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ON THE COVER

Fecon's Stumpex removes stumps faster and more safely than traditional rotary stump grinders, and it can be mounted to a variety of equipment from traditional skid-steer loaders to hydraulic track and wheel excavators. Learn how a park in Ontario, Canada, used Stumpex to remove stumps left by an emerald ash borer infestation on page 10.



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Meet The Feature Writers

Barb Sieminski is a freelance writer and photographer for several magazines and newspapers. She earned her Bachelor of Arts and Master of Science in art and English from St. Francis College — now the University of Saint Francis. As a longtime private music instructor and certified riding trainer, she has found tremendous joy in the hundreds

of students who have crossed her path through the decades. Her enthusiasm for the outdoors is legendary, from bright lake waters in summer to the hush of snowy woods in winter. When not chained to the computer, she follows her passion for fishing, believing all good things come to she who baits.



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Hats off to public works



Sarah Wright | Editor

EW DEPARTMENTS ARE AS MULTIfaceted as public works, tackling a large swathe of jobs that often go under-appreciated by the general public until something goes wrong - such as a water main breaking. Which is a shame, especially since life as we know it can't proceed without the efforts of this one department. Public works employees are hardworking and often extremely creative, finding unconventional solutions that work while adhering to tight budgets. They will also - at least in the case of Illinois' Algonquin Public Works Department - take the time to rescue ducklings and other wayward critters from drainpipes and other places they don't belong.

Fittingly, the American Public Works Association leads a National Public Works Week—2019's was May 19-25—to ensure these employees' efforts don't go unnoticed. Searching for #NPWW on various social media platforms unveils a cornucopia of tales told throughout the week, introducing residents to little unknown facts about their local public works departments or the faces behind them.

From Eagan, Minn., spotlighting its public works team's efforts in lake mapping to Wilson, N.C., sharing that its airport — a part of the city's transportation office — actually falls under its public works division. Sweet treats were also had during numerous events or even while public works workers were on the job, with one recycling pickup crew in Gilbert, Ariz., receiving homemade cookies from an appreciative young man.

Other municipalities — like Sandusky, Ohio — ran profiles of some of their public works staff members on Facebook, sharing quotes, years of service, challenges at work and little facts about their position, which included gems like finding the city manager's secret candy stash and standing in a grave.

The week likely opened residents' eyes to the variety of work completed by public works employees and maybe even encouraged a few to pursue a career in public works themselves. The more interested, the merrier, especially since a good economy finds many municipalities facing a shortage of qualified public works employees.

Writer Barb Sieminski is addressing this issue, which is cropping up



nationwide — though no empirical data is readily available to confirm a widespread shortage. Still, she spoke with APWA Executive Director Scott Grayson on the matter and the importance of taking advantage of training and certifications to avoid skills and knowledge gaps. Additionally, she interviewed a couple of cities in regards to department vacancies and how they are being addressed.

Other public works related stories include how cities are combatting fats, oil and grease in their sewer lines; adding recycled plastics into roadways; an award-winning project out of Washington, which saved a road and several cabins from erosion; and a city that is using hot steam in its weed killing strategy.

National Public Works Week may be over, but it's never too late nor too often to thank public works employees for all they do.

To all of our readers,

America was not built on fear. America was built on courage, on imagination and an unbeatable. --Harry S Truman

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M From The Cover

Stump grinding helps Ontario Park turn over a new leaf

By JIM WAHL | Wahl Marketing

Across North America, the emerald ash borer is infesting ash trees, leaving behind fields of dead and dying trees. In wooded lots, the dead trees can be a vital part of the ecosystem, providing nesting branches for birds and vital nutrients to the forest. In municipal settings such as parks and streets, however, the dead trees pose a safety hazard to pedestrians and cars, requiring removal.

Parks all over North America are dealing with the dead trees left behind by the borer. Recently, Lakeview Park in Oshawa, Ontario, Canada, lost 150 ash trees. After felling, the park was left with a graveyard of sorts: fields of stumps marking where the trees had stood. Stumps are unsightly and occupy otherwise usable space or fertile ground for new growth, but when it came to removing them, the park was stumped.

Removing stumps requires specialized equipment that can effectively grind the wood to level ground without throwing rocks or debris. Stumps are usually ground or dug out and replaced with topsoil. With an immense amount of stumps in the park, and each ranging from 20-24 inches in diameter, the parks department couldn't begin to dig them out by hand. Given the large size of the park, one of the largest in Oshawa, and the constant use by locals, shutting the park down for stump removal wasn't an option. The parks department branched out and called Jake Woudstra. president of Pro Lawn Landscaping, a local landscape contractor.



Lakeview Park in Oshawa, Ontario, Canada, lost 150 ash trees to emerald ash borers, and its contractor Pro Lawn Landscaping used Stumpex to remove the numerous stumps, which were creating an eyesore. (Photo provided)

"Leafing" behind level ground

Grinding stumps is all about having the right tool for the job, something Woudstra knows all about. For years, Pro Lawn used a traditional skid steer grinder on his Bobcat S650 with a high-speed wheel and carbide tools. On a recommendation from a landclearing contractor, Woudstra made the switch to the Fecon Stumpex, a high-torque, low RPM, auger-bit skid steer stump grinder.

The attachment has a threaded cone that draws the bit into stumps at 7-16 RPM. Skid steer hydraulics of 20-42 GPM power the Stumpex gear box with as much as 30,000 foot-pounds of torque, pushing the patented auger bit with stepped blades into the wood. The Stumpex slowly shaves the stumps into chips without causing highspeed debris.

The wheel grinder would have taken Woudstra and his team weeks to grind down the 150 ash trees as cleanup and safety arrangements slow down the grinding process. Wheel grinding leaves behind huge piles of smaller chips that require extra manpower to clean up. On windy days, the smaller chips blow around, collecting on nearby cars. To reduce the damage caused by flying debris, Woudstra dedicated a safety truck and operator to each site where the wheel grinder was working. He doesn't need that extra precaution any longer, thanks to the dynamics of how the Stumpex works.

With the Stumpex, a 20- to 24-inch stump takes 10-15 minutes per stump. Although the Stumpex attachment grinds slowly, it leaves behind a small pile of large shavings that is easier to pick up, eliminating the need for multiple-man cleanup crews. Cleanup time is cut in half compared to the wheel grinder. The low-speed grinding also reduces the need for an additional safety team and truck at each stump, freeing up the cost of a truck and an operator for other productive work.



A 20- to 24-inch stump only takes 10-15 minutes to remove with Stumpex and leaves behind a small pile of large shavings that is easier to pick up. (Photo provided)

"Basically the Stumpex not only doubled our daily production, it cut our labor in half compared to using the wheel grinder," Woudstra said.

The attachment even ground a stump 6 feet wide in diameter, one of three exceptionally large stumps at the site ranging from 4-6 feet wide. Woudstra's crews processed the stumps in multiple plunges in a clockwise motion, repositioning the auger bit as needed. Operators had to be trained on positioning and angling the screw correctly, but with a little learning, they were able to easily accomplish the grinding. What would have taken a wheel grinder the better part of a day took the Stumpex three hours, allowing the crew to continue working on smaller trees.

With the wheel grinder, the team could have averaged 25 stumps a day. Using the Stumpex, they accomplished 50 a day; Pro Lawn was in and out of the park in three days, allowing locals to enjoy their park without the sights and sounds of grinding once again.

"Safetree" first

Safety was an important consideration in grinding the ash stumps — the parks department didn't want to shut down a park just for stump clearing, so there were naturally people around while Pro Lawn was working. Risking an injury due to flying debris wasn't an option.

With a wheel grinder, the high-speed grinding kicked up rocks and chips and flung them in the air, often over a shield Woudstra set up around the perimeter. Sometimes, the carbide teeth would hit a rock and break, flinging both rock and metal into the air. At best, breaking a carbide tool meant production downtime for repairs and maintenance — at worst, a flung tool could hit a car or nearby pedestrian.



The Stumpex's low RPM blades and vertical orientation create a safer environment when working around pedestrians or vehicles, as it dramatically reduces the likelihood of flinging material. (Photo provided)

The low RPM blades and vertical orientation of the Stumpex attachment are ideal for operating around pedestrians, as it dramatically reduces the likelihood of flinging material.

"The safety and productivity of the attachment could lead cities in the area to make its use mandatory for municipal stump grinding contracts," Woudstra said.

Grinding to a halt

Breaking a tooth on a wheel grinder can shut down production for the day. Processing stumps all day can wear down parts, and when a tooth broke — a seemingly weekly occurrence — Woudstra would pull the equipment off-site and into the shop to replace the part. It was a frustrating and costly process, lengthening job time and requiring spare parts on hand.

With no carbide tools to replace, regular sharpening and greasing — every 1,000 stumps — can keep the Stumpex grinding for years. After a week of running the attachment all day, Woudstra touches up the blades with a grinding wheel according to a gauge provided by Fecon. If a blade needs sharpening on the job site, Woudstra can do so using a battery-powered grinder for 10-20 minutes.

The Fecon ash grinder

As the emerald ash borer continues to infest forests across eastern parts of Canada and America, it leaves thousands of dead ash trees in its wake. In populated areas, the trees have to be removed safely to prevent the spread of the borer and protect local people and property.

In the Durham, Ontario, area, Pro Lawn Landscaping is helping to clean up some of the devastation by safely grinding the left behind stumps. Using the Fecon Stumpex has made them more competitive on contract bids and increased their business significantly, Woudstra said. Pro Lawn is now processing 1,200-1,500 stumps a season by slowly pulverizing wood with low RPM and up to 30,000 foot-pounds of torque. The season runs from May to October and is determined by the planting season: The grinding crew is immediately followed by a planting crew that replants a new tree in the vacated spot.

With little end in sight for the emerald ash borer infestation, Woudstra has a steady flow of stump grinding contracts. Armed with the Fecon Stumpex, Pro Lawn will be able to quickly grind stumps, letting the people enjoy their municipal land safely, without the sights and sounds of grinding. In just a few years when the replanted saplings take root, it will be like the emerald ash borer was never there at all.

Route 66

Route 66 passes into Tulsa next to a bronze sculpture of the family of Cyrus Avery, "The Father of Route 66," which can be seen on the left. (Shutterstock.com)

Various locales, Oklahoma

By RAY BALOGH | The Municipal

Route 66, that iconic 2,448-mile asphalt ribbon of quintessential Americana, was known by several names, including the Main Street of America, the Mother Road and the Will Rogers Highway.

Stretching from Chicago to the Pacific shore in Santa Monica, Calif., the highway wound through eight U.S. states, bisecting or skirting 319 cities and towns along the way.

Commissioned in 1926 and fully paved in 1938, Route 66 served many purposes during its six decades of prominence. The highway stimulated the economics of the communities through which it passed, germinated numerous mom-and-pop enterprises and marked the birth of the roadside fast-food industry.

It supported the grim westward migration of most of the 210,000 economic refugees escaping the devastating brutality of the Dust Bowl during the 1930s, thus earning it an additional moniker, "The Road to Opportunity."



(Photo courtesy of Road Trip USA)

It facilitated transport of military vehicles and equipment during World War II and the joyous homecoming of many soldiers afterward.

It provided a picturesque and adventurous channel of wanderlust for vacationing families during the era of big cars and cheap gasoline.

The importance of Route 66 sharply diminished with the enactment of the Interstate Highway Act signed by President Dwight D. Eisenhower in 1956. The route was supplanted section by section with newer interstates and Route 66 was officially decommissioned in 1985. Oklahoma is perhaps the state most securely pinned to both the genesis of the road and to its present nostalgic commemoration.

Entrepreneur Cyrus Avery, dubbed "The Father of Route 66," lived most of his life in Tulsa, Okla. He was appointed to a federal board tasked with creating the Federal Highway System and prevailed in suggesting the route for a cross-continental east-west major highway.

He successfully argued moving the originally conceived route to the south to avoid construction through the Rocky Mountains.



Pops Restaurant in Arcadia boasts the world's largest soda bottle. (Shutterstock.com)



City Meat Market, the oldest building in Erick, is bedecked with a collection of Route 66 memorabilia. (Shutterstock.com)

Avery also championed the establishment of the U.S. Highway 66 Association to advocate the road's complete paving and promote tourist and commercial travel.

