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The PALL 2017 Keystone

For the Solid Waste Professionals of the Keystone Chapter of SWANA

19th Annual Joint Fall Conference Another Success!



Attendees at the 19th Annual Joint Fall Conference enjoying one of the many Educational Sessions offered.

The 2017 Annual Joint Conference was the nineteenth such event held by Keystone SWANA in conjunction with the Pennsylvania Waste Industries Association. In a tip of the hat to long standing attendees and industry veterans, the program included a Pa Waste Industry History Quiz. It sparked more than a few "glory days" discussions and laughter about "the way we were."

Despite experiencing record breaking attendance this year, the milestone was bittersweet. During the opening ceremonies, we memorialized Wayne Alexander, Steve Tucker and Dave Terrill, past leaders in Keystone SWANA. Their legacies remain as substantial contributions to the advancement of the waste and recycling industries in Pennsylvania.

In keeping with our transitional industry, each year the conference committee experiments with the format, agenda, and topics for discussion. The goal of the committee is to provoke and stimulate discussion, fuel debate on new concepts, and provide advanced warning of pending changes. The committee also strives to offer a balance between operational and regulatory issues we face daily and those which are gaining momentum throughout the nation.

A considerable number of the organizations whose employees attend the conference have diversified services. To address those interests, the conference now offers a broader spectrum of topics. In years with a lack of regulatory initiatives and new technical guidance, developing the agenda is open to greater variety. Plans are to add different tracks for collection, recycling, and other processing technologies. This year we increased the number of sessions, but each had fewer speakers, allowing for a more substantive presentation.

To evaluate if the attendees, sponsors, and exhibitors are satisfied with these changes, we conducted a follow-up survey. The volume of responses was favor-

FALL 2017 u 2 THE KEYSTONE

able, but we did learn that a shorter survey format would be better in the future.

The majority of attendees told us that they enjoyed and learned more than anticipated from some of the nontraditional session topics. Most respondents gave kudos to the sessions on creating habitats for bees as a beneficial use of landfill buffer zones. The issue of upgrading personnel policies to deal with medical marijuana in the workplace was ranked as an important takeaway, as were pending changes to material management and Act 101. One or two landfill engineers (as they described themselves) wish we would stick with an old school approach.

One thing is certain, our attendees value the conference for its networking and educational opportunities. We have our sponsors and exhibitors to thank for making it all possible. We are gearing up for the 20th anniversary year in 2018. Mark the dates on your calendar - September 5 and 6 at the Harrisburg Hilton.

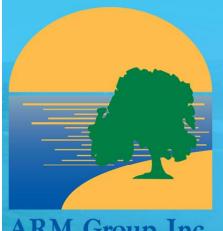
Written By: Michele Nestor, Secretary of the Keystone Chapter SWANA. President of Nestor Resource Inc.



Attendees enjoying the beautiful Reception Dinner on Wednesday evening.



Attendees checking out the various industry professionals set up in the Exhibit Hall.



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THE KEYSTONE FALL EDITION 2017 u 3

SWANA Speaks About China Scrap Ban

The Solid Waste Association of North America (SWANA), Silver Spring, Maryland, has submitted comments to the World Trade Organization in response to the July 18, 2017, notification from China on its intent to ban certain scrap imports.

SWANA's comments explain what effect the proposed ban on certain categories of recyclables could have on municipal recycling in the United States and Canada, requests further clarification on the terms of the ban and offers technical assistance to the Chinese government on waste and recycling related matters.

"China's proposed import ban is a very important issue for SWANA members in the United States and Canada, and is a critical one for many of the communities they serve," says David Biderman, SWANA executive director and CEO. "We need to work with the Chinese government to develop a practical timeline for the proposed ban while improving bale quality for material exported to China and other foreign markets."

SWANA lays out challenges the United States likely will face in adapting to the ban and discusses recycling on the state and local levels and the lack of domestic recycling infrastructure to process material currently being exported.

"Because single-stream recycling has become the prominent method of recycling in North America, it is imperative that the quality of the sorted recycled materials be as high as possible to avoid loads being rejected," says Rich Allen, president of SWANA. "Many material recovery facilities are looking to upgrade their sorting systems to improve the quality of their bales along with better educating their residents on what can and more importantly cannot be recycled. The actual impacts of the Chinese waste ban are still being interpreted, but SWANA is keeping close tabs on the implications for our members and the industry."

SWANA says it supports the concerns previously filed by the Institute of Scrap Recycling Industries (ISRI) and Waste Management and suggests a clearly defined fiveyear transition period for the ban to allow time for customers and suppliers in the United States and the global marketplace to adapt to the policy change.

"We appreciate SWANA joining with ISRI and others to raise concerns about China's import restrictions," says Robin Weiner, CEO of ISRI. "We look forward to working with SWANA to support the Chinese government's environmental protection goals."

Written By: Waste Today Staff Members

September 5, 2017

Source: http://www.wastetodaymagazine.com/article/swana-submits-comments-wto-china-scrap-ban/swana-submits-comments-wto-china-scrap-ban/





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"Athletic events offer a great

opportunity for engaging with

a large, diverse crowd that

may or may not be familiar

with sustainability issues,"

Study Examines Sporting Event Recycling



Stock Image From: Pixel

Researchers at the University of Missouri, Columbia, Missouri, recently published a study analyzing waste and recyclables generated during Mizzou's 2014 home football season, finding that sporting venues can achieve or exceed the standards for zero waste by offering better

recycling receptacles and sorting options.

