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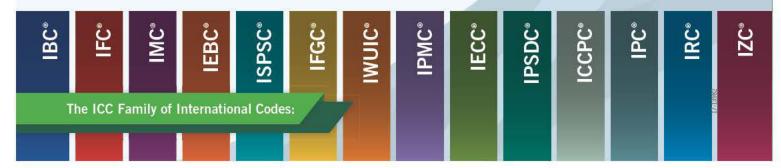


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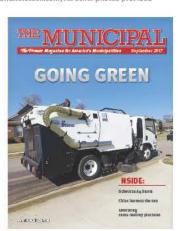
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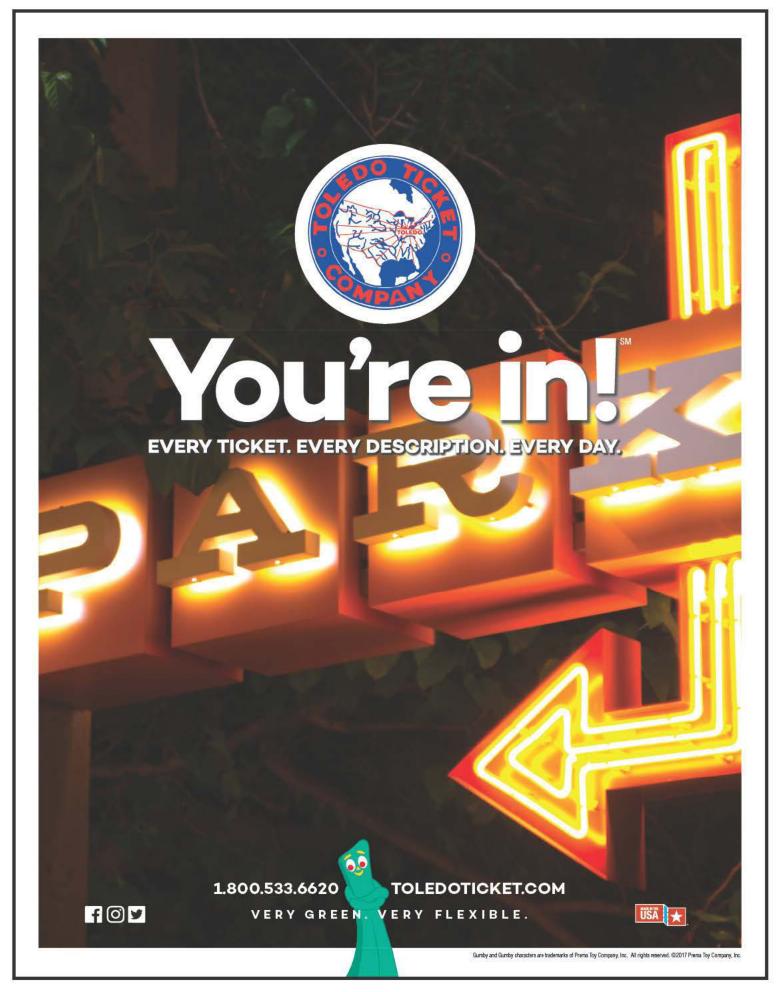


ON THE COVER

Schwarze's new A4 Storm regenerative air sweeper offers features one would expect to find on a full-size class 7 chassis sweeper on a smaller, more maneuverable class 5 chassis. Its multiple improvements, while keeping the features customers love, result in easier maintenance and use. Read more on page 10.







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Georgia Guidestones, Elberton, Ga.

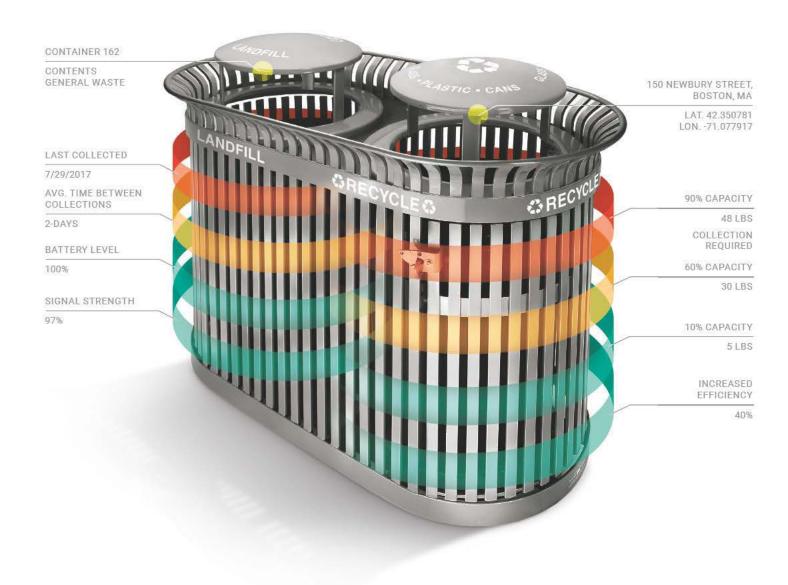
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Correction

In the July 2017 article, "Abandoned malls call for creativity," Swansea was mistakenly labeled as Swansea, Ill.: it should have been labeled as Swansea, Mass. The Municipal regrets this error and any confusion it might have caused.

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Cities continue to take the lead



Sarah Wright | Editor

divides prevalent in the U.S. today, it is not Congress or the Senate getting things done but rather cities and towns, which continue to lead, seek out innovation, plan for the future and serve as stewards of our natural resources.

