SWANA Pennsylvania Keystone Chapter
SOLID WASTE ASSOCIATION OF NORTH AMERICA

The Keystone Keystone

2022 Winter Edition

Written For the Solid Waste Professionals of the Keystone Chapter SWANA

Inside this issue

A Message from the Keystone SWANA President: Denise Wessels

22nd Annual Joint Fall Conference a Resounding Success

After being apart for the last three years due to the pandemic, it was fantastic to be together in person again in September. The 2022 Annual Joint Fall Conference was the 22nd such event held by Keystone SWANA in conjunction with the Pennsylvania Waste Industries Association. The 285 attendees maxed out the capacity of the ballroom. Even better, the feedback was resoundingly positive. We really missed each other and relished the chance to reconnect. It was also nice to take a moment to remember the importance of the work we do in this industry providing an essential service to society. Mark your calendars for next year's conference scheduled for September 5 through 7, 2023.

I would like to encourage our members (you!) to get active in helping our Chapter be successful. We have many committees to choose from to suit your interests whether it is getting involved in the Scholarship Committee to review applications or with the Program and Training Committee to help plan events, among many others. All the committees are listed at the end of this newsletter. Or reach out to us at contact@keystoneswana.org to let us know how you are interested in getting involved.

Speaking of Programs & Training, stay tuned to our website and periodic email blasts for a new slate of informative events coming in 2023. Please do let us know (same email address as above) of any ideas you have for Mini-Technical seminars as we're always looking for topics and venues, whether you have a project you want to show off or there's a subject you want to learn about.

On behalf of the Keystone Chapter of SWANA, I want to wish you all a safe and happy holiday season.

Sincerely,
Denise Wessels, President, Keystone SWANA

Meet Keystone SWANAs New Officers!

The votes were cast and the results are in. The Keystone Chapter has some new faces among the Officers and Directors. If you haven't done so yet, please introduce yourself to the new Chapter Officers:

- President: Denise Wessels
- Vice-President: Scot Sample
- Secretary: Ashely Dobak
- Treasurer: Mike Brubaker

More information on Officers and Directors is included on the Keystone SWANA website or at the end of this newsletter.

Written By: Keystone SWANA Staff

President, Michele Nestor passes the reins to newly elected President, Denise Wessels Many thanks for your service, Michele!

Photo Credit: Keystone SWANA Website

(From Left to Right) Carolyn Witwer, Penn Waste/Eagle Disposal; Skip Garner, Greater Lebanon Refuse Authority; Denise Wessels, SCS Engineers; Dan Brown, LCSWMA; Jill Hamill, Civil & Environmental Consultants; Ashley Dobak, Barton & Loguidice; Mike Brubaker, LCSWMA Board; Brandon Comer, ARM Group; and Scot Sample, Northern Tier Solid Waste Authority.

Photo Credit: Keystone SWANA Website

Keystone SWANA's Own Places 1st in International Road-E-O

A Wayne Township Landfill employee is making his mark outside of the business. Chase Weise attended the SWANA International Road-E-O in El Paso, Texas, on Oct. 14 and 15. He took home first place in the Top Gun: Landfill competition and the Landfill: Articulated Dump Truck competition. Weise represented WTL in each.

The competitions involve an obstacle course operators have to run through, according to Weise. *"This year was exceptionally tough, I thought, from years past,"* he said.

Chase finished in a close second place during the Mid-Atlantic Road-E-O back in May, earning him a spot in the international competition where he received first place with an overall score of 48 points. He has won several times in a haul truck as well as in a front-end wheel loader. This was Weise's ninth year competing at the national level.

"It was a nice trip, the weather was good, a lot of nice people," Weise said. *"There were 70-80 competitors in just the landfill side, so it was a pretty big deal."* Weise and two others, a truck driver and another landfill employee, competed in Texas last month. Weise was the only one that placed in the top three.

SWANA has a competition for trucking and equipment. There are multiple different classes for both competitions including: the overall Top Gun competition for mechanics, landfill operators and truck operators; a truck competition for tractor trailers, front loaders, tire loaders, roll offs, side loaders and rear loaders; the mechanic competition for both landfills and trucks; and the landfill competition with compactors, dozers and articulated dump trucks.

After the competition is over, they hold a dinner for everyone along with an awards ceremony, where Weise received his two trophies. He has gone to nationals in Texas, Colorado, Arizona and Georgia. "*Next year I believe it's going to be in Denver. Never been too much on the East Coast, it's normally out west somewhere,"* he said. Weise is planning on competing next year in hopes of bringing back another win for himself and the landfill.

By: Chase Bottorf, The Express
Edited by: Alison D'Airo
Published Date: November 11, 2022
Source: https://www.lockhaven.com/news/local-news/2022/11/landfill-employee-takes-first-place-in-international-competition/

Pictured (left to right) are, Commissioner Angela Harding, Jim Lovette, Fred Beury, Jay Alexander, Chase Weise, Terry Weaver, Linda Leonard, Bruce Peters and Jim Maguire.

Photo Credit: Chase Bottorf, The Express

Words from the Keystone SWANA Scholarship Recipients

The Keystone SWANA Chapter would like to congratulate the most recent scholarship recipients!

- Cala Martino,
  Grant H. Flint International Scholarship, Category I
- Luke Moser,
  Grant H. Flint International Scholarship, Category I
- Greysone Simms,
  Grant H. Flint International Scholarship, Category I
- Brett Smith,
  Grant H. Flint International Scholarship, Category I
- Larissa Pasco,
  Grant H. Flint International Scholarship, Category II

The Keystone Chapter offers three scholarships for eligible candidates:

- **Grant H. Flint International Scholarship Program Category I** for graduating high school seniors or graduate equivalent certified candidates who have been accepted for enrollment in a junior college, a four-year college, or a university (any program).
- **Grant H. Flint International Scholarship Program Category II** for currently enrolled full-time college or university students who are entering their junior or senior undergraduate year and pursuing a degree in environmental science, engineering, or other suitable major related to the field of solid waste management.
- **Robert P. Stearns/SCS Engineers Scholarship Award** for Full-time students who are entering or are in graduate school pursuing a degree in environmental science, engineering or other suitable major related to the field of solid waste management.

If you or someone in your family is interested in applying for a scholarship, the scholarship application period will open in February 2023. Applications for the next round of scholarship awards are due on May 1, 2023. Eligible candidates must be children or grandchildren of a SWANA Member (sponsor) in good standing as of May 2nd or SWANA Student Members in good standing.

Keep reading to see what our recipients are saying!

Diverting Paints from Landfills

By: Cala Martino

Landfills are being filled with recyclable materials that are causing environmental issues which can be fixed by recycling them properly. Oil based paints are one of the many recyclables that are being put into landfills. They are creating smog and toxins that are leaching into waterways along with forming flammable gasses. In many cases leftover paints are being dumped into landfills and are exposing the ecosystem to the toxins.

On April 1, 2021 Washington state agreed on creating a law to properly manage leftover paint while giving the nonprofit, PaintCare, organization the authority to manage the collection and disposal of the leftover paint. On May 2, 2022 PaintCare announced the progress of the Washington paint recycling program. In the first nine months of the program, PaintCare collected 581,363 gallons of paint making sure that landfills are being properly used.

Although PaintCare was able to collect it; without the producers/manufacturers and consumers taking the initiative to use one of the many locations available to properly recycle the paints, that number would never have been attainable.

On the other hand, one of PaintCare's services they provided was setting up 210 drop off locations throughout Washington state. PaintCare also offers free on-location pickup to businesses, organizations, and households with 100 gallons of paint or more to recycle. PaintCare then completes the process by handling the actual recycling whether that means reusing the paint if possible, or recycling it.

I believe this is a collaborative effort. No matter how easy it is, consumers still have to take the initiative to recycle their paint. The professionals have the ability and resources to simplify the process and provide the tools necessary to make it easier for more people to recycle their paint instead of just throwing it in the trash. Ultimately both parties bear the responsibility to protect the ecosystem.

Landfill Gas and Climate Change

By: Luke Moser

Carbon dioxide, methane, and nitrous oxide are greenhouse gases that have an influence on the earth's energy balance and have been linked to both global warming and climate change. These gases have been identified as causing the greenhouse effect. The greenhouse effect occurs when the sun's heat is trapped and held close to the Earth's surface instead of allowing it to release into space. These increasing greenhouse gases in our atmosphere are causing global temperatures to rise and climate change to occur. To reduce the effect of global warming, it is important that we review our sources of these gases and develop ways to increase efficiency and reduce their output into our atmosphere.

