SWANA Pennsylvania Keystone Chapter
SOLID WASTE ASSOCIATION OF NORTH AMERICA

The Keystone

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Written For the Solid Waste Professionals of the Keystone Chapter SWANA

Inside this issue

A Message from the Keystone Chapter President: Michele Nestor

Twenty years ago against the backdrop of some African inspired music we first heard a young boy utter the words "Zoom-Zoom." Just for an instant, we fancied ourselves maneuvering winding back roadways and mountain switchbacks in the Mazda MX Miata, a British roadster "*wanna be*" designed by the Japanese. It spoke to us. Freedom. Fun. Carefree.

It's interesting how words can conjure up different perspectives. Zoom-Zoom today probably means you have more than one meeting on your calendar. Hardly, the fun filled experience we dreamt about back in 2000. Or is it?

While industry veterans questioned the practicality of working from home, Young Professionals (aka Millennials and soon to be GenZ) had already embraced, and were proficient with, the technologies that allowed so many of us to function professionally during this pandemic. Young Professionals figured out a long time ago that you don't have to be in the office to get the job done. In fact, if you look at their schedules, work habits and deliverables, it makes one wonder why we ever subscribed to punching a time clock at all when productivity matters more.

So what does any of this have to do with SWANA?

Young Professionals are currently the largest fraction of the U. S. workforce. If not already, Millennials will soon surpass the 50% mark . These growing numbers, along with changes on the opposite end of the generational spectrum are having a profound effect on the workplace, including the waste industry. The aging Baby Boomer population points to the need for succession planning that will largely include the movement of Millennials into management roles. One glance around our annual conference confirms that folks are exiting in significant numbers.

If your organization hopes to have well qualified management candidates they need to have a broad understanding of the industry. They should be encouraged to take advantage of opportunities to stay current with technological

advancements and regulatory agency perspectives. There is no better place than SWANA training and events for Young Professionals to network with their peers and build the type of professional networks we veterans rely upon when we seek products, services and expertise.

To help the Millennials in your organization grow professionally, or to attract the types of younger GenZ employees you want to hire, paying for that Young Professional's SWANA membership will be a perk you won't regret offering.

Collectively, we need to uphold the respect, professionalism, and expertise that Keystone SWANA has earned. What better legacy to leave behind than contributing to the advancement of these up and coming leaders?

Enjoy the spring sunshine as you emerge safely from your winter dens!

Michele Nestor
President, Keystone SWANA

Chapter Loses Two Past Members Nearly One Month Apart

Former Chapter President Rick Schlauder Jr.

Richard "Rick" Schlauder, Jr., 63, of Binghamton, formerly Camp Hill, passed away unexpectedly on March 2, 2021.

Rick is survived by his children Christina, Justin, & Grace; and his granddaughter Makayla.

Rick served two years with the Peace Corps in the Fiji Islands. He returned to New York and graduated from Cornell University with a degree in Agricultural Economics. Rick worked many years throughout Pennsylvania as a Director of Environmental Services and developed numerous Recycling Programs.

The latter part of his career, he spent weeks assisting FEMA with cleanup efforts from major hurricanes in Pensacola, Florida, New Orleans, and New York City.

Rick served as the Keystone Chapter President from 1996-1997.

Former Chapter Member Robert "Bob" Schoenberger

Robert J. "Bob" Schoenberger, Ph.D., P.E., 83, of Downingtown, passed away on Monday April 12, after a brief illness. Born in Weissport, PA, Robert was the beloved husband of Yahna (Seip) Schoenberger for almost 60 years. In addition to his wife, Bob is survived by his sons Jeffrey (Amy) of Havre de Grace, MD, and Steven (Liba) of Paoli, and his grandchildren Megan, Ryan, and Sofia.

Bob attended the Drexel Institute of Technology (now University) where he earned his bachelors, masters, and Ph.D. in civil and environmental engineering. Dr. Schoenberger served as an associate professor at Drexel before transitioning to full-time private environmental consulting, first at Roy F. Weston, where he was a vise president, and later as an independent consultant dealing with solid and hazardous waste issues.

In his semi-retirement, he joined the board of the Chester County Solid Waste Authority, of which he has been the longtime chair. He was also active in professional societies at the local and national level including AAEES and SWANA. Bob was chair of the Upper Uwchlan Township Planning Commission, an active member of the Patriotic Order of the Sons of America, and an amateur horologist

Illegal Dumping In Pennsylvania Up Over 200 Percent in 2020

Reports of illegal dumping to Keep Pennsylvania Beautiful were up by **212%** in 2020. Their community-based enforcement program called Illegal Dump Free PA does have a surveillance camera loan program so that communities can catch people in the act of throwing couches over hillsides or trash bags into wooded areas. But program coordinator Rob Dubas says a lot of reports of illegal dumping come from the public through a form on one of their two websites, through social media, phone calls, and in one case, a letter that was sent through regular old snail mail.

Their data is collected like citizen science. "*Just because there's an absence of a report in one area, doesn't mean that area doesn't have illegal dumping,*" he said. But the reports show trends. "*We've been receiving reports through this program, I think, going back all the way back to 2005,*" Dubas said. "*We did, however, do a large push in 2020 on social media.*"

The Allegheny Front's Kara Holsopple spoke with Rob Dubas about the summary of illegal dumping reports and the reasons behind the illegal dumping problem in Pennsylvania.

Kara Holsopple: *So there may be more reports coming in because you're encouraging that...But what are some of the other reasons there might be this kind of dramatic uptick in illegal dumping reports in 2020?*

Rob Dubas: There were also some disruptions in trash collection and recycling in some areas due to Covid, for instance, if the Department of Public Works or whoever does their trash collection had workers getting sick or were quarantined. We also have seen what we call the apartment clean-outs or house clean-outs. Those are always a source of illegal dumping. These would be where someone is either evicted or moves out of a residence, leaving their stuff behind. That stuff is just tossed out somewhere. That could be also a driving force in the increase in illegal dumping.

Holsopple: *Also in the report, you mentioned not just a suspension of regular trash and recycling, but special collections of electronics and things.*

Dubas: We have special collections in Pennsylvania like probably most states in the country. There are a lot of things that you can't put on your curbside: electronics, paint, TVs, tires. So normally the way those are handled are special collections, and a fair number of those were canceled this year or severely curtailed just because of Covid. A lot of people were stuck with extra tires or old TVs, and there's no way to get rid of them. That's actually an ongoing thing that we would like to see improved in the state by having accessible, reasonably priced ways to dispose of those items.

Holsopple: *And then there might be more reporting because people are spending more time outdoors?*

Dubas: During this last year, I think there was a big push because we were all stuck at home. People are wanting to get out in their parks or wanting to walk along the rivers or things like that. I think there was more of a chance for people to see illegal dumping.

Just one of many illegal dump sites; this one in Allegheny County.

Photo Credit: Keep Pennsylvania Beautiful

Holsopple: *Is there more dumping happening in certain areas, or is it spread throughout the state?*

Dubas: We do keep county numbers. For the most part, the highest numbers in the counties fell in line with where the population was densest, which I guess would make sense because there's more of a chance of someone seeing the dumping if there are more people who live in that county. Allegheny County and Philadelphia, in general, had the highest numbers, not just this year, but, going back five years or so.

Holsopple: *And I was disappointed to notice that a lot of the dumping takes place in parks and forests.*

Dubas: Yeah, we were disappointed about that, as well. That's unfortunate because that's an area that everyone should be able to use. You don't want to take your dog to somewhere where there might be broken glass, and there's a lot of wildlife in parks: deer, birds. That old TV could be leaching chemicals into streams.