Perhaps the greatest testament to this is the 362 U.S. mayors — as of press time in July — who have stepped forward and said they would "adopt, honor and uphold the commitments to the goals enshrined in the Paris Agreement." Climatemayors.org goes on to add, "We will intensify efforts to meet each of our cities' current climate goals, push for new action to meet the 1.5 degrees Celsius target, and work together to create a 21st century clean energy economy."

These mayors span from sea to shining sea and hail from cities of all sizes. Coastal cities, in particular, number among them; understandably as they will be the ones contending with rising sea levels the most. No matter your standing on climate change, it is hard to ignore the increase in major storm events and flooding.

In a Union of Concerned Scientists case study on South Carolina's challenges with rising sea levels, Charleston Sustainability Project Manager Carolee Williams noted, "There might be a big debate elsewhere, but we don't talk much about why it's happening. Because it's happening right now and everyone recognizes that it's far more important to deal with what is happening than why. What is happening has stripped away the politics."

Charleston's areas of chronic inundation—locations where flooding occurs 26 times per year or more—are only expected to grow by 2060, according to the UCS's 2017 report, "When Rising Seas Hit Home." The report shares similar concerns for other coastal cities. By 2035, about 170 communities will face chronic inundation and possible retreat from affected areas under the study's intermediate or high scenarios. Within these two scenarios, the number of affected communities only grows in 2060 and 2100.

However, one of its key findings notes, "If we act today to achieve the temperature and emissions reductions goals outlined in the Paris Climate Agreement, and succeed in slowing the acceleration of sea level rise, about 380 communities could avoid chronic inundation this century."

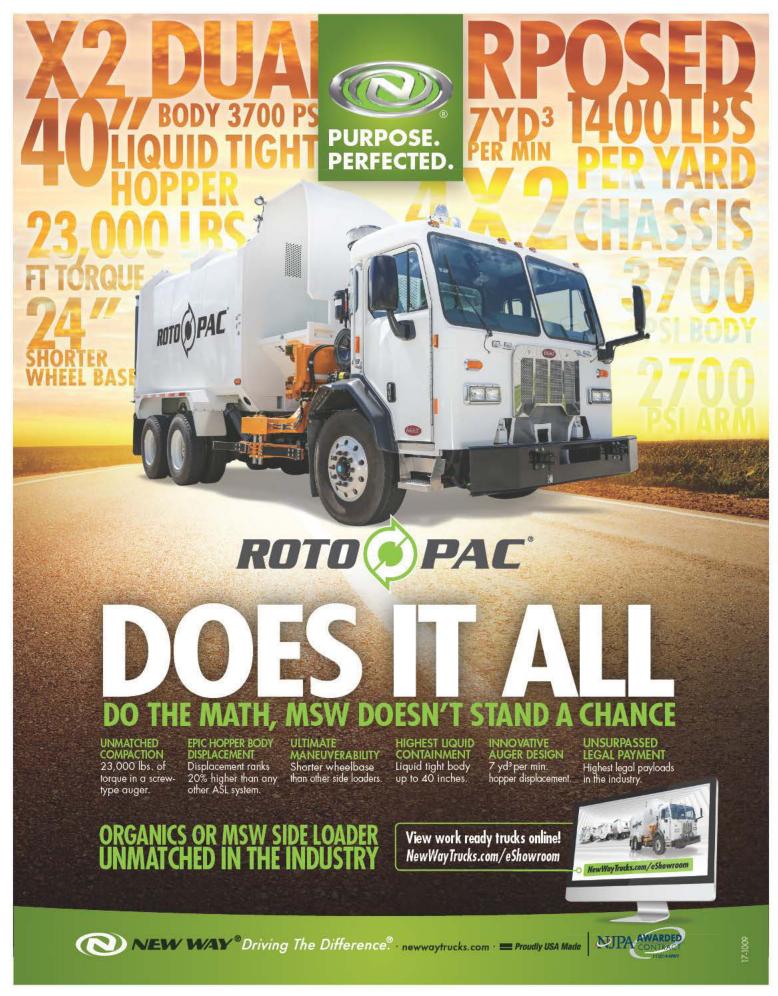
Still, we might also want to look abroad. The Netherlands has been taking steps to protect itself against a 10,000-year storm through innovative architecture and a massive storm surge barrier. I was particularly struck by Henk Ovink's - special envoy for International Water Affairs, Netherlands - quote to CBS Sunday Morning in May about his experience in areas hit by Superstorm Sandy. "I said (to them), 'Did you think of preventing the disaster?' And they were like, 'Preventing the disaster? No, we couldn't. No, we have to make sure that we respond faster.' And I said, 'But suppose that there is no disaster because you prepared better?"

Perhaps it is time to adapt our mindset. Several U.S. cities are starting to do just that, redesigning buildings, making critical infrastructure higher and even raising streets.

Within this issue of The Municipal, we will be highlighting several cities and towns throughout our coverage area that are taking the lead and pursuing sustainable technology and practices. From clean fleets and solar energy to green alleys that reduce flooding and runoff, we have a variety of topics we hope you will find insightful and helpful.

Happy Labor Day, everyone!







Small sweeper with a large attitude

by BRIAN GILES | product manager, Schwarze Industries

Introduced late last year, Schwarze's new A4 Storm regenerative air sweeper packs all the street sweeper features you would expect on a full-size class 7 chassis sweeper on a smaller, more maneuverable class 5 chassis.