"Zero waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials with the target of recycling or composting at least 90 percent of the waste generated at football games," says Christine Costello, assistant research professor of bioengineering in the MU College of Engineering. "Our objectives were to develop a system to characterize the waste produced at sporting

events prior to game day and unsold food disposed of on game day, quantify the greenhouse gases produced, identify waste management and recycling strategies and develop scenarios that event managers can use to decrease life cycle greenhouse gas emissions and energy use."

The research team audited the landfill-destined waste generated at Mizzou's Memorial Stadium at five home football games game in 2014. Team members counted garbage bags disposed of during and after the games and sorted representative sample bags, which were inventoried to identify the contents.

An estimated 47.3 metric tons of waste were generated. The majority of the waste, 29.6 metric tons of food, was prepared off-site, where a full 96 percent was unsold food waste. The remaining 17.7 metric tons of waste originated

inside the stadium, with recyclables accounting for 43 percent, followed by food waste at 24 percent, with most of the remaining waste destined for the landfill.

Recommendations for reducing waste and bringing the stadium up to a 90 percent recycling or composting goal include:

- donating unsold food to local charities and food banks:
- targeting and swapping out materials that aren't recyclable or compostable;
- " understanding how to better forecast food demand in box seats and suites;
- " replacing foods and preparations that are involved in higher greenhouse emissions, such as beef, with more vegetables and chicken;
- providing more recycling stations and receptacles throughout the stadium; and
- educating attendees about recycling and sustainability.

"Athletic events offer a great opportunity for engaging with a large, diverse crowd that may or may not be familiar with sustainability issues," says Ronald G. McGarvey, who holds a dual appointment as an assistant professor of industrial and manufacturing systems engineering

in the MU College of Engineering and an assistant professor of public affairs in the Truman School of Public Affairs. "Sporting event organizers can generate proenvironmental messaging to a broad audience and should take advantage of getting the word out about sustainable operations. This would be a wonderful public relations tool for these professional and collegiate leagues and should be pursued."

Costello notes that the MU Office of Sustainability has a Gold Rating from the Sustainability Tracking, Assessment and Rating System through the Association for the Ad-

vancement of Sustainability in Higher Education. Its mission is to be the focal point and catalyst for sustainability related operations, education, research and planning on a campus that implements the Missouri Method by serving as a living laboratory for sustainability. Also, several teams in the Southeastern Conference (SEC) are working toward zero-waste events, including the University of Florida.

The study, "Achieving Sustainability beyond Zero Waste: A Case Study from a College Football Stadium," recently was published in Sustainability. Funding was provided by The Mizzou Advantage, an initiative that fosters interdisciplinary collaboration among faculty, staff, students and external partners to solve real-world problems in four areas of strength identified at the University of Missouri, including food for the future, one health/one medicine, sustainable energy and media of the future.

The study's authors express their thanks to Anthony Wirkus and the University of Missouri's Intercollegiate Athletics Department for their interest and cooperation throughout the study.

Written By: Recycling Today Staff

September 4, 2017

Source: http://www.wastetodaymagazine.com/article/study-examines-sporting-venue-recycling/study-

examines-sporting-venue-recycling/



Image of trash left behind following a single game.

Photo From: Flickr

SAVE THE DATE: 11/2/17

Geotechnics Seminar

Keystone SWANA is hosting a half-day seminar on November 2, 2017 at Geotechnics, Inc. Pittsburgh Facility located in East Pittsburgh, Pennsylvania.

Various geotechnical and geosynthetic tests relevant to landfill construction will be discussed and demonstrated.

Speaker and topics include:

- Introduction Mr. Randy O'Rourke
- " Geosynthetics Testing Mr. JP Kline, P.E.
- " Geotechnical Testing Mr. Nate Melaro
- " Laboratory Tour

The seminar will start at 11:30 am with lunch followed by a laboratory tour at 11:00 am. The seminar will start at 11:30 am with lunch followed by a laboratory tour at 11:00 am

Geotechnics is an independent accredited laboratory that is nationally recognized for providing high quality geotechnical, geosynthetic laboratory and field testing services throughout the United States.

Register online at http://www.keystoneswana.org/

When:

Thursday November 2, 2017

Where:

Geotechnics, Inc. 544 Braddock Avenue East Pittsburgh, PA 15112 412-823-7600

NOTE: (Enter East Pittsburgh 15112 as part of your GPS search)

FALL 2017 u 6 THE KEYSTONE

Republic Services to Acquire Largest Indie Recycler

Republic Services, Inc. announced today that it has entered into a definitive agreement to acquire ReCommunity Holdings II, Inc., the largest independent recyclingprocessing company in the United States. ReCommunity's assets and expertise will complement Republic's existing recycling collection and processing operations, and will enable the Company to meet its customers' growing demand for recycling in multiple markets.

The acquisition involves 26 recycling centers in 14 states, primarily in locations where Republic maintains a leading

market presence. Combined, these facilities recover approximately 1.6 million tons of recycled commodities annually. The transaction also includes the assumption of multiple long -term municipal agreements with processing fee-based structures, which aligns with Republic's innovative recycling pricing model.

"We believe this transaction will enable us to meet growing customer demand for recycling services, while achieving one of our key sustainability goals."

ident and chief executive officer of Republic Services. "Recycling continues to be one of the fastest growing segments of the waste stream, and our focus remains on investing in traditional recycling in select and prioritized markets where

RECYCLING

customers have demonstrated both a demand and a willingness to pay for recycling."

> "Through the use of innovation and technology, ReCommunity has developed state-of-the-art recycling processing capabilities in select markets, enabling communities to recover valuable commodities from the waste stream and achieve their sustainability goals," said Dennis McGill, ReCommu-

nity's chief executive officer. "With this acquisition, we are joining a company committed to the same environmental and community ideals and will be able to deliver a broader range of services to our customers."