Throughout the decades Route 66 enticed a collection of roadside kitsch, including motel rooms shaped like tepees, the world's largest ketchup bottle, world's tallest totem pole and gas pump, second largest rocking chair, Cadillac ranch featuring 10 cars partially buried nose down and several giant fiber-glass "muffler men."

Today Oklahoma boasts the most drivable miles of the original highway of any state. A portion of pavement of the route in Bridgeport, Okla., is on display at the National Museum of American History in Washington, D.C., together with a neon sign taken from a gas station and tourist cabins near Hydro, Okla.

The Cyrus Avery Centennial Plaza, located in Tulsa, exhibits a 20,000-pound sculpture, "East Meets West," depicting the Avery family riding west in a Model T meeting a westbound horse-drawn carriage.

Several attractions fete the legendary humorist, actor, writer and vaudeville performer Will Rogers, "Oklahoma's Favorite Son," who was born in Cherokee territory now subsumed by Oklahoma.

Other Oklahoma landmarks along Route 66:

- Provine Service Station near Hydro, operated by Lucille Hamons from 1941 until her death in 2000. She earned the title, "Mother of the Mother Road," for her widely renowned generosity toward travelers during hard economic times.
- Milk Bottle Grocery in Oklahoma City. The small building is overshadowed by the giant milk bottle on its rooftop.
- Pops Restaurant, Arcadia, featuring a 66-foot-tall neon sign in the shape of a pop bottle.
- Round Barn, Arcadia. The structure has served as a community hall since 1898.

QUIZ:

- 1. Who coined the Route 66 nickname, "The Mother Road"?
- 2. Which famous Chicago thoroughfare marked the eastern terminus of Route 66?
- 3. Which famous fast-food franchise opened its first restaurant along Route 66?
- 4. Which two actors starred in the weekly series, "Route 66," which aired from 1960 to 1964?
- 5. Because of subsequent realignment, the highway at one point crosses itself. In which city can one stand at the corner of Route 66 and Route 66?
- 6. What are the eight states through which Route 66 traveled?
- 7. Which state hosts the fewest miles of Route 66?
- 8. Route 66 was the inspiration for many of the scenes and characters in which recent animated film?



A witty poem is graffitied on a wall next to Route 66 in Texola, the route's westernmost stop in Oklahoma. (Shutterstock.com)

• Fort Reno, El Reno, which served as a U.S. military post from 1874 through World War II.

Several museums in the state are dedicated to the history and culture of the famed thoroughfare:

- National Route 66 Museum in Elk City, www.elkcity.com.
- Oklahoma Route 66 Museum, Clinton, www.okhistory.org.
- Heart of Route 66 Auto Museum, Sapulpa, www.heartofroute66.org.
- Afton Station Packard Museum, Afton, www.aftonstationroute66.com. ■

ANSWERS:

1. John Steinbeck in his novel, "The Grapes of Wrath," published in 1939. 2. Lake Shore Drive. 3. McDonald's, in San Bernardino, Calif. 4. George Maharis and Martin Milner. 5. Albuquerque, N.M. 6. From east to west: Illinois, Missouri, Kansas, Oklahoma, Texas, New Mexico, Arizona and California. 7. Kansas, with only 13 miles through it southeastern corner. 8. "Cars." The movie's fictional town, Radiator Springs, is a composite of several communities along the historic route, particularly Peach Springs, Ariz.



Molalla, Ore., has always worn its rustic heritage on its sleeve — and on its city seal.

Prominent in the inner circle of the seal are three figures engaging in outdoor activities: hiking, canoeing and biking. Towering over them are majestic pine trees against a silhouette of a mountain in the nearby Cascade Range.

Both sides of the outer circle feature feathers commonly associated with Native American culture.

Molalla, population 9,610, was named after the Molalla River, which was named for the Molalla tribe that inhabited the area before white settlers arrived.

The area, abundant in fertile soils, fresh water, rich grasses and usable timber, attracted pioneers to the surrounding Willamette Valley.

The first land claim for the settlement, situated at the crossroads of two major Indian trails, was filed in 1840, and 10 years later a post office marked the official beginning of the settlement. Molalla quickly became a thriving timber, agricultural and trade center. Numerous rock quarries dotted the area and five sawmills contributed significantly to the local economy. The first school started class in 1856 and the first general store opened a year later.

1913 was a seminal year for the municipality, when it welcomed its first train, held its first Molalla Buckeroo Rodeo, opened its first bank, published its first newspaper and incorporated as a town.

Molalla grew steadily and experienced a surge beginning in the 1970s. The town's population quadrupled from 2,005 in 1970 to 8,108 in 2010. Increased business traffic compelled the city to install its first stoplight in 2005 at the intersection of two state routes.

The four-day rodeo, now in its 106th year, is held around the Fourth of July holiday, dubbed "Cowboy Christmas" in rodeo circles. The event draws top-level competitors from surrounding states and attracts thousands of spectators. The town's popular Fourth of July parade draws upward of 50,000 visitors.

Molalla still overtly embraces its Native American heritage. The high school mascot is an Indian, and in 2015 the town worked with a confederation of local tribes to create a light pole banner project featuring images depicting the story of the Molalla tribe.

The Molalla Heritage Art Walk entails a tour of a series of sculptures placed around town. The sculptures represent the culture, food and lifestyle of the Molalla tribe.

For more information, visit www.cityofmolalla.com or www.molallabuckeroo.com. ⊠



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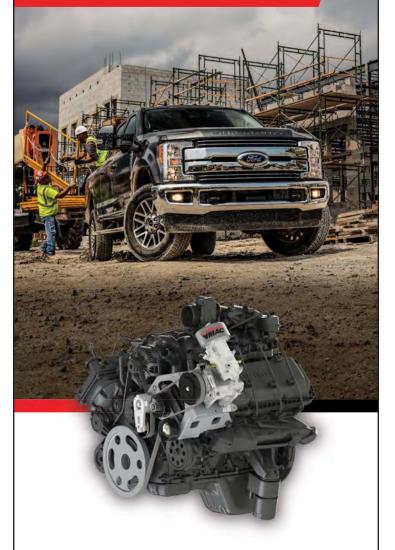
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Focus on: Public Works

75%

FOUS OW: Public

The Federal Emergency Management Agency funded this percentage of the Cowlitz River Erosion Project as it was a preventative project that will save money in the long run.

More information on this award-winning project is available on page 30.

\$2.8 million

Metro Nashville Public Works in Tennessee has received two public and private grants totaling this amount, which will enable it to expand its curbside recycling program.

Source: communityimpact.com/nashville/ southwest-nashville/environment/2019/05/28/ metro-nashville-public-works-plans-to-increase-curbside-recycling-by-early-2020/

9.5%

The current vacancy rate in the public works department of Asheville, N.C.

Learn about how cities are handling shortages of qualified public works employees on page 20

750 gallons

The required capacity of grease and grit reducing devices in Tyler, Texas, after the passage of a new ordinance, which aims to reduce the amounts of fats, oil and grease entering the sewer lines.

Read more on page 24.



NOW HIRING



Moscow, Idaho, has a goal to reduce greenhouse gas emissions by this percentage by 2020, which has led it to adopt various sustainability programs from alternative fuels to using hot steam to kill weeds.



Learn more on page 32

\$250,000



Chico, Calif., Public Works Department installed "ped heads," better known as the countdown crossing signal and the intent-to-walk button, at 70 major intersections; the project cost more than \$250,000 to install.

Source: www.chicoer.com/2019/05/29/triaging-potholes-ped-heads-and-more-chico-publicworks-department-answers-thousands-of-calls/

\$3.6 million

The proposed 2019-20 public works budget for Waterville, Maine, which reflects a \$103,000 increase from the \$3.5 million budget approved last year. The 2.9% increase is primarily attributed to wages and benefits.

> Source: www.centralmaine.com/2019/05/28/ waterville-council-eyes-proposed-3-6-million-public-works-budget/

Getting ahead of potential public works employee shortages



By BARB SIEMINSKI | The Municipal

Attractive cities would boast such enviable characteristics as sparkling, clear streets sans potholes; neatly trimmed trees; neighborhoods free of unsightly debris, overgrown weeds and rundown empty houses; regular trash pickups; contained pests; and traffic lights and signs in good repair.

In order to possess such enviable attributes, however, municipalities not only need to have funds to maintain their overall attractiveness and functionality, they also need the human power to implement these goals.

And increasingly therein, for some cities, lies the rub.

A shortage of public works employees has hit several cities across the nation, creating a staffing emergency. Kansas City, Mo., is one of the afflicted cities, with—since last February—almost 30 openings in its public works department. The phenomenon is occurring because of a strong economy and low unemployment rate, according to the city. And while there is an increase in job applicants, it is time-consuming to train them and pass background checks. Plus, some are required to have a CDL-A license with a pay uptick of \$15 to \$22 per hour.

APWA Executive Director Scott Grayson, CAE, offered his opinion as to whether this was becoming a trend nationwide.

"While there is no current empirical data to confirm that there is a shortage of public works officials, we continue to hear anecdotally that



Scott Grayson, APWA Executive Director

there is such a shortage," said Grayson. "As baby boomers are now starting to retire, there will be an increasing shortage of public works officials and a real loss of experience and knowledge. That is why APWA focuses on a variety of training and certifications for public **LEFT:** Asheville, N.C., has seen several employees in its public works department leave for the county or state jobs for higher salaries. The city's proposed fiscal year 2019-2020 annual operating budget has funding set aside for a comprehensive compensation and classification study to hopefully attract and retain employees better. (Shutterstock.com)

RIGHT: While largely anecdotal, several cities across the U.S. are experiencing shortages of qualified public works employees as the economy booms. Pictured are workers with the Asheville, N.C., Public Works Department. (Photo provided)



works professionals as well as accreditation of public agencies. Each of these programs helps to train the next generation to move into these roles. APWA's accreditation program is instrumental in documenting public works' business processes so that agencies across the U.S. do not lose the skills and knowledge as the baby boomers begin to retire."

Greg Shuler, director of public works for the city of Asheville, N.C., said his public works current vacancy rate — vacant positions/total head count — as a department is 9.5%.

"Last November (2018) it was 10.6%, so we're in a little better shape now," said Shuler. "Even with a departmental rate at 9.5%, two of our divisions are in double-digit vacancy rates. As you can imagine, this number fluctuates a great deal. Just last April (2019) as a department, we were at 12.2%."

What about checking with minorities and other special groups for viable candidates?

"Yes, our organization (city of Asheville) and the public works department, work to reach out to minority and women-owned businesses for our contracted labor," said Shuler. "Our city recently completed a disparity study to identify better ways to utilize a more diverse group of contractors and consultants.

"Also, public works has had several employees retire recently, but that is a small part of the puzzle as far as staff turnover."

Shuler's team has and continues to try attracting and retaining candidates with "special" skill sets. Some solutions in encouraging this have had limited success.

"Public works has utilized hiring bonuses and supplemental pay with mixed results," noted Shuler. "The city of Asheville provides a 5% contribution to each full-time employees' 401K, regardless if the employee contributes any or not. That is an awesome benefit but may not be as attractive if the base salary isn't competitive enough to retain skilled employees early in their career.

"We offer a robust benefits package as a whole, but our salaries haven't kept up with the private sector in today's economy. Many of the other governmental agencies have completed and implemented compensation and classification studies recently. We've seen several of our employees in the department leave for the county or state for higher **>**



Greg Shuler, director of public works for the city of Asheville, N.C., is pictured on the far right. (Photo provided)



Asheville public works employees lower a pipe as part of a stormwater project. The department currently has a 9.5% vacancy rate. (Photo provided)

salaries. The city's proposed fiscal year 2019-2020 annual operating budget has funding set aside for a comprehensive compensation and classification study in the upcoming fiscal year. The proposed budget will be approved by July 1, 2019, and hopefully that study will be a part of it."

What other cities, if any, are you aware of, that are facing the same problem?

