

# The Current State of Recycling



## in Pennsylvania

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**R**ecycling in Pennsylvania was kicked into gear back in 1988 with the passage of the Municipal Waste Planning Recycling and Waste Reduction Act (Act 101). The Act requires certain communities, based on population, to recycle. It further requires each county to develop county plans to manage its own wastes and assure a minimum of ten years disposal capacity.

So, how far have we come and what remains to be achieved?

Your county recycling coordinator is a great resource. These folks have their finger on the pulse of recycling in your county.

Coming from a county recycling coordinator perspective this article is designed to give the reader a snapshot of what recycling looks like today, the challenges, the opportunities, and what is needed to sustain and grow recycling in Pennsylvania.

### ACCESS TO RECYCLING

Today, more than 11.6 million residents, at least 94% of the state's population, have access to recycling. About 79% have convenient access to recycling through about 1,050 curbside pickup programs. Since Pennsylvania is largely rural, 870 drop-off programs extend recycling to a number of additional communities. While 94% access is good, we still have underserved areas across the state.

Additionally, many municipalities and counties offer recycling, composting, and/or safe waste disposal programs for special materials such as tires, white goods, household hazardous waste (HHW), electronics, and yard/wood waste.

## AMOUNT OF RECYCLING

Since the state started tracking recycling data the amount of tons recycled per year has been on the increase. Publicly available data shows that for 2016 Pennsylvania recycled more than 7.84 million tons of recyclables, 4.80 million tons in 2006 and just 2.55 million tons in 1996. So, in terms of growth, we've seen an average increase of 75% per decade.

## PROGRAMS OFFERED

One size doesn't fit all, which is why recycling programs differ across the state from curbside collections to public drop-off programs. Programs serviced by both private and public sector entities with some public programs relying on volunteer labor to keep their programs sustainable.

We have seen source-separated collections move to single stream collections and unstaffed drop-off sites evolve into gated card key entry only drop-off sites. Programs transition depending on the local community's needs or available service capacity.

The biggest transition over the past decade has been a transition from source separated collection to single stream collection. Lycoming County Recycling Coordinator Lauren Strausser shares with us their experience with single

stream, "Single stream recycling eliminates the need to separate your household recycling allowing the convenience of disposing all recyclable materials into one container. Although single stream allows for more types of materials to be recycled, there has been an increase of "wishful recycling," this is when people believe or want an item to be accepted even if it's not. This can also be observed at the source separated drop off sites (predominantly for plastics). Contamination and unwanted materials have always been a concern, which is why it is important to invest in proper educational outreach methods. Especially since the recycling markets have been down for a few years, it is becoming more difficult to maintain a sustainable recycling program."

## WHAT'S GETTING RECYCLED?

Curbside and drop-off programs typically accept aluminum and steel cans, glass bottles, jars, plastic



bottles, jugs and paper. Over the past decade our municipal solid waste (MSW) composition has evolved. We are seeing less newsprint, office paper, glass containers, more plastic packaging and corrugated cardboard.

Additionally, we are seeing lighter weighted aluminum, steel and plastic containers. Packaging innovation has resulted in the production of lightweight packaging, such as multilayer, multi-resin pouches, and more products in shelf-stable aseptic cartons. Unfortunately, many recycling programs do not accept these materials due to market limitations.



Glass, one of the heaviest commodities recycled, has been dropping from programs across the state due to processing and contamination issues. This changing waste stream means material recovery facilities (MRFs) are handling lighter weight materials with less scrap value.

## RECYCLING IS NOT FREE

Regardless of the type of recycling program, one thing they all have in common is the services are not free. Sure, perhaps as a resident you don't receive a direct invoice for service but there most definitely are costs associated with providing those services. Costs associated with the collection, transportation, processing and marketing of those recyclables.

## REVENUE FROM SALE OF RECYCLABLES & STATE GRANTS ARE INSUFFICIENT

Revenue from the sale of recyclables is insufficient to financially sustain recycling programs. Even

when you throw into the mix state recycling grants it still may not be enough. This is particularly true in less populated areas of the state. Smaller populations equate to fewer mandated recycling communities and less private sector provided services, resulting in many counties filling the gap in recycling services.

