United States HDPE reclaimers imported 52 million pounds in 2014, down from 74 million pounds of postconsumer HDPE bottle bales imported in 2013. The imported pounds of postconsumer resin are not included in the totals of pounds collected in the United States and are not part of the totals on Table 1.

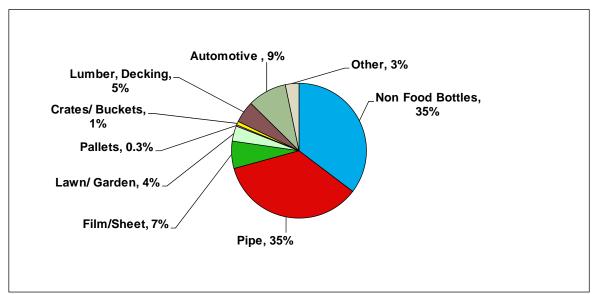
2014 PET exports totaled 22.9% of the total PET bottles collected with most exports going to China. This percentage is less than the experience in 2013, when 26.1% of the United States-collected PET was exported. The Chinese "Green Fence" initiative continued to slow imports into China of postconsumer baled bottles in 2014. The exports for PP bottles rose in 2014 from 9.3 in 2013 to 20.0 million pounds, most as deliberately separated bottles. The PP exports rose from 15% in 2013 to 25% in 2014 for bottle material. 89% of PVC bottles were exported, a total of 0.23 million pounds. 99% of LDPE bottles were exported, a total of 3.5 million pounds, mostly in bales of rigid containers. This poundage value reflects recent bale content analysis.

## End Use Markets for Recycled Plastics in 2014

Per the annual survey of postconsumer reclaimers:

- Natural HDPE postconsumer recycled resin's primary markets continued to be for nonfood application bottles, such as for detergent, motor oil, household cleaners, etc. and for film.
- Pigmented HDPE postconsumer recycled resin's markets continued to include pipe, lawn products, and non-food application bottles.
- Plastic lumber continued to consume a broad range of materials including recycled HDPE, LDPE, mixed rigid containers, and wide-specification virgin resin.
- PET postconsumer resin retained its traditional markets for fiber, film and sheet, and food bottles. Fiber and sheet & film applications for recycled PET rose significantly in 2014. Use of PET postconsumer resin for bottles dropped in 2014.
- PP postconsumer bottles in 2014 were used for pallets, buckets, and crates.





There was some relative change in the recycled postconsumer HDPE end use markets in 2014 over 2013, with new bottles still a major use, but pipe applications growing more so. Pipe applications usage rose in 2014 to the highest tonnage levels seen for that application. The tons of postconsumer HDPE for pipe, film/sheet, and automotive uses also increased. The tons for lawn/garden, plastic lumber and railroad ties, and bottles slipped compared to 2013. End use markets and usage of material in those markets are as reported by the survey of reclaimers.

The reported yield of postconsumer HDPE bottles to clean product ranged from mid-70% to mid-90 %, depending on raw material and end use. The average of reported yield values of bales to clean HDPE pellets in 2014 was 81.8%, compared to 81.4% in 2013 and 81.1% long term. Many reclaimers are reporting that they implemented a "zero waste program", leading to increased use of purchased materials and higher reported yields. For PET, the

bale yields varied from mid- 60 % to mid-70 %, depending on source of bottles. The yield situation is different for recycling HDPE and PET bottles. For PET bottles, the labels are not recovered as PET while for HDPE bottles labels may be recovered as HDPE. Contamination in bales of HDPE bottles and PET bottles presented an ongoing challenge to reclaimers.

### Economic Impact

The estimated value of purchased bales of postconsumer bottles of PET and HDPE in 2014 was approximately 730 million dollars.

### Additional Information

ACC's Plastics Division represents the leading U.S. manufacturers of plastic resins. ACC offers resources to communities that wish to increase postconsumer plastic collection, including some targeted specifically at bottles and rigid plastics, as well as others focusing on plastic films, bags and wraps, and applications such as mattresses that are outside the scope of this Report. Details on the highly successful All Plastic Bottle collection programs can be found at <a href="www.allplasticbottles.org">www.allplasticbottles.org</a>. A database for the recycling of clean plastic film and grocery/retail bags is provided at <a href="www.plasticfilmrecycling.org">www.plasticfilmrecycling.org</a>. Additional resources on plastic recycling can be found at <a href="www.recycleyourplastics.org">www.recycleyourplastics.org</a>.

APR offers resources at its website, <a href="www.plasticsrecycling.org">www.plasticsrecycling.org</a>, including lists of buyers and sellers of recycled plastic, market development workshop information, the Kids Zone for educating and involving children in plastics recycling, and technical resource documents to aid in designing recyclable packaging. APR announces at its website upcoming webinars and workshops to help local recycling coordinators achieve better plastic recycling results. The APR Design<sup>TM</sup> Guide, offered by APR for over 17 years, help packaging designers avoid poor materials selections that reduce the recyclability of plastic packages. The guideline document is available at <a href="http://plasticsrecycling.org/technical-resources/design-for-recyclability-guidelines">http://plasticsrecycling.org/technical-resources/design-for-recyclability-guidelines</a>.

Moore Recycling Associates Inc., supported by ACC, APR, J store front, and Resource Recycling, manages <a href="https://www.plasticsmarkets.org">www.plasticsmarkets.org</a>, a database of buyers and sellers of recycled plastic, open to all market participants. The website also provides other useful information, such as historical scrap prices and guidance for handling and bailing guidelines.

The Association of Postconsumer Plastic Recyclers, with support provided from the plastics industry through the American Chemistry Council, conducted programs for municipal recycling coordinators to educate them on the existing markets for baled bottles, the strong demand for goods, quality considerations, and suggestions for householder education.

NAPCOR provides additional information about PET at its website, www.NAPCOR.com.

#### **Legal Notice**

The 2014 United States National Post Consumer Plastics Bottle Recycling Report has been prepared to provide helpful ideas and information for parties interested in recycling plastics. Facilities developing a recycling process and all entities involved in the chain of collection, processing, distribution, and sale of recycled products have an independent obligation to ascertain that their plans, actions, and practices meet all relevant laws and represent sound business practices for their particular operations. Facilities may vary their approach with respect to particular operations, products, or locations based on specific factual circumstances, the practicality and effectiveness of particular actions and economic and technological feasibilities. This report is not designed or intended to define or create legal rights or obligations. Although the information contained in this document has been produced and processed from sources believed to be reliable, no warranty expressed or implied is made regarding the accuracy, adequacy, completeness, legality, reliability or usefulness of any information, and this information is provided on an "as is" basis. NO WARRANTIES **ALL IMPLIED** ARE **GIVEN**; WARRANTIES MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. Neither ACC nor APR assumes any liability of any kind whatsoever resulting from the use of or reliance upon any information, conclusions, or options contained herein.

The Association of Postconsumer Plastic Recyclers and the Plastics Division of the American Chemistry Council produced this report.

The United States National Postconsumer Plastics Bottle Recycling Report is published by the Association of Postconsumer Plastic Recyclers and the Plastics Division of the American Chemistry Council.