"Honestly, I haven't talked with any of my

counterparts that aren't dealing with this at some level," said Shuler. "My colleagues at the county and state level are still struggling, but they have done a good job of creating a plan to address it. I talk with local construction and consulting companies about this as well. The current economy has flooded the market with work and quality employees are at a premium. Government jobs are usually more attractive in a slow economy and less in a thriving one."

Nick Arena, municipal services director for the city of Independence, Mo., said his department had one vacancy in its street division and two openings in its faculty division.

"I have seen where other agencies are offering a sign-up bonus," said Arena who has also reached out to minority groups in hopes of getting good-quality candidates. "Vacancies are part of the business, and with a strong economy, it makes it hard to find applicants who have experience and are willing to come on board."

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"As baby boomers are now starting to retire, there will be an increasing shortage of public works officials and a real loss of experience and knowledge."

> Shuler recommended staying current with compensation and classification to be competitive with a department's known competitors.

> "Salaries are important but so is classification," said Shuler, who added that these should be managed at least every other year to stay competitive and prevent compression within one's staff. "It's proven that if you enact a compensation study and don't make adjustments periodically, it will not be successful. It's not all about pay, though. Providing opportunities for training and professional development is vital for job satisfaction, and can provide a huge boost in retaining high performers. I would also include transparency, consistency and accountability as important things to consider for employee satisfaction. Lastly, I would encourage others to show genuine appreciation to employees every chance you get.

"It really does make a difference to employees at any level."

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Tyler, Texas, passes new ordinance to combat sewer buildups, backups and overflows

By NICHOLETTE CARLSON | The Municipal

The existence of fats, oil and grease buildup in sewer lines can be disastrous for both individuals and the city when it comes to short- and long-term consequences. Consequences can range from a costly and pungent inconvenience to an expensive, hazardous obstacle.

A fats, oil and grease ordinance was presented to the Tyler, Texas, City Council Feb. 13 in the hopes of approving an amendment to the city code. This F.O.G. control ordinance would define requirements in order to regulate grease reduction devices so that the city was in line with surrounding municipalities.

"In April of 2017, the city of Tyler, Texas, like many other cities have, entered into a consent decree or legal mandate with the U.S. Environmental Protection Agency," Paul Neuhaus, the city's environmental compliance engineer, stated. "This consent decree required improvements to our wastewater collection or sanitary sewer collection to prevent sanitary sewer overflows or SSOs. Part of these requirements was to implement a fats, oil and grease program, which includes an ordinance that is enforceable with the goal to prevent the buildup of F.O.G. within the collection lines. F.O.G. buildup can cause a blockage that can lead to SSO." **ABOVE:** Food service establishments in Tyler, Texas, are adjusting to a new fats, oil and grease ordinance this year. The ordinance requires food establishments, particularly those with equipment that produces large amounts of grease, such as deep fryers, to install and use a grease trap or interceptor. This helps to regulate the fats, oil and grease that are allowed to enter the sewer lines. (Shutterstock.com)

Why is this necessary?

Residues from fats, oil and grease are typically found after cooking meats, leftover oil from frying or sauteing, cooking with or disposing of butter and other dairy products or any type of fatty food scraps. One of the best ways for individuals and food establishments to help prevent sewer backups is by properly disposing of F.O.G. through collecting cooking oils



When fats, oil and grease build up in a sewer line it can lead to sewage backup and overflow into a yard, storm drain or street. Cleaning up and repairing this issue can result in hefty expenses and unfortunate effects to the environment. (Shutterstock.com)

in a disposable container, such as a can, and throwing it into the trash after it cools instead of pouring it down the drain.

Before washing dishes, it is best to use a paper towel to remove as much oil and grease as possible before washing; additionally, prewash dishes with cold water before placing dishes in the dishwasher. Hot water should not be used to rinse off grease or oil.

Disposing of food scraps from dishes and pans into the trash and avoiding the garbage disposal helps to keep unnecessary buildup from the sewer lines. Kitchen sink drains should have either a strainer or a catch basket covering in order to catch any food scraps so that the strainer or basket can then be emptied into the trash. Likewise, floor drains should be covered with a fine screen and emptied as necessary to capture sediment and prevent it from entering the sewer lines.

Passing the ordinance

For Tyler, only one reading of the ordinance was necessary prior to it being put to a vote and passed. "We used guidance language from the Texas Commission on Environmental Quality and other municipalities to put together our ordinance," Neuhaus explained. "We had a council member review and comment on the ordinance who was a former restaurateur. Then we presented it to the local restaurant association. Next, we submitted this same presentation to the city council. Finally, we put it on the agenda and put it to a vote."



Grease traps and grease interceptors help to protect the sewer lines by catching the fats, oil, grease, solid waste and sediment before it can enter the public sewer lines. The traps and interceptors must then be emptied a minimum of every 90 days to keep them from facing a buildup. (Shutterstock.com)

This ordinance establishes specific regulations, which govern the discharge of fats, oil and grease into the sanitary sewer system by all users of the publicly owned treatment works who are not domestic, such as food service establishments. Facilities that are generating F.O.G. through food preparation, processing, manufacturing or service are required to install, use and maintain grease traps or interceptors. The facility must also have the plans and specifications of these grease and grit reducing devices, otherwise known as GRDs, reviewed and approved by the city's building inspection department as well as the industrial pretreatment program prior to installation.

Certain requirements must be met in order to pass inspection. A GRD must be outside the generator, not under the sink. It must also provide a two-way, 3-inch or larger clean out on the effluent side. Receptacles that could discharge hot water must be a minimum of 10 feet from the GRD and any water must be cooled to 120 degrees before reaching the GRD. The capacity of a GRD must be at least 750 gallons, though specific exemptions could allow one with only a 500 gallon capacity under certain circumstances. It must be pumped completely empty and cleaned every 90 days; however, additional pumping may be necessary if the GRD's grease layer exceeds 6 inches, the settled solids layer is greater than 8 inches or 25 percent or more of the wetted height of the GRD contains oil, grease, fats or sediment. Removed gray water should never be returned to a grease trap or interceptor.

All GRDs must be easily accessible for inspection, maintenance, cleaning and sampling. Inspectors must be granted access to test, sample and measure the device. They must also be granted access to examine records regarding the maintenance, cleaning and past inspections. All food service establishments are subject to review and inspection, and operators are responsible for the costs of installing the GRD along with inspections, pumping, cleaning, maintenance and operation. ►

Consequences of noncompliance

There can be a wide range of negative consequences when it comes to pouring F.O.G. down the drain and not following the city's ordinance. When fats, oil and grease enter the drain it clings to the sides of the sewer pipes and plugs the service lines, which can cause sewage backups. Even residentially it can plug a home's septic system or drain lines causing unpleasant odors as well as sewage backup in the yard. Plugged sewer mains can result in backups in the storm drains or street, which can be hazardous to both the environment and residents. Any of these consequences can quickly lead to necessary expensive cleaning and plumbing repair bills.

Biannual inspections documented with photographs and data are required to ensure that establishments are following the ordinance. Establishments receive education early on to give them the necessary knowledge to pass inspection.

If the establishment is in violation, it will receive follow-up inspections, letters of violation as required and then enforcement action when necessary. The managing director will give an establishment a written notice of violation with orders to come into compliance by a certain date.

If the problem continues, enforcement action can be taken, including civil penalty charges up to \$2,000 per violation per day and publishing a list of noncompliant operators in the newspaper. If the noncompliance continues and becomes more serious, the city is able to pursue criminal prosecution with various fines, emergency suspension of sewer service, termination of discharge as well as require a performance bond or liability insurance prior to reissuing the wastewater discharge permit along with increased monitoring and inspections.

"We are taking the route initially that people want to do the right thing and may need only to be educated as to why this is necessary," Neuhaus explained. "However, for those who choose not to follow, fines and potential publication in the newspaper as a violator will be on their horizon."



If food establishments and residents do not follow best practices or the F.O.G. ordinance, it can lead to disgusting or even hazardous consequences that affect the entire city. Oil and grease floating on top of the water in an open city drain is just one consequence of noncompliance. (Shutterstock.com)



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What a waste — or is it?

By ELISA WALKER | The Municipal

With China no longer importing plastic from the U.S. and environmental awareness spreading, states are experimenting with ideas to cut down on the garbage piling up.

Last year the U.N. Intergovernmental Panel on Climate Change warned the rest of the world that there were only 12 years to limit climate change, prompting many to do what they can to preserve the world, which includes recycling.

Working before the environmental crisis

Since the 1980s, before recycling became as commonplace as it is today, the Iowa Department of Transportation has been researching ways to utilize recycled plastics in roadways. The use of plastic has extended the durability of roads and cut down on waste in landfills — a win-win for Iowa DOT. Dabbling in a variety of ideas and experiments has helped them discover what does and doesn't work for Iowa roads, which helped them plan their next steps for the future.

"We used something called asphadur, which is ground up milk jugs that were incorporated into our asphalt mixer," explained Tom Reis, specifications engineer of Iowa DOT. "It turned asphalt into a sticky, gooey black mess — like a Rice Krispies bar — but when it cooled off, it became hard and tough. We used that in intersections, which made the asphalt much harder and resistant to movement." Today Iowa DOT still implements recycled plastic in a variety of ways, such as a 4-inch drainage tile made out of high-density polyethylene pipe placed underneath the entire roadway system. The tile reduces incoming plastic waste that would typically be piling up in a landfill.

Currently, plastic fibers are being used to control the cracking in asphalt and concrete.

The fibers, rather than the plastic pins other DOTs are using, are about the size of a human hair. With a thin overlay of existing concrete, the fibers have been used on a regular basis. Eventually Iowa DOT would like to start testing to see if the fibers could be used on brand-new roadways.

As of now the only downside is that the fibers are made from virgin plastic and not from recycled products.

LEFT: In partnering with those in higher education and manufacturers, research can move forward in a way that could positively impact the state and the environment. (Shutterstock.com)

Reis added, "That doesn't say that at some point in the future, once we get these plastic fibers in our asphalt incorporated in day-today work, we can't go into researching and developing a recycled version or incorporate some recycled content into the fibers while still maintaining the durability and longevity of the asphalt."

Not all plastic is equal

The biggest challenge Iowa DOT has encountered is finding the right quantity of the plastic quality needed.

The incoming stream is unpredictable, and manufacturers are having to adjust their mixes to ensure the quality of the finished products meets necessary requirements.

"There are a couple of different directions this could go in the future, and we could go in both at the same time," elaborated Reis. "One is utilizing recycled plastics within our roadways in areas we don't need to worry so much about for longevity and durability. Currently, we're looking at a 30- to 40-year lifespan. When we make a mistake, we're stuck with it for a long time. We can't afford to throw something in there without knowing the outcome.

"Then we look at bridges, which are double that lifespan. We have to do our due diligence in the materials that go into construction. We have to assure taxpayers that they're getting the products they expect."

Bar chairs are another product that could be made from recycled plastic as their only purpose is to offer reinforcement for steel on bridges until the concrete hardens. Then the bar chairs simply sit there until it's time to work on the bridge again.

So long as it isn't detrimental to the concrete, commented Reis, there aren't strict requirements as to what the bar chair should be made of.

For short-term uses where durability isn't a priority, a variety of recycled plastics can be used in silt fences for runoff during the



Along with asphadur, Iowa Department of Transportation created crumb rubber in the 1990s, which added ground up tires to asphalt. While it was an improvement, Iowa DOT eventually moved away from crumb rubber to seek improvements through other experiments. (Photo provided)



As research continues, there is hope of increasing the amount of recyclable materials used in roadways and bridges. Products that don't require extensive durability, such as silt fences for runoff, could utilize a good amount of recycled material. (Photo provided)

construction of a roadway, which slows down water and prevents erosion.

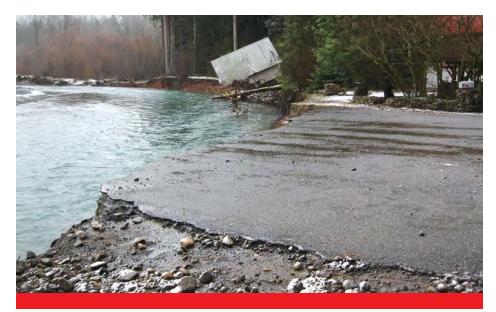
What does it mean for the future? And for cities?