Although each of these gases can be found naturally in low concentrations in the Earth's atmosphere, they can also be human made. Recent decades have shown significant population and economic growth in the world, which has resulted in increased emissions of carbon dioxide and other greenhouse gases. Most everything we make or use in society requires energy and creates garbage and waste. Most of this waste cannot be recycled or reused. Rather, it is transported to a landfill where it is disposed of under layers of soil. Once the organic waste is buried, it decays, and the byproduct of this decomposition is landfill gas. This gas is composed of methane, carbon dioxide, and a small amount of non-methane organic compounds. While each of these are greenhouse gases, methane is a potent gas that is very effective at trapping heat in the atmosphere. As a result, it is essential to consider landfill gas management as a means of reducing gas emission and the greenhouse effect.

As solid waste landfills are reported to be the third largest source of human related methane emissions in the United States, it is clear they have a significant role to play in reducing greenhouse gases, and that solid waste managers need to look for ways to increase efficiency and reduce these emissions. Landfill gases can be captured, converted, and used as a renewable energy resource. These gases are extracted from landfills using gas extraction wells and a blower, which creates negative pressure within the landfill to minimize emissions into the atmosphere. This system directs the collected gas to where it can be processed and treated. Treated landfill gas can then be flared, turned into a usable energy form or be beneficially used in landfill gas energy projects such as gas engine projects, direct pipeline projects, and renewable natural gas projects. These projects can generate revenue and create jobs. There are many options available for converting landfill gas into energy, and utilization of these gases not only helps to reduce odors and other hazards associated with landfill gas emissions, but also helps to prevent methane from entering the atmosphere and contributing to global warming and climate change.

We know the world is now warming faster than at any point in recorded history. As global warming concerns continue to plague the planet, humans need to reduce the greenhouse emissions we release into our environment. Landfill gas collection systems are one way this can be done. They are designed to collect these harmful gases and turn them into useful forms such as fuel for engines and boilers, and renewable natural gas for heating and other domestic purposes. As a result, it is essential for solid waste managers to continue to look for ways to be more efficient in collecting landfill gas to reduce the amount of greenhouse gases being released by landfills.

Evolutions in Solid Waste Management

By: Greysone Simms

From the birth of humankind, the basic needs for survival resulted in the simplest form of waste management. To survive and thrive, one needed to make the absolute most out of any resources available. Often those who were most skilled at simple waste management were the ones who exceeded the basic needs to survive. It was not enough for the hunter or gatherer to provide food; it was necessary for the hunters and gathers to utilize everything provided in

Save the Date!

For the Mid-Atlantic Regional Road-E-O

Mark your calendars for May 18 & 19, 2023 and begin to decide to have or to recruit members of your field staff to participate in the contests. The contests at the upcoming Road-E-O will include the following (assuming a minimum number of three registrants for each category):

Heavy landfill equipment

- Compactor
- Dozer
- Wheel loader
- Articulated Dump Truck

Trucks

- Front Loader
- Rear Loader
- Roll-off

Besides contestants, we are also seeking volunteers to help run the event serving the Road-E-O Committee and being onsite at the event. We will also need sponsors, who will receive various levels of advertising/recognition, depending on the sponsorship levels. If you know of any vendor or company who services the industry and may be interested in sponsoring the Road-E-O, please contact them or send their names and contact information to David Horne.

If you would like to register or have any questions, contact David Horne (dhorne@ccgov.org) or at 410-996-6275. Additional information is also posted on the Keystone SWANA website: *keystoneswana.org*.

Who: Members of the Mid-Atlantic (Maryland, DC, and Virginia), New Jersey, and Keystone (Pennsylvania) Chapters

When: May 18, 2023 at 6:00 pm for dinner &
May 19, 2023 for breakfast, competition, & lunch

Where: Cecil County Central Landfill,
758 E. Old Philadelphia Road,
Elkton, MD 21921

their bounties to fulfil other needs besides nourishment. The goal was to utilize every resource provided. This philosophy was a very simple form of waste management netting in very little or zero solid waste.

Fast forward to today and almost every aspect in our lives generates waste. Factoring growing population rates, the amount of waste our society produces has become a huge environmental problem. Every day news almost always includes some mention of waste or recycling and its impact on our environment. Global warming is critical to address before its too late to correct.

In my opinion those who manage waste are leading the charge. Waste management has evolved from the days where waste was pushed into pits or put in the river; out of site out of mind. The industry has become highly regulated by aspects of government. Landfills are lined so waste cannot seep into the ground causing contaminated water sources. Often landfills gather methane which is converted into energy. Incinerators have evolved to become much more efficient and less harmful to the environment. The solid waste industry has evolved further with reusing or recycling. Bio digesters convert waste to energy and organics has become a more recent route for waste. Given the circumstances, I believe those who manage the waste have been the leaders in tackling the environmental problems that seem to be current events or daily news topics.

Consumers of products and government, I believe, are in similar categories for responsibility in our pollution issues. Consumers and government seem to want to do the right thing. However, no one can determine what the right this actually is. Consumers range from *"tree huggers"* who want to recycle and reuse everything to those who don't believe there are any environmental issues to even worry about and consider global warming a hoax concocted by the *"tree huggers"*. Consumers should become more educated to the facts and realize a cookie cutter approach does not fit all and that anything that can be done to help

save our environment should be done regardless of news media or conspiracy theories. Wishful recycling is just as much of a problem as not recycling. And in this day in age, not participating in recycling should not be an option. The same can be said to our politicians. The pollution impacts on our environment should not be political. This is a matter of common sense not left or right.

Ultimately, the most significant impact to the solid waste industry and waste management should come from the manufacturer or produced of goods. There are so many opportunities for manufacturers to improve the products generated to produce less waste for the consumer to deal with. *"Thrive Marketplace"* is a company that comes to mind that is sort of a poster child for this model. The company provides almost anything a grocery store can provide. The Thrive business model is that all products are natural and organic, as well as organically sourced. They use zero waste warehousing and sustainable packaging. Products are in concentrates and all packaging used for products is recyclable and biodegradable. This should be the norm and not a small company providing products to those who care about being environmentally responsible. All businesses should look at this model and make a more conscious effort to minimize the impacts to our environment.

Everyone Plays A Role in Climate Change

By: Brett Smith

An environmental issue that has been in the news is climate change and the negative impacts of emitting too much carbon dioxide and methane gas into the environment. During my summer job at the landfill as a laborer, I was fortunate enough to see and learn about the facility's gas processing plant where they convert landfill gas into renewable natural gas This renewable natural gas was then put into a gas pipeline and used to fuel the company's garbage trucks. This is just one way landfilling is playing a major role addressing climate change.

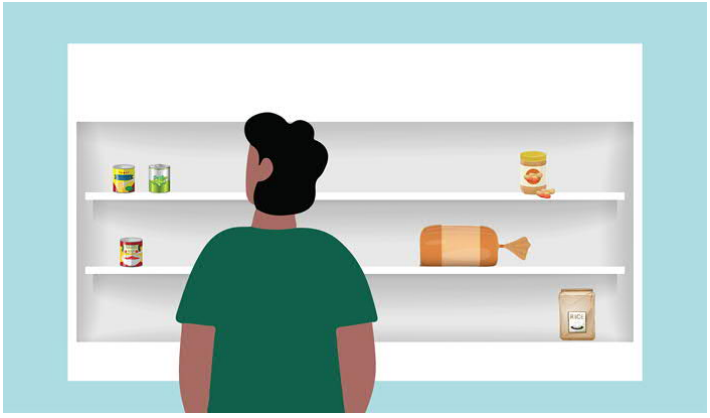
The landfill gas is made up of approximately 50 percent carbon dioxide and 50 percent methane and historically landfills has burned off their landfill gas through a flare. Landfills now process the landfill gas and separate the carbon dioxide molecules from the methane molecules. The methane is considered the renewable natural gas. The landfills are not only capturing the methane, they are also fueling their own garbage trucks and vehicles with the methane instead of using diesel or gasoline. This procedure has a positive impact in two ways as the landfills are not burning as much gas into the air and the garbage trucks are burning cleaner fuel. According to the U.S. Energy Information Administration, burning natural gas results in fewer emissions of nearly all types of air pollutants and carbon dioxide.