The design of the new Storm model began with a higher dump height debris hopper that allows for easy offloading into roll-offs all the way to 6 feet tall. This new, in-cab controlled, 4.5-cubic-yard hopper is available in

standard carbon steel or can be upgraded to a high-strength stainless steel that comes with a generous lifetime warranty.

Schwarze also added significantly more hopper intake screen area that provides

excellent airflow, even with a full hopper of leaves and litter that normally can clog hopper screens and reduce performance. A full-width screen access roof door allows for unfettered access to both the top and bottom of the new larger screens, making cleaning easy. Small particles are captured in Schwarze's exclusive centrifugal trumpet separator that automatically empties at every dump cycle and the new hopper retains the

Schwarze developed an optional 68-gallon rear water tank for the A4 Storm. Additionally, it has the latest 60 psi and 5.8 gallons per minute water system design with standard low water in-cab warning and plugged strainer pump shutdown as standard equipment, (Photo provided)

optional electric pump for dumping with the auxiliary off.

The A4 Storm has the state-of-the-art Schwarze WhisperWheel blower system that produces as much as 70 percent less noise and uses as much as 20 percent less fuel while providing up to 7 percent more power, and is now driven by a Tier 4 final Yanmar 68 HP diesel engine. Schwarze also added several feature changes that have driven the performance of the A4 sweep to unheralded levels. The A4 Storm's pickup head was completely redesigned. Schwarze engineers utilized computer models originally designed for large regenerative air series sweepers and scaled them to fit the A4 Storm. The result of this effort has allowed the A4 to perform exactly the same as the larger sweepers but in its smaller footprint and retaining its ability to sweep in reverse.

Multiple improvements were added for easier maintenance, including dual quick connect flanges on both debris hoses, allowing for removal and rotation with no tools. And just like the larger Schwarze regenerative air series sweepers, the hose transitions are bolted on and can be easily removed for repair and replacement.

People say you can never have too much dust control water on a sweeper. Taking that advice, Schwarze developed an optional 68-gallon rear water tank that resides under the sweeper hopper and does not require the removal of any toolboxes; additionally, it does not affect other equipment in any way. With all this available water, the A4 Storm received the latest 60 psi and 5.8 gallons per minute water system design with standard low water in-cab warning and plugged strainer pump shutdown as standard equipment.

The controls on the new A4 Storm have gotten a complete makeover. Schwarze's industry-exclusive full freedom console mount allows the operator to position the control in a custom ergonomic position regardless of right or left steering position.





The A4 Storm has color-coded functional switch grouping and a digital display package that shows all engine conditions, maintenance reminders, water level and alarm status. (Photo provided)

The console now also features the Schwarze family look with color-coded functional switch grouping. A digital display package features all engine conditions, maintenance reminders, water level and alarm status.

The A4 Storm's dual rear toolboxes have been made larger and now boast a full 35 square feet of storage. The new toolboxes are also corrosion-resistant composite construction for long life.

Along with all the standard rear vehicular taillights, standard strobes have been added at the rear to enhance rear visibility. Schwarze made a point of keeping the features that customers love. The trailing arm side brooms maintain the availability

of the Schwarze exclusive gutter broom extension override and the in-cab controlled broom tilt.

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Georgia Guidestones

Elberton, Ga.

by RAY BALOGH | The Municipal

On March 22, 1980, next to a cow pasture north of Elberton, Ga., a mysterious white-haired gentlemen, who pseudonymically dubbed himself Robert C. Christian, unveiled perhaps the most enigmatic monuments ever erected in America.

The granite multi-stone monolith's origin is shrouded in mystery, all documentation of its design having been destroyed immediately upon its completion.

But its location befits Elberton's self-acclaimed title as "Granite Capital of the World."

The 19-foot-tall Georgia Guidestones, alternately known as "American Stonehenge," was commissioned in June 1979 by Christian, presenting himself as an emissary of a "small group of loyal Americans" who chose to remain anonymous.

Christian asked Elberton Granite Finishing Company to construct a stone sculpture that would serve as a compass, calendar and clock and would display in multiple languages 10 precepts for global sustainability.

Joe Fendley, the company representative to whom Christian presented the project, considered Christian a "nut." To discourage any contractual transaction, Fendley quoted a price several times higher than customary, rationalizing construction of the Guidestones would require additional equipment and personnel.

Christian accepted the quote, arranged payment and directed the monument be erected on a 5-acre parcel purchased by the anonymous group, who Christian claimed had been planning the Guidestones for 20 years.

The design and placement of the monument are delicately precise. The six granite slabs comprising the Guidestones are arranged to accommodate several astronomical phenomena:

- The four outer stones mark the 18.6-year lunar declination cycle, the outer ranges of the monthly rising and setting of the moon.
- The center pillar features a hole through which the North Star can be seen every night.
- \bullet A 7/8-inch slot drilled through the horizontal capstone allows the sun to pass through every day at noon and shine a beam onto the day of the year etched into one of the columns.

The messages inscribed in eight languages on the Guidestones—one language on each face of the four outer stones—are introduced by the injunction, "Let these be guidestones to an age of reason."