On a municipal level, incorporating plastic into roadways is a plausible route to pursue.

Iowa DOT works with the Statewide Urban Design and Specifications group, which works with local units of the government to develop standards and specifications. SUDAS makes it possible for municipalities to stay up to date on what the rest of the state is doing and implement innovative projects for the city or town.

Additionally, Reis advises working with manufacturers and researchers in higher education to continue producing cost-effective, durable materials that will have a better impact on the environment and the city.

"If China is no longer taking in some of our waste, then we're going to have more. I think this has a chance of opening our eyes. In my opinion, putting it in a landfill is a travesty and where we're not doing our due diligence. Our goal should be seeing landfills as a last opportunity for disposal."



Cowlitz River Erosion Project saves road and residential cabins

In 2017, Lewis County in Washington faced a difficult task. A road along the Cowlitz River was experiencing extreme erosion thanks to the body of water's wild and unpredictable nature. As the road began to wash away, multiple cabins in the county's Timberline community were also in danger of losing their foundation and washing away.



By ANDREW MENTOCK | The Municipal

County officials wanted to act fast, only initially they couldn't. In order to stop the erosion, the county would need to do work on the river bank beneath the roads and the cabin. The problem was that in order to do that, permits were needed, which could take through 2019 to get — time the county wasn't sure it had.

Luckily, the county's environmental planner, Ann Weckback, was able to get creative.

"The Army Corps of Engineers had said that it would require a BA, a biological assessment," said county manager Erik Martin, who was serving as the director of public works. "So initially we thought, 'Okay, well, this is probably a year-and-a-half to two-year permitting process. As our environmental planner got to working on it, she saw that there were remnants of an old embankment there, an old revetment actually. And so she worked with the core to treat this as a maintenance of that existing revetment."

Thus, the county was able to avoid the need for a biological assessment and the permitting process. This expedited the project and got it done a year earlier than initially expected.

In the summer of 2018, the county got to work. Ordinarily, to protect an eroding embankment, the county had used chains or cables, but the Army Corps of Engineers thought that could, over time, be hazardous to the marine life. Instead, large boulders and pieces of timber were bolted together on the embankment.

"So we actually laid the logs at angles to one another, kind of stacking them up,"

ABOVE LEFT: Erosion along the Cowlitz River began to wash away a road and threatened to do the same to multiple cabins located in Lewis County, Wash. This led the county to launch the Cowlitz River Erosion Project. (Photo provided)

BELOW LEFT: Upon the completion of the Cowlitz River Erosion Project, Timberline Community Association hosted a celebration to honor the workers who turned a dire situation around in such a short amount of time. (Photo provided) Martin said, "and then where those logs cross each other, we actually bolted through the logs down into reinforcing boulders underneath, securing those logs to the bank that way."

The county contracted Steel Trucking to do the work. Initially, it was thought that they would have to use a crane to put the logs on the embankment, but Steel Trucking actually modified a log loader and used that instead. The contractor also had a local timber source, which saved on transportation costs. Overall, Martin said the bid came in 40 percent under what was expected.

"It was initially actually concerning, because when you get a bid that low, sometimes there's maybe something that the contractors missed," he said.

But after sitting down with the contractor, everything checked out.

To pay for the Cowlitz River Erosion Project, the county contacted the Federal Emergency Management Agency, which contributed 75% of the funds for the project.

"This was a preventative project," Martin said. "FEMA will fund projects like that just to try to alleviate future costs, because if another large portion of our road were to wash out, then FEMA could have to come in and pay for a much more expensive project."

Another 12.5% was contributed by the Washington Emergency Management Division, while the legislature capital budget chipped in \$125,000. Given the savings the contractor helped provide and all the funding Lewis County received, it ended up paying less than six figures for a project that was initially estimated to cost more than a million dollars.

Once the project was complete, the Timberline community homeowners association hosted a ribbon-cutting ceremony with a stage and invited several local and state politicians. Its members thought it was important to celebrate how such a dire situation was able to get taken care of so quickly.

The Cowlitz River Erosion Project was also given an award from the Washington chapter of the American Public Works Association. It was named the project of the year in the Disaster or Emergency Construction/Repair category — for work less than \$5 million.

"To get recognized by (the APWA) was a really important piece for the county itself and the commissioners," Martin said. "Obviously, we're very proud. What I was



Work to combat erosion along the Cowlitz River started during the summer of 2018, first creating a barrier to the river's current. (Photo provided)



The award-winning Cowlitz River Erosion Project used stone and logs to protect the bank from erosion. The contractor used a local lumber source for the project, which saved the county money on transportation costs. (Photo provided)

most happy about is the recognition that the employees who actually put that project together and ended up helping construct it got, because this was a really out-of-the-box, innovative project and a lot of people really jumped on board, got behind it and worked really hard to get it done in the timeframe that we did."

M Focus on: Public Works

City of Moscow in 'hot water' after sustainability efforts

By ELISA WALKER | The Municipal

In becoming environmentally aware, cities are taking steps in every department to minimize the negative impact they can make on the planet. Moscow, Idaho, in particular, has a uniquely supportive government when it comes to taking risks with new things that could benefit not just the city but the world.

Taking a risk to make a change

"We have a community of about 25,000 residents and we're a university town, but we're focused on operating sustainably and responsibly," said Tyler Palmer, deputy director of operations of Moscow Public Works. "That's something that's always a community interest, so it's relatively rare for a city of our size to have a dedicated environmental services group. It's an indication of our priority of sustainability."

In attending the American Public Works Association Conference in 2018, Palmer observed a presentation about winter maintenance on bike lanes. When the presenter briefly mentioned using a hot water weed control unit during the summer, Palmer's interest was piqued.

After doing research, he discovered that sort of weed control was broadly used throughout British Columbia, only a few hours north from Moscow. Soon the lead was handed off to Ty Thompson in the environmental services group.

"We don't have a lot of resources as a city. It's hard for us to fund municipal operations, but unlike a lot of other cities, we get some leeway to take some chances," Palmer



After checking how effective the hot water weed control unit would be, its operations and comparing it to the current weed program, the benefits of the new program using it won the approval of Moscow's town council. (Photo provided)

commented. "One of the hard things about working in the municipal government (is) cities are very limited with the way they are structured and funded. It's not an environment that encourages people to take chances because there's no reward.

"It's easy to fall into the status quo, take an apathetic approach, so it's good to work for a municipality where we're encouraged to take chances and try new things. There is a fraternity between local governments, so a lot of times it takes that first one to take the plunge and helps others move along with it. I'm happy that Moscow can serve that purpose."

While the weed killer program was widespread in other countries, the only reference the environmental services group could find in the U.S. was at the University of Colorado, where the program had been used for the past two years in a similar fashion the city planned to use. Hot steam shooting out of the wand explodes the cell walls of the plant, which kills it. The steam isn't induced with harmful chemicals, something that's becoming a bigger concern as the years go by, and is time efficient

"We have a lot of people who are very interested in eliminating the use of chemicals in our rights of way," said Palmer. "There's continuing research about the chemicals that have been broadly used for a long time that makes one pause.

"The surest way to avoid having long-term or unanticipated issues is to use hydrogen monoxide — water — which isn't going to hurt anybody. It's a win-win. There doesn't seem to be a loss."

The city was able to purchase the weed killer unit for the same amount it'd typically pay for an annual contract. With it being operated by internal staff, the public works



Another active program in Moscow is the water conservation program. Along with providing a "wisescape" guidebook that takes people step-by-step in how to plant, the city holds demonstration gardens for the public to engage with. Wisescape also lowers greenhouse gas emissions compared to grass, which requires water and lawn maintenance. (Photo provided)



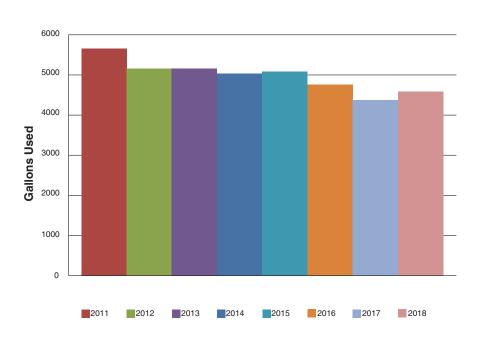
The Eco Driver Program includes an alternate fuel transition plan that will replace traditional fuel-operated vehicles with electric vehicles where there's an opportunity. Currently, Moscow has one full EV in the water department while a number of other vehicles have been identified for transition in the upcoming years. Pictured is Moscow Mayor Bill Lambert. (Photo provided)

department will be seeing the savings of the program in a few short years.

To keep the community up to date about its decisions, the department made a Facebook post to introduce its plan, which was met with nothing but enthusiastic responses and questions about expanding the program or how extensively it can be used.

One program at a time

Like many cities, Moscow has set a goal to reduce 20% of greenhouse gas emissions by 2020. Through a comprehensive review of its systems, it was determined that the biggest



While Moscow is specifically focusing on hybrid police vehicles, which are projected to save 10,000 gallons, it's also looking into opportunities to transition to electric vehicles. (Photo provided)

contributors to greenhouse gas emissions were the water and sewer system due to the electricity used to pump and distribute water and treat wastewater.

With most pumps either being 100% on or off, a large amount of electricity is used to ramp it up every time it switches on which is hard on the pump itself. A variable frequency drive was implemented to create a dimmer switch effect, allowing the pump to run more efficiently.

Additionally, Moscow has vehemently tackled fuel consumption with the Eco Driver Program. Before 2012, when the program was implemented, there was an average of a 4% increase in fuel consumption, which only grew with the city.

Palmer elaborated, "Our goal was to frame the employees on how to responsibly use the fleet — combining trips, planning trips, how they drive — all things that seem like a minor difference as an individual but a big difference for a fleet of a few hundred.

"I think it was Ban Ki-moon (the eighth secretary-general of the United Nations) who said real sustainability is leaving the planet for others to enjoy the way we have. That's our goal as a city. "Don't be overwhelmed by the scope and scale," advised Palmer. "As cities, we're never going to have the resources to do everything at once. Incrementalism is important. Another thing I found helpful was considering the fiscal argument. There's almost always a compelling fiscal argument with conservation and sustainability. Our measurements haven't cost money overall, but saved it."

After implementing the program, the 4% increase was halted and instead a significant decrease in fuel usage began. A low use review is performed every year where vehicles' thresholds are reviewed. Vehicles falling below the threshold are checked to see how necessary they are for the department, and if necessary, other avenues are explored to potentially combine with another vehicle.

"We're at the special corner of Idaho and of the world," added Ty Thompson, Moscow environmental services compliance coordinator. "People here really care about these issues. That's reflected in the leadership and the city, which trickles all the way down to our operations staff. We're pretty lucky to be here."



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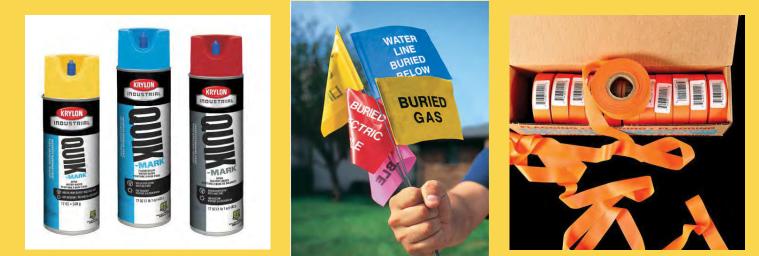
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New Haven examines its food system

By LAUREN CAGGIANO | The Municipal

What does it mean to have a secure and robust local food system? The city of New Haven, Conn., along with other progressive municipalities around the country, are exploring such issues in an innovative way.

Enter the Food Systems and Policy Division of New Haven's government. In 2016, Mayor Toni Harp announced the appointment of the food system and policy director, the first of its kind in the state and now among only 25 similar positions throughout the country. The mission of this office is to ensure that the city has a vital, resilient and robust food system that ensures all people have access to healthy food.

New Haven, with a population of about 130,000, is composed of mostly white and African-American people. It's a post-industrial town, with Yale New Haven Hospital being the largest employer. The poverty rate in New Haven is more than 25 percent and ranks near the bottom in terms of economic equality, according to the most recent census data.