Holsopple: *Your report also talks about dumping at recycling facilities, which kind of blew my mind. What's going on there?*

Dubas: That's a situation where people are sort of half wanting to do the right thing. Every recycling center is different regarding what they can accept, so it's really important for people to call or go to their website in advance to make sure that what they're going to take there is something that they can both legally and realistically accept. I have a feeling that in this situation, people are not doing that ahead of time, and just dropping it outside their door instead of taking it back home.

Holsopple: *It's interesting that it's also considered illegal dumping.*

Dubas: It is, yes, and it would be under the same penalty as if you threw it down the hillside.

Holsopple: *What are the consequences for illegal dumping?*

Dubas: The penalties do range a bit depending on who the enforcement authority is. A lot of times it will be police or code enforcement officers in general. The fines are a bit on the low side. Usually it's what's called a summary offense, which is the lowest level of citation. It's sort of in line with a speeding ticket or running a red light. The fines can be as low as $50 dollars. And I've actually seen lower than that. This is just for the first offense. They could go up to maybe three hundred dollars. Again, this is depending on who's writing the ticket and what statute they're writing it under, because there's a number of different statutes they could write that ticket under. I'd say in general, though, the cost of cleaning it up is not reflected in the fine amount. In a report from 2013, a study found that it was about $619 dollars a ton on average to clean up a dump site, or about a little less than $3,000 dollars to clean an entire site.

This dump site was discovered near the parking lot for Tuscarora State Forest.

Photo Credit: Keep Pennlive

Holsopple: *Which items are most commonly dumped?*

Dubas: The types of items dumped stayed fairly the same throughout the past six years. Household trash actually is the number one. I was not expecting that. Tires are another really high one, though, and that one does make a little more sense because you usually can't put tires out with

your trash. There have been instances, we suspect, of unscrupulous tire haulers collecting tires from a shop, potentially collecting the fee that they would be using to take them to the landfill, then pocketing that money and depositing the tires along the roadside somewhere.

Holsopple: *It seems like illegal dumping is a systemic problem. I think a lot of people think of it as an individual problem, but there are systems in place that are not providing people with the access that they need and a lot of cases to get rid of this waste stream that we have accumulated.*

Dubas: That's correct. I think that a lot of times trash and recycling are sort of treated as an afterthought service. If they became more of a comprehensive part of the municipality's or county's overall goals, I think that would help a lot. I think it also comes down to the fact that we have a lot of things. We have a lot of disposable items: TVs that maybe still work, though, we just get a bigger one. I think people need to take into account, "*OK, I just spent $800 on a new TV. I should also be willing to spend $50 on disposing of the old one.*" We have to stop thinking of our items as use it and done.

Rob Dubas is program coordinator for Illegal Dump Free PA, a program of Keep Pennsylvania Beautiful. He says if you see someone in the act of illegal dumping, don't confront them. It could be dangerous. Report it, instead.

Written by: Kara Holsopple
Published: January 29, 2021
Source: https://www.alleghenyfront.org/reports-of-illegal-dumping-in-pennsylvania-way-up-in-2020/

America's First Composting Funeral Home Opens in WA

Death is inevitable. But Seattle-based company Recompose is giving people a new way to exit this mortal coil: Having their remains laid in a tube of mulch and soil and letting bacteria turn them into compost in a month's time. After having opened their doors earlier this winter, Recompose is now fully getting to work and composting dearly departed clients.

Recompose has been in the works for years, led by founder and CEO Katrina Spade. In 2019, Spade's efforts convinced the state to legalize the use of human composting as a form of body disposal, alongside cremation and the standard gravesite burial. By last November, Recompose had started taking on preorders for their services, and in late December, it officially began composting.

As of mid-January, according to the Seattle Times, the company has eight of its ten available "vessels" currently occupied. The company told Earther in November that it had lined up 350 Precompose clients ready to use the service when their time to meet their maker comes. Two other composting funeral homes, Herland Forest and Return Home, have been approved to operate in the state, and are expected to open soon.

Human composting, more politely called "natural organic reduction," is thought to be a much greener and energy efficient way of disposing our remains. Recompose's method works by entombing the body in a capsule filled with wood chips, alfalfa, and straw, along with bacteria that love to chow on organic matter. Over a 30-day period, which requires the occasional turning of the capsule, the bacteria turn our bodies into productive fertilizer. These remains are then stored in "curing bins" for a few additional weeks. It's a much lighter footprint than embalming, which uses toxic chemicals, and cremation, which emits carbon dioxide and other pollutants.

Interior of the Recompose facility in Washington State.

Photo Credit: Smithsonian Magazine

A green burial with Recompose is estimated to cost around $5,500 in total, though costs are higher for those out-of-state. That's more expensive than cremation, but on par or even a bit less expensive than the average burial. Afterward, families have the choice to have the remains sent to them or donated to a local environmental project in the state.

The state has mandated certain safety measures for the practice, such as not allowing people who have died of tuberculosis (a hardy bacteria that can easily survive in soil) or prion diseases to be composted. Recompose and other companies will also be expected to regularly test the soil that's produced for worrying pathogens and chemicals like arsenic, lead, and mercury. Still, there's not expected to be much of a mess to worry about.

An official from the Puget Sound Clean Air Agency told the Seattle Times that the emissions and smells from human composting will likely be far less bothersome than what they see from cremations, demolishing buildings filled with asbestos, and growing cannabis.

Would you consider this green alternative?

Written By: Ed Cara
Published: January 27, 2021
Source: https://earther.gizmodo.com/americas-first-composting-funeral-home-is-finally-open

Westmoreland Landfill Neighbors Voice Frustrations

Municipal officials and residents who live near the Westmoreland Sanitary Landfill in Rostraver on Thursday [January 7, 2021] voiced frustration and anger over its continuing operation and what they say is a lack of adequate state regulation. Their remarks at a virtual news conference hosted by Protect Penn-Trafford, a community organization, highlighted problems with light and noise pollution, landfill runoff into tributaries of the Monongahela River, noxious odors, health problems possibly related to toxic chemicals in runoff, and radioactivity at the facility, which accepts significant amounts of shale gas drilling and fracking waste.

Gillian Graber, executive director of Protect P-T, said its recent survey of people who live near the landfill found that 70% of the more than 100 respondents have been inconvenienced by truck traffic and mud on the roads. More than half said municipalities and the state Department of Environmental Protection had been ineffective in fixing the problems. Deborah Fought, who lives across Patton Road from the landfill, said gasses from the facility burned her eyes when she was outside two weeks ago and have been a longstanding and continuing problem.

Of particular concern this winter is a trail of mud from garbage and wastewater transport trucks stretching from the landfill for two miles on Tyrol Boulevard and Pricedale Road to the Interstate 70 interchange, and on Route 906.

John Lorenzo, president of the Rostraver board of commissioners, said the township and other communities in the Mon Valley have had "*major issues*" with the operation of the landfill, but can't get any response from its owner, Noble Environmental. He said he had received no help from the DEP, which regulates such facilities. "*It's been an ongoing battle and struggle with the landfill to get it into compliance,*" Mr. Lorenzo said. "*We try to do everything we can, but we've lost faith in the DEP. We've relied on the DEP as a regulatory body and left things in their hands, but now with the mud, the smell, the environmental impact, we don't want to just stand by. We're looking to do more.*" He said the township has enacted a regulation to control runoff from the landfill, and has contacted an environmental attorney to investigate legal options.