As part of its Blue Planet sustainability platform, Republic has a goal of adding an additional 150,000 tons or more per year of recycling capacity by 2018. Republic currently operates 64 recycling centers nationwide which recover approximately 2.5 million tons of recycled commodities annually.

"We believe this transaction will enable us to meet growing customer demand for recycling services, while achieving one of our key sustainability goals," said Don Slager, pres-



Republic Services Trash Truck. Photo From: Flickr

Written By: Republic Services, Inc.

August 24, 2017

Source: http://www.prnewswire.com/news-releases/ republic-services-to-acquire-nations-largest-independent-

recycling-company-300508871.html

Greentree LF Fined by OSHA Following Landslide

A federal agency fined the owners of Greentree Landfill more than \$12,000 for their alleged role in the deadly February landslide. The Occupational Safety and Health Administration confirmed...on Monday that Advanced Disposal Services, the company that owns Greentree, received the citation.

The federal agency described the type of violation as

"serious" in its 11-page document, citing the company's failure to create "a place of employment which were (sic) free from recognized hazards that were causing or likely to cause death or serious physical harm to employees." Further, OSHA wrote that "employees were exposed to the hazard of working at a landfill with unstable conditions, resulting in a landslide that caused the death of an employee."

Advanced Disposal
Greente Louis
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First Responders at entrance to Greentree Landfill.
Photo from: Community Media Group, Inc.

On February 8, 2017 a large section of the Elk County Landfill collapsed onto five workers. Four workers escaped but William Pierce, 49, was killed in the landslide. Following the initial incident PADEP and OSHA began their investigation, as well as work to shore up the landfill to prevent similar incidents.

OSHA specifically cited cracks repeatedly appearing [in] the landfill. According to their report, "The employer failed to take appropriate precautions and remedial measures in response to cracks that repeatedly appeared in the landfill, indicating that the soil, waste and sludge materials were unstable," wrote OSHA officials in the citation.

A spokesman for Advanced Disposal, of Ponte Vedra, Florida stated that the company was brining in materials

requested by DEP to improve its landfill, and that an engineer was hired to assess the accident.

Reports dated from early May indicated a crack reportedly four to five feet wide by 100 feet long was seen in the active disposal area. That information was obtained in state inspection records, which also showed employees reportedly knew of cracks forming around the site.

An OSHA spokesperson said that the agency was unable to say "exactly what caused the landslide, other than it was most likely a combination of events." OSHA confirmed the state's department of environmental protection is still investigation the exact cause of the landslide.

"One general duty clause violation was issued with the

maximum dollar amount for a serious violation," said Lenore Uddyback-Fortson, a regional spokesperson for the U.S. Department of Labor. "There were no other specific OSHA standards which were violated."

Advanced Disposal officials have 15 days to either discuss the charges with OSHA, correct and pay them or contest the citation. An Advanced Disposal spokesperson has yet to comment on the ruling.

*This article was edited from its original format to include additional details on the initial incident.

Written By: Kody Leibowitz August 14, 2017

Source: http://wjactv.com/news/local/greentree-landfill-fined-12k-by-osha-in-landslide-collapse-that-killed-employee

Waste Management: Pollinator Partnership Update

Worldwide there is evidence that pollinators are rapidly decreasing and disappearing from natural areas. The US has lost over 50% of its managed honeybee colonies over the past 10 years. The Monarch butterfly population has decreased to alarmingly low levels due to loss of milkweed and habitat in the US. Why should we care?

In the US, pollination by bees, native bees, and other insects produces \$40 billion worth of products annually. Food and beverages produced with the help of pollinators include: apples, blueberries, chocolate, coffee, melons, peaches, potatoes, pumpkins, vanilla, almonds, and tequila. Worldwide, roughly 1,000 plants grown for food, beverages, spices, fibers, and medicines need to be pollinated.

In 2013, Waste Management of Pennsylvania (WMPA) Wildlife Management Team launched an intergenerational partnership with the Falls Township Senior Center, Pennsbury Manor, The Pen Ryn School and the Bucks County Audubon Society that would advance student and community understanding of the importance of taking-action by

creating healthy pollinator habitats. A "Laboratory for Learning" pollinator garden was developed at Waste Management where the employees and partners gained the expertise to establish pollinator gardens on their properties

An important part of the partners' contribution to pollinator protection is their support of the PA Department of Agriculture's Citizen Scientist Program. In June, Martin Makulas, from the Department, came and trained 40 members of the partnership to monitor bees of concern and the plants they are populating. He also presented information about the very invasive and damaging Lantern Fly and the need to report sightings of it.

Since the training, everyone has continued to hone their skills at the WMPA "Laboratory for Learning" pollinator garden. Throughout the growing season, they are monitoring and collecting data on the bees seen and the plants they are populating. The data collected is sent to the PA Department of Agriculture to contribute to their ongoing





research.

This project is an example of WMPA's long standing commitment to conservation, stewardship and environmental protection. Most recently, the company gained Gold Level Conservation Certification from the Wildlife Habitat Council (WHC) signifying its leadership among the over 700 WHC Certification programs. Programs are given a Certified, Silver Certified or Gold Certified designation. WMPA is also certified by the National Wildlife Federation and as a Monarch Waystation.

"Waste Management of Pennsylvania is recognized as meeting the strict requirements of WHC Conservation Certification," said Margaret O'Gorman, President, WHC. "Companies achieving WHC Conservation Certification are environmental leaders, voluntarily managing their lands to support sustainable ecosystems and the communities that surround them."