With poverty often comes food insecurity. That said, Latha Swamy, the division's current director, is rolling up her proverbial sleeves to unpack some of these heavy issues. On the job less than a year, she has some ambitious plans for the division and what it will mean for stakeholders.

"I have a very systems-oriented kind of approach and am very big picture focused," she said. "I am an alumnus from the Yale School of Forestry and Environmental Studies, where I focused on food and agriculture, but I also went to medical school before that. So, I come at this through the lens of health and environmental issues very much seated in a justice framework."

To that end, her focus to achieve the city's goals falls under three "buckets": health, environmental issues and economic justice.

"So, the sweet spot would be to work on these three kinds of themes for every project I work on," she said. "It's been nine months, and I have a variety of projects that I'm working on." New Haven, Conn., treats its food system as something that is multidimensional and related to other areas of the city such as affordable housing, economic development and planning and zoning. (Shutterstock.com)



Latha Swamy, New Haven director of food system policy

Case in point: Her office recently applied for a grant from the Environmental Protection Agency to look at how to manage food waste from public schools, focusing on the issue from an institutional level.



Partners from End Hunger CT!, the CT Food Bank, New Haven Public Schools and the New Haven Food Policy Council worked to make the summer meals program a huge success in 2015. The CT Food Bank's GROW Truck stopped at several sites to get healthy food to families in need. (Photo provided)



New Ha is tryin Honey Crisps Honey Crisps food. (Shutte

New Haven, Conn., is trying to cultivate a vital, resilient and robust food system that provides all of its citizens with access to healthy food. (Shutterstock.com)

The New Haven Food Policy Council's Austin Bryniarski, left, and Nadine Nelson, presented on Stir the Pot at Just Food NYC in 2018. They talked about the ways they've been inspired by Julia Turshen's Feed the Resistance, how food is a useful organizing tool and ways holding space through Stir the Pot can make the food policy council more accessible. (Photo provided)

Why? According to Swamy, that could effect change on a broader level or, in her words, manage "a bigger footprint, a bit closer to a system-level change."

The division also works with community partners to approach issues by combining energies and resources. The New Haven Food Policy Council is a prime example. According to Swamy, the group formed about 12 years ago in response to needs in the community.

"It's a very active group of community members who are interested in food, the food system and food policy. It's gone through many phases over the years. I think it's started out more like a food security group, where food access was a large priority. Now in recent years, it's shifted a little bit more toward policy-level work, which is perfect because it aligns with my priorities as well."

The group is intersectional in that all kinds of people are at the table. For example, they have government officials, a farmer, a chef,

a former homeless person, a food justice advocate, AmeriCorps VISTA member and others.

Along those lines, Swamy said municipal leaders looking to tackle similar issues in their communities would benefit from embracing an attitude that food systems work is multidimensional and not siloed.

"It's something that people don't realize is cross cutting, like food systems work is related to affordable housing," she said. "Food systems work is related to homelessness and is essential to economic development, planning and zoning."

She also said that while a food pantry is a physical representation of efforts to combat food insecurity, it's just one venue and doesn't represent the bigger picture.

"Food systems work is more than just food pantries and making sure people get food," she said. "For example, I think more about addressing the root cause of issues. And so, a food pantry is important and the work it does is valuable. But another thing that we can also do is actually try to reduce the need for food pantries. So, in order to do that, you would want to have livable wages and fair-paying jobs. And when people are provided with economic opportunity, that reduces the need to rely on a social safety net, like a food pantry."

Yonkers PD utilizes neighborhood social platform

By DENISE FEDOROW | The Municipal

As social media continues to be more prevalent in society, municipalities are finding new ways to utilize it to engage with the public.

Most people are familiar with Facebook, Twitter and Instagram, but Next Door is a social media platform specific to neighborhoods and the people who reside in them. Yonkers, N.Y., Police Department partnered with Next Door in 2017. Public Information Officer Det. Sgt. Dean Politopoulos said the police department has multiple resources to engage with the community.

The department has a community affairs unit that enables officers to meet with residents one-on-one or in group settings. The department also utilizes social media — Facebook, Twitter and Instagram.

"Most recently we saw that Next Door was in Yonkers, and we wanted to get involved in order to increase our social media presence and interaction with citizens," he said.

According to Politopoulos, Next Door is unique compared to other social media sites because it makes an effort to verify residency and only allows members who live in that community to join. Yonkers, a city in Westchester County just north of the New York City boroughs, has several Next Door neighborhoods, and the verification is done by mailing postcards to the potential member's homes.

"So, if you don't live there you wouldn't be able to join," Politopoulos said.

That level of verification offers several benefits to the police department: knowing that it's talking to residents of that neighborhood for one, and it also localizes issues to specific neighborhoods. When it comes to crime reporting, he said people are more proactive about reporting suspicious activity and people are sharing more of the things happening in their neighborhoods.

"For example, someone might post 'Why was that helicopter flying over Central Avenue?" he said, noting neighbors will respond. He can also respond with accurate information when possible. "So it's much more localized. The information we see is very unique to the neighborhoods."

He added the police department is able to use that information as "localized intelligence specific to neighborhoods — it's good for us because it's street-level intelligence."

Benefits for residents, according to Politopoulos, is that they get much better police service. "We're interacting with them all the time and can address any concerns."

He said it also helps residents feel that they can be a part of improving the quality of life in their neighborhoods and not "just be a bystander.



Yonkers Police Department kicked off its partnership with Next Door in 2017. At the press conference held when the partnership first began are, from left, Councilman John Rubbo; Yonkers Police Commissioner Charles Gardner; Yonkers Mayor Mike Spano; resident Anna Pierdiluca; Next Door representative Joseph Porcelli; and Councilwoman Shanae Williams. (Photo provided by Yonkers PD)

It puts some skin in the game. Not every complaint can be addressed, but we try to help as best as we can."

Politopoulos believes social media makes for good government. "It improves government transparency and allows city officials to explain things better and makes government more accountable."

Improves image and relationships

Politopoulos admitted the downside to police work is that usually the interactions people have with the police are negative — when officers are enforcing the law.

"With social media and all the different outreaches we have we can counteract that negativity and enhance our image by highlighting the good things we do," he said, noting social media allows them to send the message — especially to youth — that "being a police officer is not just about writing tickets and taking people to jail."

Some of the community outreach programs the department has include Coffee with a Cop, Yonkers Police Cadet Program, Need to Read program and many more. A lot of the community outreach programs are geared toward youth and that's on purpose, according to Politopoulos, who cited a study that shows one can have the greatest impact on kids between the ages of 9 to 14. "We want their first interaction with the police to be a positive one, not negative. We want them to see us as the guardians of the community," he said, adding he knows the department's efforts have made a difference because of the feedback it's received on community surveys conducted over the past two years.

This measure "does play a role in crime reduction," he said.

Snapshot of YPD and issues

The Yonkers Police Department has 611 sworn members and the police commissioner is Charles Gardner. Politopoulos said it is considered the fourth largest department in the state with multiple precincts and special units.

"We place priority on community policing — we have 35 different outreaches — programs allocated a lot towards community outreach. We think it's important to engage with our residents," he said.

Politopoulos believes some of the biggest issues the department faces include how it investigates and processes crimes regarding juveniles as laws are rapidly changing and elevating the age of responsibility.

The other issue it faces, like most departments, is adapting to the fact that most everyone "has a (high-definition) recording device in their pocket and everything is livestreamed so police matters are being broadcast live to the world."

He said, "Personally I'm pro-surveillance — especially body cams — I think it's important to document those events for legal reasons," but where the problem comes in is when residents are livestreaming as the scene is unfolding.

Overall, Politopoulos believes social media is a good thing, with the average citizen communicating more with city government. They can now tweet or post on Twitter or Facebook when there's a pothole, whereas in the past, they had to call or write a letter and it might take a month or so to get anything done.

"Now they can take a photo and post it, and two days later, it might be fixed," he said.

However, he said people need to temper their expectations. They often want instant gratification and that's not the reality of how government or investigations work.

He also mentioned how social media posts are being broadcast "as news without verification." He gave an example of a recent occurrence where "something as benign as a traffic stop" was being reported on social media as a shooting.

Social media is great for the incredible amount of information that's available and for holding government responsible and accountable, but as for socialization of human beings and non-verification of facts and news, he fears there's a lot of potential to cause harm. "So there are pros and cons," he said.

When asked about any negatives to Next Door in particular, he said one of the issues he's seeing is how people classify suspicious incidents.

"We train people on what suspicious behavior is — a person alone, no matter race or gender, is not necessarily suspicious but his or her activity might be. For example, someone jogging in the neighborhood at 2 a.m. is probably okay, but two teens looking into several cars at 2 a.m. is probably not okay," he said. "Because Next Door is very community focused, (users) are hyper-alert. We just don't want it to evolve into very benign behavior being reported as suspicious."

Politopoulos added he would recommend other police departments — especially cities the size of Yonkers or smaller — to partner



Yonkers police officers Javier Sarmento and Daniel Valentin are having pizza with some young Yonkers residents. Pizza with a Police Officer is just one of many community outreach programs that allow for positive engagement with the community, particularly the youth. (Photo provided by Yonkers PD)



Yonkers Police Department Sgt. Domenica Guzman is enjoying coffee with some Yonkers residents in the Coffee with a Cop program. Coffee with a Cop is a nationwide program that allows for residents to informally chat with police officers. (Photo provided by Yonkers PD)

with Next Door if they have that opportunity and to be engaged with all social media platforms.

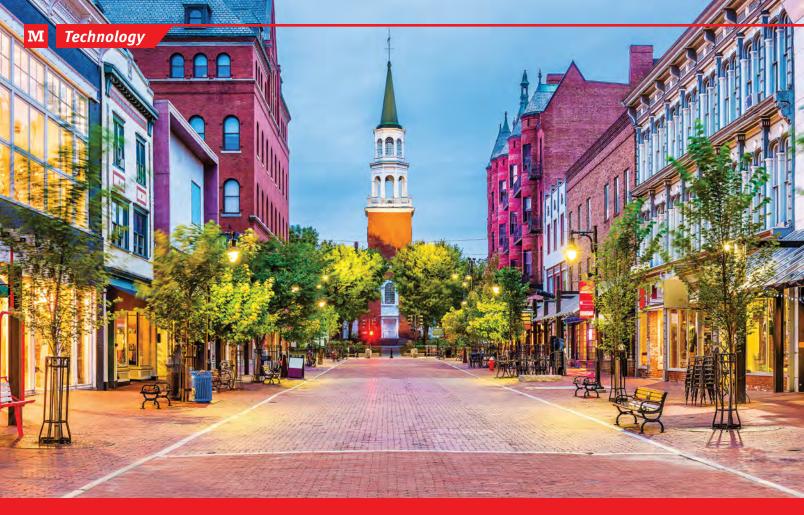
"The goal is positive messaging," he said.

However, there needs to be one person dedicated to monitoring it day and night and over vacations, etc. "You don't want a message coming in and have it go unanswered for a week," he said, adding it can't be done halfway; one has to stay on top of it.

It's important to engage users, read the comments and respond for intelligence purposes, and he said there is a lot of volume to go through. In his department, he's the one in charge.

Because social media use is increasing more and more every year, he said, "I've become a secondary dispatch center."

Bottom line, social media "is here to stay" so he advises using it to the best means possible. "We're trying to use Next Door as a tool and get the correct information out there. Thanks to Next Door and all social media, we've increased our communication with our residents."



Improving communications and PR with the community you serve

Troy Kidder | Kidder Media

If there wasn't enough to do already as a municipal manager, the list just got longer. There is one issue quickly jumping to the top: improving communications and public relations with the community you serve.

You can talk all day about the new world economy and the internet that connects us all, but the reality is that most people's lives function within the limited borders of towns and cities. It's the roads we travel to the store to purchase groceries and hardware supplies. It's trips to the local school to pick up little Susie or Junior, and it's those same roads that take us to the local park on the weekends, where the kids love to play while we parents sip sodas in the shade. Yes, it's in the midst of this international, information overload that we as municipal mangers need to get our message out, louder and clearer than ever before. There is much to communicate: services, where to get them and how they function; safety issues for the good of our community; and information about the parks and recreational facilities available for everyone. All this with a little PR twist to show what a great job our civil servants are doing. Hey, if you don't show them and tell them, how will they know?