Pennsylvania landfills are not allowed to accept liquid waste, but such facilities generate runoff from storm water that falls on and flows through them.

The Westmoreland County landfill began accepting shale gas drilling waste (soil, rock and chemicals) in 2010. In 2018, it took in 159,845 tons of drilling waste, about 47% of its total tonnage for the year. Contained in that waste stream is naturally occurring radiation, radium 226 and 228, from drilling and fracking a mile or more underground.

In May 2019, a Fayette County Common Pleas Court judge ordered the landfill, which produced up to 300,000 gallons a day of runoff, also called leachate, to stop piping it to the Belle Vernon municipal sewage treatment plant. The court said the runoff, because of its toxicity, was damaging the facility's biologic treatment process, resulting in the discharge of poorly treated water into the Mon. In February, the landfill agreed to pay a $24,000 fine for violations involving the improper disposal of shale gas drilling waste and contaminated liquids.

According to the DEP, the landfill has been trucking its leachate to disposal facilities in and out of state. In the first quarter of 2020, it trucked 6.36 million gallons to the Eastern Ohio Regional Wastewater Authority in Bellaire, Ohio, and the Westerly Waste Water Treatment Plant in Duncansville, Pa. In the second quarter, it disposed of 6.19 million gallons and in the third quarter, 3.44 million gallons, all at the Westerly Waste Water Treatment Plant.

The landfill owner has applied for a DEP permit to build a methane-burning filtration and evaporation system to address the runoff issue. But John Stolz, a professor at

Duquesne University's Bayer School of Natural and Environmental Microbiology, said such a system would send some pollutants into the air and result in concentrating chemicals and radioactivity in the leftover sludge. "*A system impacted by shale gas waste is a system that is both toxic and radioactive, and will get hotter over time,*" said Mr. Stolz, who has measured elevated radiation in the landfill's runoff. "This *is a significant situation.*"

Ro Rozier, a spokeswoman for the landfill, said its owners are committed to the "*highest environmental standards,"* and that it manages landfill runoff in accordance with DEP regulations. She said the landfill operators seek to mitigate roadway mud when they see it and rejected the accusation that it is "*hazardous*." "*Recent and significant rain and snow prompted us to bolster existing infrastructure to ensure mitigation of these concerns going forward*," Ms. Rozier said.

But Ms. Fought said many of her neighbors want to see the landfill closed, and in June she collected 300 signatures opposed to the proposed evaporation facility and submitted them to the DEP during a public comment period on a permit for that project.

Lauren Fraley, a DEP spokeswoman, said the department has requested additional information from the landfill's owner, and the evaporator permit is under review. Ms. Fraley said compliance and enforcement actions against the landfill are ongoing. "*DEP understands the frustrations raised by residents and has required the landfill to take numerous short-, medium-, and long-term measures to improve operations, reduce the nuisances it creates, and become compliant with environmental regulations,*" Ms Fraley said in an email response to questions.

In December, the DEP conducted six inspections at the landfill, she said. Those inspections showed the landfill was in violation of regulations prohibiting mud tracked onto public roads on Dec. 9, 23, 29 and 30.

Written By: Don Hopey
Published: January 7, 2021
Source: https://www.pst-gazetter.com/news/envrionmnet/2021/01/07rostraver-Westmoreland-landfill-neighbors-frustrated

Upcoming SWANA Mini-Tech

Although the date is uncertain be sure to stay tuned to the Keystone SWANA website keystroneswana.org so that you don't miss this!

Metals Recovery from MSW Ash Mini-Technical Seminar

The Mini-Tech will begin with a presentation followed by a walking tour of the facility. A networking lunch will follow the tour.

In April 2016, LCSWMA entered into a long-term contract with Inashco North America, Inc. to site a metals recovery facility (MRF) next to the Frey Farm Landfill. While LCSWMA's WTE facilities currently use in-line metal recovery systems, only larger metals are removed. Inashco offers an advanced metals recovery system to remove pebble-sized metals present in the ash. This includes both ferrous (iron) and non-ferrous (aluminum, copper, brass, zinc, gold, silver, etc.) metals.

In 2018, Inashco constructed the MRG, which processes around 650 tons of ash each day (165,000 annually) and recovers about 22 tons of metals (8,300 tons annually). Not only does this innovative project remove and recycle metals that would have otherwise been landfilled, but it's helping to extend the life of the Frey Farm Landfill.

Where:
Frey Farm Landfill
3049 River Road
Conestoga, PA 17516

When:
TBD - Event is being rescheduled

Additional Information:
Registration is $15 for SWANA members and $25 for non-members. Space is limited and participants are required to bring safety toe boots.

Advanced Recycling Bill Goes to Virginia Governor

Legislation to classify chemical recycling as manufacturing rather than solid waste management is on its way to the governor despite early resistance from the House of Delegates. The hotly contested bill, which supporters say will encourage the repurposing of plastic waste while creating jobs and opponents say will allow the fledgling industry to sidestep regulation, passed the House Monday on a 90-8 vote.

Key to its success was a move by lawmakers to yoke the advanced recycling bill to a proposal from Del. Betsy Carr, D-Richmond, that would ban all food vendors from using plastic foam food containers starting in 2025. Carr's polystyrene ban had successfully passed the House but was facing opposition in the Senate, where legislators worried it would further burden restaurant owners already struggling amid the COVID-19 pandemic. At the same time, the advanced recycling bill, from Sen. Emmett Hanger, R-Augusta, had passed the Senate but faced a skeptical House committee that had already killed a companion bill. Negotiations among lawmakers led to what Sen. Chap Petersen, D-Fairfax City, called the "*Great Polystyrene Compromise of 2021*."

"*To the extent that we get this bill off the floor and pass it,*" Petersen said during a debate on the plastic foam ban, "*I think it's important that there will be a reciprocal understanding on the other side of the hall that recycling also needs to be respected and the recycling industry needs to be respected.*" "*There's no such thing as a quid pro quo in this business, but I will tell you that this is part of a large compromise,*" he added.

Advanced recycling

Chemical, or advanced, recycling turned out to be one of the most debated environmental issues of the session, largely because of its unfamiliarity. Advanced recycling is an umbrella term for a range of processes that heat plastics to extremely high temperatures at which they break down into their chemical building blocks in order to be repurposed into new plastic products or fuels. Its proponents have said that chemical recycling is capable of removing far more plastics from the waste stream than traditional mechanical recycling methods can. The U.S. Environmental Protection Agency estimates only about 8.7% of the nation's plastic waste is currently being recycled. With advanced recycling, "*we think that we can recover 65 percent of Virginia's 1.3 million tons of plastic waste in landfills per year, extending the life of landfills*," Virginia Manufacturers Association president and CEO Brett Vassey told a House panel Feb. 17.

