A Message from SWANA  
President: Bob Zorbaugh

As a long winter finally releases us from its grasp and temperatures warm, we look forward to the Spring and Summer months to come. This past winter was a challenge again for those in the waste industry in Pennsylvania. The waste collection and disposal business is a tough and challenging industry under ideal conditions. When faced with brutally cold temperatures for weeks on end along with winter precipitation it makes the challenge even more difficult. The waste industry has always stepped up to these challenges with dedicated employees, creative solutions to challenges along with a determination to complete the job in front of them. As all of us in the waste business know trash doesn't take the day off. Society expects the waste they sit at the curb to go away regardless of conditions. The challenges and demand this places on organizations and individuals is daunting, however waste industry professionals have proven themselves day in and day out for decades. A special congratulations to all those in the Pennsylvania waste industry for your efforts over this past winter. We have proven again that the waste industry is up for any challenge.

With the onset of Spring the Keystone Chapter will have several exciting events for Chapter Members during the first half of 2015. Weather forced a rescheduling of our Mini Technical Seminar from early March to April 21st. I hope all members will take advantage of the informative program that has been put together on a number of topics, including DEP program updates, for the event.

The Keystone Chapter will be hosting the annual Mid Atlantic Regional Equipment Road-E-O this year on June 4th & 5th. The Northern Tier Solid Waste Au-
Cumberland Valley Rails-to-Trails Council Receives State Grant Funding to Extend Trail

The Cumberland Valley Rails-to-Trails Council (CVRTC) received state grant funding to extend the Cumberland Valley Rail Trail eastward from its current terminus in Newville, PA. The Cumberland Area Economic Development Corporation (CAEDC) and the Cumberland County Planning Department assisted the CVRT with the applications for both grants.

The CVRTC applied for a grant through the Community Conservation Partnership Program (C2P2) through the Department of Conservation & Natural Resources. The C2P2 program is designed to support land conservation, sustainable green projects and trail development, among other purposes. On October 17, 2014, DCNR announced a $500,000 grant for the CVRTC. This grant will be used to construct an underpass beneath Centerville Rd. (PA Rt. 233), a busy and dangerous state road that bisects the trail.

The CVRTC also applied for a grant through the Commonwealth Finance Authority’s (CFA) Greenways, Trails and Recreation (GTR) Program. The GTR program supports the development of greenways, trails, open space, and parks. It is funded with fees paid by the natural gas drilling industry. The CFA awarded the CVRTC a $150,000 grant on October 21, 2014. This grant will be used to install a bridge over Big Spring Road trail so that users can safely cross the road at this location.

The CVRTC is currently in the process of placing a bridge over Fogelsanger Rd. and extending the trail over a mile to the southwest into downtown Shippensburg. The CVRT is recognized as a National Recreation Trail and includes pedestrian and equestrian tracks. The trail has three trailheads with parking and public facilities, contains historical and heritage signage, and supports several annual community events. The estimated annual economic impact of the Cumberland Valley Rail Trail is over $458,000.

"These grants are critical to the continued build out of the Cumberland Valley Rail Trail and they also invest in projects which ensure the safety of the users of the trail," said Jonathan Bowser, CAEDC CEO. "With the grants, Newville can continue to pursue a Trail Town designation & related opportunities while the trail continues to extend eastward toward Carlisle, PA."

CAEDC would like to thank all the stakeholders who support the CVRT and our government officials for their support in acquiring these grants including: Cumberland County Commissioners Cross, Hertzler and Eichelberger, PA State Senators Eichelberger and Vance, PA State...
Keystone SWANA is Taking Reservations for Spaces at the Upcoming 17th Annual Joint Fall Conference

The exhibit hall for the 17th Annual Fall Conference is filling up. That's right, it's only April, and the conference isn't scheduled at the Harrisburg Hilton until September 9th and 10th. However, our loyal exhibitors are “in the know” and are already jockeying to get just the right spot at the best waste and recycling industry event in Pennsylvania. After April, not only may the most desirable selections be gone, but everything will cost more. By late May or early June, we'll also open the registration's for attendees. Keep an eye on your inbox and check the web site for more updates.

On the Agenda
The agenda for the conference is still in the workshop, but some key programs have already been announced which are anticipated to develop more fully throughout the summer. On the schedule so far we have, Findings of the TENORM study and its resulting impacts on the landfills in Pennsylvania. Additionally, DEP speakers have been invited to share their thoughts on potential policies. And, as always, breaking news and updates from the department are some of the main features for the upcoming conference.

NEW Pre-Conference Training
This year the event will kick-off with a pre-conference training program headed up by Dr. George Koerner. This short course focuses on the quality control and quality assurance of Geosynthetics as placed in permanent and critical applications. The course emphasizes manufacturing and installation and it qualifies for continuing education credits. Participants will be restricted to conference attendees for a small fee. This is a great way for young industry professionals to expand their skills and interact with their colleagues at the same time.

A complete list of registration and sponsorship forms can be found on the Keystone SWANA Events webpage at http://www.keystoneswana.org.

Submitted By: Michele Nestor

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Advertisement
Centre County Honors Local Green Establishments

Centre County Honors 60 Local Green Businesses, Schools and Organizations.

This past November, the Centre County Recycling & Refuse Authority, the Centre Region Council of Governments and the Borough of State College held an awards luncheon to honor 60 of our area’s best green businesses, schools and organizations.

Close to 100 area business owners, teachers, school administrators and employees were present at the awards luncheon in coordination with America Recycles Day to receive recognition for their efforts both in recycling and sustainability. State College Borough Mayor Elizabeth Goreham addressed the crowd and there were photo and interview opportunities as well.

A list of all 2014 Green Business Partners can be found at www.centrecountyrecycles.org and each has been spotlighted on CCRRA’s facebook page over the past few months.

If you are in Centre County and would like to apply as a 2015 Green Business Partner, please visit www.centrecountyrecycles.org for an application or e-mail Amy Schirf at aschirf@centrecountyrecycles.org for more information.

Submitted By: Amy Schirf

“CV Rails-to-Trails” continued from page 2

Representative Bloom, U.S. Congressman Barletta, and all others who represent Cumberland County and supported this effort.

About CAEDC

CAEDC is Cumberland County’s authorized agency charged with leveraging and promoting Cumberland Valley’s economic development and tourism assets to drive growth, create jobs and improve the quality of life. Offices are located at 53 W. South Street, Carlisle PA. For more information, visit: www.cumberlandbusiness.com and www.visitcumberlandvalley.com.

Submitted By: Kristen Rowe

Originally Printed: November 7, 2014

Rail Trail Map Provided by CVRTC
SWANA Scholarships Now Available

The 2015 College Scholarships Now Available Application Deadline is Friday, May 1, 2015

The SWANA Keystone Chapter 2015 College Scholarship applications are now available. Since 1994, SWANA Keystone Chapter has awarded more than $80,000 in scholarship monies to graduating high school seniors, currently enrolled full-time students, and full-time students entering graduate school. Eligible candidates for the scholarship must be sons, daughters, grandsons, or granddaughters of a member in good standing with the Chapter.

The Category I Application is for graduating high school seniors, or graduate equivalent certified candidates, that have been accepted for enrollment in a junior college, four-year college or a university.