I'm sure you could make an even longer and more accurate list and you should do so of what's not clearly articulated to your community but should be. For now, let's look at the number one rule of communications: The medium is the message.

Professional vs. frugal

Never has this adage been truer. As mentioned above, you are competing with the world at the doorstep. The old "just have Betty, the secretary, put something together and run out a bunch of copies" won't cut it. I've known many public servants over the years who actually thought that a job poorly **LEFT:** Picking the right mediums for communications can keep residents and visitors attuned to a city's offerings, including local parks, services and events. (Shutterstock.com)

RIGHT: An effective chain of communication can inform your community about different services, such as a new bike-sharing opportunity, and how they function. (Shutterstock.com)

done communicated frugality and sensitivity to taxpayer funds. In reality, what their thrown-together piece was saying is "This wasn't important enough to do well, and we don't really know what the heck we're doing anyway. Period." Everything must be done in excellence.

I know ... you have a hundred other things you're required to do, and now I'm telling you that you're not doing your job because you're not a communications expert. The answer? Subcontract.

Just as you are an expert in your field, find experts to help you communicate your message. They are out there, and the price may be way less than you imagined. I know, because I'm one of them.

Newsletter, website and video

The project I suggest first is a quarterly newsletter. This should be no more than four pages in length, printed in four-color process on glossy paper. Photos should be large and taken professionally, and articles should be short, well written and well edited. If your budget can afford it, this should be mailed to every taxpayer. If your city is too large to mail to everyone, print off thousands of copies and get it into as many hands and institutions as possible.

The next medium of great importance is an excellent website. This is the digital age: Folks can visit your town from anywhere in the world. What kind of impression does your site make?

As with the newsletter, I suggest large, professional photos and short, well-written articles that are expertly edited. The website should be simplified in its message so that it's easy for newcomers to navigate. It also should





Don't just have Betty, the secretary, put something together and run out a bunch of copies; instead, create a well-crafted quarterly newsletter to get your messages out. Large, professional photos and short, wellwritten articles are key to a successful newsletter. (Shutterstock.com)

be updated on a regular basis. You have to give people a reason to come back to your site.

This leads to the next medium, which is videos. These should be no more than two or three minutes in length. Have several produced, and release them one at a time: again, to give people a reason to come back to your site. Don't go "old school" and produce some 10-minute piece with a boring voiceover. There should be happy, upbeat music with plenty of footage of folks enjoying your clean, safe and well-run town. That's a powerful message.

You'll be amazed at how a great video catches fire on smartphones and other digital devices. Your web hits will go up by thousands.

These are just three examples of ways to improve communications and PR with the community you serve. Remember that public relations is just that: It's a relationship, not salesmanship. You're making the statement with these mediums that you care enough about the members of the community to communicate with them, and that everything you do is done in excellence.

When people see and hear about good things happening in their community, they're friendlier, towns are safer and the economy thrives as folks want to be a part of this kind of synergy. Now that's a job well done.

Troy Kidder is a former assistant town

manager, former school teacher and a communications and PR professional. He serves communities across the country with communications and public relations solutions. His website is www.kiddermedia.com, or contact him by email at troy@kiddermedia.com.



Warrenton, N.C.'s, first municipal park fills community need

By BARB SIEMINSKI | The Municipal

Last month, Warrenton, N.C., celebrated the first anniversary of its municipal park—the first one built in the small town with a population of about 850. This summer, the Hayley-Haywood Park bustles with warm-weather activities and happy "school's out!" fun, according to Robert Davie, town administrator.

"L. Julian Haywood, M.D., approached the town about donating (a 4-acre) property if the town would use it for a park," said Davie of the new recreational area, which is named for the well-known Hayley-Haywood family that has lived in Warrenton for years.

"The town board was willing to take ownership if matching dollars could be acquired through the North Carolina Parks and Recreation Trust Fund. Dr. Haywood was also willing to wait and see if the town received the grant award. When it was awarded, the agreement with Dr. Haywood was made," he said.

From the park, the soft yellow Greek Revival Sledge-Hayley-Haywood home, which is on the National Register of Historic Places, can be seen. The Haywoods resided there for generations, and Dr. Thomas Haywood was thought to be the first



Dr. L. Julian Haywood is shown receiving an award recognizing him for his contributions to his hometown and to the fields of medicine and education from Warrenton, N.C., Mayor Walter Gardner at the dedication of the Hayley-Haywood Park last summer. Haywood's wife, Betty, is also pictured. (Photo provided)



Pictured is the entrance to Hayley-Haywood Park in Warrenton, N.C. It is the first municipal park in the town and offers picnic tables, a walking trail and a disc golf course. (Photo provided)

African-American doctor in Warrenton. L. Julian Haywood, a 92-yearold cardiologist, is one of Thomas Haywood's children.

Once the land donation occurred, the North Carolina Parks and Recreation Trust Fund pitched in by awarding a \$28,000 matching grant to begin work on the land, which was followed by \$5,000 from the town of Warrenton.

Though Haywood now lives and works in Los Angeles, he occasionally flies back "home" to visit friends and catch up with the news and see how the park is doing. Currently the park boasts a few picnic tables, a walking trail and a nine-hole disc golf course. Pets are allowed but must be on a leash, and a pet waste receptacle is situated at the park entrance. The park, which is lit, closes at dusk each day.

"Last May we were visiting the park, which was pretty much complete when it opened, except for additional landscaping and lighting changes," said Haywood. "We were happy to see the park in use for a large family gathering with a big group of children, during our recent visit. It seems to be exceptionally well maintained."

Haywood has been the recipient of many honors, including the Howard University Hospital Legacy of Leadership Award for Distinguished Health Care Educator; the LAC+USC Medical Center Distinguished Service Award; the American College of Cardiology Certificate of Merit; the American Heart Association Award of Achievement in Research; and the White Memorial Medical Center Commitment to Quality Research Award. In 2016 the coronary care unit at the Los Angeles County+USC Medical Center in California was renamed the Dr. L. Julian Haywood Coronary Care Unit in honor of the Warren County native son.

The town has cleared additional areas adjacent to the park that are owned by the school system. The clearing of the underbrush has really opened up the site to the neighbors' delight, said Davie.

"Also the town contracted with Duke Energy to add lighting to the park. Electricity had to be run to the property, and the town paid for the construction of three outdoor light poles as well as taking on the monthly, ongoing electricity bills."

The park is diverse, with all races and ages using it, said Davie. "Older generations are using the walking trail and younger generations are enjoying the disc golf from all races."

Currently, the town is developing a bicycle/pedestrian plan that is attempting to link the park to other areas of town and the county, via walking trails.



One gentleman is shown throwing his disc. (Photo provided)

According to Davie, the most difficult aspect of building the park, besides funding and location, was the fact that it was the first park ever constructed by the town.

"The project became a bit of a learning curve for staff," said Davie. "With only \$28,000 to work with, the town staff had to contribute their time and efforts to do what typically would be done by a contractor."

Haywood, when asked what he was most proud of where the park was concerned, had a simple answer: "I am thrilled at the public's acceptance of this gift in remembrance and recognition of the contributions to the community of my grandparents.

"Paul Fletcher Hayley and Nancy Christmas-Hayley — both born into slavery — who acquired the property and maintained it while it was the locus for raising seven children and six grandchildren; and Thomas W. Haywood Sr., M.D., and Louise Viola Hayley-Haywood who served the community for many years as a physician and school teacher respectively. Paul Hayley served in the North Carolina legislature as a representative of Northampton County where he was born and also taught in public schools before a 35-plus years as a U.S. government mail clerk on the railroad between Washington, D.C., and North Carolina — missing only three days from work during that period."

Similarly, Thomas W. Haywood served the Warrenton area for more than 50 years as the first and only black physician, seldom refusing service for inability to pay. Denied staff privileges because of race when Warrenton acquired its own community hospital, he ended his career as the hospital's chief of staff.

"My mother taught me in fourth grade during her 30-40 years as a school teacher," said Haywood. "I was privileged to represent my surviving family members who made the collective decision to donate a portion of the original real estate — previously a cotton field — for the purpose of the park."

For other cities considering the addition of a park to their own communities, Davie offered some thoughts.

"This project was a win-win for citizens, the town and the property owner and surrounding property owners," concluded Davie. "Being able to leverage the grant funding to go along with the property donation allowed a small town with limited resources to get the project off the ground."

A final note from Haywood: "I would just like to add that the survivors of my deceased siblings happily joined in the dedication of the park. It is our hope that this park will be an asset to the community in perpetuity." \square

South Dakotacity whip streets into shape

By ANDREW MENTOCK | The Municipal

Streets, Highways & Bridges

In South Dakota, small communities often struggle to keep up with road repairs and maintenance, according to the South Dakota News Watch. This is due to a rough and snowy climate in the winter and significant rainfall in spring and fall. The annual freezing and thawing process is not kind to roads.

But what can really set small South Dakota towns back is the low property and sales tax revenue, which often means communities receive a smaller amount of funding.

To combat this issue, small towns throughout the state have to find innovative solutions to annual roadway wear and tear. One such community is Gettysburg, which has a population of roughly 1,200.

According to Street Supervisor Russell Anderson, when he took his current position 15 years ago, the roads were in dire condition. Not only does Gettysburg have to deal with the same weather conditions and financial constraints as every other small South Dakota town, but he also says that his town has an inordinately high water table and a poor drainage system, which greatly impacts the roads.

"My first year, it took 178 tons of cold mix to patch (the roads)," Anderson said.

Today, he's gotten that number down to about 1,000 pounds per year, maybe less, and he has done it by putting in the extra work himself, which saves Gettysburg a significant amount of money annually. One of the most impactful choices Anderson and Gettysburg made was to purchase their own surface grinder. This has allowed them to do the bulk of road construction on their own. Now, all they need to hire a construction crew for is to actually lay this asphalt.

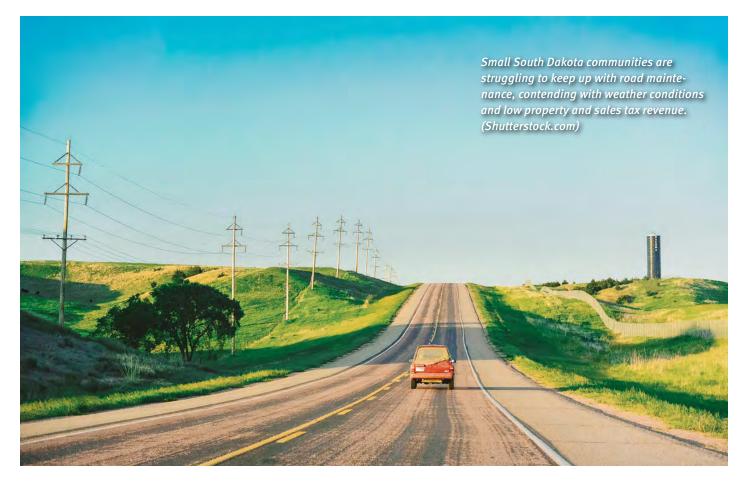
According to Anderson, this saves Gettysburg more than \$8,000 per block. It would cost more than \$10,000 per block if Anderson went exclusively through a contractor.

In order to acquire the first grinder, which Gettysburg did about 10 years ago, Anderson needed to get his mayor and city council on his side. This, he said, made all the difference.

"You've definitely got to work with the city council," Anderson said. "You've got to have a good city council and mayor to do any of this because they have to write some darn big checks."

The first grinder cost \$107,000 and was utilized for over nine years. Anderson said Gettysburg was able to recoup those costs quickly.

"We figured with the cost of grinding it and cost of getting everything here," he said. "And you do it on their schedule, not yours. It doesn't take long to pay for (the grinder in time)."



ABOVE LEFT: Bringing an asphalt grinder in house can save cities money in the constant road repair struggle, freeing up funds for other street-related projects. Gettysburg, S.D., saved more than \$8,000 per block after it purchased an asphalt grinder. (Shutter-stock.com)

Last year, Gettysburg ended up selling the original grinder for just under \$40,000 and buying a new one for \$117,000, which has allowed Anderson and his three-person crew to work even more efficiently.