Hanger's bill sought to encourage advanced recycling companies to locate in Virginia by classifying them in state code as manufacturing rather than waste management operations, meaning they would not fall under the purview of Virginia's Solid Waste Management Act. "*This basically is a policy statement on our part recognizing that there is*

a technology there now that's a very successful technology (and) economically feasible," said Hanger. "*I think that's something we basically want to define appropriately.*"

However, a number of environmental groups objected on the grounds that the industry had already begun locating in Virginia, even without the change to code, and that the law would lift a layer of regulatory oversight, a waste permit, from facilities that are only beginning to operate on a commercial scale. Chemical recycling plants "*should be regulated consistently with other types of waste management facilities*" such as incinerators, transfer facilities, landfills and other waste processors, said Phillip Musegaas of the Potomac Riverkeeper Network. "*Giving these facilities special treatment under the law will not address the long-term plastics pollution problem,*" he argued. "*It will not keep plastics out of our rivers. It will create a steady demand for plastic and for us to continue to use plastic, and particularly single-use plastic.*"

The Great Polystyrene Compromise

For many Virginia lawmakers, one of the most troubling forms of plastic has been polystyrene, a type of non-biodegradable plastic foam used in food and other packaging. Last year a proposal by Carr to ban all food vendors from using polystyrene food containers by July 2025 passed both chambers of the General Assembly, but a Senate provision required that it be passed again in 2021 to go into effect. The bill would set two deadlines for phasing out the material, depending on business size. Any restaurant or food vendor that's part of a chain with 20 or more locations would be forbidden from dispensing food in polystyrene containers starting July 1, 2023, while smaller operations would have an additional two years to transition.

Many senators continued to have misgivings about the proposal. "*Every single time that I order takeout to go I think of this bill,*" said Sen. Jen Kiggans, R-Virginia Beach, during one debate. "*The places that give me these Styrofoam containers are the places that are struggling the most right now. And I understand there's a delayed enactment and this may not take effect until years from now, but I just think the better approach would be to maybe incentivize other forms of wrapping.*"

Many of the industries backing Hanger's advanced recycling bill, including the Manufacturers Association and the American Chemistry Council, as well as the Virginia Food Industry Association and the Virginia Retail Federation, also mobilized against Carr's proposal.

Banning polystyrene "*will diminish the opportunity to attract advanced recycling technology to Virginia,*" read a memo from the groups urging lawmakers to vote against the bill. "*In order to continue to attract advanced recycling investment in Virginia, it is essential that there be a supportive regulatory environment for the industry.*" Asked for clarification on how banning polystyrene would run counter to advanced recycling goals, Vassey said the coalition "*oppose(s) banning FDA regulated products as a matter of principle. Our public policy goals are to significantly expand mechanical and advanced recycling as well as better enforce litter laws,*" he wrote in an email. "*No one supports plastics being improperly discarded into the environment.*"

In an interview, Carr said "*we all know there's enough plastic around*" and "*it's not going to hurt the manufactured recycling not to have the polystyrene.*" But she acknowledged that without the negotiations tying her bill to Hanger's advanced recycling proposal, the polystyrene ban would have been unlikely to pass the Senate; and without her bill, Hanger's might not have passed the House. "*It's kind of a happy ending for everybody,*" she said. "*Politics is the art of coming to a compromise and getting things done, and that's what we've done here.*"

While Carr's bill has passed both chambers, a conference committee of three senators and three delegates is still ironing out differences between the two bills related to whether or not the polystyrene ban should also apply to schools, local governments, and nonprofits.

Written By: Sarah Vogelsong
Published: February 24, 2021
Source: https://www.virginiamercury.com/2021/02/24/advanced-recycling-bill-goes-to-governor-after-great-polystyrene-compromise-of-2021/

New Year Sees New Vigor for Waste Fleet Electrification

The new year has brought a string of business partnerships on electrification of refuse trucks, as companies tap into mounting U.S. enthusiasm across electric vehicle types. Major public companies including Waste Management, Waste Connections, and Republic Services, in addition to private haulers like Recology and some municipally run fleets, have previously tested an array of electric technologies to varying degrees. While EVs may be one tool to help companies improve on climate targets, the industry is in some cases still favoring other options such as compressed natural gas, citing adoption cost and functionality constraints that have plagued previously available electric technologies.

The Biden administration has been vocal about embracing EVs, pledging to electrify the entire federal fleet. And the public markets, particularly with the boom in special purpose acquisition companies (SPACs), have supported EV makers' prospects. The enterprise value of SPAC transactions announced and closed in the past year focused on commercial vehicle electrification exceeded $11 billion at the time they were announced, according to Oppenheimer & Co.'s compilation of public announcements. Their value now far exceeds that amount, said senior research analyst Noah Kaye. There has also been a notable number of M&A deals focused on commercial vehicle electrification.

Waste is among the industries exploring that trend. "*We are seeing this acceleration in piloting activity. We are seeing a proliferation of competitive offerings, and partnerships between incumbents and established companies, between startups and other startups — a very rich constellation,*" Kaye said. "*Ultimately, this is all positive for adoption trends in the industry because the more and more solutions there are, certainly the more investment that's brought to bear lowering the costs, the quicker the adoption curve will be for the industry.*"

One of those companies riding the SPAC wave is Vernon, California-based battery maker Romeo Power, which went from a startup founded in 2016 to a publicly traded firm at the end of 2020 via the blank-check company approach. That decision to go public in part allows the company to continue scaling production capacity after having been "*heads down in stealth mode*" for years, said CEO Lionel Selwood Jr. Goals for 2021 and beyond include achieving a 15-minute charge time and the ability to drive 500 miles on a single charge. About 20 minutes for a fast charge is already possible, Romeo indicates.

Among Romeo's board members is Republic Services Chief Operating Officer Tim Stuart. The two companies announced a strategic alliance agreement last month that initially entails two Republic refuse collection vehicles being retrofitted with electric motors and Romeo battery packs. More broadly, the companies will collaborate to determine key performance metrics going forward for Romeo's technology in Republic's fleet, which represents approximately 16,000 vehicles.

That tie-up followed Republic's update in December it would no longer work with Nikola, thereby canceling the potential for up to 5,000 electric collection vehicles in what had been the industry's largest EV truck order prospect. At the time, Republic cited unexpected costs and longer than anticipated development time as the reason for parting ways. The company also said it planned to "*make additional purchases from various suppliers in 2021*." Selwood Jr. believes the new administration's support for fleet electrification, even if outside of waste, is helping accelerate conversations between partners. "*What it's doing is allowing the industry to finally take electrification as serious.*"

Recent months have also seen Romeo ink partnerships with Lion Electric, yet another company pursuing the SPAC route, and Heritage Environmental Services. The Lion tie-up, announced in November, is a five-year production contract for electric trucks and buses worth $234 million, which Romeo said is its eighth production contract in North America and "*nearly doubles our*

contracted revenue to date."

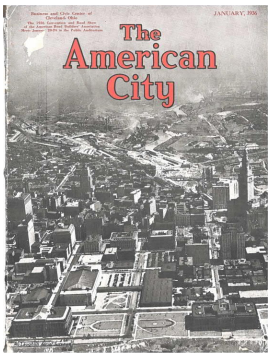
Meanwhile, Heritage and affiliates plan to purchase 500 battery electric vehicles to be implemented between 2022 and 2025, with a longer-term goal of reaching 2,000 electrified trucks. US Ecology has also expressed interest. "*Our fleet manager partners, Heritage and Republic, they realize that the key differentiating factor to electrification is the battery. And that's why they partner directly with us,*" Selwood Jr. said.