Wildlife Habitat Council promotes and certifies habitat conservation and management on corporate lands through partnerships and education. WHC Conservation Certification programs take corporate sustainability goals and objectives and translate them into tangible and measurable on-the-ground actions. Through a focus on building collab-

oration for conservation with corporate employees, other conservation organizations, government agencies and community members, WHC programs focus on healthy ecosystems and connected communities. WHC-assisted wildlife habitat and conservation education programs are found in 48 states, the District of Columbia and 17 countries.

Written By: Judith Archibald August 29, 2017



Participants recording butterfly sightings.

Photo from: Waste Management Staff

Frey Farm Landfill Approved for Vertical Expansion

Pennsylvania Department of Environmental Protection announced that it gave a controversial \$56 million project the go-head by issuing a permit to raise the height of Lancaster County's landfill by 50 feet. The permit also allows Lancaster County Solid Waste Management Authority to expand what is known as the Frey Farm Landfill in Manor Township to up its average daily volume from 1,500 tons to 2,500 tons per day, and its maximum daily volume from 2,000 tons to 3,000 tons per day.

The landfill had been projected to reach capacity in 2019, but the changes are expected to extend that for an additional 18 years. Joseph Adams, the agency's regional director, said the changes "will account for increases in pop-

ulation and corresponding increases in waste generated in Lancaster County" and also enable the authority to maintain reserve capacity for natural disasters, service disruptions or large demolition projects.

The agency noted that in response to public concerns, the authority has agreed to landscaping "to incrementally blend the landfill into the surrounding countryside," and implement a plan to ensure that waste-hauling trucks are operated

in a safe manner along the designated haul routes.

In a written statement that noted the authority spent more than a decade planning the expansion, authority CEO Jim Warner said the permit was "a critical step" to ensure that it "can continue providing Lancaster County with cost-effective waste management services." The statement said construction will begin this fall, "to be ready for waste placement by spring 2019." It also noted that the permit "contains numerous conditions to protect the environment and community, including ongoing monitoring of the site and surrounding environment."

According to the authority, Frey Farm is the only municipal landfill in Pennsylvania that has not received a violation from the Department of Environmental Protection in 25 years. Department spokesman John Repetz said he couldn't speak for landfills in other parts of the state, but that the agency had not issued a waste-related violation to Frey Farm in the past 25 years.

A group of York and Lancaster County landowners and business owners within view of the landfill, including New York sculptor Jeffrey Koons, filed legal challenges to the project. The group says steeply adding waste to the top of Turkey Point makes the landfill more vulnerable to envi-

ronmental threats, including earthquakes and waste slides. And, they say, it would mar the landscape for those who use the river for recreation.

"DEP approved this expansion even though this area is in an active seismic zone and the vertical expansion has not been designed to withstand the type of earthquake likely to occur in this area in the future," Yoder said in a statement.

He opines that DEP failed to ad-

dress several unresolved technical questions regarding the stability of the vertical expansion and the underlying groundwater.

The appeal could last up to two years and cost the authority more than \$1 million in legal fees as it fights the appeal along with DEP, Warner said. "We will do whatever it takes and whatever it costs," Warner said.

Construction needs to begin soon or the expansion won't be ready by the time the landfill runs out of space in 2019, the Lancaster County Solid Waste Management Authority



Aerial Image of Frey Farm Landfill in Lancaster County, PA. Photo from: Lancaster Online

and board members said after the 45-minute executive session. If that were to happen, the county would have to pay others to haul away various wastes.

"It would be a very disruptive circumstance," said James Warner, the authority's chief executive officer. Lancaster County residents, businesses and trash haulers would see their waste bills skyrocket, he said.

On Friday September 15th, saying it was confident the permit would be upheld, the authority board decided to award a \$10.15 million contract to Kinsley Construction of York to begin the first phase of the vertical expansion, even though its state permit is being challenged in court. [Based on the decision], work could begin as early as October.

Attorney Dwight Yoder, who represents the group, said he was surprised the permit was granted. Yoder also said the authority board's decision to begin construction before the appeal is settled puts millions of dollars of public funds at risk. "It's shocking that the board of directors would vote so casually to put at risk millions of dollars in public funds to begin construction on a vertical expansion when there are serious unresolved questions regarding the permit issued by DEP," attorney Dwight Yoder wrote in a statement to LNP.

*This article is a combination of the following two sources:

"State issues permit for \$56 million, 50 foot-high expansion of Frey Farm Landfill"
Written By: Heather Stauffer

July 27, 2017

Source: http://lancasteronline.com/news/local/state-issues-permit-for-million--foot-high-expansion-of/article_2b3b5830-72e7-11e7-9051-e79afd08d439.html

"Vertical Expansion of Lancaster County Landfill will begin despite court challenge"

Written By: AD CRABLE | Staff Writer

September 16, 2017

Source: http://lancasteronline.com/news/local/vertical-expansion-of-lancaster-county-landfill-will-begin-despite-court/article_4108312e-9a4c-11e7-b85b-

e35ed85f86e4.html

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NYC Turning Organic Waste into Green Energy

Brooklyn resident Sara Schiwal is among more than 2 million New Yorkers who have access to a brown bin. The bins are part of the citywide curbside food scrap and yard waste collection program, already the largest in the United States. Schiwal, who enjoys cooking with her two-year-old daughter Nora, said that recycling organics is much easier than she had originally thought.

"Everything, all food products - whether they are good, bad, spoiled or stems, parts that you were never going to use - everything goes into it. It is so simple, and it cuts down on our trash, that I can't understand why anybody wouldn't want to do it," she told Reuters.

Approximately one third of New York City waste is organic material - food scraps, food-soiled paper and yard waste. And while part of it is turned into compost that goes to local farms and landfills, an ongoing pilot project at Newtown Creek Wastewater Treatment Plant aims to turn it into biogas that ultimately will go back to residents to heat their stoves and homes.