The 10 precepts to usher in an age of reason are etched into four pillars of the Georgia Guidestones. The English version, shown here, faces due north. (Photo provided)

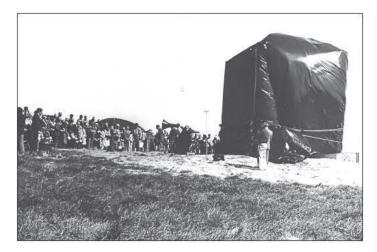
The languages, moving clockwise around the structure from due north, are English, Spanish, Swahili, Hindi, Hebrew, Arabic, Chinese and Russian, the combination of which was designed to reach the most people worldwide.

The capstone contains a truncated version of the precepts in four ancient language scripts: Babylonian, classical Greek, Sanskrit and Egyptian hieroglyphics.

The wisdom dispensed by the etchings is embraced in 10 principles:

- Maintain humanity under 500,000,000 in perpetual balance with nature.
- Guide reproduction wisely improving fitness and diversity.
- Unite humanity with a living new language.
- Rule passion faith tradition and all things with tempered reason.
- Protect people and nations with fair laws and just courts.
- Let all nations rule internally resolving external disputes in a world court.
- Avoid petty laws and useless officials.
- Balance personal rights with social duties.
- Prize truth beauty love seeking harmony with the infinite.
- Be not a cancer on the earth Leave room for nature Leave room for nature.

A ground-level granite ledger several feet west of the Guidestones lists facts about the size, weight and astronomical features of the



An estimated crowd of 400 onlookers attended the unveiling of the Georgia Guidestones on March 22, 1980, outside Elberton, Ga. (Photo provided)

stones; the monument's installation date; project sponsors; and an announcement of a time capsule buried beneath the tablet. The prescribed date for the unearthing of the time capsule was not engraved in the ledger and it is uncertain whether the capsule was ever put in place.

Needless to say, the Georgia Guidestones have never been without controversy.

One local pastor who attended the unveiling assailed the monument as one "for sun worshipers, for cult worship and for devil worship."

Others have vilified the Guidestones as satanic, Luciferian and New World Order.

Many have questioned the gruesome implications of implementing the first precept, which would require killing off 93 percent of the world's population. The practical utility of several other Guidestone instructions has been brushed aside as too vague.

The monument has been defaced several times throughout its 37-year history. Opponents have made their feelings known with spray-painted messages such as "Death to the New World Order," "you will not succeed," "Jesus will beat u satanist," "Council on Foreign Relations is ran by the Devil" and a slap at the NWO employing a rather unsavory verb.

Nevertheless, the monument has generated some benefit to nearby Elberton, a town of 4,653 residents with its own preponderance of granite signs, statues and structures.

More than 4,400 tourists a year visit the Elberton Granite Museum and Exhibit, which prominently features the history and engineering particulars of the Georgia Guidestones.

The museum, located at 1 Granite Plaza on the near northwest side of downtown, contains historical exhibits, artifacts and educational displays.

According to www.exploregeorgia.org, "Three tiers of self-guided exhibits allow visitors to see unique granite products as well as antique granite working tools used in the quarrying, sawing, polishing, cutting and sandblasting of granite cemetery memorials."

The family-friendly museum is open 2 p.m. to 5 p.m. Monday through Saturday. Admission is free. For more information, call (706) 283-2551.



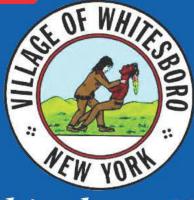
Workers carefully position the capstone onto the vertical pillars of the Georgia Guidestones. Drilled through the capstone is a slot enabling the daily noontime sun to illuminate the day of the year etched into one of the pillars. (Photo provided)



The Elberton Granite Museum and Exhibit, located northwest of downtown, sports one of the granite signs ubiquitous throughout the town, which hails itself as "The Granite Capital of the World." (Photo provided)



Exhibits and educational displays in Elberton's Granite Museum depict the history of the granite industry and its importance to the economic vitality of the town. (Photo provided)



Whitesboro, N.Y.

When Hugh White settled the town of Whitesboro, N.Y., circa 1784, one of his first orders of business was to win the respect of the Native Americans inhabiting the area.

According to the official account by the village, population 3,772, White challenged the local Oneida chief to a wrestling match, a friendly gesture common in those days. Another account has White accepting the chief's challenge.

Nevertheless, the two commenced to wrestling in a match truncated by the chief tripping and White falling on top of him.

According to the village website, "When the Indian finally rose, he shrugged his shoulders and was said to have muttered, 'Ugh, you good fellow too much.' Hugh White became a hero in the eyes of the Oneida Indians.

"This incident made more manifest the respect of the Indian for White. In all ways, White dealt fairly with the Oneida tribe and gained their confidence, which brought about goodwill."

That goodwill has not carried through for some, judging from the controversy generated by the Whitesboro city seal.

The seal originated in 1883 and depicted the match with White prevailing. Unfortunately, some took offense of the image wherein White had his hands around the chief's neck as the chief is falling backward to the ground.

In response to a lawsuit filed by a Native American group, the seal was slightly modified in 1970 to show the settler's hands on the Indian's shoulders.

The controversy reemerged into the national spotlight in the summer of 2015 when the racially motivated killing of nine parishioners in a Charleston, S.C., black church reignited scrutiny into municipal symbols, flags and seals.