XL Fleet, a Boston-headquartered commercial and municipal fleet electrification specialist, also went through the SPAC process at the end of 2020. XL Fleet recently announced it's partnering with Cedar Falls, Iowa-based refuse truck maker Curbtender on development of battery electric and plug-in hybrid electric commercial trucks for use in the waste management space. Within the next year, the companies aim to launch a battery electric refuse vehicle that has a rear loader truck body with an electric propulsion system. XL Fleet believes the refuse truck segment to be worth $7 billion among the broader global commercial fleet opportunity. The partners acknowledged that achieving the right balance of factors like power, weight, range and cost has evaded the market in recent years. "*There are some very demanding aspects of refuse collection and combine that with how high the costs of the systems have been and that's really what's been limiting adoption,*" said XL Fleet CEO Dimitri Kazarinoff. The flipside of that is: "*There's a lot of pent-up demand.*"

Curbtender CEO Kevin Watje has a similarly bullish view, and sees existing municipal customers, large haulers and California operators being among the likely early adopters. "*Our customer base has been very eager [for] electric trucks. We could have sold perhaps hundreds of trucks already had we just had an electric vehicle that would integrate properly and work for our body.*"

Written By: Maria Rachal
Published: February 22, 2021
Source: https://www.wastedive.com/news/waste-fleet-electric-vehicle-partnerships-republic-romeo-xlfleet-curbtender/595115/

A Look Back to Waste Management in 1936



"The American City" Cover - 1936

Two issues of "*American City*" from 1936 were given to me by my college roommate a couple of years ago after he discovered these gems at a flea market. The articles are a fascinating read of facts and opinions for the time period and the advertisements amusing examining the spin from 85 years ago. The table of contents for the 122 plus pages covers everything municipal governments were engaged in for their citizens. Topics included buildings, housing, roads, motor equipment, public works, and more. Some articles reflect challenges of the times one does not ponder as much today such as how to number houses. This article explores the journal's category "*Waste Collection and Disposal*".

The first thing that jumped out was a headline from University City, MO (St. Louis County) bragging about a new "*dump*". Yes, we all acknowledge that is what landfills were termed for years. The phone number for the transfer station in upstate New York where my folks lived remains 357-DUMP; always has been. The article elaborates that a meandering creek was straightened using FERA laborers and the resulting holes from the old creek are now being used as a rubbish dump saving 25 cents per load for the municipality.

A study by the WV League of Municipalities published some results about "*Making Refuse Service Self-supporting*". The article is reporting that 19 WV cities desired to move refuse collection from a general revenue expense to a fee payment. The suggested fee per family was determined to be $2 per quarter. According to the Google search, $2 is now worth $37.64 which appears to be a bit of a bargain. While many facts and data are presented, apparently the reason the fee structure was proposed is the inability of local governments to raise taxes. So… the trend to request payment for services removes this fee from the municipal budget haggling.

Closer to home, George Schusler from the DOH in Pittsburgh, PA writes about "*The Disposal of Municipal Waste*". The article begins, "*One of the most perplexing problems faced by municipalities at the present time is the disposal of wastes. This problem has given municipal officials constant concern, for the cost has become a factor in the establishment of budgets.*" The author is lamenting

Advert from "The American City" for a 1935 Incinerator constructed for the City of Cincinnati capable of processing 284 tons of refuse within 24 hours.

Photo Credit: The American City - 1936


THE AMERICAN CITY 41

EXPERIENCE

DECARIE leads the field in Incinerator Construction

PLANTS UNDER CONSTRUCTION:

LOCKPORT, N. Y. HERKIMER, N. Y. HAVERFORD, PA.
MORGANTOWN, W. VA. MONTICELLO, N. Y. NIAGARA FALLS, N. Y.

As for experience—the first DECARIE incinerator with its "basket-grate upward burning" principle was installed in 1901, and since that time, DECARIE has stood the test of all kinds of competition, has installed more than 25 repeat orders, and stands today at the very top of its specialized field—municipal incineration.

The principle used in the DECARIE furnace for thirty-five years utilizes an indestructible, water-cooled basket-grate suspended within the furnace, above but in the fire, providing means for free unrestricted upward drying and burning of the refuse. The basket-grate takes a large quantity of refuse without smothering the fire and allows maximum freedom for drying and burning. More than 100 municipal installations testify to the efficiency of this distinctive principle.

Today DECARIE is better prepared than ever before to give YOUR CITY the best of service. Engineers with long incinerator experience are ready to help you with your particular refuse disposal problem.

Decarie Installation at Columbus, Ohio

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—Write for 24-Page Illustrated Booklet—

DECARIE INCINERATOR CORP.
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Advertisement for Decarie Incinerator Corp. discussing their "basket-grate upward burning" design used in nearly 30 facilities since 1901.

Photo Credit: The American City - 1936

the disappearance of the cheap old dumps and then lists out a myriad of complaints with the old dumps. The answer for approximately 50% of the US cities is to construct a modern incinerator. The author takes umbrage with the term "*garbage*" and favors "*refuse*" as the alternative description of municipal wastes. The modern incinerator is designed for the complete combustion of all produced gases and fumes by constantly maintaining high temperature in the furnace and combustion chambers. What a far cry from what the waste industry now has for waste combustion. The author laments the difficulty in siting a refuse incinerator due to protests from as far as three miles from the site and the ensuing court costs. This protesting is costing taxpayers. The author details the protestors reasons such as loss of property value, misunderstanding about how incinerators work, foul and obnoxious odors, and more of what we in the industry still face. The author suggests that proposals to construct incinerators begin with a series of informational meetings to combat the negative opinions. Here is a new one though from the 1936 article, American cities are requiring householders to wrap their garbage prior to disposal claiming better sanitation, but households complain about the requirement. The article contains a bragging conclusion that Pennsylvania passed legislation in 1930 requiring a license to construct and operate an incinerator, being one of the first states to do so.

Some of the advertisements are interesting in that many products and names are still recognizable. The photos of motor equipment is a trip down memory lane with Ford promoting increased power from their new V-8 engine. Other ads were relevant at the time but seem meaningless today, like the two full page ads for waste incinerators. What did this author learn from this investigation into waste news from 85 years ago, some waste management issues are still with us and dealing with the collection and disposal of waste was, and remains an expensive endeavor.

Written By: Robert F. Hasemeier,
Barton and Loguidice

Tri-County Landfill Approved for New Landfill at Old Landfill

The state Department of Environmental Protection has approved the first of a handful of permits needed to reopen the Tri-County Landfill near Grove City in Mercer County. The DEP permit, announced Monday, allows Tri-County Inc. to construct a new landfill within the 99-acre footprint of the old one and bring in 600 truckloads or up to 4,000 tons of trash a day. It also requires the landfill operator to excavate more than 1.5 million cubic yards of waste from the old unlined landfill and relocate it to new lined and monitored areas of the landfill.

Reopening the landfill, which started operating in Liberty and Pine townships in 1950 and closed in 1990 after it couldn't meet new state regulations, was opposed by those testifying at a public hearing in October 2019. They said the permit would allow the previous municipal trash landfill to also accept residual waste, a classification that includes construction waste, acid mine drainage sludge, and radioactive shale oil and gas drilling waste. They also cited potential problems with noise, odors, truck traffic, water and air pollution, and bird-airplane collisions. The landfill, 60 miles north of Pittsburgh, is about 1.5 miles from the Grove City Airport, closer than Federal Aviation Administration rules allow.

"*DEP carefully reviewed the information contained in the permit applications, asked many questions and were eventually satisfied that Tri-County provided sufficient information to meet the regulatory requirements for approval,*" James Miller, director of the DEP Northwest Regional Office, said in a DEP news release. "*We gave careful consideration to the comments received from residents and Liberty and Pine townships and made sure Tri-County's application addressed those concerns*."

Edward R. Vogel, vice president of Vogel Holding Inc., which owns the Tri-County Landfill and another in Butler County, the Seneca Landfill, said the amount of waste material from shale gas drilling and fracking operations "*depends on the market*," and added that most of that waste is handled by larger disposal firms.