The Category II Application is for students currently enrolled full-time at a college or university, and who are entering their junior or senior undergraduate year while pursuing a degree in environmental science, engineering, or suitable major that is related to the field of solid waste management.

The Robert P. Stearns / SCS Engineers Scholarship Application is for full-time students entering or currently attending a graduate school, pursuing a degree in environmental science, engineering, or other suitable major that is related to the field of solid waste management.

All completed scholarship application forms and corresponding documentation should be submitted via email to Bryan Wehler, P.E., P.G., Keystone Chapter Vice President and Scholarship Chairperson at bwehler@armgroup.net.

The deadline to submit applications is Friday, May 1, 2015. Eligible applicants are strongly encouraged to take advantage of this tremendous scholarship opportunity. For more information about the 2015 SWANA Keystone Chapter College Scholarship and the College Scholarship Program, please visit www.keystoneswana.org.
**The Super Bowl Is An Energy-Guzzling, Carbon-Emitting Machine; And Here Is What The NFL Is Doing About It**

The Super Bowl is an energy-guzzling, carbon-emitting, trash-generating machine, and the Super Bowl tournament proves to be no different. Tens of thousands of football fans took petroleum-powered flights to Glendale, Arizona, to watch the New England Patriots square off against reigning champions, the Seattle Seahawks. Visitors there consumed mountains of food and drank rivers of beer and soda in the stadium. At the end of the game, the fans return to their hotel rooms, flip on lights and shower off before taking the return flight home.

“Any large activity has the potential to generate a significant amount of waste ... and use of lot of resources,” says Jack Groh, the director of the National Football League’s environmental program since 1993. But that’s why the NFL works year-round with host cities and corporate sponsors to minimize the environmental toll of the massive sporting event. “We turn what could be a negative impact on the community into a positive impact,” he says.

At the 2012 Super Bowl in Indianapolis, for instance, the Lucas Oil Stadium and related venues used around 15,000 megawatt-hours of electricity, enough to power about 1,400 average U.S. homes for a year. To counteract that energy use, the utility Green Mountain Energy provided an equal amount of “renewable energy credits” to support energy production from carbon-free sources such as wind turbines and solar panels, according to an Indiana sustainability report.

Super Bowl XLVII, which took place in New Orleans in 2013, resulted in about 3.8 million pounds of carbon dioxide emissions, not including flights or transportation between venues. That’s equal to the annual tailpipe emissions of about 400 American passenger cars.

The city’s host committee worked with local utility Entergy to purchase “carbon offsets,” which include investments in emissions-reducing projects in other parts of the country or world. Katie Mandes, vice president for community engagement at the Center for Climate and Energy Solutions (C2ES) in Washington, D.C., worked with the committee to coordinate the exchange. She acknowledged that buying offsets -- rather than reducing actual Super Bowl emissions -- is a limited way to lower the event’s carbon footprint.

“Do we think offsets are the answer? No. But do we think they can be a positive part of a broader approach to trying to be more sustainable? Yes,” she says. The committee also assisted with planting around 7,000 trees throughout New Orleans to help absorb carbon emissions and beautify the city.

According to Groh, when the Super Bowl was last in Arizona, in 2008, the NFL and its partners helped collect around 90,000 pounds of leftover food from the stadium and related tailgate events and promotional activities. The extra snacks later went to soup kitchens and churches in the Phoenix area.

_See “Green Bowl” continued on page 7_
Groh says that Super Bowl XLIX, held on Feb. 1, could be one of the greenest games yet. Arizona Public Service Company, the state's largest electric utility, purchased renewable energy credits to offset electricity use at Super Bowl-affiliated venues in downtown Phoenix, including team and staff hotels and operations headquarters. Salt River Project, another utility, bought credits to cover 100 percent of energy consumed at the University of Phoenix stadium during the game. According to utility spokeswoman Patty Garcia-Likens, the credits came from wind energy projects in the U.S. Northwest.

The host committee once again helped to plant trees across Phoenix and collected and distributed leftover food. This year, they partnered with Waste Management Phoenix Open to attempt to keep all waste out of the landfills through recycling and composting. At the 2012 Indiana game, nearly 18 tons of paper, wood and plastic was recovered from Lucas Oil Stadium, while more than $250,000 worth of decorative materials, carpeting and banners were reclaimed and repurposed for other uses.

Groh says his goal for the next Super Bowl is to enlist two more major sponsors in the NFL’s environmental efforts. Its current largest partner, Verizon Communications Inc., holds community recycling events for electronic waste in host cities each year. Since 2009, the company has collected 1.8 million pounds of old computer equipment, appliances, cameras, stereos and other e-waste through its recycling rally program, according to Verizon.

Mandes of C2ES says the NFL’s Super Bowl initiatives can have a broader impact on visiting fans and local residents beyond the actual sporting event. “Using an event like the Super Bowl as a place to raise [environmental] awareness is perfect,” she says. “They’re [the NFL] going to reach a lot of people that may be more open to the message coming from that kind of organization than if it’s coming from Al Gore.”

Written by Maria Gallucci

Above: Volunteers planted more than 20,000 trees in Rockaway Park, New York City, ahead of the 2014 Super Bowl at the MetLife Stadium in East Rutherford, New Jersey. The NFL coordinated the effort with the New York/New Jersey Super Bowl XLVIII Host Committee, NYC Parks and Verizon Communications Corp.

Below: During each Super Bowl, Verizon Communications Corp. holds an electric waste recycling “rally” to encourage residents in each host city to dispose of their used computers and appliances.
Creative Attempt to Fill Recycling Cost Shortfall Leads to Lawsuit in Pennsylvania

Opportunities seldom drop into one's lap. Often, if you don't ask, you don't get. Here's how this strategy played out in a locale where a funding shortfall threatened to undermine a county's integrated waste management program.

Like jurisdictions elsewhere, Pennsylvania counties periodically update their waste plans, and submit them to a state agency for approval. In 2010, Clearfield County revised its plan to cope with its dwindling ability to financially sustain recycling and ancillary programs. Rural counties in the Keystone State typically have abundant open space and few, if any, municipalities with the population and density that, by state law, oblige them to provide mandatory recycling. As a result, cost-effective recycling in sparsely settled areas is a challenge.

The county traditionally funded its recycling program with administrative fees, which provided 70 percent of the operating costs. After a court ruled that state law preempts counties from imposing fees on waste haulers to help fund recycling, local officials commissioned a study to identify alternative methods to make up the deficit. The study suggested options such as voluntary contributions, sponsorships, in-kind services and user fees.

Here's where the county got resourceful. Along with revising its plan, the county issued a request for proposals (RFP) for both waste disposal and recycling services. Seeking “tangible financial and/or programmatic support,” the RFP directed that proposals “address the funding shortfall and/or tangibly augment [the] County's programs during the contract period.”

Using a 100-point evaluation system, the county graded each of the responses. A company could earn up to 30 points in the “environmental soundness” category (waste reduction, financial benefits to the community, etc). Among the eight qualified disposal facilities that submitted bids, the top scores went to Veolia Greentree Landfill (100 points) and Wayne Township Landfill (62 points) who were the only facilities offering tangible financial support, including stipulated annual cash payments and cost-saving drop-off recycling services.

By comparison, Waste Management of Pennsylvania and its affiliated companies (WM) merely agreed to negotiate a fee, but only after the WM facilities had been designated in the county’s revised plan. Veolia and Wayne scored 30 and 15 respectively in the environmental soundness category, whereas WM’s facilities each received only five points based on their qualified fee commitment.