One issue Anderson did say municipalities who grind pavement themselves can run into is that some contractors won't want to pave the road. He said they can be skeptical and assume the city may have done a poor job, which could make the contractor look bad if the road is falling apart after a year. That's why it's important that Anderson and his crew do a good job and that he builds a strong relationship with the area contractors.

Gettysburg has also applied for sustainable grants. According to the South Dakota News Watch, Gettysburg applied for and received a Community Access Program grant to pave several blocks of failing roads to the main access to Gettysburg's grain elevator. This grant paid for \$157,000 of the \$262,000 project.

Another major part in keeping the roads from falling apart is sealing them regularly. Anderson realized that, in the longer run, doing regular maintenance on the roads saved the city money in the long run.

"Everything gets sealed every seven years, which saves our roads," he said.



In addition to grinding its own asphalt, the city of Gettysburg, S.D., has worked to convert the majority of its gravel roads to pavement. Pictured is the Potter County Courthouse in Gettysburg, S.D. (JERRYE AND ROY KLOTZ MD via English Wikicommons; https://bit. ly/1kvyKWi)

Lastly, Anderson and Gettysburg officials have made a dedicated effort to convert the majority of the town's gravel roads to pavement. This has allowed them to stay in better condition and made it safer for drivers.

In total, Anderson said he has converted over 32 blocks of gravel road to pavement.

"We can do it ourselves, which saves a pile of money," he said. "And that's the biggest thing we try to do most everything in house."

Growing green: Savannah's tree project to replenish urban forest

By JULIE YOUNG | The Municipal

It's no secret that Savannah, Ga., is known for its tree tourism. In fact, approximately 14 million people descend on the low-lying, southern city each year to take in the area's historic architecture and glorious tree canopy. However, what most visitors do not realize is that those trees are more than a mere aesthetic feature of the Old South. They are a vital part of the city's infrastructure and something that should be valued and protected.

Unfortunately, as Savannah has grown, many of its trees have been sacrificed to development, reducing the city's ability to capture and filter stormwater thus preventing flooding. But thanks to a grant from the Southeast Sustainable Communities Fund, Savannah's office of sustainability has launched a multifaceted initiative that will help regrow its urban forest.

The Savannah Urban Tree Nursery Grant Project

According to office of sustainability Director Nick Deffley, the Savannah Urban Tree Nursery Project was born out of a 2017 study



Participants in the Savannah Urban Tree Nursery Grant Project pose at one of the sites hosting the project. The project aims to engage community youth, enhance workforce skills and grow the city's urban forest. (Photo provided)

the city conducted to address the depletion of its tree canopy and its ecological role in the community. The department looked at the issue from an economic and public health standpoint and concluded that if it could purchase 10 species of smaller native trees at



Interns in the project pose with brightly colored pots, that were painted by the community's youth. By painting them, these children become invested in the project while also learning about trees' importance in their city. (Photo provided)



The paid interns in the Savannah Urban Tree Nursery Grant Project receive both classroom and on-site instruction, focusing on skills needed to become a certified professional landscaper. (Photo provided)

a reduced cost from suppliers, it could raise them in vacant, city-owned properties for a few years before transferring them to the most beneficial areas.

"We were looking for some ways to do this when we learned about a call for grant proposals from the Southeast Sustainable Communities Fund, which wanted to support projects that implemented equitable solutions to local climate change challenges. We built out the project to cover their criteria and were awarded a \$230,000 grant in January 2018," he said.

Deffley noted that in addition to replenishing the city's urban forest by utilizing existing vacant locations to grow and nurture 500 trees, the Savannah Urban Tree Nursery Grant Project is designed to engage youth and enhance the growing workforce needs of the community. Thanks to partnerships with a host of organizations, including Loop it Up Savannah, the University of Geor-

gia's Center for Urban Architecture, WorkSource Coastal, UGA's Marine Extension and Georgia Sea Grant as well as the Savannah Tree Foundation and the city itself, the office of sustainability has created a variety of opportunities for the community to take stock in the project and become involved.

"I could not be more pleased with our partners and what we have been able to accomplish so far," he said.

Community involvement

Central to the Savannah Urban Tree Nursery Grant Project is the workforce-training program the office of sustainability launched in

Skills imparted to interns include clearing land, identifying different tree species, installing drip irrigation systems and managing the trees as they grow. (Photo provided)

partnership with the University of Georgia. The goal is to find and recruit individuals interested in a career as a certified professional landscaper and then give them the skills they need to pass their final exam. It is a paid internship that includes 32 hours of classroom training as well as on-site training that enables them to clear land, identify the various species, install drip irrigation systems and manage the trees as they grow.

"There are only a few people in the state with this distinction, and if someone is interested in working toward their certification, then we will help pay for that exam and help them toward their upward economic mobility," Deffley said. ► The project began with 19 apprentices ranging from 19-55 years of age and included both men and women from across the socioeconomic spectrum but has since diminished to six. Deffley said the attrition rate is not uncommon due to the nature of the program and the level of commitment expected from those who participate in it.

"It's a 13-month commitment and there are pressing needs that come up," he said. "For some, a 12-hour work week at \$13 is not enough and they seek employment elsewhere. We understand that. We are happy that they have found other positions and we are thrilled with the solid group that remains."

The office of sustainability has also partnered with public schools near the temporary tree nurseries and engaged students to paint the pots the trees would be grown in. This not only adds a bit of whimsy to the project but also allows young people to have ownership in the trees and be mindful of their importance in the coastal area. "It livens up the aesthetics and gives them a sense of community pride," Deffley said. "We took the opportunity to impart the value of green infrastructure, and after we raise the trees for one to two years, they will be planted in and around the neighborhoods where they were raised; some will be given to the public and some will fill in large gaps on private property."

The Savannah Urban Tree Nursery Grant Project is an initiative that is getting a ringing endorsement from the city council and inspiring other beautification projects throughout the community. It is also inspiring other municipalities to reach out to Deffley to learn more about the project and mimic something similar in their own areas.

"We have been thrilled with the response, and as people have gotten wind of it, we have heard from people all across the country. I didn't think it would strike that kind of chord with folks, but I guess it really resonates and that's nice to see," Deffley said.



After the trees have been raised for a year or two, they will be planted in and around the neighborhoods where they were raised. Others will be given to the public or used to fill in large gaps on private property. (Photo provided)





For a complete list of all upcoming events, visit **themunicipal.com/events**.

To list your upcoming conference or seminar in The Municipal at no charge, call **(800) 733-4111, ext. 2307**, or email the information to **swright@the-papers.com**.

JULY

July 12-15 NACo Annual Conference & Exposition Clark County, Las Vegas, Nev. www.naco.org

July 12-16 Florida Fire Chiefs Association Executive Development Conference Boca Raton Resort & Club, Boca Raton, Fla. www.ffca.org

July 14-18 CADCA Mid-Year Training Institute Gaylord Texan Hotel, Dallas, Texas www.cadca.org/myti2019

July 15-17 AAMVA Region 4 Conference Denver, Colo. www.aamva.org

July 17-19 ARTBA Public-Private Partnerships in Transportation Conference Grand Hyatt Washingtong, Washington, D.C www.artba.org/training-events

July 18-21 Municipal Association of South Carolina Annual Meeting Hyatt Regency Greenville, Greenville, S.C.

July 21-24 ITE 2019 Annual Meeting and Exhibit Hilton Austin and Hilton Garden Inn, Austin, Texas www.ite.org AUGUST

Aug. 6-10 NAPO's 41st Annual Convention Skamania Lodge, Stevenson, Wash. www.napo.org

Aug. 7-10 Fire-Rescue International Georgia World Congress Center, Atlanta, Ga. www.iafc.org/events/fri

Aug. 13-14 Midwest Security & Police Conference/Expo Tinley Park Convention Center, Tinley Park, Ill. mspce.com

Aug. 15-17 Florida League of Cities Annual Conference World Center Marriott, Orlando, Fla. www.floridaleagueofcities.com

Aug. 18-22 IMSA Forum and Expo Hyatt Regency, New Orleans, La. www.imsasafety.org

Aug. 18-22 StormCon Hyatt Regency Atlanta Atlanta, Ga. www.stormcon.com

Aug. 20-23 League of Arizona Cities and Towns Annual Conference JW Marriott Starr Pass Resort, Tucson, Ariz. www.azleague.org

Aug. 21-24 South Atlantic Fire Rescue Expo Raleigh Convention Center, Raleigh, N.C. southatlanticfirerescueexpo.com Aug. 25-28 NIGP Forum Austin, Texas www.nigp.org

Aug. 26-29 Florida Recreation and Park Association Annual Conference Orlando, Fla. www.frpa.org

Aug. 26-30 Heartland Emergency Apparatus Technicians Association (H.E.A.T. 2019) Overland Park, Kansas *heatevt.com*

SEPTEMBER

Sept. 8-11 APWA PWX Washington State Convention Center, Seattle, Wash. www.apwa.net

Sept. 8-11 Missouri Municipal League Annual Conference St. Charles Convention Center, St. Charles, Mo. mocities.site-ym.com

Sept. 12-13 Florida Association of Governmental Fleet Administrators' Fall Event Trade Winds Island Grand Resort, St. Pete Beach, Fla. flagfa.org/future_dates.php

Sept. 17-19 Oklahoma Municipal League Annual Conference and Exposition Tulsa, Okla. www.omlconference.org

Sept. 18-20 2019 Midwest Green Transportation Forum & Expo

Marriott Columbus University Area, Columbus, Ohio www.cleanfuelsohio.org

SEPTEMBER

Sept. 19-21 North Dakota League of Cities Annual Conference Bismarck Events Center, Bismarck, N.D. www.ndlc.org/223/Annual-Conference

Sept. 19-21 Illinois Municipal League Annual Conference Hilton Chicago, Chicago, Ill. www.iml.org/conference

Sept. 21-15 WEFTEC 2019 McCormick Place, Chicago, Ill. www.weftec.org

Sept. 23-26 NCSFA 2019 State Fleet Managers Workshop Austin, Texas ncsfa.net

Sept. 23-25 2019 F.I.E.R.O. Fire Station Design Symposium Raleigh, N.C. www.fieroonline.org

Sept. 23-27 OAEVT's 27th Annual Emergency and Municipal Apparatus Maintenance Symposium Ohio Fire Academy, 8895 E. Main St., Reynoldsburg, Ohio oaevt.org

Sept. 24-26 NRPA 2019 Annual Conference Baltimore, Md. www.nrpa.org/conference/

Sept. 25-27 Iowa League of Cities Annual Conference and Exhibit Dubuque, Iowa www.iowaleague.org

Sept. 26-28 League of Oregon Cities 94th Annual Conference Bend, Ore. *orcities.org*





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NAFA's 2019 Institute & Expo featured a variety of fleet industry 'firsts'

PRINCETON, N.J. - NAFA Fleet Management Association, the

vehicle fleet industry's largest membership organization, announced its 2019 Institute & Expo (I&E), recently held in Louisville, Ky., featured a variety of "firsts" for the fleet industry.



I&E — the largest gathering of fleet professionals in the industry — brought together more than 1,000 fleet professionals for three full days of education sessions, awards, networking events and a busy trade show floor filled with more than 250 exhibitors. The conference returns April 6-8, 2020, to Indianapolis, Ind.

Among the "firsts" established at the 2019 I&E:

Mobility Day

The inaugural I&E "Mobility Day" featured numerous educational sessions built around this theme — of moving people and materials more efficiently — which is what many see as the future of fleet. Mobility Day, held on the final day of I&E, featured international mobility expert Lukas Neckermann's keynote on the major trends.

CAFM U

I&E also included the new CAFM U certification study program. Named for the industry-leading Certified Automotive Fleet Manager designation, this university-style event helps jumpstart fleet careers by offering six days of "boot camp" classes focusing on fleet's best practices, study tips, networking events and pre- and post-event testing. More than 80 participants took part in this comprehensive addition to I&E.

Supplier Education Track

2019 featured the first-ever training track specifically created for fleet service and product providers. Created by suppliers for suppliers, this educational track featured six educational sessions, including fleet decision-making, customer retention, RFP responses and presentations, service level agreements and more.