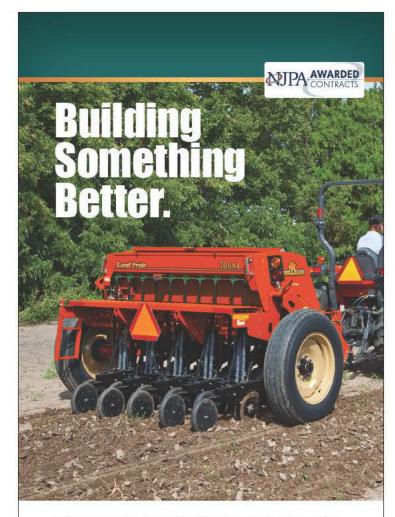
Opponents of the Whitesboro seal circulated a petition branding the image as hateful and demeaning.

Mayor Patrick O'Connor defended the seal, which, he said, was "not meant to be racist, derogatory or violent in any way, shape or form." He called it "a very accurate depiction" of a historical event, but conceded, "If people looked at the seal and went with an opinion based solely on what they're looking at, I could understand why people would have concern about it."

So he called for a vote of the town's residents whether to keep the seal. In a nonbinding referendum conducted Jan. 11, 2016, the villagers voted 157-55 to keep the seal.

Social media exploded in outrage over the "insensitive" results, and Mayor O'Connor agreed to meet with various Native American organizations to discuss replacing the seal.

To date, however, the seal has not been changed. M



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116

A report by the World Wildlife Fund and ICLEI in 2015 found that if only 116 U.S. cities adhere to their 2050 emission reduction goals, they would reduce carbon dioxide pollution by a minimum of 328 million tons per year.

Source: www.worldwildlife.org/publications/measuring-up-2015-how-us-citiesare-accelerating-progress-toward-national-climate-goals 20



The number of publicly accessible electric vehicle charging stations available in White Plains, N.Y. The city has been designated as a Clean Energy Community by the New York State Energy Research and Development Authority — a part of that designation includes efforts made toward a clean fleet.

Story located on page 34.

\$100 Million

Miami Beach, Fla., is beginning a new \$100 million flood prevention project to raise roads, install pumps and water mains while redoing sewer connections. The project is expected to take two years.

Source: http://www.miamiherald.com/news/local/community/ miami-dade/miami-beach/article129284119.html



Dubuque, Iowa, has reconstructed this many alleys into green alleys. It plans to reconstruct approximately 100 more alleys within the Bee Branch Water-

shed in an effort to reduce flooding and runoff.

Read more on page 22.

362

Approximately 362 U.S. Climate Mayors, representing 66 million Americans — as of press time — have committed to adopt, honor and uphold the climate goals of the Paris Climate Agreement.

Source: climatemayors.org

380

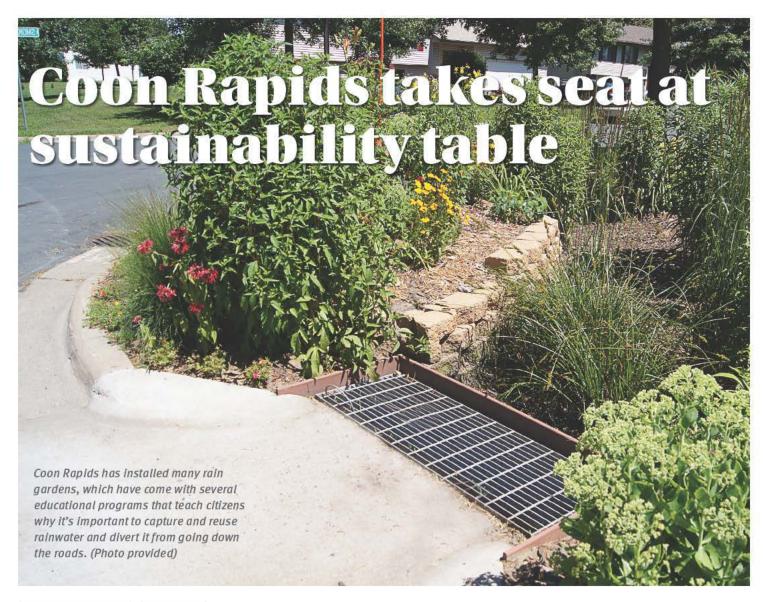
The number of U.S. communities that could avoid chronic inundation — defined as flooding that occurs 26 times per year or more — if the temperature and emissions reduction goals outlined in the Paris Climate Agreement are achieved, slowing the acceleration of sea level rise.

Source: www.ucsusa.org/global-warming/global-warming-impacts/ when-rising-seas-hit-home-chronic-inundation-from-sea-level-rise#. WXjeBoUQGDW

5,000 Square Feet

Decatur, Ga., adopted a policy that requires every city-owned building over 5,000 square feet to be certified as a Leader in Energy and Environmental Design by the U.S. Green Building Council.





by CATEY TRAYLOR | The Municipal

What started as an effort to improve the city for its residents has led to national recognition and a way of life for members of the Coon Rapids, Minn., community.

The city was awarded the American Public Works Association's Sustainability Practices Award in 2016, which is part of a national awards program established to recognize outstanding individuals, groups and chapters representing the best in the public works profession.

Sustainability measures, such as stormwater management, recycling, water conservation and exploring alternative energy sources, played a role in the city's award. The people behind the scenes, however, deserve the most recognition, according to Assistant City Engineer Mark Hansen.

"We have a very progressive sustainability commission that has helped make recommendations to our city council that have been incredibly innovative," Hansen said. "Sure, the award is a lot about our green programs, but it's also about how we maintain our buildings, how we incorporate energy efficiency

and our innovation with irrigation systems in our parks."