Climate change and managing waste is everyone's responsibility and not just the responsibility of the waste professionals. Since I was young in elementary school as well as at home, we were taught about the three R's; Reduce, Reuse, Recycle. This thought process needs to be done by companies and individuals alike before products are made and the waste or pollution is generated. This will help reduce the amount and different types of garbage that is generated and in turn reduce the potential for pollution. If everyone is making a conscious effort to reduce the amount of waste they generate, reuse products and containers, as well as recycle their own waste we can have a positive impact on climate change.

Reducing Food Waste Through Sustainable Practices - How an App Can Help

By: Larissa Pasco

Sustainability seeks to redefine the status quo and works to ensure social, environmental, and economic prosperity for all. The Environmental Protection Agency (EPA) found that in 2018 alone about 63 million tons of wasted food were generated in the commercial, institutional, and residential sectors. When food is old, and the waste is not



recovered or composted, the remnants add to landfills. While food waste contributes to much of the world's environmental concerns, food also has a significant impact on social issues around the world. For example, food insecurity, which is defined as the state of being without reliable access to a sufficient quality of affordable, nutritious food, has risen on college campuses. Food waste intersects with food insecurity because of the inefficiency of systems that, in many cases, can become solutions for each other. While attending events, I saw food constantly being thrown out after the event had ended. Knowing students on campus who were food insecure and seeing this happen all the time was a shocking experience. The issue at my college was not a lack of available food but, was a lack of communication and accessibility. The students who need food the most on-campus may struggle to find out how to discover resources to help themselves. As a junior majoring in sustainability studies and minoring in innovation and entrepreneurship, finding creative solutions to existing problems is my passion. I serve as the lead sustainability intern with Dining Services at Muhlenberg College. I focus on finding a way to help students both save money and reduce or prevent food waste from occurring on my campus. A survey conducted in 2020 by the Hope Center for College, Community, and Justice found that 45% of students reported recent struggles to afford or access food before COVID-19. Food insecurity is a tough topic for many students as hunger affects physical and mental well-being which in turn can be reflected in poor academic performance.

Through the iMuhlenberg App, *"Berg Bites"* serves as an opt-in notification system for students to alert them when there is excess food at on-campus events. I noticed how the Berg Bites program was in place but lacked awareness and engagement to solve this prevalent issue. I decided to take on this project as my focus for my internship this fall. By personally sending out notifications to students who signed up they are instantly aware of leftovers from events at no cost. With our small campus size, all students can easily access these foods anytime. I designed captivating posters, promoting sign-ups by tabling and talking about this program to student leaders and organizations, which contributed to the ongoing success of this initiative. My goal is to make sure that every Muhlenberg student knows about the program and can sign up to receive alerts. By harnessing easy-to-use technology, as well as increasing students' familiarity with this program, we can simultaneously save costs associated with food waste, improve the environment and reduce social disparities within our own community.

Recap Corner - YCRRC Mini-Tech and Composting Course

YCRRC Waste-To-Energy Facility Tour

On August 2, 2022 the Keystone SWANA held a mini-technical seminar at the York County Resource Recovery Center (YCRRC) Waste-to-Energy (WTE) facility tour. The tour included an orientation session in the Education Center followed by a walking tour of the main areas of the WTE facility. The tour stops included the tipping floor, turbine generator room, and a mock control room to give participants a behind the scenes look at the facility.

The YCRRC converts all of the combustible municipal solid waste from York County into ash and produces electricity. The facility has been in operation since 1989 and currently operates 24-hours a day, every day of the year, processing 1,344 tons of waste per day. The electricity generated by the facility is sold into the Pennsylvania-New Jersey-Maryland (PJM) grid.

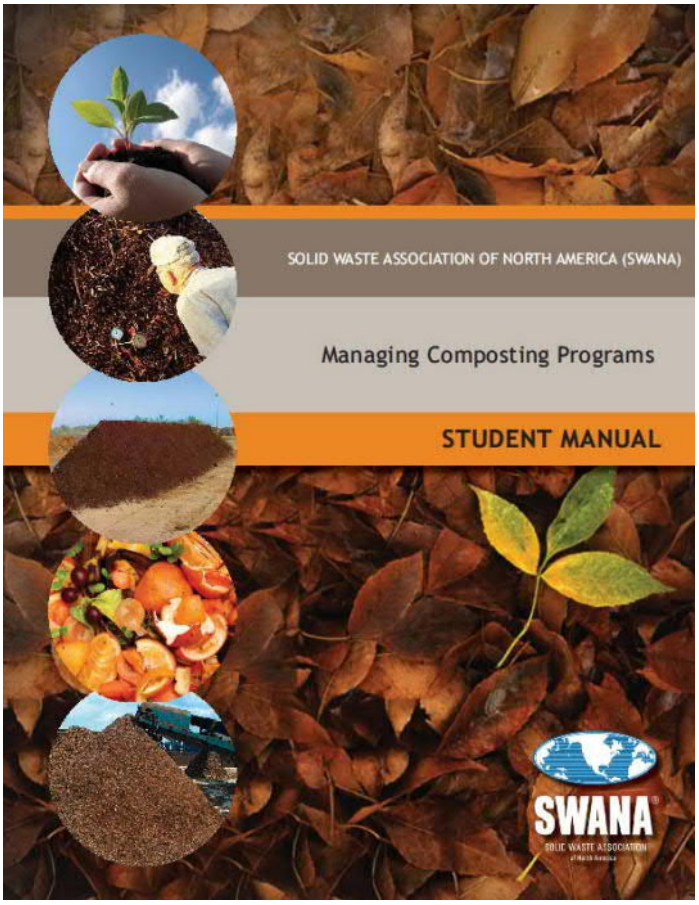
Mini-Tech attendees soaking up the pre-tour orientation.

Photo Credit: Denise Wessels

By: Keystone SWANA Staff
Source: https://keystoneswana.org/upcoming-mini-techs

Tour members inside the mock control room for the YCRRC.

Photo Credit: Denise Wessels



Managing Composting Programs Course

The *"Managing Composting Programs"* course was held October 31 through November 2 at the Civil & Environmental Consultants, Inc. Monroeville, Pennsylvania office. The course was instructed by Michelle Minstrell of Waste Knowledge, LLC, and attended by seven participants. The participants included representatives from both the private and public sector as well as Pennsylvania Department of Environmental Protection officials. Each day consisted of instructor-led presentations and open forum discussions regarding developing compositing programs, best practices, and common issues. The comprehensive class content generated lively discussion from the attendees. The syllabus included opportunities for group work on real-life case studies as well as the biology of composting to cost and market analysis.

Written By: Jill Hamill, Civil & Environmental Consultants Inc.

Attendees dive into Lesson 4 to learn about Composting Methods during the Managing Compost Programs Course.

Photo Credit: Jill Hamill

Encouraging Sustainability Using Waste Fleet Management

Sustainability is top of mind for many businesses, but as an industry that is directly involved in these efforts, waste and recycling haulers have a front-row view into some of the key challenges. For example, Hamilton, IN recently reported 1.65 million pounds of e-waste and hazardous materials that residents had improperly recycled; a frequent mistake known as contamination. In fact, according to the Environmental Protection Agency (EPA), the average recycling contamination rate is 25 percent, or 1 in 4 items, when at the same time the EPA estimates that about 75 percent of the waste produced in the U.S. is recyclable; yet the actual recycling rate is only 34 percent.

When these contaminations happen and haulers are unable to identify cart contaminations at the source, recycling margins inevitably decline, and the percentage of waste produced increases. Today there are sophisticated fleet management technology solutions, designed for waste that can provide actionable data insights, leading to increased compliance and improvement in recycling margins.

Example of a waste fleet management service.

Photo Credit: EROAD

Optimizing Fleet Management for Haulers

The fact remains that recycling is not only a sustainable initiative but can also serve to stimulate the economy and benefit the community. While 94% of Americans reportedly support recycling, many products that are put in recycling bins end up in landfills due to improper practices on the public's part. Unfortunately, these contaminants can have a financial domino effect, starting with the hauler and ending with residents. While public education of proper waste and recycling practices remains a hurdle in the industry, haulers can help combat this challenge while also protecting themselves with the adoption of fleet management systems, such as RFID, for service verification.

With using RFID on bins for service verification, haulers can scan each bin in real-time as proof of service. This important and often underused feature allows the haulers to know where the truck is, where the truck has been, and, most importantly, whether service was performed; eliminating the potential headache of an angry resident. Furthermore, with the use of RFID combined with cameras, haulers can identify cart contamination at the source and use actionable data to then educate customers and reduce violations. With these reporting features, recycling rates inevitably increase, improving margins and helping to meet recycling goals.