Although initially awarding the contract exclusively to Veolia, the county ended up signing contracts with both Veolia and Wayne after haulers pressured officials for two disposal sites. The county thereafter submitted its plan revision to the DEP, which approved it.

WM filed an appeal with the state environmental hearing board, seeking to overturn the plan revision. WM argued, among other grounds, that the county unlawfully solicited money and services from disposal facilities by conditioning selection on such support.

The board denied WM’s motion to summarily reject the plan, and upheld the county’s “innovative approach.” State law “anticipates that counties will rely on some local financial assistance to achieve the maximum feasible implementation of recycling programs,” the board’s opinion stated. “We should not ... hamstring the county so long as its efforts to comply with [the law] stop short of imposing new taxes or fees.”

See “Funding Fight” continued on page 9
Breaking Beds

Tagged mattresses and box springs are being pulled off streets of Alameda County, Calif., thanks to a bounty-inspired pilot project to recycle this stream of illegally dumped, costly-to-cleanup waste.

As of Monday March 2, 2015, 630 mattresses had been found and tagged in alleys, along railroad tracks and near low-income, multifamily complexes since DR3 Recycling, the nation’s largest mattress recycler, kicked off the program in January.

Motivated independent haulers and recyclers with trucks and an eye for salvage - otherwise known as the mosquito fleet - have driven 396 mattresses to the recycling facility for a nearly 63 percent return rate and some fast cash. In 2014, DR3 diverted 170,000 mattresses from landfills, 130,000 in California and 40,000 in Oregon.

“What we are doing is trying to find how many people who pick up an old filthy mattress that has been abandoned on the street and bring it in for somewhere between $6 to $12,” says Robert Jaco, manager of DR3’s facility in San Leandro, Calif., adding that he expects to finish tagging the project’s allotted 1,000 mattresses by mid-March. “The program is definitely working because it is getting mattresses off the street. If you pay people, they will do it.”

Jaco says he and another worker have been traveling throughout the county looking for mattresses that have been dumped out on the streets or alleyways and then fastening each with a tag that’s impossible to counterfeit that tells the finder “if you bring this mattress in you’ll be paid X amount of dollars depending on the size.”

Funded through a $25,000 grant from StopWaste, a public agency reducing waste in Alameda County, the breakdown of financial incentives are: $12 for a king; $10 for a queen; $8 for a full; and $6 for a twin.

“Funding Fight” continued from page 8

Undaunted, WM took its case to a state appeals court where the company again argued that a county cannot seek voluntary financial support for its recycling program. Calling the county’s tactics “pay-to-play,” WM criticized them as a “vehicle ... to re-impose mandatory fees” outlawed by court decisions.

For its part, the county claimed that voluntary contributions are consistent with the state’s waste reduction and recycling goals. Besides, the county noted, the payments and discounted services counted only 30 percent in the scoring, making it possible for a facility strong in other categories, but offering no support, to be chosen. But even eliminating the environmental soundness category would not have changed the outcome, the county added.

The appeals court upheld the hearing board’s denial of a summary ruling in favor of WM.

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See “Breaking Beds” continued on page 10

Submitted by: Robert Hasemeier & Terry Keene
“Breaking Beds” continued from page 9

Example of a “Tagged” Mattress

“Mattresses and box springs have always been considered hard-to-handle materials by transfer stations and landfills,” says Tom Padia, recycling director for StopWaste. “They don’t compact well. The springs sometimes break through and wrap around axels. As a result, most transfer and landfills have a separate per unit charge for mattresses and box springs that are considerably higher than the per-ton charge.”

“They then last year in California, an EPR (extended producer responsibility) bill for mattresses was passed which was co-authored by one of our local state senators, Loni Hancock, to challenge the mattress and sleep products industry to design and implement a take back program for mattresses and box springs,” he says. “It was largely prompted by issues of illegal dumping and the expense to local governments.”

But more than 90 percent of each mattress can be recycled into other useful products, according to the Mattress Recycling Council, a non-profit organization that will develop and operate mattress recycling programs in California, Connecticut, and Rhode Island. All three states have recently passed laws requiring mattress manufacturers to develop programs to manage discarded mattresses.

Padia says the results of the pilot program will be used to help develop consistent and realistic methodology for the statewide recycling effort, which is set to start in early 2016.

This type of bounty system “is something that they might consider as one of the tools in their toolbox to achieve targeted recovery rates of mattresses and help address the illegal dumping problem,” he says. 

**Wait, What?!**

**International Idioms**

Idioms are closely related to their respective cultures and whilst in the Norwegian and Czech language you are “walking around hot porridge”, in German you “speak around hot mush” and in English you are “beating around the bush” – all these idioms refer to “not getting to the point.”

- To seize the moon by the teeth: to try the impossible (French).
- To reheat cabbage: to rekindle an old flame (Italian).
- When the crayfish sings in the mountain: never (Russian).
- Cleaner than a frog’s armpit: to be poor, broke (Spanish).
- To think one is the last suck of the mango: to be conceited (South American Spanish).

**“It’s Raining”**

A language is a living substance, which continuously evolves under the influence of different factors. English, just like other languages, constantly enriches its vocabulary with words invented by the respective speakers, making it more colourful with new idiomatic expressions and, over time, refills its stocks with these borrowings and neologisms.

- In English, it would be “raining cats and dogs”
- In some African countries, people might say “it’s raining old women with clubs”
- In Norway it’s on the other hand “raining female trolls”
- In Ireland you would say “it’s throwing cobblers knives”

What other funny or odd sayings do you know?

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**How Do You Recycle?**

Here are a few creative ways some people have recycled odd items:

- **Signal Light Chair:**
- **Façade of A Thousand Doors**
- **The Cat in the Mac is Back**
- **A Spooky Lamp Shade**
- **Vinyl Bags**
- **Grand Shelves**
- **Rockin’ Round the Clock**

So how do you recycle?
New York was pretty much a cesspool in the 19th century. “We were a laughing-stock,” as anthropologist and trash historian Robin Nagle once put it. But in an odd way, New York owes its current success to its refuse - after all, it’s built on the stuff.

The ocean has been New York’s garbage dump for centuries. It’s estimated that 80 percent of our trash ended up in the sea at one time, but plenty wound up lining the city’s shore too, starting a long tradition of expanding the city’s footprint artificially. By the 20th century, this "landfill" had created many thousands of new acres for the city, what the New York Times would call the “fattening” of the city in 1966.

But, Manhattan wasn’t shaped by just garbage: It was refuse including rubble, rock, and dirt, often carted in from the city’s biggest infrastructure projects. The digging of the subway system, Grand Central, and even the original World Trade Center helped create acres upon acres of New Manhattan. In an odd sense, NYC has cannibalized itself, digesting what lies beneath and spitting it out along its shoreline, an ever-hungry parasite that is still churning out new land today.

So what exactly has man turned its treasured trash into?

See “Built on Garbage” continued on page 13
Ellis Island Is Built On Rubble Displaced By the Subways

Right now, Ellis Island sits on almost 28 acres. Originally, it was 3.3. Those 24 extra acres were created using landfill beginning in the 1890s, but no one quite agrees where it came from. Most sources, including The National Parks Service, say it came from the construction of the modern subway system, including the Grand Central (seen being excavated above), which means that NYC’s subway system directly contributed to creating the primary entrance point for millions of new New Yorkers.