The sustainability commission, which started in 2009, is comprised of nine community members who volunteer their time. Since the commission's inception, Coon Rapids has joined the ranks of other sustainable cities in Minnesota through the Greenstep Cities program, as well as implemented a number of sustainable practices throughout the community.

"Becoming a Greenstep City forced us to take an inventory of everything we were already doing and to brainstorm ways to improve," Coon Rapids Recycling Coordinator Colleen Sinclair said. "We broke our city

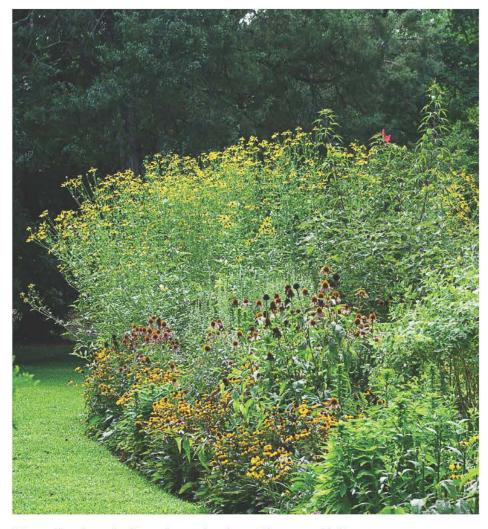




ABOVE: Coon Rapids, Minn.'s, extensive recycling program is one of the factors for which it was recognized, receiving the American Public Works Association's Sustainability Practices Award in 2016. (Photo provided)

into 28 categories and looked at sustainable efforts in each of them. We did this inventory and came up with a sizable list of things we'd already been doing that we didn't realize was actually sustainable."

Through honing the list and making slight tweaks to already sustainable practices, Sinclair said the city gained Greenstep Cities approval. The program provides the framework for city managers to inventory, plan and monitor practices, savings and results.



Pictured is a flowerbed featuring native plants. (Photo provided)

One of the most impactful projects, Sinclair said, has been the installation of rain gardens throughout the city, and the educational element that has accompanied it.

"We decided to have rain gardens across the city, and with it we worked with the county watershed to create some educational programs to teach citizens why it's important to capture and reuse rainwater and divert it from going down the roads," she said. "Getting out into the community, educating residents and making an impact are important to us."

While projects like the rain gardens and the city's robust recycling program are critical to remaining sustainable, Hansen said there are some elements to being a sustainable city that people might not realize.

"Sustainability practices, which a lot of people might initially think of as green items like solar energy or wastewater management, actually (aren't) where it ends," he said. "It's a lot about community sustainability and what we can do as a city to reinvest in our public infrastructure and helping our private industry and housing stock remain in good condition. It's about keeping our city an attractive place to live and thrive and be successful economically."

As an example, Hansen cited the city's home regeneration program, which offers low interest loans to residents to remodel and reinvest in their own properties. Homeowners then have the option to work with architectural consultants, as well as to receive advice from other entities on how to better their residences.

"That's something we don't always think about," Hansen said. "But it's so important to the city to have good, maintained and affordable homes."

Future projects on the docket for the city include continued improvement of the parks system, a closer look at citywide garbage collection, the potential for residents to practice beekeeping in their backyards, LED streetlights and revisiting the sustainable impact of the city's purchasing policies.

"As we continue to utilize our inventory, we're looking at what makes the most sense to accomplish," Sinclair said. "We're putting together a guidebook for the city staff to use for the next 40-plus years."

However, Sinclair knows the potential for their new ideas to be obsolete by the time they're able to work on them. But that doesn't stop her.

"Sustainability is not a trend," she said. "People are afraid if they commit to sustainability that they don't know what it looks like because so much of it is unknown. That's true, there's a lot of uncertainty about



Improving its parks system is just one of many projects on Coon Rapids' docket for the future. (Photo provided)

what lies ahead, and it can be intimidating, but using the right tools, hiring the right staff and taking it one project at a time will get the job done."

For now, she's just happy that Coon Rapids is on the map.

"This is the first year we have a seat at the table," Sinclair said. "It takes a lot of time to earn that and we've definitely spun our wheels getting there. But it just goes to show, start small, work with your state and community, and it'll all pay off."





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Using green alleyways to improve water quality

By NICHOLETTE CARLSON | The Municipal



One up and coming method of improving water quality is reconstructing alleys. Cities are noticing that green alleys are not only able to help reduce flooding issues, but also remove pollutants and urban runoff from stormwater so that it enters the ground more gradually.

The Dubuque story

The green alleyway project in Dubuque, Iowa, began when Mayor Roy Buol came into office in 2006. Since one of his platforms was making Dubuque more sustainable, the city began researching and visiting other cities to find ways to improve water quality and reduce flooding.

According to Joe Dienst, civil engineer II for the city of Dubuque, the existing alleys were badly deteriorated and had previously been done in brick, which made performing repairs more difficult. Dienst stated that, in 2009, "As a way to improve the alleys and to reduce stormwater runoff and improve water quality, two alleys were reconstructed as a pilot using Community Development Block Grant funds. An alley was reconstructed using interlocking concrete pavers and another alley was reconstructed using porous asphalt. As a result of this pilot, the city council selected interlocking concrete pavers for the paving type going forward."

Interlocking concrete pavers were chosen for the Dubuque green alleyway movement since they worked best for any future potential maintenance issues with utility companies. To ensure that these are the best options, the city coordinated with utility companies, though they have not done any reconstruction near water or sewer utilities. Public works trucks have even configured their trucks to help clean out the alleys.