When haulers go beyond service verification and adopt additional solutions, such as in-cab information dashboards or cameras, they can also identify which bins were contaminated while at the same time increasing efficiency and boosting revenue. Easily accessible and reliable in-cab applications such as exception recording can allow the driver to record any blocked or contaminated carts, leading to easier resolution of customer complaints and less contamination in general. Furthermore, reliable data and reporting features, such as paperless route sheets or navigation, also contribute greatly to boosted efficiency and minimize any potential mistakes along the way.

Using Your Technology Provider as Your Advocate

Adopting innovative and efficient technology is an excellent step in the right direction, but tech cannot solve everything. This is where having a reliable and experienced waste technology partner comes into play. Waste and recycling is a complicated industry, but when using a provider who is able to act as your advocate and liaison, communications will be streamlined, cutting down on time that haulers could spend increasing efficiencies or improving ROI.

Unfortunately, it is a well-known fact that disputes between haulers and cities are commonplace in the waste industry, and if these disputes become heated, they can start to put a strain on business relationships. Using a reliable partner that can provide real-time data and a single source of truth can help alleviate these pain points and facilitate a harmonious *"marriage"* between hauler and city.

Preparing for What is Next in Waste and Recycling

The waste and recycling industry landscape is constantly evolving through regulations, new technologies and efforts helping to further sustainable practices. By using waste technology such as RFID and cameras, coupled with AI technology, haulers are set up for success to increase efficiencies and revenue as well as identify and decrease the occurrence of contaminants. When these technologies are properly optimized alongside an expert partner in the industry, haulers and cities can avoid the potential headaches of customer disputes while optimizing business efficiencies, increasing the bottom line, and ultimately contributing to the pursuit of sustainability.

Written By: Ben Pettine and Ryan Long, Waste Advantage
Published: August 31, 2022
Source: https://wasteadvantagemag.com/encouraging-sustainability-how-to-best-optimize-waste-fleet-management-solutions/

A Recent Check-Up on Act 101 Identifies Failure to Meet Goals

A new report issued by Pennsylvania Resources Council (PRC) and PennEnvironment Research & Policy Center outlines how Pennsylvania's solid waste laws haven't kept up with the growing problems facing local recycling programs, trash disposal, and significant changes in the items making up Pennsylvania's waste stream. Act 101, the landmark recycling law that made Pennsylvania a leader in 1988 needs multiple updates to meet the demands of today's economy. Together with Eunomia, the groups found that the full potential of this recycling and waste management law in the Keystone State has not been met. PRC and PennEnvironment called on Act 101 to be modernized to address the Commonwealth's growing waste problem, improve public health, clean up the environment and create jobs for Pennsylvanians.

"We live and use products differently than we did in 1988, and we need to modernize our recycling and waste management policies to reflect these differences," said Darren Spielman, Executive Director of Pennsylvania Resources Council. *"Pennsylvania should be moving toward the goals of a zero-waste and circular economy where all post-consumer materials are reused and recycled. We look forward to working with policymakers on the pathways we've proposed to achieve those goals."*

Act 101 established four main goals in order to manage municipal waste, advance recycling, and protect public health and safety. While the Act led to important changes across the state, the new analysis finds that the Commonwealth has fallen short on all four goals: efforts to educate Pennsylvanians about recycling have fallen short due to budget cuts; waste generation has grown; the Commonwealth is not using and procuring recyclable products to the extent it can; and the overall state recycling rate is uncertain due to inadequate data collection.

Challenges in waste management and recycling abound in and across Pennsylvania. Waste generation has grown by 45% between 1990 and 2018. New products are being made that have no good end use plans, such as single-use plastics and e-waste. And recycling funding has been stagnant, which is leading to cities cutting the types and amounts of recycling that they collect.

"Our study shows we have the tools and technical know-how to address this challenge. Now the question is, do we have the political will?," said Faran Savitz, Zero Waste Advocate, PennEnvironment Research & Policy Center. *"There isn't a silver bullet solution to our waste crisis. It requires a concerted effort from all of our leaders targeting every step of the process to really make a difference."*

While it created a necessary foundation for the Commonwealth to kick-start recycling, the report finds that Act 101 is inadequate today. A key challenge has been that recycling requirements differ across municipalities, which impedes the benefits of strong recycling and waste

Photo Credit: PA Environmental Digest Blog

diversion. Examples include:

- Only 475 municipalities are required to offer curbside recycling under Act 101. Voluntary recycling programs, which account for ¾ of the municipal recycling programs in the state (1,520) are not required to meet Act 101 standards. If each municipality was required to meet the same set of standards, it would allow them to jointly contract for services more cost effective.
- Act 101 only requires those municipalities mandated to provide recycling to collect three out of eight listed materials (aluminum cans, steel/tin cans, 3 types of plastic, newsprint, corrugated paper, and clear, brown and green glass). This makes it difficult to coordinate recycling education and messaging across the whole Commonwealth.

PRC and PennEnvironment outline a series of 15 recommendations in the report to improve the state of recycling and waste management in Pennsylvania. Some of these recommendations include:

- Enforcing existing Act 101 provisions such as requiring additional recycling by Commonwealth agencies;
- Developing a mandatory set of materials to be recycled that all municipalities must follow;
- Enacting landfill bans for certain materials, such as aluminum and steel cans, which are endlessly recyclable; and
- Implementing new policies such as "right to repair" legislation that would allow Pennsylvania consumers to have access to tools and services to repair goods rather than dispose of them, as well as deposit return systems for beverage containers.

"The Streets Department is committed to continuously improving its curbside recycling program and working with the Office of Sustainability to identify innovative strategies for achieving the City's zero waste goals," said Scott McGrath, Environmental Services Director, Philadelphia Streets Department. "*Managing other parts of the waste stream in many cases requires a broader statewide solution such as enforcement of commercial recycling requirements where collected materials are combined in a truck that crosses municipal boundaries, recycling of tires, and e-waste."*

The analysis makes clear the environmental and economic benefits of comprehensive waste and recycling policies. Recycling reduces the need to make products from raw materials and thus reduces greenhouse gas (GHG) emissions that drive climate change. For 2018, recycled material offset GHGs equivalent to taking more than 2 million vehicles off the road in one year. In terms of economic benefits, the recycling marketplace employed 66,000 Pennsylvanians directly with another 110,000 more indirect and induced jobs as of 2015. Recycling has contributed $22.6 billion to Pennsylvania's gross state product.

Written By: PennEnvironment
Published: May 31, 2022
Source: https://environmentamerica.org/Pennsylvania/media-center/recycling-rates-dropping-new-report-pennsylvania-resources-council-and-pennenvironment/

7th Annual Pollinator Event at Fairless Draws Big Crowd

The Wildlife Habitat Team at WM's Fairless Landfill hosted more than 60 co-workers, family, friends and neighbors recently for its seventh annual monarch butterfly tagging event in the company's pollinator garden on Pennsbury Road in Falls Twp. Guests, including conservationists of all ages from the Falls Twp. Senior Center and The Pen Ryn School, located monarch caterpillars in the garden and then placed the caterpillars into jars with sprigs of milkweed. The caterpillars fed on the milkweed until entering their chrysalis phase. The animals then spent up to 12 days in this phase before emerging as butterflies.

Event participants took 40 hungry, hungry caterpillars and a supply of milkweed, its favorite food, back with them. The caterpillars were allowed to pupate into a butterfly in the jar which has a screen lid. After the butterflies emerge, the participants will apply tags to their butterfly's wings before releasing them for their migration to Mexico. Identifying information on the tags and release date and location were collected by WM and reported to Monarch Watch, an international organization working to stabilize the butterfly's population.

GMA Team members who supported the event included Judy Archibald, Valerie Castelli, Adriene Fors, Karen Schoedel, Sue Schofield, Marci and Michael Whitby, Patty and Doug Tatum, Paul Bermillo, Carlos Dipres, Bobby Jones, Jeff Lutz, Lawrence Nokes, Eric Oehling, Joe Schuler, Dan Taylor and Charlie Webb.