The new three-day event format provided enhanced networking opportunities throughout the event, many incorporating the Louisville culture and venues that have made the city famous. Some training videos from sessions will be available on www.nafa.org.

Stertil-Koni welcomes FedEx pro Doug Frakes as operations specialist

STEVENSVILLE, MD. — Stertil-Koni, the leader in heavy-duty vehicle

lifts—notablybuslifts and truck lifts—announced that Doug Frakes has joined the company as an operations specialist.



He will succeed Paul Marks, who announced his retirement from Stertil-Koni after 21 years of focused, dedicated and exceptional service to the company.

In his new post, Frakes will work closely with a broad range of audiences — chiefly the company's extensive North American distributor network, sales personnel and Stertil-Koni manufacturing locations in the U.S. and Europe. His prime mission is to process and ship vehicle lift equipment and accessory orders to distributors and customers across North America.

In making today's announcement, Stertil-Koni Director of Operations Kevin Hymers noted, "Every single day, Stertil-Koni is focused on delivering an exceptional level of customer care and support. That is precisely why we are so pleased to enhance our team with a logistics professional with Doug's background, expertise and can-do spirit."

Prior to joining Stertil-Koni, Frakes worked for 10 years at FedEx Ground in Upper Marlboro, Md. During his tenure, he managed ground operations and new processes implementation, including inbound and outbound sort management and pickup and delivery management operations. Frakes was also responsible for the training and supervision of operations managers and administrators, executing analyses of operational metrics and overseeing compliance with governing regulatory agencies.

He is a graduate of Florida State University in Tallahassee, Fla., with a Bachelor of Arts degree. Frakes resides in Annapolis, Md.

Get winter ready: Boss snowplow launches new solutions for better snow removal

IRON MOUNTAIN, MICH.—BOSS Snowplow expands its snow and

ice removal product offerings to help professionals prepare for the upcoming winter storm season. The newest members of the BOSS family are the FORGE 2.0 Long Bed spreader and the SK-R 6 compact vehicle plow, both extensions of popular BOSS collections.



Additionally, the popular D-Force accessory is now available for DXT Plows.

"At BOSS, we're focused on every aspect of the contractor's business — roads, driveways, sidewalks and parking lots — and the solutions they need to work quicker, more efficiently and with more profitability," said Mark Klossner, marketing vice president for BOSS Snowplow. "We take great pride in listening to our customers and offering the products and accessories they need to operate successful businesses."

FORGE 2.0 Long Bed

FORGE stainless steel spreaders have become a strong performer in BOSS' growing line of ice control solutions, and a new design makes the FORGE a quality solution for long bed trucks. The FORGE 2.0 Long Bed features a longer hopper design to optimize its fit on long bed trucks and make filling the spreader easier and quicker with a loader bucket.

SK-R6

The SK-R 6 joins the SK-R 8 and SK-R 10 to expand BOSS' line of box plows for tractors, skid steers and other compact vehicle equipment. The new SK-R 6 features a reversible 1½-inch rubber cutting edge designed for quieter plowing operation and protection to sensitive surfaces. SK Box Plows from BOSS are designed to put the full force and maneuverability of compact vehicle equipment into getting the pavement back to black.

D-Force for DXT

BOSS continues to expand products offering D-Force, an accessory that improves scraping when backdragging by maintaining a consistent hydraulic down force powered by a hydraulic



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News & Notes

accumulator, leaving cleaner pavement in less time than conventional plows. D-Force will now be available on newBOSS DXT 8-foot 2-inches and 9-foot 2-inches snowplows, adding even more power to the already fully featured DXT lineup.

For more information on the new 2019 product features and the quality, durability and warranty of the BOSS brand, find your local dealer or visit www.bossplow.com.

Transfer Flow's director of business development, Ben Winter, elected to the NTEA board of directors

CHICO, CALIF. - With 27 years of automotive industry expe-

rience, Transfer Flow Director of Business Development Ben Winter is elected to serve on the board of directors for the National Truck Equipment Asso-



ciation. Winter will serve on the NTEA board as manufacturer director for a three-year term and will assist in both the education committee and the services committee.

Winter was hired in 1992 at Transfer Flow, an automotive manufacturing company that focuses on legal fuel systems, OEM fabricated parts and tube and hose specialties. With many years spent piloting growth in a sales management capacity, he accrued vast experience introducing service opportunities and executing projects with successful profits. In 2010, Winter became director of business development and sales manager. His role is multifaceted and involves networking, customer maintenance, presenting new business and fielding diversity in manufacturing.

Winter studied project management at Butte College and business ethics and speech/debate at California State University, Chico. He's currently active as an advisor for many different manufacturing business associations, including National Mobility Equipment Dealers Association, California Air Resources Board and National Association of Manufacturers. In addition, he is the vice chair at the Chico Chamber of Commerce, a board member for Chico Legislative Action and a mentor at Chico Chamber's Young Professionals Organization and Chico Striders — youth running club.

Collaboration and contribution that leads to the growth and development of the industry are top of mind for Winter as he steps up into this new role. He is focused on promoting manufacturing and the education necessary for its continued advancement. He is dedicated to making forward progress for the domestic economic sector through industry education and legislation.

News releases regarding personnel changes, other non-productrelated company changes, association news and awards are printed as space allows. Priority will be given to advertisers and affiliates. Releases not printed in the magazine can be found online at www.themunicipal.com. Call (800) 733-4111, ext. 2307, or email swright@the-papers.com.



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What municipal managers really should know about 5G

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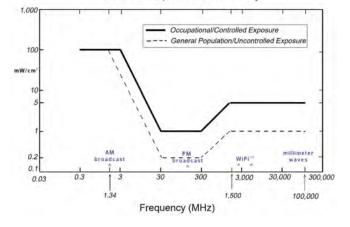
David Maxon, WCP | Guest columnist

HERE IS A MOUNTAIN OF MISINFORMATION CIRCULATING about fifth-generation wireless technology, or 5G. You may have heard the scary things people pick up on the internet. Some of that surfaced in The Municipal's December 2018 guest column, "What municipal managers should know about 5G." From my perspective, 5G is a beneficial technology. It's not all doom and gloom as its opponents suggest.

5G technology is a catch-all name for wireless technology that offers a host of improvements. The internet of things will benefit as cheap low-power devices are embedded in infrastructure, homes and businesses to monitor and control things that are being dreamed up as we speak. Transportation, public safety, public utilities and other municipal infrastructure will be supported with inexpensive 5G data acquisition and control.

In addition to its IoT potential, 5G will give subscribers much faster data speeds so they can be mobile with applications that today require a wired — fiber — internet connection. Along with that, the link delay — latency — between devices will drastically drop. This enables industry, medicine and municipalities to control systems and

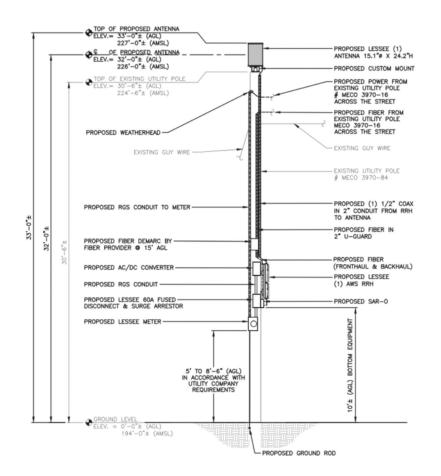
Figure 1. FCC Limits for Maximum Permissible Exposure (MPE) Plane-wave Equivalent Power Density



Pictured are the FCC radio frequency energy safety limits — FCC Office of Engineering and Technology Bulletin 65 — with familiar frequencies annotated. (Photo provided by Isotrope)

processes remotely that used to require a truck-roll or an office-visit to have a skilled human on the spot.

The FCC has made it clear that 5G small wireless facilities are welcome in the public way, typically on utility poles and lampposts. Municipalities are devising regulations to establish local control of small cells while complying with federal expectations.



As a municipal wireless consultant, I have helped hundreds of municipal boards vet applications for cell sites over the past 30 years. There is plenty of hyperbole that can come from both sides, but on health concerns, the science is much more settled than the naysayers say. Having been in the trenches with boards balancing the benefits and detriments of wireless facility siting, I see most people take wireless communications for granted today. Their primary concerns are that these facilities not blight the landscape/ cityscape. Still, municipalities must reckon with a vocal minority expressing doubts, even fears, about wireless electromagnetic emissions.

Some people suggest that holding a cellphone against your head can lead to cancer, saying the safety information on new cellphone packages is proof. My iPhone instructions say, "During testing, iPhone radios are placed in positions that simulate uses against the head, with no separation, and when worn or carried against the torso of the body, with 5mm separation." This is routine safety testing to ensure the product does not exceed safety limits and overheat the user.

The safety standards are based on science, not social media. There is a large body of science that supports the way we design and use radio devices. Still, some people are concerned that maybe science has missed something, pointing to this or that study that came up with a positive result for a "nonthermal" mechanism.

Science guru Neil deGrasse Tyson said, "If you are trying to measure a phenomenon that does not exist, the variations in your measurement will occasionally give you a positive signal. If that idea is that A causes B, in this case that cellphones cause cancer, a paper gets written about that result, and then people get concerned ...When you actually have A causing B, the signal is huge; it's huge and it's repeatable in time and place. With cellphones, that repeatable signal is yet to emerge from the total experiments that are done on it ... the experimental results are consistent with no effect at all."

Cherry-picked data can be downright scary. The naysayers tend to cherry-pick the scientific papers with the worst outcomes or interpret weak associations as proof of causation. However, the safety standards the FCC adopted in 1996 cover health concerns with radio waves. Today's updated safety standards, like IEEE C95.1-2019, are incremental improvements on prior standards, based **LEFT:** Pictured is an elevation drawing of a small cell design for a utility pole in North Andover, Mass. (Public records)

on more precise information from recent science.

Contrary to opponents' charges of industry bias, standards are built on a careful, open and balanced review of the science as it has accumulated over the decades. Municipal managers are no strangers to standards, whether they be for water quality, road materials, land-use density, structural integrity, accounting practices or myriad other topics. Experts convene and build consensus on how to make every aspect of our lives safer.

5G technology uses the same radio bands that other cellular services have used for years and expands into an unfamiliar band, the "millimeter wave" — or mmWave — spectrum. This part of the radio spectrum has been lightly used for decades. The cost of mmWave products is dropping. Tiny cell sites will use mmWaves and small antennas at low power to provide very high speed data connections to users nearby.

There are long-standing safety standards for the use of all radio waves, including mmWaves. There's always room for more research, and new studies come out frequently. These mmWaves have such short wavelengths that they behave more like infrared energy, with shallow skin penetration. Just as your TV infrared remote control has insufficient power to harm skin or eyes, 5G mmWave radios are being designed for safe levels.

There is controversy about 5G technology that municipalities must deal with. In our republic, all voices should be heard. The public interest is best served when informed municipal officials and elected representatives hear concerns and guide the conversation toward matters that municipalities need to control. The likely societal benefits of 5G technology far outweigh the perceived risks.

David Maxson, WCP, is a certified wireless communications professional who has worked in the field for over 40 years. He is also a member of the International Committee on Electromagnetic Safety, www.ices-emfsafety.org.

The opinions he expresses in this article are his own and do not reflect the positions or policies of any organization.

M TOP10

Top 10 happiest cities in America

As WalletHub notes in its rankings of the U.S.'s happiest cities, "The U.S. Declaration of Independence speaks about the 'pursuit of happiness' as a universal right." Of course happiness is based on different things for everyone; however, according to the site, researchers who study the science of happiness have found its key ingredients: a positive mental state, healthy body, strong social connections, job satisfaction and financial well-being. The site further states, "WalletHub drew upon the various findings of positive-psychology research in order to determine which among more than 180 of the largest U.S. cities is home to the happiest people in America. We examined each city based on 31 key indicators of happiness, ranging from depression rate to income-growth rate to average leisure time spent per day. Read on for our findings, methodology and expert commentary from a panel of researchers."

WalletHub's top 10 happiest U.S. cities are listed below:



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