LEFT: During a pilot program in Dubuque, lowa, the city tried two different green alley options — porous asphalt and interlocking concrete pavers. The city collaborated with utility companies and chose to use the concrete pavers moving forward since it will be easier to correct future potential maintenance issues. (Photo provided by the city of Dubuque)



When it comes to how the concrete pavers make alleyways green, Dienst said, "The new alleys allow water to infiltrate between the pavers into a storage volume of clean stone. This water then eventually infiltrates into the ground or slows the release of the water into the storm sewer. The slow release of the water allows for pollutants to be removed and water quality improved. The new alleys are helping to infiltrate water, thereby reducing flooding and improving water quality." The latter is particularly important since Dubuque is right next to the Mississippi River.

Since alleys in Dubuque are, on average, 300 feet long, reconstruction takes between six and eight weeks per alley. While they are currently only reconstructing alleys in the Bee Branch Watershed, the city is working with Patti Cale-Finnegan at the Iowa Department of Natural Resources to launch reconstruction efforts on alleys outside of the Bee Branch Watershed and find available funding options.

While roughly 80 alleys have been reconstructed thus far, Dienst is working with the city on plans to reconstruct approximately 100 more alleys within the watershed over the next 20 years.

Dienst mentioned the city used an innovative way to fund the green alley project. He said, "The city constructed six more alleys under our annual green alley project where one or two alleys would be reconstructed a year." The city used Iowa's State Revolving Fund loan to finance the city's wastewater plant reconstruction. He added, "As part of the SRF loan, the state offered a program to \times



Using a program involving Iowa's State Revolving Fund loan, the city of Dubuque has come up with an innovative way to finance the reconstruction of approximately 80 green alleys so far. (Photo provided by the city of Dubuque)

divert the interest due on the loan to clean water projects. The city used this program to fund the reconstruction of 73 alleys using this

program totaling nearly \$9.4 million."

The residents of Dubuque appear to be having favorable reactions to the new alleyways. Dienst said, "City staff is getting calls from citizens asking when their alley will get reconstructed. This occurs

"The new alleys are helping to infiltrate water, thereby reducing flooding and improving water quality."

Volbre added, "The purpose of the project is to promote green infrastructure as an effective means of stormwater management.

> The existing alleys currently do not allow for stormwater to permeate into the soil and reduce urban runoff. The new alley will allow for stormwater to be temporarily stored and then permitted to infiltrate into the subgrade. By allowing the water to infiltrate, this will

lessen the amount of urban runoff that enters the sewer system."

Once the engineering department had identified the alleys that would best qualify for the green reconstruction, they began to work on acquiring grants to get the necessary funds and make the reconstruction possible. The funding is currently being made possible through joint efforts between the city of Berwyn, the Illinois Environmental Protection Agency and the Metropolitan Water Reclamation District of Greater Chicago. As the city continues to convert more alleys into green alleys, they will look for more grants.

Currently the city is working on the replacement of 10 alleys with green infrastructure. According to Volbre, "Residents who are in the vicinity of the alleys are very happy to have this amenity. The only downside is that they cannot access their garages via the alley for about five weeks - the time to complete the alley." ■

The Berwyn story

In Berwyn, Ill., the green alleyway project began under the direction of Mayor Robert Lovero as the city began to search for various solutions to flooding issues. Ruth E. Volbre, assistant city administrator, stated, "Our engineering team, under the mayor's direction, began to look at the different options available and one of them was the green alleys. The first thing that the engineering department had to do was to do an inventory of all of the city's alleys. They looked not only for which were in the most need of repair, but they also had to test the soils. Sandier soils are required for the best drainage."

even though the abutting property owner pays a special assessment of roughly 15 percent of the cost. The city picks up the remainder."





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Leading the way to a brighter future

By ELISA WALKER | The Municipal

Embracing solar energy is a theme that has been building speed across various states and countries around the world. While green technology is always adapting, the most opportune time to take initiative in creating a green infrastructure is now — especially when it has the economics to back it up. Some cities continue to put off the transition on the chance that something new will occur, but the truth is that very few changes have happened in solar technology for years.

The financial assistance is there

States are getting more availability and opportunities for funding when it comes to switching to renewable energy. Saluda, S.C., was able to utilize the ConserFund, a loan program through the South Carolina Energy Office that assists with "energy-efficiency improvements in state agencies, public colleges or universities, school districts and local governments." The ConserFund began



The Fontaine Fire State solar system was completed in 2016 in Charlottesville. (Photo provided)

20 years ago, allowing four to five governments to take advantage of it along with nonprofits.

"We think particularly in the municipal arena, it's great because people are in and out of municipal buildings. They can see what the government is doing and how they're saving all the taxpayers' money," commented Program Manager Trish Jerman from the South Carolina Office of Regulatory Staff Energy Office. "I think the most important thing to say is that when cities do an energy retrofit, it has a domino effect and encourages citizens to take action in their own homes."

Charlottesville, Va., received the SolSmart Bronze award from the SolSmart program, a national designation program that helps communities break through local barriers and create strong local solar markets. SolSmart is funded by the U.S. Department of Energy SunShot. The program provides no-cost technical assistance for eligible communities and presents awards when cities reach their goals.