## STATE RECYCLING GRANT FUNDS ARE ROUTINELY RAIDED FOR NON-RECYCLING USES

The annual revenue for the State Recycling Grants Fund has decreased over the years and has leveled out to around \$38 million. Additionally, based on the current cost of living index, the \$2/ton fee established in 1988 to fund recycling, adjusted for inflation, is currently worth just \$.97/ton.

As there are fewer funds available the state has adjusted how much they distribute and additional requirements for accessing those funds have been implemented.

While counties and municipalities have less available state recycling grant dollars to draw upon to sustain their programs, state legislators believe that the State Recycling Grants Fund is rich with surpluses. As such these funds, along with other special state funds, have been raided routinely over the past number of years. These "surpluses" actually contain encumbered funds already committed to many county and local municipalities and are paid out over several years.

In recent years, the following amounts were transferred from the State Recycling Fund to the General Fund: \$15 million in 2008/09; \$9 million in 2016/17; \$15 million in 2017/18; and \$10 million in 2019/20.

## MARKETS

One of the biggest impacts on recycling over the past few years has been China's new waste import policy (China National Sword). As one of the largest consumers of recyclables China has banned the importation of certain types of recyclables, as well as set strict contamination limits on recyclable materials. No longer will they accept shipments that are mixed with trash, the wrong type of recyclable, or low-quality recyclables.

While market fluctuation is not new to recycling, China's new waste import policy has severely impacted the global market for recyclable material. The major recycling commodities that have been impacted have been mixed paper, mixed plastics and corrugated containers. It's all about supply and demand. Now supply is greater than demand severely diminishing the value of these materials.



*Lycoming County Resource Management Services, Single Stream Facility*

## CONTAMINATION & WISH-CYCLING

While contamination has always been an important factor in recycling, China's new waste import policy restrictions on contamination have been the most hurtful in terms of recycling revenue. The acceptable level of contamination in scrap and recyclable materials not banned is now expected to have a contamination level no greater than 0.5%. China's National Sword has contributed substantially to a 50% reduction in the revenues received from the sale of recyclables recovered through curbside recycling.

Waste Management, a significant collector and processor of recyclables in Pennsylvania notified many recycling coordinators across the state of the huge impact contamination has had on their recycling operations. Effective immediately they would be rejecting obviously contaminated loads and eliminating, where possible, glass from their recycling programs.

In fact, that has been the case as glass has dropped from a number of recycling programs over the past few years. We have also seen certain plastics (#3, 4, 5 and 7) be eliminated from recycling programs as well. Penalized thousands of dollars by their contractor for the contamination mixed with the recycling, counties such as Crawford and Erie have completely eliminated their programs.

This concern was echoed by Lawrence County Recycling Coordinator Jerry Zona, "We've watched other regional programs shuttered due to contamination and the pen-

alties that came with it. Our RFP included safeguards against penalties but, overall, our current cost of approximately \$200,000 (both Mercer and Lawrence annually) for the program would have increased to almost \$360,000. That was not an economically sustainable option for our counties. Ultimately, we decided to eliminate the bottles, jugs, cans and jars from our program rather than close sites. Although disappointing, this change allowed us to push forward without closing sites while remaining within our budget constraints."

Wish-cycling, as mentioned earlier, which is the practice of folks placing unacceptable items into the recycling bin with the wishful thinking it gets recycled, is a serious contributor to contamination. When a batch of recyclables is contaminated, there's a good chance it'll be rejected and end up in a landfill. Contamination drives up costs, limits the ability to market recyclables, and decreases the value of what is recycled.

## THE BENEFITS OF RECYCLING

It seems that every time recycling is faced with a challenge the benefit of recycling is questioned. Selling folks on the environmental benefits alone is no longer sufficient in today's environment where climate change is believed by some to be a hoax. It's just as important, if not more so, to show the economic benefits as well.