But here’s the funny thing about the historical ambiguity: The question about where the landfill came from ended up being really important. You see, even though it’s on the New Jersey side of the line, New York has long claimed the island for its own. But in the 1990s, New Jersey actually took New York to court over it, claiming that all of the “artificial” parts of the island, practically all of it, belonged to Jersey. Part of New York’s defense was that the landfill parts had come from digging the subway tunnels below Manhattan, but NYC’s council couldn’t actually find the proof they needed, according to the New York Times.

As this great Proud Geek post explains, they ended up agreeing to disagree, and today, all the fake parts of the island are actually New Jersey. New York still claims that original 3.3 acres, though.

FDR Drive Is Built on Rubble From WWII England

Part of FDR Drive, which snakes up Manhattan’s eastern profile, was actually built over rubble shipped over from wartime England, a fact first brought to our attention in 2007 by “BLDGBLOG’s” Geoff Manaugh, who explained that rubble from bombed English cities were used as ballast for ships coming to America.

As it turns out, most of the rubble actually came from Bristol, upon which German planes dropped thousands of bombs during World War II. Over on Jalopnik, Michael Ballaban elaborates:

With nearly 85,000 buildings destroyed, Bristol had lots and lots of rubble. Just plenty of it. And when push came to ballast, the Brits just sort of said “screw it,” and heaved the remnants of their homes and their factories and their beautiful churches into the bowels of chugging cargo ships.

They dropped so much rubble there, in fact, that the area near the water’s edge between 23rd street and 34th street came to be known as the “Bristol Basin.”
Rikers Island Is Built on Ashes and 19th Century Refuse

In the 1880s, the city decided it was time to build a bigger jail, and it would use its voluminous garbage output to do it.

As The New York Times explained in a September 1886 story called To Build a Bigger Jail, cribwork would be filled with ashes and "street dirt" from the city. It would save the Street Cleaning Department a hell of a lot of trouble: "On that basis, the Street Cleaning Department estimates that it can fill here about 50 acres per annum at a vast saving over the present mode of getting rid of refuse material, which is supposed to be by sending it out to see in barges," explained the NYT.

In a horrifying account of the landfill operations by Corrections History, we get this quote from a city employee who worked on the project for years: "The rats grew so numerous and so large that the department imported dogs in an effort to eliminate the rats. The dogs were not fed by the authorities but lived solely on the rats. Despite this, the rats continued to multiply. Gases were constantly exploding through the soil covering and bursting into flames, in the summer the ground resembled a sea of small volcanos, all breathing smoke and flames."

Battery Park City Is Built on Dirt Excavated From the WTC

For decades before it got underway, people called Battery Park City "the new town" on the Hudson. It was to be a wonder of engineering, and it would be created through the "construction a cellular-steel cofferdam retaining structure, extending 1,500 feet along the six waterfront block," explained the New York Times in a December 1966 article titled Hudson Landfill Project to Start. Inside that structure would go refuse and rock excavated by its neighbor: The World Trade Center.

"The landfill will further fatten Manhattan Island, which has gradually spread itself into the Hudson River, the East River, and the Upper Bay ever since the days of Nieuw Amsterdam more than 300 years ago," the NYT added. In total the project added 23 acres onto Lower Manhattan.
Just for Fun - The Keystone Cross-Word

Spring is in the Air

ACROSS
1. A bouncy new source for energy
7. Host City of 2012 Superbowl
10. Number of local green businesses honored in Centre County.
11. Recipient of a $500,000 Grant (Int.)
13. Second “H” in HHW
16. First day of Spring it the ______ Equinox.
17. Highway built from WWII England’s trash
18. An Easter staple for fertility
19. Science says this Spring Ailment really does exist
22. “A” in SAP
24. Month of Spring Equinox in Southern Hemisphere
26. Cumberland Valley Assoc. converts “___ to Trails”
27. $ Amt. for a recycled king in Cali.
29. 1st Pres. to host “Easter Egg Roll” on White House lawn. (Hint: 1st year was 1878)
30. Americans consume 700M of these Yellow Treats each Easter.

DOWN
2. Financial support for mattress recycling program
3. York County facility to receive improvements
4. Annual SWANA event held in September
5. First “H” in HHW
6. Stand here during the equinox for direct overhead sunlight (only happens twice a year)
8. “S” in SAP
9. Company creating energy from rubber (Int.)
12. Annual SWANA event held in June
14. This happy little flower is usually the first to bloom
15. “It’s raining old women with dubs” Origin
20. “Cleaner than a frog’s armpit” Origin
21. Island built on Ashes and Old Garbage
23. Month of Spring Equinox in Northern Hemisphere
24. Chapter Secretary last name
25. Island built on subway rubble
28. International Director last name

See Page 22 for Solution
And the Landfill Continues

Though landfill definitely seems like a 19th century phenomenon, it continues until this day in NYC. The City Atlas points out that the excavated refuse from numerous current infrastructure projects, including the Second Avenue Subway line, is being carted out to help along other projects around the city, including Brooklyn Bridge Park.

Meanwhile, on Staten Island, the former world’s largest garbage dump is now a park that actually generates revenue for the city. So the metabolism of New York, an endless geological give and take, continues to churn away.


Current Map of Manhattan
The Keystone SWANA chapter is pleased to announce that the Road-E-O is back in PA. The SWANA Mid-Atlantic Regional Road-E-O is scheduled to be held on June 4th & 5th, 2015 at the Northern Tier Solid Waste Authorities Landfill #1, 540 Old Bloss Rd. Blossburg, PA 16912.

The number of participants may be limited for each event, so register early! Please choose two events in order of preference. A minimum of three contestants will be required to run each event. A light breakfast will be provided the morning of the road-e-o and lunch will be available at 12:00 p.m. for participants. After all contestants have completed the course and scores are totaled we will announce the winners of each category in the Lunch Tent.

First and second place winners are eligible to compete in the International Road-E-O Competition.

The Banquet will be held Thursday night at the Corey Creek Country Club just east of Mansfield on Route 6. Cocktail hour will start at 6:00 p.m. and Dinner is at 7:00 p.m. We encourage contestants to invite guests (spouses, supervisors, et.al.) to accompany them to the dinner and Road-e-o.

Send application to: KEYSTONE SWANA
c/o Greater Lebanon Refuse Authority
1610 Russell Rd. Lebanon, PA. 17046

Telephone questions: Scot Sample or Trisha Wilkinson
570-297-4177
Email: ssample@ntswa.org or twilkinson@ntswa.org

The suggested hotel is the Microtel Inns and Suites located in Mansfield, PA. When calling use the code Rodeo. The hotel can be reached at 570-662-9300 and be viewed online at http://www.microtelinn.com.

The Northern Tier Solid Waste Authority is looking forward to hosting the Rodeo with the help of Wayne Township Landfill of Clinton County.