Tri-County has applied for additional permits for water discharges, wetland mitigation, and air emissions; operation of the landfill cannot begin until all are approved. Mr. Vogel said he expects those approvals soon.

The DEP's response document to public comments about fracking waste disposal said waste trucks are monitored at landfills for radioactivity, and it cites a 2004 study, done well before any shale gas development occurred in the state, that found only low levels of radioactive materials in landfill water runoff. The DEP document states, "*the potential for negative effects on surface water from accepting oil and gas hydraulic fracturing wastes at the landfill should be minimal*."

But Jane Cleary, a member of the Citizens Environmental Association of the Slippery Rock Area, and one of more than two dozen people who voiced opposition to the landfill at the DEP hearing in October, said the department's operating permit approval was "*quite a shock*." Ms. Cleary said the group hadn't met to decide whether it will appeal the permit approval, but it is continuing to press the department to hold another public hearing to get comments on the landfill's water pollution discharge permit. The DEP did extend the comment period on that National Pollutant Discharge Elimination System permit to Jan. 12, but has not yet decided whether to hold a hearing.

She said the landfill intends to cover its perishable wet garbage with shale gas drilling and fracking waste, producing 85,000 to 120,000 gallons of runoff a day that contains radioactivity. "*Our concerns are that the landfill can't treat that radioactive material*," Ms. Cleary said, "*and it will flow into Wolf Creek, a tributary of Slippery Rock Creek.*"

The 10-year operating permit would also allow Tri-State to increase the height of the 79-acre landfill from 40 feet to more than 100 feet, a height that has prompted opponents

to dub it "*Trash Mountain*." The total proposed capacity of the landfill would be 10.2 million cubic yards, or approximately 7.5 million tons, according to the DEP.

The permit allows the landfill to operate 24 hours a day, six days a week (Monday through Saturday), but will only dispose of waste subject to decay, such as household garbage, during nighttime hours to reduce the attraction of birds in the area of the nearby airport. "*The birds of concern are seagulls,*" Mr. Vogel said, "*and seagulls only feed during the day.*"

Written By: Don Hopey
Published: December 28, 2020
Source: https://post-gazette.com/news/environment/2020/12/28/Tri-County-Landfill-approved-by-DEP

Calling All Students
Scholarship Applications are Due May 1!

The Grant H. Flint Scholarship Awards Program and the Robert P. Sterns/SCS Engineers Scholarship Program are accepting applications from High School Seniors, College Junior or Seniors, and University Graduate Students who meet the qualifications below, now through May 1. If you are a child or grandchild of a SWANA Member, or a SWANA Member Student studying for a field within the Industry, you could receive a scholarship.

The Grant H. Flint Category I Award
This scholarship is open for high school seniors entering a junior or four-year college/university. This award is open to ***any field of study***. To be eligible, ***candidates must be the child or grandchild of a SWANA Member*** (sponsor).

The Grant H. Flint Category II Award
This scholarship is open to college/university juniors or seniors studying something that has a potential for a career in solid waste management. Please note that this is not a limited to strictly a science or engineering requirement. To be eligible, ***candidates must be the child or grandchild of a SWANA Member*** (sponsor) ***OR a SWANA Student Member.***

Robert P. Stearns/SCS Engineers Scholarship
The Robert P. Stearns/SCS Engineers Scholarship is open to college/university graduate students studying environmental science, engineering, or other field related to solid waste or resource management. To be eligible, ***candidates must be the child or grandchild of a SWANA Member*** (sponsor) ***OR a SWANA Student Member.***

All completed scholarship application forms and corresponding documentation must be submitted by May 1 to
Chanda Martino
Keystone SWANA Administrative & Marketing Director
admin@keystoneswana.org

Application materials are available online at keystoneswana.org. Just go to the News Tab and select "Scholarships". If you have any questions please contact Chanda Martino at admin@keystoneswana.org or call (866) 467-9262.

The Keystone Chapter Scholarship Committee Members are responsible for reviewing and selecting local winners, and forwarding one representative for each scholarship category to the International Scholarship Committee for review.

Seven Takeaways on Organic Recycling from COMPOST2021

After adapting to a tumultuous 2020, the composting sector is primed for ongoing expansion with multiple tailwinds from growing consumer demand, sustainability policies and more. As outlined during its annual conference last week, U.S. Composting Council (USCC) priorities for the year ahead include pushing for more federal support around composting infrastructure, the creation of an industry-specific NAICS code, greater consideration of organics in municipal solid waste plans and an ongoing effort to strengthen member offerings.

These seven key themes – among many – stood out from speakers across multiple panels at the two-day virtual event, pointing to where the sector may be heading in 2021.

The pandemic has spurred new demand, complications

As more people spent time at home last year, yard work and gardening reportedly took on new levels of interest. Frank Franciosi, executive director of USCC, said a revived "*Victory Garden*" movement was a boon for the sector and demand is likely to continue. "*It looks like compost sales are going to be again through the roof, so hopefully everybody is stockpiling their inventories now. We expect to have another banner year,*" said Franciosi.

Conversely, COVID-19 has also impacted the logistics of daily operations, research projects and preparations for upcoming regulations. This includes efforts to prepare for the Jan. 1, 2022, start date of California's SB 1383 policy. Compost facility permitting consultant Matt Cotton estimates those implementation efforts could get set back approximately two years due to coronavirus disruptions.

At the same time, some projects have managed to continue during the pandemic. Jersey City, New Jersey, grew its organics drop-off program and is piloting a curbside program, according to Chief Innovation Officer Melissa Kozakiewicz.

New market opportunities are ripe for exploration

Conference speakers highlighted a number of other ways to leverage new or existing outlets for finished compost. Charles Duprey, founding president at consulting firm Naturcycle, highlighted ongoing potential to encourage the use of compost by state transportation agencies for roadway projects and soil amendments. USCC's Seal of Testing Assurance Program is now used as an acceptance standard by 23 states, but many states continue to have their own preferences around feedstock and use cases.

In a more unique move, Arizona-based Tank's Green Stuff has found success creating custom blends for boutique shops and partnering with social media figures for promotion. Specialized products now account for an estimated 10% to 20% of the 50,000 yards of compost being sold each year and can yield a higher price. "*This is an exercise in both noticing marketing trends and also finding local influencers or YouTubers or people in your community,*" said Shota Austin, compost operations manager, noting that a need for niche compost products exists in every community and can also have broader appeal. "*The product just took off because it's on social media. People are posting about it, people are seeing it all over the country.*"

In Arizona and beyond, another niche market is working with hemp and cannabis growers. Jim Davis, vice president of business development at Atlas Organics, shared early results from a research partnership focused on hemp production in South Carolina. He described it as a model others could potentially explore in their own states.

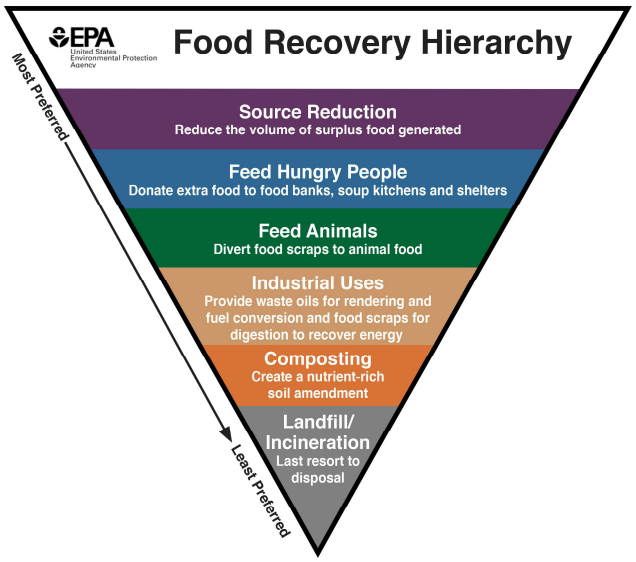
USCC's newly elected board president said figuring out market factors is key to starting or maintaining any successful operation. "*Build your business around the end product and then you will be successful, the other side of it you can grow into,*" said Brian Fleury, general manager of facilities at major composter WeCare Denali.