The Pennsylvania Recycling Markets Center (RMC) released an economic study that evaluated the economic impact of recycling within our state. What they found

was that across Pennsylvania, the recycling marketplace supported 175,586 jobs, stimulated \$50.9 billion in sales, and produced \$511.2 billion in wages. Wages were 23% above the Pennsylvania average, sales activity was valued at \$50.9 billion, \$22.6 billion was contributed to Pennsylvania's Gross State Product and \$4.4 billion was paid in federal, state, and local taxes.

When you combine the economic benefits with the environmental benefits, also reported in this study, then we have some solid compelling reasons why you should support your local recycling program.

## ILLEGAL DUMPING/ ELECTRONICS (CDRA)

Even with the strides we have made in terms of providing recycling and safe disposal options for Pennsylvanians, illegal dumping continues to plague the state. If folks think illegal dumping is just a rural problem; think again.

Recently, Keep Pennsylvania Beautiful commissioned a survey of nine cities on the money they spend to manage litter and illegal dumping. Participating cities included: Allentown, Altoona, Erie, Harrisburg, Lancaster, Philadelphia, Pittsburgh, Reading and Scranton. What they found was that the cities collectively spend more than \$68 million/year on prevention, education, cleanup and enforcement to address litter and illegal dumping, and 80% of these costs go toward cleanup.

Adding to an already tasking problem is the Covered Device Recycling Act (Act 108 of 2010). The

Act established free manufacturer recycling programs for residents and a disposal ban for all covered electronic devices. The devices covered by the law include TVs, desktop and laptop computers, computer monitors, and peripherals (anything that connects to a computer such as a mouse, printer, keyboard, hard drive, etc.).

All covered devices were to be recycled at no cost. To further ensure these electronics were dealt with properly, landfills and other solid waste disposal facilities could no longer accept these items or their components.



This legislation, however, did not work out as intended. Many residents across the state don't have access to these manufacturer-sponsored "free" electronic recycling programs. What happens when counties have no available electronics recycling outlet, or an affordable recycling option and their garbage man is not allowed to take that old TV? Well, sadly, it has caused an upsurge in the illegal dumping of electronics.

In some parts of the state, residents travel 50+ miles to get to an e-waste recycling facility or collection event and then end up paying 60 cents per pound for their old television. Legislation aimed at addressing the issue has gone nowhere for way too many years.

According to Clinton County Recycling Coordinator Mike Crist, "The Clinton County Solid Waste Authority has offered electronics recycling since 2005. At the beginning of 2018, the Authority switched from a free residential electronics recycling program to a fee-based program in an effort to cope with the issues created by the CDRA. It is our opinion that the Act should be amended to make electronic recycling sustainable throughout the commonwealth. One way to do this would be to remove CRT devices from the list of banned landfill materials."

## RECYCLING PROGRAM SUSTAINABILITY

So, given the current conditions, what does the future hold for recycling in Pennsylvania? While we have lost a number of recycling programs along the way, many of our programs are still stand-

ing, albeit perhaps offering less services than previously. We are determined to keep our programs operational into the foreseeable future. We have learned to adapt, be more creative, more resourceful, and rely more than ever on our communities' continued support.

The key message your county recycling coordinator wants you to know is that there is still strong public support for recycling in Pennsylvania regardless of age or geographic location. Fellow Centre County Recycling Coordinator Joanne Shafer sums that message up perfectly, "A whole generation of Pennsylvanians have grown up with the concept that recycling is expected. More Pennsylvanians recycle than vote. But the notion that it is cost-free and self-supporting is a fallacy. With current market conditions, support for local recycling programs is needed more than ever. Local recycling programs mean local jobs for local people."

There is still work to be done. Large quantities of marketable materials continue to be disposed of instead of recycled. Legislative fixes are needed to address those impediments mentioned earlier related to sustaining recycling programs, providing additional recycling options to the underserved, and providing convenient and affordable access to electronics recycling. Opportunities exist for those recyclable materials that either are no longer sent overseas or currently go into a landfill.

Opportunities exist to create new products and new jobs here in the United States ... here in our great Commonwealth of Pennsylvania. ▀