"Food waste is similar to the solids that you get at the waste water treatment plant. So we decided to try and augment our digesters using the food waste component," explained Deputy Commissioner of Bureau of Wastewater



Photo From: Wikidot.com

Treatment Pam Elardo. Newtown Creek is one of 14 wastewater treatment plants in New York, which has already produced 500 million cubic feet of biogas in its digesters from the solids collected from wastewater.

Inside the plant's eight digester eggs, sludge is placed in an oxygen-free environment, where it is heated to at least 95 degrees Fahrenheit (35 degrees Celsius) for between 15 to 30 days. This stimulates the growth of anaerobic bacteria, which consume the organic material in the sludge. The digestion process stabilizes the thickened



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sludge by converting much of the material into water, carbon dioxide and biogas.

"By adding pre-processed food waste, the production of biogas went up significantly," Elardo said. "When we add the food waste we found initially about a 10 percent increase. Which is kind of sustainable over time, at about 25 to 50 tons of food waste per day. This project, the pilot project, it's going to get us up to about 250 tons of food waste per day. So we're going to submit, substantially increase potentially the amount of methane we produce."

At the plant approximately 40 percent of the methane is reused in boilers that provide heat for plant buildings and the digester eggs. The excess biogas is flared into the atmosphere, but with the partnership with National Grid, a major natural gas provider in the United States, this might soon change in the future. National Grid is scheduled to build a purification center at Newtown Creek in the second part of 2017 that will get the biogas produced clean enough to go into the pipelines for residential and commercial use.

Elardo said that if the program is a success, the 14 wastewater treatment plants can process all the food

waste of New York. "If we can get 500 tons per day here, which is our maximum, and we could get something half or similar at all the other plants, we can get thousands of tons a day for food waste. New York City produces 2,000 tons (food waste) per day residential and about the same commercial; that's 4,000 tons per day. Potentially this system, this solution, could take all the food waste," she said.

More than 3 million New York City households will have access to a brown bin by the end of this year. And the combined projects have the potential to produce enough energy to heat nearly 5,200 New York City homes.

Written By: Reuters Staff

August 4, 2017

Source: https://www.theweathernetwork.com/us/news/articles/new-york-city-turns-organic-waste-into-green-

energy/84786/



THE KEYSTONE FALL EDITION 2017 u 14

Mini-Tech Recap:

Drone Technology

On June 1, 2017, the Keystone SWANA Chapter hosted a Mini-Tech Seminar at Chester County Solid Waste Authority's Lanchester Landfill in Narvon, PA. The Mini-Tech Seminar was presented by Remote Intelligence, LLC (Remote Intelligence) of Wellsboro, PA. Remote Intelligence specializes in the use of Unmanned Aerial Vehicles (UAVs), or drones, for remote surveillance, sensing and data collection, among other applications.

On a perfect early June day, approximately 20 attendees witnessed a quad copter UAV test flight piloted by Remote Intelligence, which demonstrated the impressive capabilities of the equipment and illustrated the user/pilot interface to the participants. The UAV was able to fly to a height of about 400 feet AGL with a range of nearly 2 miles. In addition to the live flight demonstration, Remote Intelligence also described the numerous data collection functionalities of the equipment, including the generation of orthomosaic and color elevation maps along with the development of 3D point cloud models that are used to compute volumes such as remaining landfill capacity.

In addition to 3D mapping capabilities, Remote Intelligence is beginning to equip UAVs with sensors that can capture infrared thermal signatures and gas emissions that can have applications such as wildlife identification or population surveys, pipeline gas leakage, building heat loss, among others. UAV technology continues to advance at an exponential rate and more capabilities are being added all the time. Keystone SWANA would like to thank Remote Intelligence and the registrants for participating in this valuable seminar pertaining to this cutting edge technology.

Written By: Bryan M. Wehler, President of the Keystone Chapter SWANA.
Senior Engineer, ARM Group, Inc.







Drone Mini-Tech Photos provided by Bryan Wehler

College Bound: SWANA Scholarship Winners



Blair Barstar receiving his \$450 Scholarship Award Attending: California University of Pennsylvania



Luke Snyder receiving his \$2,100 Scholarship Award Attending: University of Florida



Katelyn Ponce receiving her \$2,800 Scholarship Award Attending: Misericordia University



Blake Barstar receiving his \$750 Scholarship Award Attending: Temple University

Chambersburg Willing to Sue to Keep Glass Recycling

Chambersburg Borough Council is threatening a lawsuit to protect curbside glass recycling for borough residents. The borough operates a fleet of garbage trucks, but contracted with Waste Management in 2016 to pick up recyclables from the sanitation department's 8,600 customers. The contract specifies that Waste Management will collect glass for recycling. Waste Management has announced to customers that, starting around Nov. 1, it will no longer accept glass bottles and jars for recycling.

Council by unanimous vote on October 2, 2017 authorized Solicitor G. Bryan Salzmann to file a lawsuit against Waste Management, if necessary. "This is about protecting the people who live in the Borough of Chambersburg," Council President Allen Coffman said. "We have a valid contract that was publicly bid and we intend to hold Waste Management to the terms of the agreement they signed. We will not allow garbage rate increases to our residents and our businesses that may come if Waste Management stops collecting glass."

Glass by weight is the No. 2 recycled material in the U.S. Paper, and cardboard is No. 1. At this point, it appears that Waste Management continues to collect glass within the borough, Borough Manager Jeffrey Stonehill said. If any resident or business is informed to the contrary, they should contact David Finch, who supervises the Sanitation Department, at dfinch@chambersburgpa.gov.