Submitted by: Adrienne Fors

Industrial Account Manager Karen Schoedel inspects the monarch butterfly caterpillar she took home from WM's pollinator event in Bucks County. (Upper Left)

A caterpillar munching on milkweed as it's placed into a jar (Upper Right)

Ella Castelli, 4, niece of Senior Financial Analyst Valerie Castelli, with a monarch caterpillar that she got to take home with her family. (Right)

Billing Clerk Lawrence Nokes and Jordana Nokes of Ewing, N.J., took home a pair of monarch caterpillars. (Lower Right)

Photos Credit: Waste Management

"I Went to Trash School" - One DSNYers Training Experience

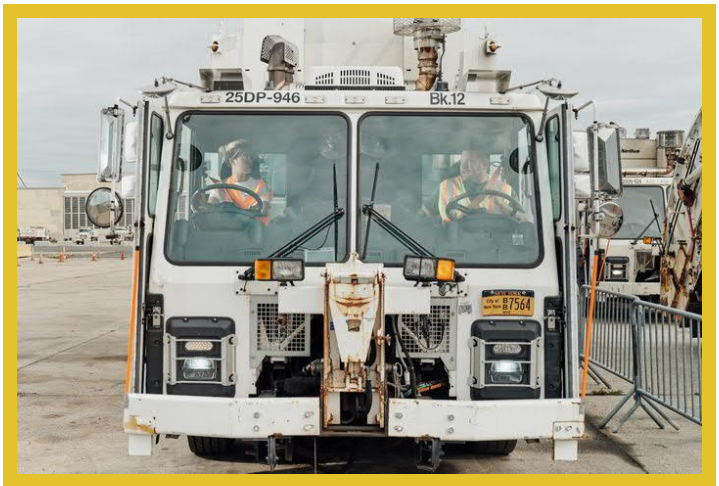
The white elephant, as it is sometimes affectionately called, is the Department of Sanitation's standard collection truck. There are currently 2,100 of them in the city fleet, all standing nearly 12 feet high and 33 feet long. The vehicle's tailgate, the overhanging rear end that raises skyward while the truck dumps mounds of garbage, is held in place with two locking pins, like hinge joints in a massive body. Hydraulic oil pumps through vein-like cylinders, with a nervous system composed of color-coded levers: red, red, black.

At 6:30 a.m. on a Wednesday morning in August, as the sun burns off the ocean mist at Floyd Bennett Field, I am standing alongside around a dozen other people, staring into the elephant's hopper, the familiar gaping maw into which workers feed trash bags, as it slowly closes shut with a satisfying clank. The hulking blade that compacts the trash moves in a single, sweeping motion. We watch with quiet concentration. Over the sound of the rusty metal, the man operating the truck, in black sunglasses and a crew cut, yells: *"Garbage goes in, then what goes out?"* In unison, we respond: *"Juice!"*

Trash juice, the viscous concoction brewed by the contents of every truck, and its habit of spraying out of bags as they're compacted, is a major theme at the Department of Sanitation's Ronald F. DiCarlo Training Academy, where I have unofficially joined New York's Strongest for two days to try and learn how to collect, sort, and dump the 12,000 tons of trash the city produces on a daily basis. *"In New York City, nobody finishes a cup of coffee,"* our instructor, Sergio Serrano, a spirited DSNY veteran with a bushy beard that I assume is full of knowledge, tells us. *"You will know the flavor of the month and come to hate the flavor of the month."* To emphasize the point, Joe O'Hare, another instructor who works at the same garage, shouts, *"Pumpkin spice latte!"*

The cohort of trainees I'm with are largely dressed in DSNY-branded green shirts (with mandated reflective stripes for visibility). The uniform has become a coveted streetwear item, and when I arrived that morning I thought I might get one. Instead, I'm issued a gigantic orange vest that makes me look like a baby, but maybe, I hope to myself, one with an important job to do.

The group I'm with is just one crew among the 141 trainees going through Trash School this month. We're assembled at different stations, most of them trucks, positioned around what was once the city's first municipal airport. Because there is no actual garbage in the training field, we must imagine bags of trash and piles of disassembled furniture as we go through the motions of loading the trucks. We rotate between four different vehicles; a front-loading E-Z pack that hoists dumpsters, a salt spreader for snow control, a split-body truck for recyclables, and the aforementioned white elephant. My fellow trainee Lynn Haynes dutifully listens to the instructors' every word as she prepares for her turn. We briefly confer, agreeing that the spreader is the easiest. When we get to the collection truck, someone pulls the lever and the tailgate lifts. Suddenly, a brackish liquid the consistency of spittle pours out, and we step back to avoid the splash. *"Juice,"* Haynes says, pointing to it. *"Juice,"* I repeat solemnly.



DSNY trainer Matt Prevosti [not me (Clio Chang)] drives the "White Elephant" through the obstacle course.

Photo Credit: Thomas Prior, Curbed

The Job

The DSNY civil service test is typically offered every four to five years, but a pause in the early pandemic meant that the last time the test took place was in 2015, when over 80,000 people sat for it, including everyone I'm pretend-loading trash trucks with at seven in the morning in 80-degree heat. Some trainees, an instructor told me, had forgotten they'd taken it altogether.

Getting to Floyd Bennett Field means you've passed the test and are among the lucky few to get a call from the city in its latest hiring round; the last person hired from the current class was number 11,080 on the list. The basic training runs for a month, and takes place multiple times over the summer. It includes everything from defensive driving to fitting snow chains on tires. I'm allowed to do everything except drive the truck, something the chief of training is very firm on, and which I spend the next 48 hours trying and failing to change his mind about.

The other trainees, each of whom can drive the truck, are former corrections officers, teachers, photojournalists, and tech workers. The stories of what brought them there were familiar: too few hours, bad pay, layoffs. One told me he made his son take the test with him and now they were both DSNY employees. Another took the test in high school because his dad was a DSNY worker. In fact, over a quarter of the trainees had family on the job.

Haynes seems to be one of the few people who took the job because she loves trash (compost, specifically) and shows me photos of her garden containing a fig tree and candy-stripe peppers while we chat about the finer points of decaying organic material.

All of DSNY's 141 Newest Employees site for a 6 am roll call on their first week of basic training.

Photo Credit: Thomas Prior, Curbed

The job can be about as gross as you might imagine. Instructors rattle off the most repulsive things they've encountered on their routes with bravado; a pig's head, an entire lamb, *"disco rice,"* which is a deceptively appetizing name for maggots. But it's also a union job and a clear path to a middle-class life in the city. The starting salary is $40,622, which more than doubles after five and a half years on the job. There's a pension, and opportunities for overtime and growth. Trainers told me that the hardest part of the job was the schedule, which can be erratic in early years and difficult to maintain with a family, but everyone seemed relieved to be there.

For decades, DSNY workers made far less than city cops and firefighters, and worked in dangerous conditions without sick time and for lower pensions. But in February of 1968, the department's 10,000 uniformed workers went on a wildcat strike, led by their union founder and president John DeLury. Tens of thousands of pounds of trash accumulated over a week, with a major snowstorm threatening to bury it all. Then-Mayor John Lindsay claimed that if the city submitted to the sanitation workers' demands, *"seldom again would a municipal contract be agreed to on its merits. The only weapon will be raw, self-interested power."* The union won, securing better wages and benefits. One striking worker recalled stepping back out onto his route in the South Bronx to sounds of applause.

More than half a century later, with more strikes holding the line, a job with the department now meant saving up for a house, good insurance, a respected career. Twenty-two years, the amount of time until DSNY employees can begin drawing on their pension, had become a kind of mantra. *"I haven't had a bad day yet,"* Serrano tells us during baskets training, grinning. *"And in 22 years I'll be sipping a mai tai."*

The Training

The trash truck obstacle course is the event everyone seemed to be waiting for. Orange traffic cones have been set up around the lot to imitate a tight street circuit. A row of white elephants are at the ready as a group of trainees

stand in a huddle around the instructors. Derick Rodas, another instructor and former mechanic, preps the class, warning us not to hit the cones, which he calls *"my kids and future Nobel laureates."*

Since I am not allowed to drive the truck simply because I do not have a commercial driving license (a tiny detail in my opinion), I am paired on the obstacle course with Matt Prevosti, who has worked at DSNY for three years and coaches baseball in his spare time. We're high off the ground, and every bump in the road bounces me in my seat. Each truck has two sets of wheels and brakes, but only one person can drive at a time. (Again, not me.) Prevosti tells me, though, that both people can hit the brakes, since the truck has blind spots. I ask him whether he and his partner ever use the brakes to prank each other. He pauses and says, *"No."* Then smiles.

The rest of the trucks begin moving around the tarmac, like the world's slowest go-kart race. I watch as most people hit a cone or two and silently weep for Rodas's fallen Nobel laureates. As the month of training progresses, the obstacle course will get more difficult to better mimic a chaotic city street. (They used to haul in totaled cars for the sake of realism.) The navigation is hard; even Prevosti ends up knocking over a cone.