To compete in the 2015 Road-e-o, or to be a volunteer, fill out an application and return it to the address on the form no later than May 1, 2015. Applications can be found at www.keystoneswana.org. Contestants must be a SWANA member in good standing or someone else in their agency must be a SWANA member in good standing.
Site Improvements Coming to York County Facility

The board of the York County Solid Waste Authority (Authority) has awarded four prime site improvement contracts at the Authority’s December 17, 2014 meeting. This included a $32.7M General Construction Contract to Quandel Construction Group, Inc; a $6.77M HVAC Contract to McClure Company; Nearly $1.1M in Plumbing and Fire Protection to Jay R. Reynolds Inc; and $5.65M for Electrical work was awarded to Gettle Inc. These Contracts awarded from the Authority’s capital reserve fund along with a $10M bank loan approved by the board in 2014, will bring the total improvement project up to an estimated $62M.

The Authority will break ground later this year to initiate improvements to facilities at its Black Bridge Road campus, including significant modernization of the York County Resource Recovery Center (RRC). This project began in September, 2011 when the Authority’s board authorized staff to initiate plan development. In March 2012, the board awarded a service agreement to Buchart Horn, Inc. to proceed with the planning phase of the site improvement project. Authority Executive Director Dave Vollero says “Facility site improvements and modernization will enhance operational performance, extend the life of the RRC, enhance site safety and increase services to York County residents.”

The construction phase of the project is expected to begin this spring and will include facility and site improvements such as:

**Scalehouse Relocation**
A new scalehouse will feature four scales instead of two to allow more automation for commercial haulers, more efficient communications with customers and quicker service. The new scalehouse will be located closer to the tipping hall thus alleviating traffic congestion at the site entrance.

**New Customer Convenience Area**
A new customer convenience area of more than four acres will be constructed to the west of the tipping hall. This area will include a waste bunker to serve small haulers, boxes for the placement of certain special wastes and recyclable materials and space to accept dedicated loads of yard waste. Customers will no longer need to leave the site to deliver yard waste.

**Tipping Hall and Pit Expansion**
Expansion of the tipping hall and waste storage pit will be a major portion of the RRC site improvement project. The tipping hall will be expanded to the north and west, and will allow transfer trailers to off-load without interfering with the operations of local haulers. The waste storage pit will be expanded to the north to serve traffic on the expanded tipping floor, and to provide the Authority greater flexibility in managing fluctuations in waste generation among our customers. The crane system that delivers waste to the processing trains will be modified to accommodate the expanded tipping hall and pit.

Facility operator, Covanta York Renewable Energy, LLC, maintains a very strong safety record at the site. Currently, traffic congestion in the tipping hall presents one of the greatest challenges to providing a safe environment for our customers and employees. The expanded tipping hall and waste storage pit will reduce traffic congestion and allow for even safer operating conditions.

**Warehouse and Maintenance Shop; Mechanical Upgrades**
Warehouse and maintenance facilities will be relocated to make room for tipping hall and pit expansion. The RRC’s boiler water treatment system will be replaced with newer technology and new air compressors will be installed and relocated to better serve the facility.

See “Site Improvement” continued on page 19
“Site Improvements” continued from page 18

**Education Center**

Thousands of people tour the RRC every year to learn how municipal waste is managed in the county and how that system impacts our environment and quality of life. A new education center will be constructed to better serve the large number of school students, civic groups, and individuals who tour the RRC.

**Environmental Improvements**

Systems will be installed to capture a portion of site storm water runoff for reuse in the process. Properly managed and maintained, the RRC will serve York County’s municipal waste processing needs for many decades. The site improvements now being planned will not only provide the current benefits described above, but also prepare the facility for future expansion and the eventual replacement of existing waste processing capacity. Investments made in the facility now will benefit York County for years to come.

Notes Vollero, “Construction of the planned improvements will complement our integrated system of waste management and build on our proven use of waste-to-energy technology in a way that is the most cost-effective and environmentally efficient approach to managing York County’s municipal solid waste for the long-term. These efforts undertaken this year will set the groundwork for future expansion of the RRC.”

The site improvement project will require more than 26,000 man-hours of engineering work and will generate additional jobs locally during the construction phase. Construction is expected to take approximately 30-36 months.

The environmental and economic benefits of waste-to-energy that have served our community well for 25 years are important today and will grow ever more important in the future. Community involvement in and support of resource recovery and our integrated system of waste management has enabled York County to lay claim to one of the most environmentally responsible and effective waste management systems in the country. The modernization of the RRC and associated facilities is a logical extension of our past efforts and will serve York County’s long-term waste management needs.

The Authority owns 150 acres of land along Blackbridge Road. The current facility footprint consists of 22 acres. The site improvement construction activities will be conducted on an additional 27.5 acres within the existing 150-acre property. The Authority facilitates responsible solid waste management through an integrated strategy that emphasizes waste reduction, reuse, recycling and resource recovery. The Authority is the owner of the York County Resource Recovery Center in Manchester Township. The Resource Recovery Center has been in operation for 25 years and currently manages York County’s household waste, as well as some manufacturing waste. The facility is self-sufficient through revenue generated through its tip fee and the sale of electricity. No tax dollars are used to fund its operations.

Submitted By: Ellen C. O’Connor

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Submitted By: Ellen C. O’Connor

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Proposed Site Plan for Upcoming Project
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Global Clean Energy Inc. (GCE) is a Humble, Texas-based waste-to-energy company that focuses on technologies to convert waste into high value energy, a process the company refers to as Reforming Environmental Salvage into Clean Usable Energy (RESCUE). GCE is focused on the North American market in the end-of-life plastic, tires and metal recovery. The company announced in October 2014 that it had secured a long-term supply agreement of tire chips to be used as feedstock with Pittsburgh-based Liberty Tire Recycling, a national tire recycler that processes in excess of 140 million tires annually.

Reporters recently sat down with the GCE’s Chief Development Officer Steven Mann to discuss the state of tire waste-to-energy projects in the U.S. and where the company fits in. This is what he had to say:

**Explain the state of waste-to-energy projects in the U.S.**

We are literally entering the beginning of the waste-to-energy era in the U.S. The technologies now exist to recreate how we make energy in this country by converting waste into energy instead of environmentally damaging oil wells, fracking, tar sand mining and incineration. If energy stopped flowing from all of these sources, the U.S. could create the energy it needs by converting its waste sources to energy - not just tires, but plastics and municipal solid waste (MSW). It’s a very exciting time and we’re proud to be a part of the future of waste to energy.

**Is converting tire waste into energy gaining popularity?**

Absolutely. It was always a popular idea, now the technology has caught up to the promise. There are many waste-to-energy projects being developed in the U.S. that will be active in the next three years. Also, there is progress toward new technologies using alternative heating elements other than traditional burners, such as microwave technology, that show promise in the future.

Between existing developments using current cutting-edge technologies, such as GSE’s projects and progress toward future cutting-edge technologies, the future for tires-to-energy has never been brighter. The next two years are going to be very exciting.

**How does the conversion work?**

First, waste tires are collected and shredded down to about ¾ of an inch and de-wired. The tire chips are inserted into the pyrolysis system. Pyrolysis occurs when you heat tire chips in the absence of oxygen so there is no combustion. This allows the tire chips to be super-heated without them burning.

When you indirectly heat tire chips to 450 degrees Celsius, you break down the hydrocarbons to form synthesis gas (syngas) and solids (carbon). The carbon is micro-milled to a fine powder and pelletized to create tire derived carbon black or rCB to replace crude oil derived carbon black for pigmentation and lower grade rubber products. The syngas is condensed into a Pyroil, which is then upgraded to a D975 ultra-low sulfur diesel. Any syngas that is not condensed into Pyroil, is recirculated back into the burners so the gas produced by the pyrolysis system is used almost 100 percent so there is very little waste.