Waste Management will honor its contract with the borough, according to Lisa Kardell, company spokeswoman. "What is troubling here is that Waste Management started notifying residents and businesses that they were going to stop collecting glass in the borough without ever discussing it with town council," Salzmann said. "That does not bode well for productive discussions going forward, while I hold out the hope that Waste Management will do the right thing and simply abide by the contract they signed and work cooperatively with the borough again."

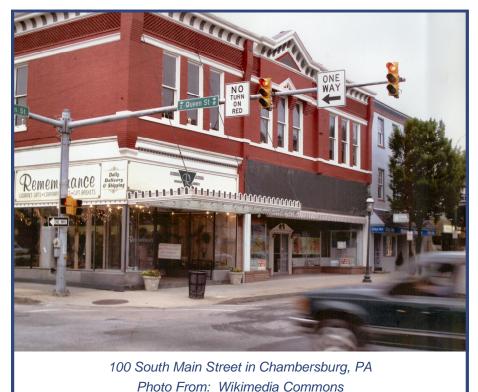
"Waste Management isn't aware of any pending lawsuit

with Chambersburg," Kardell said. "In our last meeting with the Chambersburg staff, we told them we would schedule a meeting with them after we met with Apple Valley Waste. We are currently waiting to hear back from the staff regarding our follow-up meeting."

Apple Valley Waste in Kearneysville, West Virginia, takes recyclables from Waste Management. Apple Valley recycling plant manager Joe Sardone has said there is no outlet for recycled glass.

Leaders in the recycling industry, however, say that there is a solid market for recycled glass.

The problem, they say, is the quality of material coming to their plants for melt-



ing. Glass can be contaminated with other colors of glass, metal and stone.

Kardell said, "While the recycling industry continues to change with the passage of time, particularly with regard to the viability of recycling glass, Waste Management wants to make very clear that we intend to honor in full our current agreement with Chambersburg for recycling services. We are continuing to work with all our customers on proper recycling education."

Salzmann had written two letters to Waste Management advising the company that its unilateral action to change the terms of the borough contract would be strongly opposed. He received no response by the council meeting on Monday, October 2.

"We take our single stream recycling program very seriously," Stonehill said. "We would not be pleased eliminating glass from the recycling stream nor do we want the expense or environmental impact of placing glass in the local landfill. If Waste Management needs to find another recycling processing center to take Chambersburg glass that is their responsibility under the recycling agreement."

The borough's contract with Waste Management expires in January 2019. The contract lists clear, brown, blue, and green glass food and beverage containers. Also included are aluminum cans, steel cans, plastics (one to seven), cardboard and paper and "other generally recyclable materials."

For more information contact David Finch, assistant borough manager at:
dfinch@chambersburgpa.gov
or Council President Allen Coffman at:
acoffman@chambersburgpa.gov.

By: Jim Hook October 06, 2017 Source: http://www.publicopiniononline.com/story/ news/2017/10/11/chambersburg-would-sue-keep-glassrecycling/753371001/

Safety Summit Review

The second annual Keystone SWANA Safety Summit was held in late June and featured speakers from a variety of backgrounds. The key feature of this year's summit was to focus on key aspects of safety management which can be implemented at a broad range of facilities and operations. The kick off SWANA state of safety presentation shared with the group, the challenges facing our industry in terms of accidents and fatalities. A presentation by the OSHA area office followed the SWANA presentation and broke down the waste industry accidents from a compliance perspective. The main take away that every member, regardless, of industry could learn from this summit was that accidents are preventable with good management practices and leadership commitment to safety.

By: John Aliveto, Keystone SWANA Co-Ambassador



Road-E-O Roundup

The 2017 SWANA Mid-Atlantic Regional Road-E-O was hosted by Maryland Environmental Services (MES) at its Midshore II Regional Solid Waste Facility in Ridgley MD on June 9, 2017. The Road-E-O was host to SWANA members of the Mid-Atlantic, New Jersey, and Pennsylvania Chapters. The weather was superb...the temperature in the 80s with a slight breeze (the breeze was good except for the guy wearing the super-wide foam 10-gallon hat).

Eleven agencies/companies were represented at the Road-E-O; three were from the Mid-Atlantic Chapter, one from New Jersey, one from Virginia, with the rest from Pennsylvania. There were 37 contestants who participated in a total of 59 events. The site boasted three different courses set up for six different competitions. The dozer and landfill compactor used the same course; the articulated dump truck and rubber tire loader, the second one; and the roll-off truck and frontend loader, the third. The number of contestants varied from between seven to fifteen, with the dozer competition being the most popular.

Congratulations to all those who participated and placed! The winners of the competitions are as follows: with their

scores:

Front Loader Truck			
Rank	Score	Name	Agency/Company
1	336	John Zell	Republic Services - PA
2	315	Benny Thompson	Northern Tier SWA
3	282	Eric Dixon, Jr.	Clinton County SWA





	Roll Off Truck			
Rank	Score	Name	Agency/Company	
1	336	John Zell	Republic Services - PA	
2	310	Eric Dixon, Sr.	Clinton County SWA	
3	287	Jon Bowen	MES	

Wheel Loader			
Rank	Score	Name	Agency/Company
1	92	Cole Alexander	Clinton County SWA
2	90	Walter Winemiller	Modern Landfill - PA
3	89	Bruce Pepper	MES



	Articulated Truck			
Rank	Score	Name	Agency/Company	
1	88	Logan Milby	MES	
2	86	Jane LaMotte	Republic (Conestoga LF)	
3	84	Nick Hudler	MES	





Dozer			
Rank	Score	Name	Agency/Company
1	94	David Kessling	Clinton County SWA
2	92	James Reidnauer	CCSWA
3	90	Jimmy Lawman	Modern Landfill - PA

Landfill Compactor			
Rank	Score	Name	Agency/Company
1	90	James Reidnauer	CCSWA
2	88	Cody Alexander	Clinton County SWA
3	87	James Downes	Delaware Solid Waste Auth.