Next up is baskets training, where we learn how to pick up and empty the city-issued corner trash cans. The maneuver seems simple enough; pick up a basket, tip it, bang it a few times to knock loose any straggler trash, then close the hopper by pulling a lever. I try lifting one. Even empty, it easily weighed 30 pounds. My heart raced and my arms trembled. After I had tipped it into the truck, I was instructed to drop it rather than set it down to expend less energy, which meant almost crushing my toes, something I forgot I had also been instructed to carefully avoid. Now, the instructor says, imagine doing that 400 times on a single route. I did not want to imagine this.

We then run through things to watch out for on the job: bent license plates will slice up your knees, tow hitches on trucks will bruise your shins. We're advised to avoid steel-toed boots, since they won't stop a truck from crushing your foot and the metal might slice your toes off. Serrano, at one point, hands around his phone with a gory photo of a huge leg gash he got from a sharp object hidden in a trash bag.

Trash pickup ranks among OSHA's list of occupations with the highest fatal work injuries. There's heavy machinery and the unpredictability of New York City streets. But there's also the slow deterioration that comes with the intense physical labor. Over the years, bodies that must lift and carry all that weight - bend and contort and move - wear down. Safety, maybe even more than trash juice, is the heart of the training. Sanitation employees often work in twos and our training emphasizes that partnership is a foundational principle in the department. You're not always paired with the same person, but you are responsible for each other all the same. These are workers who ultimately want to keep each other whole, and for an industry that consists of 90 percent men, the vibe on the field is surprisingly sweet and supportive.

On my last day of training, as a reward for successfully changing a single truck tire (it was hard and I will not be doing another), Rodas takes me out for a drive on the salt spreader. We clank through the back roads of Floyd Bennett, the pavement streaked with tire tracks from what look like the previous night's drag races, passing kayakers out on glistening Jamaica Bay. We chat about the morning, the work, the weekend. Rodas returns again to the idea of partnership, one that includes the whole city, whether people realize it or not. New York produces a lot of trash, and all of it must be picked up. (More often than not, I've learned, by men carpooling from Staten Island.) There's an unspoken relationship in the work, he says; *"someone else picking up the bag on the other side."* Then we're back to joking around. I propose that we skip the rest of the day and take the truck to the beach. *"No problem,"* Rodas laughs, and for just a moment, as he points the truck toward the early-afternoon sun, I think he might be serious. There's plenty of trash there, too.

By: Clio Chang,
Published: August 29, 2022
Source: https://www.curbed.com/2022/08/dsny-trash-school-training.html

Grand Central Names New Chili Champion

Local chili chefs went head-to-head in early October at Grand Central Landfill's 5th Annual Chili Cook-off. The event featured several Slate Belt non-profits competing for votes to win the grand prize, a donation from WM. Reigning champions *Families First of Pen Argyl* were among the competitors hoping to add another trophy to their shelf, but a newcomer, Hopesprings Church, also from Pen Argyl, surprised the audiences with their famous chili and won in a landslide.

"I was so nervous and so excited to enter chili for our church," commented Lisa Newberry. *"When our name was announced, I was completely shocked!"*

WM awarded prizes to the top three winners with the most votes. While Hopesprings Church took home first place and $1,000, Wind Gap Volunteer Fire Co. scooped up second place and $600 and third place went to Pen Argyl Lodge #594 F&AM scoring them $400 for their organization.

The competition can get fierce and to help break any potential tie votes, WM invites five guest judges to do a blind taste test. This year those special helpers included state Rep. Ann Flood, state Sen. Mario Scavello, Slate Belt Regional Police Chief Jonathan Hoadley, Wind Gap Borough Councilman Dave Hess and John Merhottein, candidate for state Senate.

The Pen Argyl Area High School Green Knight mascot stopped out to take photos with the children who received a free WM truck costume. More than 250 neighbors visited the event, enjoying family fun and learning about the landfill on one of the bus tours.

"The event is always a lot of fun! We are looking forward to the planning of the 6th Annual Chili Cookoff and invite guests to mark their calendars for October 7, 2023." commented Sr. Community Relations Specialist, Fors.

Submitted By: Adrienne Fors, Waste Management

Winners of the 5th Annual Chili Cook-off (Upper Left)

Contestants snapping a photograph with Pen Argyl Area High School Green Knight (Lower Left)

Contestants having some fun posing as chilies during the cook-off (Upper Right)

Photos Credit: Waste Management

WM's Delaware Valley North Hauling Presents 2nd Annual Car Show

The Greater Mid-Atlantic Area's second annual Family Day and Car Show was held on October 9 at WM's Delaware Valley-North Hauling Co. in Bucks County. Planners and supporters of the event spent six months coordinating nearly a dozen food trucks and entertainment. The event attracted hundreds of WM team members, family, friends and neighbors as well as 30 cars, trucks and motorcycles.

WM Family Day & Car Show planning and support team, front from left, are Melissa Ramos, Container Technician Tim Lotecki, Operations Specialist Kelley Barnes, Route Manager Rich Moyett, District Manager Lisa Gibas, Operations Specialist Erica Pullett, contractor Wendy Darroch and Residential Driver Jerald Lawery. Second row, Route Manager Kevin Henne, Roll-off Driver Kevin Tryon, Route Managers Joel Phillips and Brian Rosado, and Senior District Manager Mike Ramos.

Submitted By: Adrienne Fors, Waste Management

WM's Delaware Valley – North Route Managers Receive Military Salute

Delaware Valley-North Route Managers Richard Moyett and Brian Rosado recently received a prestigious military salute when U.S. Army Maj. Gen. (Ret.) Wesley E. Craig visited the site to present them with Patriotic Employer certificates. The award recognized the men for their support of Residential Driver Daniel Soto Jr. while Daniel served in the Army National Guard. Daniel is a staff sergeant in Guard.

Submitted By: Adrienne Fors, Waste Management

From left are Maj. Gen. Craig, Richard Moyett and Brian Rosado

Photo Credit: Waste Management

The Challenges of Waste Management in Our National Parks

It is no surprise that this perennial problem continues to be in the news. The average American generates over four pounds of trash per day, and 330 million people or more visit our national parks each year. The National Park Service manages almost 70 million pounds of waste annually. A tremendous amount of garbage ends up as litter in our national parks, and even more washes into beaches and waterways that are part of our network of federal lands.

Litter in our national parks has always been an issue. Visitor education, recycling separation, and technological improvements like GPS container reporting and commercial garbage disposal equipment help to manage the almost 100 million pounds of garbage the Park Service manages nationwide.

Some of the challenges they face include:

- Marine trash cleanup efforts ongoing since 2015, which remove tons of trash from national park beaches annually, adding significantly to the volume of litter requiring disposal each year.
- The government shutdown of 2019—parks remained open with very limited or no waste management staff to manage sanitation facilities or supervise park usage.
- The COVID-19 pandemic of 2020, which saw dramatic increases in park visitors while services were curtailed or insufficient to meet the demand.
- Ongoing issues with displaced individuals or first-time campers who are unaware of proper sanitation procedures or do not have the equipment and resources to comply.

National Park Service employees and local volunteers participated in a cleanup in the Bandelier National Monument backcountry in September 2022.

Photo Credit: National Park Service

Protecting Our National Treasures

The National Park Service has partnered with commercial businesses with proof of concept improvements to this growing problem, including a zero landfill waste management concept. Three pilot parks are participating in the Don't Feed the Landfills initiative, Denali National Park, Grand Teton National Park, and Yosemite National Park. Building on the proof of concept in these parks, the Parks Service launched the National Concessions Visitor Waste Impact Study in 2020. These programs have led to a number of improvements, such as, reducing food waste generation, composting at a commercial scale, conducting waste audits to identify opportunities, and collecting data in a single system for analysis.

Data collected led to the Parks Service installing 84 water refill stations in 11 national parks to drastically reduce the use of disposable water bottles. In a single year, the three national parks participating in the pilot programs have cut the amount of waste heading to landfills in half and kept at least 16 million pounds of solid waste from reaching local landfills.

How Can the Tide of Trash Be Turned?

National park conservation efforts are part of the mandate of the National Parks Service, but we all share responsibility for our national resources. Taking steps to limit your footprint when you visit public lands, and even in your daily life, can help reduce the problem of litter in national parks, waterways, and forests.