States and workplaces expanding infrastructure

In Cotton's view, one of the most important requisites for good composting infrastructure is strong and clear state legislation and regulations. California, New Jersey, and Vermont are among the handful of states he said have taken noteworthy legislative steps to bolster food waste diversion. Even still, those states have areas for improvement.

California's ambitious SB 1383 policy targets a 75% reduction in organic waste disposal by 2025. While Cotton believes California has good systems in place for yard waste, the state still has a lot of work to do on food waste. Some 50 to 100 new compost facilities are expected to be established as part of 1383 implementation, but Cotton noted the estimate relies on new collection programs being put into practice.

In New Jersey, starting in October, certain commercial establishments with high levels of food waste and within close enough range of a processing facility will be required to divert that material from disposal. But the requirement hinges on access to those facilities, just one challenge to operations in the state, said Jairo Gonzalez, president of the New Jersey Composting Council.



EPA's Food Recovery Hierarchy outlines that source reduction and feeding the hungry should be prioritized over composting and disposal.

Photo Credit: EPA

Meanwhile, a food scraps disposal ban took effect in Vermont in July and food donation has in turn increased, supporting a goal of "*feeding people and not landfills,*" said Natasha Duarte, director of the Composting Association of Vermont. Addressing the issue of packaged food being sent to a landfill, Duarte also reported two depackaging facilities are being considered in the state by private companies. Additionally, the state has seen three new digesters open since 2018.

Infrastructure expansion is also happening at the workplace level, even through the pandemic. One example is at Northern California-based Sutter Health, which began a food waste diversion pilot in January 2020 at 10 of its 24 locations that extends through March of this year. So far, that program has saved 59,000 pounds of food waste, reported Jack Breezee, valley area director of regional food and nutrition services. The program will be extended to all remaining locations this year, and Sutter aims to be a model for healthcare systems across the U.S.

Community composters seek greater voice in government decisions

According to advocates of community composting (a locally based organization for closed loop set-ups feeding community gardens and farms) most barriers to growth remain under government control, and complying with regulations is a costly challenge to small-scale operators. Kourtnii Brown, a co-founder of the California Alliance for Community Composting, highlighted how different layers of regulation affect composters around the country.

That's why having a voice in shaping those rules and regulations is important, speakers said. Brown encouraged other advocates to seek exemptions for small composters and tiered regulations for different sizes of operations, push for more incentives programs for composting, and even take the initiative to draft legislation. People involved in community composting "*should be sticking their head in all of these windows.*"

What might get lost in the shuffle, as the climate benefits of diversion and clean energy from food waste are discussed, is the regenerative value of compost within

communities. People involved in community composting must have "*the right seats at the right tables*" at the federal, state, and local levels, said Ben Parry, CEO at Compost Crew, a food scrap collection business operating in the Washington, D.C. region. On the larger municipality scale, communities may come to different conclusions on whether fully subsidizing a collection program makes sense for their goals. If the goal is to have maximum community participation, based on Parry's experience at Compost Crew, price proves to be a "*major factor*" in participation. This means a fully subsidized curbside program may be the most successful approach.

Parry also said governments interested in building out their composting infrastructure ought to work with existing community composters and mission-driven local businesses, saying they have the infrastructure and the know-how in place to get started immediately. "*We need to beat this drum hard.*"

Contamination remains a challenge, but solutions are improving

As interest in organics recycling ramps up, numerous speakers said the key issue is figuring out how to keep the stream clean. One of the most cost-effective solutions mentioned was regular and specific education for customers, including generators and haulers. "*I really think it's the cornerstone and most cost-effective way to really make an impact on contamination in our waste streams,*" said Ted Dirkx, sales manager at equipment company Vermeer. Potential approaches include stopping service for repeat offenders, or working on some type of certification program with rewards or penalties based on tip fee pricing. Speakers also talked about the need for more public education around how the process works, especially as younger sustainability-minded generations rise up.

At the Kansas City Chiefs football stadium, one lesson has been that training attendees to differentiate between different colored bins – as opposed to a previous approach with red Chiefs-branded bins across the board – really helps. "*One of the first mistakes we made that we learned from was how important it is to have the correct color of the container…It's hard to incentivize, sometimes, our fans to make the right decision,*" said Vice President of Stadium Operations & Facilities Brandon Hamilton.

Even for all of these efforts, it was widely acknowledged that technology investments will be a necessary backstop. "*At some point in this industry we're going to have to just figure out how to deal with it and get it out to hit different recycling goals,*" said Gary Nihart, chief operating officer for Atlas Organics.

The consensus across multiple sessions was the more that can be done upfront the better, especially when it comes to plastics – such as utensils, films, packaging and more. "*You can't get plastic out of compost once it's gotten screened and it's a half inch minus,*" said Todd Dunderdale, senior area sales manager at Komptech, touting the potential benefits of shredding versus grinding as one example. "*The more times we mechanically break down that material, the greater chance we're going to have plastic in the finished compost.*"

Depending on a site's feedstock, scale and budget, there were a number of technical solutions shared by speakers that could be a good fit. Depackaging systems came up repeatedly, as did vacuum equipment to capture film plastics, magnets for metals and other potential process or equipment changes.

While operational best practices are evergreen, technology is advancing

As more compost facilities spring up in regions around the country, panelists emphasized the need to not lose sight of operating efficiencies for longevity and sustainability. This includes basic but essential concepts such as ongoing employee training, regular equipment maintenance and cordial community relations. If neighbors have odor complaints and aren't on good terms, said Nanci Koerting, operations manager at Grant County Mulch, "*they can bring you to a halt.*"

As volumes potentially ramp up, panelists also emphasized the importance of an efficient setup

that avoids handling material multiple times, as well as ensuring certain stages of the process aren't taking up too much real estate. "*We're not dealing with huge margins,*" said Nihart. "*Any little mistake can eat up all the margin on your product.*"

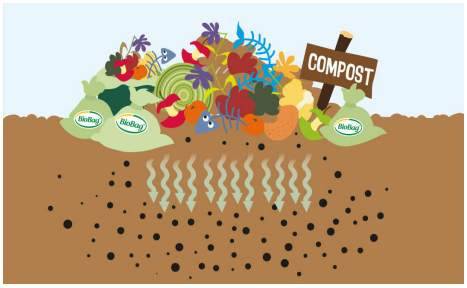
In addition to assessing the most efficient watering methods, both in terms of equipment and strategy for certain climates, speakers previewed the growing use of more advanced technology. Fleury said Denali is now using drones at all outdoor sites to help measure volumes and other metrics, noting this data can be useful for engaging with regulators. Others have researched potential uses for robotics.

"*I think there's a lot of excitement about taking the MRF equipment into our industry*," said Scott Gamble, organics specialist at Waste Management, with the caveat this application could be challenging because of the wetter feedstock.