Champion Landfill Equipment Operator			
Rank	Score	Name	Agency/Company
1	94	David Kessling	Clinton County SWA

Congratulations to all those who participated and placed. The first and second place winners are eligible to attend the International Road-E-O to be held in Orland Lake Buena Vista, Florida on October 27 and 28th. We will all be cheering you on as you represent our region at the finals!

This Road-E-O event could not have happened without a lot of support and assistance by many!

Many thanks to the following who donated equipment and trucks which were used during the competitions:

- " JESCO
- " Mid-Atlantic Waste Systems
- " Maryland Environmental Service

Thanks to these companies/agencies who were sponsors:

- " Gold—Chester County Solid Waste Authority
- " Gold—Paradigm Software
- " Silver—Barton & Loguidice
- " Bronze—BAI Group Inc.

We also thank those who donated door prizes, giveaway items, and other needed items:

- " Chester County Solid Waste Authority
- Delaware Solid Waste Authority
- " EA Engineering
- " Geosyntec Consultants
- " Maryland Environmental Service
- Northeast Maryland Waste Disposal Authority
- " Republic Services

- " SCS Engineers
- " Solid Waste Association of North America

Thanks to all those who volunteered.

There were at least twenty-six volunteers on Friday: registering contestants, judging on the three courses, taking photographs, "being runners," score keepers, etc.

Most importantly, this would not have been possible without MES agreeing to host the Road-E-O for the fourth time in the past six years (2012-2014, and 2017). This entailed innumerable hours of planning and coordination by MES. Special thanks to MES employees

- " Tim Ford
- " Marcia King
- " Jeff Fried (and his wife Chris), and
- " Monty Monteith

Not only do we have still photographs of the event, there are also some mini-videos of the competition, thanks to Andrew Kays. Check out: http://keystoneswana.org/2017-Mid-Atlantic-Regional-Road-E-O

By: Steve Lippy (Mid-Atlantic Chapter)



Submitted for Laughs by Robert F. Hasemeier, Senior Managing Engineer, Barton & Loguidice, DPC Originally Printed in The Patriot News; July 6, 2017.

One Person's Junk is This Show's Treasure

"You Can't Turn That Into A House" airs on channel FYI, and takes home improvement to a new level: transforming old grain silos, chicken coops, a dumpster and more into tiny houses.

Here & Now's Robin Young learns more about the show from hosts Taimoor Nana, Rehan Nana and Kyle Davis.



Two grain silos are connected to become a little house with a screened in living area.

Photo from A&E Networks

On the concept behind the show

Taimoor Nana: "This story started off about 10 years ago, and the three of us were sitting around and we had an old grain bin, and a 100-year-old wooden barn that had been partially collapsed due to a tornado. We live here in the Midwest. And we wanted to really take the two and combine them together, and we came up with the design of

taking a grain bin and making it into a luxury, two-story cabin that we felt people from the city could come out and enjoy the wilderness, where we really wanted to basically connect people to nature, and the process of building cabins out in the wilderness."

On the theme of sustainability in the show and the houses they create

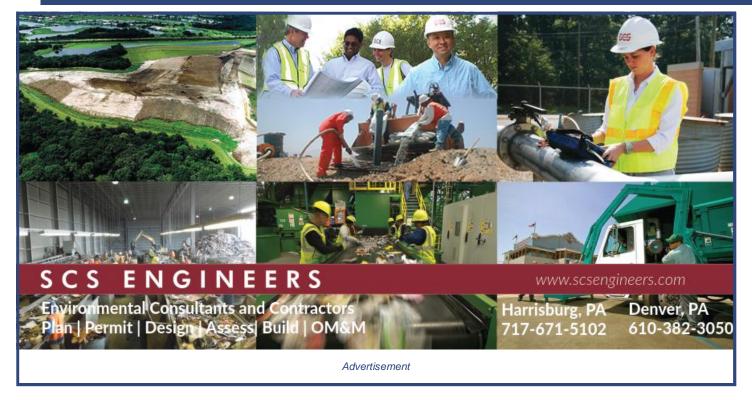
Rehan Nana: "There's definitely that aspect. We've all had long discussions about this, and one of the things that we really enjoy is being able to reuse things that would've otherwise been left fallow. If you look across the Midwest, there's literally thousands of old grain silos that, just by the progress of agriculture, they get bigger. And so all these old ones are just left there. And so we looked at them and said, 'Hey, I think we can turn that into a house,' and we actually did end up doing it. And what's really nice is, a lot of these are out in the country, and so you really get to see a great glimpse of rural America."

On whether it can be a dangerous job

Kyle Davis: "I mean it is, it is for sure. But you know, it's really a different scenario every single time. I really, I guess just don't like following rules and doing it how everyone else does with a full crew taking months and months on end and hundreds of thousands of dollars. I'd rather do it with two brothers out in the country, maybe a couple farmers, and get it done in a week."



Photos from A&E Networks



On seeing a potential home when others might see junk

RN: "We all kind of look at things differently I think, in all of these different structures. And you get to really see when we sit down collaboratively, and start spit balling the potential that an object does have, and I think it's some-

thing that I always enjoy because it's breaking something back down. It's almost like being a kid again. Like, you know, getting to play with Legos and imagining what something could be. And I think that when you're looking at a structure to try to turn it into a house, that's one of the critical things that you have to do is not imagine what it is now, but imagine what it could be."