Consider these tips as you strive to *"leave no trace":*

- Always dispose of trash in an appropriate container, even when you are not at the park, to reduce blow-away litter, plastic bags, runaway balloons, and other waste entering oceans, lakes, or rivers.
- Reduce or eliminate your use of single use plastics like disposable water bottles, straws, or snack packages.
- Bring reusable containers with you to the park, and pack out what you bring in. Resist the urge to decorate, especially with mylar or plastic.
- Participate in the efforts of food concession sites by properly sorting recyclables and compostable items into the appropriate containers.
- Purchase and use biodegradable soaps, shampoos, and toiletries when camping and properly recycle the containers.
- Report misuse of public lands, including household garbage dumps, unlawful fires, hazardous chemical disposal, or RV waste dumping.

Working Together to Limit Litter

Our combined efforts can restore the natural beauty and sustainability of our national parks and preserve the sanctity of these destinations for generations to come. At Global Trash Solutions, we support these efforts to properly manage waste in national parks by creating educational waste management resources, performing waste stream audits for local business partners, supporting technological innovation in commercial waste disposal equipment, and promoting responsible disposal practices nationwide.

By: Global Trash Solutions
Published: October 10, 2022
Source: https://globaltrashsolutions.com/blog/americas-national-parks-become-americas-trashcans/

If you or your company want to get involved in cleaning up our national parks consider joining in National Clean-up Day on September 16, 2023. For more information you can visit the National Cleanup Day website at www.nationalcleanupday.org. If you don't want to wait until next September, and given how much litter is left behind you probably shouldn't, check out the Pick Up PA events through Keep Pennsylvania Beautiful at: www.keeppabeautiful.org/programs/pick-up-pa.

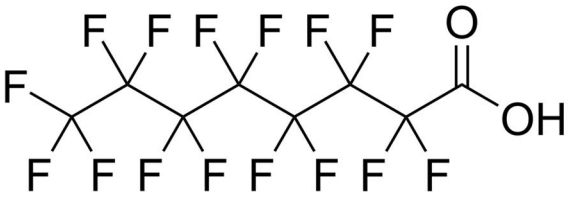
The EPAs PFAS Road Map: Where Are We Now?

On August 26, 2022, EPA issued a proposal to designate two of the most widely used per- and Polyfluoroalkyl substances (or PFAS) as hazardous substances under CERCLA, or Superfund. PFAS encompass a family of numerous chemicals found in everything from outdoor gear to firefighting foam that have been linked to cancer and other illnesses. This rulemaking would increase transparency around releases of these harmful chemicals and help to hold polluters accountable for cleaning up their contamination.

One year after the U.S. EPA announced its strategic road map to address PFAS contamination, the agency is on track with some of its promises to further study and regulate PFAS, but more action is needed to quickly reduce human exposure, Environmental Working Group (EWG) members said during a press briefing last week. EWG recently published a report card keeping track of progress the EPA and other federal agencies have made to study, monitor, and regulate PFAS.

A proposed rule setting enforceable limits on two PFAS chemicals, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), in drinking water was released earlier this year. This marks a major milestone as the first time the EPA will name maximum contaminant limits for the two chemicals. The EPA plans to enact the final drinking water standard in fall 2023, according to its road map.

The question for waste companies is how these decisions might affect daily facility operations down the line, especially since PFAS treatment and destruction technology is still scaling up and can be costly. Organizations such as the National Waste & Recycling Association and the Solid Waste Association of North America have said they are carefully monitoring any EPA actions around PFAS.



PFAS drinking water standards

The EPA already has announced drinking water health advisories for PFOA, PFOS, GenX chemicals and PFBS. This advisory is meant to provide information on what levels of exposure could cause adverse health effects. It is not an enforceable regulation, but *"these health advisories showed that these chemicals are toxic at very low levels, and this is a really important step towards setting those maximum contaminant levels,"* said Melanie Benesh, EWG vice president of government affairs.

The World Health Organization also published a draft guidance document in October 2022 on how it believes the EPA should handle the drinking water limits. The WHO called for the EPA to adopt limits of about 100 parts per trillion for either PFOA or PFOS in drinking water. Those levels are higher than the EPA's guidance levels; the EPA's health advisory estimates that amounts over 0.004 ppt for PFOA and 0.02 ppt for PFOS can be dangerous.

EWG, the American Chemistry Council and other stakeholders say they plan to weigh in on the EPA's process before the proposed regulation is announced, Bloomberg reported, but it's unclear how that feedback could influence the EPA drinking water announcement.

The Pennsylvania Department of Environmental Protection (PADEP) has proposed Drinking Water MCLs of 14 ng/L (or ppt) for PFOA and 18 ng/L for PFOS. Neighboring New York and New Jersey have already adopted drinking water MCLs and Delaware is working on

PFOS and PFOA hazardous substance designations

The expected drinking water actions follows the EPA's announcement in August that it would designate PFOS

and PFOA as hazardous substances under CERCLA Superfund law. One goal of such designation is to spur cleanup of industrial and waste sites said to have high concentrations of the chemicals. The hazardous substances *designation "will help kick-start the cleanup process of hundreds of communities devastated by PFAS harms, which are especially concerning for environmental justice communities, which are often disproportionately exposed to these chemicals,"* Benesh said. The Government Accountability Office has asked the EPA to conduct a more in-depth analysis of whether disadvantaged communities face disproportionate impacts from PFAS. A recent study from researchers at Northeastern University identified more than 57,000 sites that are likely to be polluted with PFAS, researchers said.

Waste facility operators have concerns about what role they might play in the cleanup process. Both NWRA and SWANA have estimated the national costs to remove PFAS from landfill leachate are at least $966 million per year. In a May 10 letter to Congress, the groups voiced concerns that the designation of PFAS as hazardous substances could expose operators to liability if they cannot clean up *"trace concentrations."* The letter asks Congress to grant MSW landfills a narrow exemption from liability.

The PFAS road map contains other major action items that could have an impact on the waste industry. The EPA plans to do more research and testing on hundreds of other PFAS, meaning it could deem other PFAS compounds as hazardous substances in the future. The action plan also sets a fall 2023 deadline to update federal research on the available methods for disposing of or destroying PFAS through landfills, thermal treatment, and deep-well injection. This research will be important to the waste industry, which has explored numerous technologies to treat PFAS-containing leachate in recent years and could stand to benefit financially from being able to offer PFAS disposal services.

PFAS in biosolids and sewage sludge

A risk assessment for PFAS in biosolids is also expected to come from the EPA in winter 2024, and it also could have disposal impacts. This year, Maine became the first state to ban the use of processed sewage sludge as fertilizer due to concerns it spreads PFAS to crops and livestock. The new law could send more municipal sludge, which is sometimes used as fertilizer, to landfills in Maine or surrounding states, experts say. That could affect landfill capacity and complicate efforts to reduce PFAS entering landfills. Future EPA risk assessment information could also influence the flow of such sludge into landfills in the future.

Looking Beyond PFOA and PFOS

PFAS is a name used to describe a family of chemical compounds. In addition to establishing standards for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), EPA's newest drinking water contaminant list is also expanding to include groups of PFAS chemicals as candidates for future regulation. The U.S. EPA published a new list of chemicals last week that could be subject to Safe Drinking Water Act regulations in the next five years, including a *"substantial expansion"* to cover numerous PFAS chemicals.

The list, known as the Final Fifth Drinking Water Contaminant Candidate List or CCL 5, lists per- and Polyfluoroalkyl substances as a group rather than individually. Previously, the agency only listed individual PFAS for certain regulations. The CCL5 *"looks further forward to consider additional protective steps for these forever chemicals,"* said Radhika Fox, the EPA's assistant administrator for water, in a statement. The EPA still plans to propose national drinking water standards for PFOA and PFOS later this year, she said.

The EPA also announced in August 2022 that it plans to label PFOA and PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as the Superfund law. Waste companies are closely watching to see how these decisions might affect daily facility operations. Both the National Waste & Recycling Association and the Solid Waste Association of North America said future PFAS regulations, particularly the hazardous substance regulation, could be costly and ramp up liability concerns. The groups again called for the solid

waste industry to be granted a narrow exemption from liability in a joint November 7, 2022 news release.

The CCL 5's mention of PFAS as a group of chemicals doesn't guarantee it will regulate PFAS as a group under the Safe Drinking Water Act. The notice only covers PFAS *"known to occur in drinking water and/or source water"* and is not an exhaustive list, the agency said in the notice. The EPA says it listed PFAS chemicals as a group in the CCL 5 rather than individually because future regulations could be too complex if considered one by one. Approaching the chemicals as a class will help the agency build *"a strong foundation of science on PFAS while working to harmonize multiple statutory authorities to address the impacts of PFAS on public health and the environment,"* the EPA said.