**What are some of the benefits of converting tire waste into energy?**

The benefits are reducing waste tires into landfills, improving the environment and creating cleaner fuels than traditional oil wells and mining. Any time you can take waste and convert it into a cleaner useful product instead of burying it in a landfill, that’s a huge benefit to society and the environment. Instead of having a toxic waste product like tires leaching into the soil, manifesting infestations of mosquitos from the water it captures or reducing potential for catastrophic fires and pollution created by waste tires, that’s a huge benefit to society and the environment. Tire waste to energy creates a cleaner version of fuel, energy or carbon than the crude oil alternative. It’s the purest form of recycling.

**What are the challenges?**

The challenges are securing the proper...
“Tires” continued from page 21

long-term tire feedstock agreements, choosing a proven technology, placing the system on the correct site and securing off-take agreements for the resultant fuel, energy and carbon. GCE has overcome each of these challenges and that’s why we are able to move forward with a viable waste tires to fuels project.

Discuss GCE’s tire waste-to-energy projects and systems.

Our waste tires to fuels project will keep more than 1.6 million waste tires out of landfills the first year with that number doubling to 3.2 million waste tires per year in phase 2. Our project is utilizing proven pyrolysis technology that has more than 20 systems deployed over the last 10 years.

We have secured long-term waste tire feedstock and resultant product off-take agreements. Our site has the infrastructure necessary to complete the project including a 125,000 square-foot building, access to major highways, a rail spur, water, natural gas and electricity. The location lends itself to successful permitting. We’re very excited about this project because we have all the elements in place to be successful.

What successes has GCE experienced?

The pedigree of GCE started with pyrolysis technology. GCE has developed its own proprietary pilot pyrolysis technology for the Canadian government. This success and understanding in the pyrolysis space allowed GCE to scour the earth to find the best available proven technology for its tire to fuels locations.

Another success GCE enjoys is the development of multiple locations to expand its modular pyrolysis projects throughout the U.S. for years to come. Additionally, GCE has secured feedstock agreements for tires with some of the largest companies in the U.S. and is finalizing off-take agreements for their diesel and rCB carbon products with the top companies in those industries. The GCE model is based upon its own knowledge of pyrolysis technology as well as studying why other projects haven’t succeeded. We literally reversed engineered failed projects to ensure our development projects would succeed.

Source: Waste 360

Cross-Word Solution

How did you do?
Household Hazardous Waste Facility Breaks Records

The Household Hazardous Waste (HHW) Facility located at the Transfer Station Complex at 1299 Harrisburg Pike, Lancaster, PA offers free disposal of paint, chemicals, electronics and more to Lancaster County residents. On average, 250 customers visit the facility daily. And in 2014, an incredible 72,075 customers used this service; marking a 20 percent increase from 2013. This new number marks a record year for the facility.

HHW is defined as: Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients. Improper disposal of HHW can include pouring them down the drain, on the ground, into storm sewers, or in some cases putting them out with the trash. The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes can pollute the environment and pose a threat to human health.

A total of 3,229,161 lbs of material was received at the Transfer Station Complex in 2014: which breaks down to:
- 2,498,391 lbs of e-waste
- 152,551 lbs of batteries
- 87,376 lbs of motor oil
- 81,600 lbs of flammable liquids
- 31,068 lbs of fluorescent bulbs
- 277,940 lbs of latex paint
- 100,235 lbs of other materials like antifreeze, cooking oil, pesticides, fire extinguishers, etc.

By disposing of hazardous materials at the HHW Facility, customers are helping to protect the environment and keep harmful items out of household trash.

The HHW Facility is open Monday through Friday from 7 a.m. to 4 p.m. and Saturdays from 8 a.m. to noon, and is completely free for Lancaster County residents.

Source: LCSWMA Website
In 1997, UCLA environmental history professor, Jared Diamond, published his magisterial tome, Guns, Germs and Steel. His book plumbed to the roots of how it was that some tribes at the end of the last ice age, but not others, went on to develop technologically advanced civilizations.

The answer, he concluded, laid in the varied geography among the earliest human settlements that gave a leg up only to those who inhabited certain places, but not to others. In the end, he concluded, guns, germs and steel were the agents that enabled the advanced societies to conquer underdeveloped peoples, and in 1532, made it possible for 168 Spanish conquistadors to defeat the Inca army of 80,000 men.

For those of us in the waste industry, whether we dump, burn or recycle, we all want to know where our forebears came from and how that animated us and the places that we inhabit today. Even more important, what, we ponder, does the future hold for our descendants? Diamond’s book provides a wonderful taking off point for that journey, once we modify our peels for his steel, so that we may discern the seismic forces that dominate long-term trends and are causal agent for one part of our industry to ultimately, like the Conquistadors, subdue the far larger side.

Germs. For the later inhabitants of the 19th century, packed together in teeming cities to find work, they also feared the new epidemics of their day, even as the devastation wreaked by the Black Death finally began to ebb, with the last fearsome outbreak in 1894. These new plagues on mankind virulently flared up in the increasingly confined quarters of the new urban life, threatening to return people to those harrowing times.

And not only did epidemics threaten the poor and the immigrants, but also the nouveau riche and those born to high society. For contagion did not respect the boundary lines that divided the classes.

Each year as spring gave way to the heat of summer, the fear of yellow fever returned, and, in 1838, cholera, a new scourge, which brought diarrhea, vomiting, leg cramps and death, made its way from India to America. In those days, moreover, obituaries read by contemporaries were not content to recount the accomplishments of the prominent members of society who had succumbed to cholera.

Morbidly, to sell papers, they lavished great attention on the deceased’s last excruciating hours on earth in a manner certain to spread fear through the monied class, who had thought their wealth could insulate them from the vagaries of life. “[He was] struck with sever[e] cramps,” ran the obituary on James Reyburn, a 55-year-old Wall Street lawyer, “passed through the stage of violent vomiting and diarrhea that wring from the victim a thin white, rice water, discharge.” And, the piece continued – “[h]is pulse had weakened to imperceptibility, and his skin had turned the cold, wrinkled blue that marks that final collapse, his physician covered his body with hot salt in a desperate attempt to stimulate is peripheral circulation and restore some sign of vitality [before he finally] died that night.”

That raw fear and helpless dread soon became inextricably associated in the popular mind with the “miasma” thought to emanate out of the garbage that clogged the streets – this being decades before germ theory took hold in the more subtle understanding of how disease actually spread.

Foul and rotting garbage was everywhere in the streets because, from prehistoric times to the closing decades of the 19th century, people continued to toss their slop out the window. Added to the mounds of manure left on the streets in those days of horse and buggies, the trash was picked at by roving bands of dogs and pigs, and rummaged through by rag pickers.

Newspapers and magazines read by the privileged regularly thundered over the fetid and putrid state of the city’s thor-
“Waste Management” continued from page 24

Thoughfares that everyone saw all around them, calling the streets “perfect avenues of swill” and “uninviting pools of filth.”

That sense of primal repugnance by the elites to the streets that they had to cross every day impelled the formation of the Sanitation Movement, which first led to the establishment of carters to collect garbage from homes and stores, and to haul the trash to the outskirts of town. There was just dumped, out of sight, into remote ravines, swamps or gravel pits.