"You Can't Turn That Into a House" stars, Missouri brothers Rehan and Taimoor Nana with best friend and architect Kyle Davis.

Photo from A&E Network

On building a house out of a dumpster

KD: "We cleared out the trash, and then Rehan got in there with a gigantic, heavy-duty power washer that was the full size of a pickup truck, and just power-washed the thing as good as we possibly could, and it really cleaned up pretty nice in the end. It wasn't a dumpster, it was just a nice metal box to get started building the house."

On the idea of putting their homebuilding skills to use after hurricanes like Harvey and Maria

KD: "We had some people writing to us saying, 'Hey, what can we ... let's work on something,' and we've kicked around the idea of maybe we do make some portable, prefab housing that could be shipped to disaster areas. I think that would be a really interesting project and challenge to work on."

By: WBUR staff October 06, 2017

Source: http://www.wbur.org/hereandnow/2017/10/06/you-

cant-turn-that-into-a-house

More About the Show:

In "You Can't Turn That Into A House," two Missouri brothers, Taimoor and Rehan, are traveling the country rewriting the rules of home design by taking on the most unconventional, run-down structures and transforming them into surprising, ingenious and luxurious dream homes. Whether renovating an old carnival trailer into a mobile guest house, turning an industrial garbage dumpster into a luxurious lake-front retreat, or fusing two rundown school buses together to form one unique structure, there's no job they won't take on.

With Taimoor's business savvy, Rehan's artistic talent, and help from their lifelong friend turned contractor Kyle, this close-knit team has joined forces to turn dreams into reality by proving everyone wrong who says, "You Can't Turn That Into A House." New episodes will air Saturdays at 9:30pm ET on FYI.





Before and After of two buses turned home.





Photos from A&E Networks

The Keystone SWANA Family

The Keystone Chapter of SWANA is going strong. Over the past four months we have added and renewed 35 members to the 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 maintained their membership in our family since the last publication.

- · Kristin Baringer, City of Allentown
- · Patrick Stanford, Rochem Americas Inc.
- David Yesavage, Waste Management
- Kelly Megonnel, YCSWA
- · Mike German, Lehigh University
- Yetunde Sorunmu, Drexel University
- Melinda Waltemyer, YCSWA
- Leslie Wireback, LCSWMA
- · Ashley Duncan, Barton and Loguidice D.P.C.
- John Andrascik, Waste Management Inc.
 (Northwest Sanitary Landfill Waste Management)
- · Nancy Byrne, AMCS Group
- · Rafael Carrasco, Waste Management Inc.
- · Charles Shorter, Vermeer North Atlantic
- · Lynne Morrison, LCSWMA
- · John Snyder, LCSWMA
- Wesley Wagner, CCSWA
- Jim Oates, QED Environmental Systems
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- · Ashley Paulsworth, Veolia
- JoAnne Yurcaba, PADEP
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- Paula Murphy, Vision Financial Group
- · Johanna Toro, Lehigh University
- Nasser Heydari, Lehigh University

- · Rucha Shah, Carnegie Mellon University
- Neel Shah, Carnegie Mellon University
- Julia Pietruszka, Lehigh University
- · Chitanya Gopu, Carnegie Mellon University
- · Muhammad Usman, Temple University
- · George Wu, Carnegie Mellon University
- Treace Merry, Lehigh University
- · Gregory Chrin, Charles Chrin Companies
- · Nick Nichols, Chrin Brothers Sanitary Landfill

The Keystone Chapter strives to share pertinent information and provide continuing education that serve 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, 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 phone at (866) 467-9262 or by e-mail at chanda@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/

Some events to plan for include:

NOTE Schedule is subject to change

OCTOBER 2017

- · Chapter Fiscal Year begins
- No Board Meeting
- · Treasurer prepares fiscal audit packets
- · Distribute Fall edition of *The Keystone*

NOVEMBER 2017

- · Thursday, 11/2, 10 am Board Meeting
- Thursday, 11/2, 11:30 am Geotechnics Lab Tour
 Mini-Tech, East Pittsburgh, PA
- Thursday and Friday , 11/14 and 11/15, LFG Systems
 Operation and Maintenance Course, Narvon, PA
- Audit Committee Meeting
- Treasurer Submits Chapter Fiscal report to the accountant
- Plan to renew Secretariat Administrative Service Contract for next year

DECEMBER 2017

- No Board Meeting
- Secretariat and Treasurer submit Chapter Annual Reports to SWANA

JANUARY 2017

- Thursday, 1/4, 10 am Board Meeting Conference
 Call
- Monday, 1/15, Article Deadline for Winter Edition of The Keystone.
- Accountant audits Financial Report and prepares 990 IRS tax filling.

FEBRUARY 2017

- Thursday, 2/1, 10 am Board Meeting Conference
 Call
- Receive Scholarship applications from SWANA Headquarters.
- · Send Scholarship announcement to members
- Distribute Winter Edition of The Keystone



The SWANA Newsletter is published 3 times a year in **February**, **June and October**.

If you would like to have your article included in *The Keystone*, please submit it by the 15th of the month prior to the scheduled release date. Any late articles will be held until the next issue.

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.

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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, please contact **Alison D'Airo** at Barton & Loguidice, Newsletter Secretariat Production Services, or any member of the Newsletter Committee listed below:

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Chapter members: please freely share this info with others that you work with or who have an interest in waste news in PA. Please remember to send Chanda Martino, Chapter Secretariat, your current email address as all future newsletters, as well as informational broadcast faxes and other communications, will only be sent via email. Her email is: chanda@keystoneswana.org. If you did not receive your copy of this newsletter emailed from Chanda, you are not on our email list for news.