Over 4,000 PFAS may have been manufactured and used in numerous industries since the 1940s, the EPA said. Many of these products end up in landfills, leaving operators wondering how to manage them as they wait for future regulations.

Along with the PFAS chemical group, the new CCL 5 also lists 66 other individual chemicals, including chemicals considered cyanotoxins and disinfection byproducts. It also lists several bacteria and viruses.

Written By: Megan Quinn, Waste Dive
Published: October 25, 2022 and November 8, 2022
Source: https://www.wastedive.com/news/pfas-epa-roadmap-pfoa-waste-ewg-forever-chenmical/634871/ **and** https://www.wastedive.com/news/pfas-forever-chemical-epa-drinking-water-regulation-waste/636017/

New & Returning Members of the Keystone SWANA Family

The Keystone Chapter provides many benefits by fostering cooperation among solid waste professionals and by providing educational opportunities to enhance the knowledge and expertise in the solid waste management field. We would like to take a moment to thank everyone who has joined, or rejoined the Keystone SWANA family in recent months!

- Judith Archibald, Archibald Associates, LLC
- John Weisman, Suburban Testing Lab
- Gregory Chrin, Apis Innovation
- Ed Hicks, Centre County Recycling & Refuse Auth.
- Katrina Pope, Centre County Recycling & Refuse Auth.
- Shannon Dunlap
- Ryan Hockenberry, State College Borough
- Camila Proano
- James Short, Republic Services, Inc.
- Donald Morgan, Washington County Solid Waste
- Veronica Harris, Montgomery County, PA
- Josh Andree, Cranberry Township Public Works
- Jack Lewis, Hunter Truck
- John Lewis, Hunter Truck

The Keystone Chapter strives to share pertinent information and provide continuing education that serves members' interests. The Chapter sponsors a variety of activities and programs including; academic scholarships, the annual regional landfill equipment and truck Road-E-O, certification training, mini-technical seminars, an Annual Conference, and more!

If you are or someone you know is interested in joining the Keystone Chapter SWANA, please visit our website at http://www.keystoneswana.org/ or contact Chanda Martino by e-mail at: admin@keystoneswana.org

SWANA Keystone Chapter Calendar of Events

For more Information, event registrations, and updated information please go to the Keystone Chapter's website: http://www.keystoneswana.org/

****NOTE Schedule is subject to change****

December 2022

- No Board Meeting
- Submit Chapter annual reports to SWANA International
- Distribution of *The Keystone*

January 2023

- Thursday 1/5 at 10:00 am - **Keystone SWANA Board Meeting**, conference call
- Accountant audits financial report and prepares 990 IRS Tax Filing

February 2023

- Thursday 2/2 at 10:00 am - **Keystone SWANA Board Meeting**, conference call
- Scholarship applications released from SWANA International
- Send Scholarship announcements to members

March 2023

- Thursday 3/2 at 10:00 am - **Keystone SWANA Board Meeting**, conference call
- Wednesday 3/15, Article Deadline for Spring Edition of *The Keystone*

April 2023

- Thursday 4/6 at 10:00 am - **Keystone SWANA Board Meeting**, conference call

May 2023

- Monday 5/1, Chapter Scholarship Application Deadline
- Thursday 5/4 at 10:00 am - **Keystone SWANA Board Meeting**, location TBD
- Thursday and Friday 5/18 and 5/19 - **2022 Mid-Atlantic Regional Road-E-O**, Cecil County Central Landfill, Elkton, Maryland.
- Wednesday 5/31, Board of Director nominations Deadline

June 2023

- Thursday 6/1 at 10:00 am - **Keystone SWANA Board Meeting**, conference call
- Thursday 6/1, Deadline for submittal of Grant H. Flint Scholarship recommendations to SWANA
- Friday 6/2, Nominating committee present Slate of Officers and Directors for election

July 2023

- No Board Meeting
- Friday 7/14, Article Deadline for Summer Edition of *The Keystone*

August 2023

- Thursday 8/3 at 10:00 am - **Keystone SWANA Board Meeting**, conference call
- Distribute Summer Edition of *The Keystone*

September 2023

- Wednesday and Thursday 9/6 and 9/7 - **Annual Joint Fall Conference**, Hilton Harrisburg, Pennsylvania
- Thursday 9/7 at 1:00 pm - **Keystone SWANA Annual Business Meeting**, Hilton Harrisburg, Pennsylvania
- Chapter Fiscal Year Ends

Be sure to visit our website for updates on these events for any new event announcements. We look forward to seeing at some these wonderful events this year!

Chapter Officers and Board of Directors

▶ Officers

Denise Wessels, P.E. ..... President
SCS Engineers
Term through 2024

Scot Sample.....Vice President
Northern Tier Solid Waste Authority (NTSWA)
Term through 2024

Ashley Dobak, P.E. ..... Secretary
Barton & Loguidice
Term through 2024

Mike Brubaker.....Treasurer
Principled Strategies
Term through 2024

Michele Nestor .....Immediate Past President
Nestor Resources

▶ Public Sector Directors

Chris Toevs
Chester County Solid Waste Authority
Term Through 2023

Scott McGrath
City of Philadelphia, Streets Department
Term Through 2023

Dan Brown
Lancaster County Solid Waste Management Authority
Term Through 2024

Robert "Skip" Garner
Greater Lebanon Refuse Authority
Term Through 2024

▶ Private Sector Directors

Dan Fellon
ARM Group
Term Through 2023

Charles Raudenbush, Jr.
Civil & Environmental Consultants
Term Through 2023

Jill Hamill, P.E.
Civil & Environmental Consultants, Inc.
Term Through 2024

Carolyn Witwer
Penn Waste
Term Through 2024

▶ Chapter International Board Member

Elizabeth Osborne
Chester County Solid Waste Authority
Term Through 2023

▶ Chapter Legislative Liaison

Charles Raudenbush, Jr.
Civil & Environmental Consultants

▶ Young Professionals Director

Brandon Comer, P.E.
ARM Group
Term Through 2024

Keystone Chapter Committee Members

Articles and By Laws

Scott McGrath - Chair

Robert Watts

Audit / Budget / Financial Committee

TBD - Chair

Sean Sweeney

Communications & Newsletter Committee

Carolyn Witwer - Chair

Alison D'Airo - Newsletter Editor

Michele Nestor

Scott McGrath

Denise Wessels

Legislative & Policy Committee

Charles Raudenbush, Jr. - Chair

Michele Nestor

Membership & Marketing Committee

Carolyn Witwer - Chair

Jill Hamill

Michele Nestor

Personnel & Nominating Committee

Ashley Dobak - Chair

Mike Engel

Tom Lock

Program & Training Committee

Michele Nestor - Fall Conference Chair

Denise Wessels - Mini Tech Chair

Dan Fellon

Tom Lock

Elizabeth Osborne

Road-E-O Committee

Robert Watts - Chair

Mike Engel

Scot Sample

Safety Committee

Elizabeth Osborne - Safety Ambassador

Jill Hamill

Scot Sample

Scholarship Committee

Daniel Brown - Chair

Tom Lock

Charles Raudenbush, Jr.

Robert Watts

Denise Wessels

Strategic Planning

Sean Sweeney - Chair

Michele Nestor

Denise Wessels

Young Professionals Committee

Brandon Comer - Chair

Jill Hamill

Business Manager Subcommittee

TBD - Chair

Sean Sweeney

Thank you to all of our committee members for everything that you do to make the Keystone SWANA Chapter great!

▶ This Publication is for the Solid Waste Professionals of the Keystone Chapter of SWANA

The Keystone is published three times per year (winter, summer, and fall). If you have ideas for future articles, updates, or general suggestions for *The Keystone*, or you would like to advertise with us, please contact us at : admin@keystoneswana.org.

Chapter members: please freely share this info with others that you work with or who have an interest in waste news in PA.

The SWANA Newsletter is published 3 times a year in **April, August, and December.**
If you would like to have an article included in *The Keystone,* please submit it by the 15th of the month prior to the scheduled release date.

We Want Your Articles!

As a reminder articles are accepted throughout the year and while we encourage original articles they do not have to be originally written as long as a proper source is cited.

If you did not receive your copy of this newsletter from SWANA, then you are not on our email list for news. **Please send us your current email address** as all future newsletters, as well as informational broadcasts and other communications, will only be sent via email.

Our email is: **admin@keystoneswana.org**

Barton&Loguidice

This publication was produced by Barton & Loguidice on behalf of the SWANA Keystone Chapter.