Later, as urban sprawl’s spread out to once remote byways, a litany of leaking dumps and contaminated drinking water, culminating in 1978 at Love Canal near Niagara Falls, led to sanitary landfills and eventually, in 1991, minimum federal landfill standards.

Ironically, it was the founder of the largest waste disposal company who saw this new regulatory burden as an opportunity to exploit. But first, a bit more to explain how it was outsiders who began to convert mundane trash collection into a vehicle for extortion.

Guns. After prohibition was repealed in 1933, the mob needed another line of business to replace booze so it could continue extorting shopkeepers. They quickly swooped in and took over the trash business in many of our big cities; which in New York, the Antastasia and later the Genovese and Gambino crime families went on to operate as a protection racket, overcharging two, three or four times the previous going rates.

“We ain’t giving people no breaks,” Frank Giovinco, the head of the syndicate’s trade association, was recorded boasting about a competitor’s garbage truck that he had two goons torch the night before, back on a warm night in May of 1992. “We ain’t going to let the customers get off the hook. No. It don’t happen.”

The curtain covering up the mob’s secrets had been yanked back when it tried to muscle another tough Italian, unrelated to the mafia, who would not be cowed, and instead talked to prosecutors, telling them, “I won’t be intimidated.”

Salvatore Benedetto’s father and grandfather had moved on up from a horse drawn rag picking cart into a red brick building just north of the Manhattan Bridge to form Chambers Paper Fibers Recycling. Having come up the hard way, he had the temerity to bid for a contract to pick up from 1 Wall Street, a building the wise guys considered to be the family’s property right to service. Mafia-run Barretti Carting had charged the building $9,400 a month. Chambers offered to do the job for $3,900 a month and won the bid.

Furious, Giovinco summoned Salvatore to one of the mob’s favorite watering holes, Giando’s Restaurant in Williamsburg, Brooklyn, in order to make good to Barretti by paying him for his lost customer $324,000, which was 40 times what Barretti had pulled out of the building. To make sure that Salvatore understood who he was dealing with, as he got out of his car, he was attacked and punched in the stomach and, for good measure, choked to an inch of his life by a thug Barretti brought along. After Salvatore struggled to his feet gasping for air, Barretti warned him, “You’ll have a lot more problems down the road if you don’t return my customer.” The next month, another mob run company who was losing customers to Chambers had two hoodlums beat one of Salvatore’s drivers nearly to death with a baseball bat.

Garbage Truck Circa 1950’s from ClassicRefuseTrucks.com

See “Waste Management” continued on page 26
“Waste Management” continued from page 25

But, through it all, Salvatore didn’t flinch, and, in the end, based on taps from the wire he and an undercover cop wore at great personal risk, 15 defendants from 21 companies and 4 trade associations were convicted. To keep the mob out of the trash industry for good, under the next New York mayor, Rudy Giuliani, set up a Trade Waste Commission to only license new haulers with no mob connections.

As a penultimate footnote, among the tenants of 1 Wall Street, where the prosecutors’ takedown began, was HBO Studios, whose producers had a front-row seat watching the drama unfold, out of which the hit series, The Sopranos, was born.

About the same time that New York’s Commission was being formed, a new student center was being christened in Minnesota as Buntrock Commons at St. Olaf’s college, where newly minted benefactor, Dean Buntrock, had attended. Afterwards, he had entered the garbage business, and navigated its transition from mobs to monopolies.

Raised in a small farming town in South Dakota, Buntrock had outsized ambitions, and, in 1956 he took over a small carting company with just 12 trucks, Ace Scavenging, from his recently deceased father-in-law.

By 1968, he had graduated to the big time in an industry where violence was used to enforce collusion, and he had to be enjoined by Wisconsin’s Attorney General from knee capping uncooperative independent haulers in Milwaukee.

But that speed bump on the path to market power didn’t set Buntrock back. He soon after merged operations with his cousin, Wayne Huizenga and his Florida hauling company, and they took their new corporation, Waste Management, public. They then used their new stock to finance rolling up the waste industry across the country with hundreds of acquisitions a year subsumed into a national behemoth. They also used cartels and threats of retaliation to independent haulers in order to enforce monopoly rents.

However, like the closing of the once Wild West, a private antitrust lawsuit called Cumberland Farms that was handed down in 1988, which imposed a $50 million judgment against the waste giants, made the old ways obsolete. A new business model was needed to keep prices high.

That is when Buntrock had his epiphany. Uniquely, he foresaw that the outgrowth of the Sanitation Movement would soon shutter the small, unregulated open dumps and leave the disposal field to the well-capitalized national firms who could afford costly liners. He envisioned that if he and other waste giants controlled the new generation of expensive landfills, and combined them with their hauling operations into “hubs and spokes,” he could price squeeze independent haulers at day’s end when they had to dump.

As long as the demand for disposal space remained greater than the supply, his plan had the potential to create market power. But, events, centered on those humble peels, conspired to prevent that.

Peels. The first event was the Mobro garbage barge that drove the re-birth of the recycling movement. By creating the perception of landfill crisis, alternatives like diversion were aggressively pursued. Curbside separation of bottles, cans and newspapers ramped up from less than 1,000 to more than 8,000 programs by the early 1990s, which diverted about 30 percent of waste generation from landfills.

By the early 2000s, recycling combined with secular trends like e-books and papers to reduce landfill tonnages even further, and delay the day when supply would tighten. That made Buntrock’s strategy tenuous, but still possible if he could convince investors to hang on for a long slog into the uncertain future.

The next thing that happened was that the urgency for climate action mounted, as concerns became manifest that society was on the precipice of crossing irreversible points of no return. That wound up putting enormous pressure on landfills, which are a major source of methane, to the point that they look likely to become obsolete in their present form. For in 2007 the Intergovernmental Panel on Climate Change concluded that gas collection systems are inher-
ently ineffective and about 80 percent of the methane escapes.

The focus has now turned on keeping our discards that decompose and generate methane out of landfills in order to prevent the greenhouse gas from being produced in the first instance. Diversion of food scraps, along with yard trimming landfill bans, is becoming more and more prevalent.

When we did a survey for the Environmental Protection Agency in 2008, there were already 66 new residential food scrap programs in the United States. By 2013, just five years later, BioCycle found that food programs had tripled to 183. States are also getting into the action, with Massachusetts and Connecticut moving on commercial food scraps, and Vermont on both sectors.

Because those organic discards constitute about 60 percent of waste generation, and landfilled wastes are trending to less than 30 percent of the remaining discards, Dean Buntrock’s hub and spoke business model is rapidly unraveling as supply swamps demand.

Ultimately, it has been the simple fact that, when buried in the ground, the lowly peels from our food scraps create uncontrollable greenhouse gases that has led his “best laid schemes o’ mice an’ men, to gang aft a-gley.”

Like those few Conquistadors of old, little scraps and peels are on the verge of bringing down now a once mighty $22 billion corporation, and leaving it ‘nought but grief an’ pain, for [Buntrock’s] promised joy.”