Composting has a key role to play in climate change mitigation

While discussions around compost's climate implications largely focus on its role as a solution, the conference also touched on the potential to reduce the sector's own emissions.

Denali has begun developing a greenhouse gas inventory across all operations. The company is also taking climate change into consideration when it comes to thinking about power usage, water usage, working conditions and other factors. "*High emissions can tend to correlate with inefficient operations*," said William Brower, project manager, explaining how pockets of methane can be a sign more aeration is needed. "*If you're composting well you're going to have lower emissions*." Examples of where Denali is reducing its footprint include switching away from propane heating, looking at equipment efficiencies and procuring renewable energy. Brower



was clear that data shows composting is more preferable to landfill disposal, even with gas capture, from an emissions standpoint.

Compost's other climate benefit, which is still in the earlier stages of understanding, is its role in soil health. "*Compost is a climate solution because it helps sequester carbon in the soil*," said Rebecca Ryals, professor at the University of California, Merced. "*There's a really emerging interest in how we can better manage our soils, particularly for carbon storage.*" Ryals highlighted how ongoing state and federal policy evolution is beginning to recognize these benefits, including through funding for farmers utilizing compost. She is working on a research project assessing compost usage on slopes at property owned by StopWaste, a waste management agency in Alameda County, California, and has seen initially promising results.

Recology has been involved in related efforts, via the California Department of Food and Agriculture's Healthy Soils Program that provides funding to farmers for compost usage. The company has now partnered with farms on 10 projects, supplying 6,500 tons of compost between 2018 and 2020. Erin Levine, an account manager with the company, said initial data is "*all looking very promising*" with farmers reporting anecdotal changes such as lusher grass and lower calf mortality rates.

These themes of compost's positive benefits were a frequent topic throughout the event, though one of its keynote speakers made clear there is more work to be done on conveying that message when it comes to climate and other areas. "*The value of compost is not avoided methane. The value of compost is in the regeneration of the soil. I'm not saying methane avoidance isn't a great thing – of course it is. But that's not where the value lies,*" said "*Drawdown*" author and environmentalist Paul Hawken. "*The ultimate value is actually in regenerating life on Earth. All life comes from soil.*"

Written By: Cole Rosengren and Maria Rachal
Published: February 3, 2021
Source: https://www.wastedive.com/news/7-takeaways-compost-organics-recycling-climate/594428/

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!

- John S. Blosinski, J&K Trash Removal, Inc.
- Paul Brady, Whitetail Disposal Inc.
- Kyle Clevenger, Whitetail Disposal Inc.
- Michal Schmidt, Whitetail Disposal Inc.
- John O-Brien, CCR Chemical - Rusmar/NCM
- Bradley Kane, Slippery Rock Construction
- Connie M. Butler, Delaware County Solid Waste Authority
- Daniel Miller, CCR Chemical - Rusmar/NCM
- Philip Johnson, CCR Chemical - Rusmar/NCM
- Anna Rosswog - Montauk Energy
- Jared J. Watson, CCR Chemical - Rusmar/NCM
- Fred Rullo, CCR Chemical - Rusmar/NCM
- Meredith Liou
- Andrew Casey, Eagle Disposals of PA
- Abigail Foltz
- Matthew George Mullen, University of Pittsburgh
- Siddharath Patel, Carnegie Mellon University
- Zachary Widniewski
- Aditya Manohar, Carnegie Mellon University
- Gina Bongiovanni, Elizabethtown College
- Jean Farley, Elizabethtown College
- Sanskrit Singh, Carnegie Mellon University
- Tang Ho Yee
- Bret Swanson, University of Pittsburgh
- Don Isabella, Schaefer Systems
- Alex Quinn, Kroff Landfill Technologies
- Patricia Thomas, Barton and Loguidice
- Anthony W. Eith, Civil and Environmental Consultants, Inc.
- Michael Logan, Compliance Plus Services, Inc.
- Richard Walton, Noble Environmental Inc.
- Loretta Baker, Greater Lebanon Refuse Authority
- Rachelle Kuhn
- Charles McCarty, Greater Lebanon Refuse Authority
- William Miller, Greater Lebanon Refuse Authority

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****

APRIL 2021

- Thursday 4/1, 10AM, **Board Meeting Conference Call**
- Distribute Spring Edition of *The Keystone*

MAY 2021

- Saturday 5/1, Chapter Scholarship Application Deadline
- Thursday 5/6, 10AM, **Board Meeting TBD**

JUNE 2021

- Tuesday 6/1, Deadline for submittal of Grant H. Flint Scholarship recommendations to SWANA
- Thursday 6/3, 10AM, **Board Meeting Conference Call**
- Nominating Committee presents Slate of Officers and Directors for election.

JULY 2021

- **No Board Meeting**
- Wednesday 7/15, Article Deadline for Summer Edition of The Keystone

AUGUST 2021

- Thursday 8/5, 10AM, **Board Meeting Conference Call**
- Distribute Summer Edition of *The Keystone*

SEPTEMBER 2021

- Wednesday and Thursday 9/8-9/9 **21st Annual Joint Fall Conference, Hilton Harrisburg**
- Thursday 9/9, **Chapter Annual Business Meeting and Election** Immediately following Fall Conference
- Chapter Fiscal Year Ends

To Be Determined

- **Metals Recovery from MSW Ash Mini-Tech Seminar** at Frey Farm Landfill

Chapter Officers and Board of Directors

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President
Nestor Resource, Inc.

Denise Wessels, P.E.....Vice President
Project Director
SCS Engineers

Tom Lock..... Secretary
Northeast Regional Manager
SCS Field Services

Matthew R. Foltz .....Treasurer
Project Manager
Civil & Environmental Consultants, Inc.

Sean C. Sweeney, P.E.....Immediate Past President
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Environmental Services Director
Streets Department, Sanitation Div. City of Philadelphia

Scot C. Sample
Executive Director
Northern Tier Solid Waste Authority

Mike Engel
Assistant Operations Manager
Wayne Township Landfill

Jim Lambert
Executive Director
Monroe County Municipal Waste Management Authority

▶ Private Sector Directors

Jill Hamill, P.E.
Project Manager
Civil and Environmental Consultants

Charles Raudenbush, Jr.
Public Sector Services Manager
Waste Management

Don Isabella
Northeast Regional Manager
Schaefer Systems International, Inc.

Carolyn Witwer
Director of Sales Development
Penn Waste

▶ International Board Member

Robert Watts
Executive Director
Chester County Solid Waste Authority

▶ Young Professional Director

Brandon Comer, P.E.
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T&M Associates

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Administrative & Marketing Subcommittee

Sean Sweeney

Articles and By Laws

Scott McGrath - Chair

Robert Watts

Audit / Budget / Financial Committee

Sean Sweeney

Communications & Newsletter Committee

Carolyn Witwer - Chair

Alison D'Airo - Newsletter Editor

Michele Nestor

Scott McGrath

Denise Wessels

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Charles Raudenbush, Jr. - Chair

Membership & Marketing Committee

Carolyn Witwer - Chair

Jill Hamill

Michele Nestor

Personnel & Nominating Committee

Tom Lock - Chair

Mike Engel

Program & Training Committee

Michele Nestor - Fall Conference Chair

Denise Wessels - Mini Tech Chair

Tom Lock

Carolyn Witwer

Road-E-O Committee

Robert Watts - Chair

Mike Engel

Scot Sample

Safety Ambassadors

Elizabeth Osborne - Safety Ambassador

Jill Hamill

Scot Sample

Kevin Weaver

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

Kathryn Sandoe

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.