Source: Waste 360
http://waste360.com/business/guns-germs-peels?NL=WST-03&Issue=WST-03_20141107_WST-03_203&sfvc4enews=42&cl=article_3&YM_RID=CPEGW000001136945&YM_MID=1566

SAP In Action

In September 2014, the Pennsylvania Department of Environmental Protection (PADEP) issued a Standard Operating Procedure for the development of Settlement Accommodation (SAP) Plans for landfills in Pennsylvania. Over the past several years, the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Waste Industries Association (PWIA) worked with industry professionals to develop this Standard Operating Procedure (SOP). The SOP allows landfills to temporarily increase side slopes from a 33% grade to a maximum of a 40% grade. The maximum allowable increase in grade is determined by the expected settlement in each respective area, not to exceed 10% of the total waste thickness. Engineering calculations are used to estimate the expected settlement throughout the landfill based on various factors such as waste thickness, waste composition, moisture content, age, etc. By temporarily raising the filled grades to above the permitted grades to account for settlement, landfills are able to capture capacity that would have been previously lost due to settlement.

To permit an SAP, the PADEP requires a Minor Permit Modification application to be submitted and approved. Because a Minor Permit Modification (MPM) is required rather than a Major Permit Modification, no public notice is required for the SAP. Once an SAP is permitted, the SAP grades are required to settle to the elevations of the permitted final grades within 5 years of placement. The SAP grades are monitored on a yearly basis during the Annual Operations Report review to track the rate of settlement and determine if the SAP grades are in compliance with the MPM.

In late 2014, ARM Group Inc. submitted the first SAP in Pennsylvania on behalf of Advanced Disposal’s Cumberland County Landfill (CCLF) and PADEP approved the application in February 2015. The SAP at CCLF included approximately 93 acres of landfill footprint. To date, approxi-
“SAP” continued from page 27

Approximately 35 of the 93 acres have been lined and only a small portion of the final exterior side slopes have been constructed. The expected settlement was estimated throughout the 93 acre footprint and an SAP grading plan was developed. The settlement calculations for CCLF’s SAP were particularly complex because the waste profile included piggy-back areas, a historic unlined landfill, and closed hazardous waste vaults. In most cases, the PADEP SOP limitations (i.e., maximum 40% slope or 10% of the waste thickness) controlled the allowable increases to the grades because these slope and elevation limits resulted in less filling than what the estimated settlement would have provided. After determining the maximum allowable amount of increase in grade throughout the SAP area, a final SAP grading plan was developed.

The SAP grading plan at the CCLF resulted in approximately 1,500,000 CY of additional capacity. As evident by the CCLF submission, the SAP allows operators to account for future settlement and extend the life of a facility. In the past, landfills have lost significant permitted volume due to the settlement of waste, particularly on side slopes. Extending the life of the existing facilities will reduce the need for additional land resources for increased disposal capacity in the Commonwealth.

Submitted By: Ben Allen, P.E. - ARM GROUP Inc.

Example of existing landfill with 33% Slope
Taken at Hartford Landfill
Do you know any young professionals working in your organization?

SWANA is inviting Young Professionals (YPs), age 35 or younger, to join SWANA at a special price! New member YPs pay a discounted fee of only $100 during their first year of membership.

Please consider sharing the information below with eligible young professionals in your organization and encouraging your YPs to join SWANA. And if you are a current SWANA member under the age of 35, please join the Keystone Chapter’s YP group by contacting Tessa Antolick at tantolick@armgroup.net.

Why Join SWANA as a YP?
The opportunity to join SWANA will make a significant impact in a young professional’s career. Empowering and engaging new professionals in the solid waste industry not only advances our field, it develops tomorrow’s leaders and advances your organization as well as our local communities. SWANA members enjoy many benefits, such as:

- **Networking Opportunities** – Excellent networking opportunities exist to meet your peers locally and across the country at various events, conferences and through online resources.

- **Members Only Information** - Over 1,000 presentations are housed on SWANA’s eLibrary including past presentations, papers and reports. Unlike random documents you may find online, the documents in SWANA’s eLibrary have all been vetted by leading professionals within municipal solid waste management.

- **Chapter Involvement** - As a member of SWANA, you also become a member of the Keystone SWANA chapter. Connect with local members to discuss state regulations and MSW issues unique to Pennsylvania while increasing your network locally. You will also receive The Keystone, the chapter’s newsletter published three times a year.

- **Leadership Opportunities** - Members have the opportunity to volunteer for a variety of projects in different capacities. From writing an article to leading your chapter, the opportunities to accelerate your leadership skills are available to those up to the challenge.

- **MSW Management** - This bi-monthly publication is the official magazine of SWANA and provides members with the latest information on municipal solid waste management.

How Do I Join SWANA as a YP?
Join SWANA at the special YP rate* by visiting www.swana.org/Membership/JoinSWANA. Provide your birth month and year when prompted to qualify. *Note: The Young Professional Discount only applies to NEW members.

Your YP SWANA Membership ALSO includes a 1-Year FREE Technical Division Membership (a $45 value) in one of 7 areas of interest to further focus your overall SWANA experience.

Looking to Get Involved in the Keystone YP Chapter?
Are you ready to help advance the solid waste industry and be a part of something bigger? If you are a current YP member of SWANA or a new YP looking to get involved with the Keystone Chapter’s YP Group, please contact the YP liaison, Tessa Antolick. You can also log-in to your MySWANA account to connect with other YPs under the community tab, interact with us on Twitter @SWANA or check in with the YP LinkedIn Group.

Visit www.SWANA.org/YP411 for more information. If you have any questions, please don’t hesitate to contact Tessa Antolick, Keystone Chapter Young Professional Liaison at tantolick@armgroup.net or by phone (814) 272-0455 x2205.

Submitted By:  Tessa Antolick
For more Information, event registrations, and updated information please go to the Keystone Chapter’s website: [http://www.keystoneswana.org/](http://www.keystoneswana.org/)

Some events to plan for include:

### APRIL 2015
- Thursday, 4/21, 9 am, **Annual Spring Mini-Technical Seminar**, Best Western, Harrisburg
- Distribute Spring newsletter via email

### MAY 2015
- Thursday, 5/1, Scholarship Application Deadline
- Thursday, 5/7 10 am, **Board Meeting at Modern Landfill**, York, PA
- Nominating Committee presents Slate of Directors for election

### JUNE 2015
- Monday, 6/1, Deadline for submittal of Grant H. Flint Scholarship recommendations
- Thursday, 6/4, 10 am, **Board Meeting Conference Call**
- Email registration announcement for 17th fall conference
- Review annual budget
- Thursday 6/4, 6PM Mid-Atlantic Regional ROAD-E-O Reception at Corey Creek Country Club
- Friday 6/5, Mid-Atlantic ROAD-E-O at Northern Tier Solid Waste Authority, Burlington, PA
- Submit articles for summer newsletter

### JULY 2015
- No Board meeting planned.
- Distribute summer newsletter

### AUGUST 2015
- Thursday, 8/6, 10 am, **Board Meeting Conference Call**
- Program Committee prepares program for the fall conference

### SEPTEMBER 2015
- Wednesday and Thursday, 9/9 – 9/10 Annual Fall Conference, Harrisburg Hilton
- Thursday, 9/10 – immediately following conference **Chapter Annual Business Meeting and Election**
- Chapter Fiscal Year Ends
- Submit articles for fall newsletter
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The Keystone is published a minimum of three times per year (generally spring, 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 Kay Dougherty, 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: kdougherty@keystoneswana.org. If you did not receive your copy of this newsletter emailed from Kay, you are not on our email list for news.