There is also a nonprofit organization that travels around Virginia called Local Energy Alliance Program. LEAP runs campaigns to reach out to communities and teach them about solar power and how affordable it is; it also gives advice when it comes to quality products and best installation techniques. This kind of organization is great for municipalities who have goals to make the community itself more invested in renewable energy.

Municipalities who are considering implementing solar power should look into state and federal resources to see what grant and loan options are available for their area. With the changing times, there are also incentives for city upgrades that can contribute to the green goal.

Transitioning with confidence

When Saluda decided to take action, it was with the backup of thorough research and observation of similar communities. With a national buzz surrounding solar energy, it caused them to



The town hall in Saluda, S.C., constantly sees citizens coming in and out, which brings more attention to the solar panels on top. (Photo provided)



As Charlottesville continues transitioning to solar power, it also seeks out other means toward energy conservation and efficiency in buildings. (Photo provided)

start questioning if it was right for them in residential, commercial or both?

"We had a lot of salesmen coming through the area," commented Town Administrator Tom Brooks. "We're at the phase of just seeing the power generation and the monthly income that comes from us, which will help in determining if that's something that would be good for local businesses to invest in. It's been a fun project. I get to actually see how much money and power we've generated. We're a small rural community. I think we're one of the first municipalities in the state to do this. Our community is excited that we're stepping out and doing something that's cutting edge."

Municipal buildings have solar paneling installed on them, allowing residents see them whenever they visit to pay a bill. By seeing them, it prompts questions and curiosity, which could spark a domino effect of residents buying in to the concept and adding solar panels onto their own homes.

Charlottesville did a solar project on the local high school with help from a grant, which led to certifying its own staff rather than hiring a contractor. With the staff becoming certified for the installation, Charlottesville saw that not only was it cheaper, but that it was able to double the size of the solar system on the school.

"After a few years of seeing the numbers and what was being generated, we gained confidence that this was a viable and reliable technology that could pay for itself," Elliott said. "There's always concern when transitioning to technology and the unknown. What's really taken off is that the cost has come down. We have commitments as a community for sustainability that goes back to the 1990s. There's definitely interest in the community."

When to take action for a vibrant future

Solar systems do require some foresight. For instance, is there a lot of shade? While solar energy can be absorbed during an overcast day, thanks to UV rays, having a lot of tree overgrowth could block any chance of generating renewable energy. Another factor for success is to make sure you choose a company that has a proven track record and is experienced with similar projects.

"Now is the best time to take action. We've seen the price of solar panels go down quite a bit," Brooks added. "The technology



Saluda was presented with the Municipal Achievement Award in July 2017 by the Municipal Association of South Carolina for its initiative solar power projects.



Charlottesville High School was one of the first solar power projects that Charlottesville invested in. (Photo provided)

is improving while the prices are going down. We feel like we did our homework and we didn't jump into it. We watched the industry and looked at local government programs for help in purchasing the system itself. As long as you do your homework, it's straightforward."

"I would say probably start looking at it now. The economics (are) there. This is a growing industry in terms of installations and there are different models to choose from now," Elliott advised. "As soon as everything's installed, you'll see the cost being offset on your utility bills. The real benefit comes when it's paired with things that make the building perform better and more efficiently in saving energy."

One of the future plans for Saluda includes extending solar power to businesses, which will further benefit the community.

Since University of Virginia rests in Charlottesville, there is a high rental population, which can make the inclusion of solar power for all people more difficult. Green leasing would help bridge the gap between the property owner and the tenants by incorporating solar energy into the leasing, which would benefit both parties. Since it isn't an idea that is very well known, it will take time for familiarity and comfortability to grow, but it is a route that has already been taken by commercial property owners.





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Decatur, Ga., leads Metro-Atlanta in environmental sustainability

By ANDREW MENTOCK | The Municipal

One of the leading Metro-Atlanta communities in green energy and environmental sustainability is the just over 20,000 person city of Decatur, Ga. In recognition of this accomplishment, the city has received a number of accolades, including being one of the first to be named a Certified Gold Green Community — the highest honor given by the Atlanta Regional Commission's Green Communities Program.

ABOVE: People gather at Decatur's Plaza Fountain. The city's efforts to practice environmental sustainability have attracted people, businesses and visitors. It's become a real marketing and economic tool for the city. (Photo provided)



Decatur Fire Station No. 1 received a complete renovation and expansion — a project that achieved LEED Platinum certification. (Photo provided)

"It's easy to say that we're green," David Junger, assistant team manager for Decatur's public works, said, "but when you've got an outside third party saying it, that kind of validates what we're doing."

To be deserving of this, the city had to make a number of improvements to its municipal facilities. Rather than simply renovating them, Decatur decided to adopt a policy where every city-owned building over 5,000 square feet has to be certified as a Leader in Energy and Environmental Design by the U.S. Green Building Council—commonly known as LEED certified. The certifications vary from "certified" to "Platinum."

"The Decatur Fire Station No. 1 was a complete renovation and expansion of an existing 50-year-old fire station that achieved LEED Platinum," Hugh Saxon, the deputy city manager of Decatur, said. "It included green roofs, rainwater reformation and reuse, a geothermal heating and air conditioning system and solar water heating."

Some of the other renovated or repurposed buildings that earned LEED



Decatur adopted a policy where every city-owned building over 5,000 square feet has to be certified as a Leader in Energy and Environmental Design by the U.S. Green Building Council. Pictured is Decatur's Beacon Municipal Center (Photo provided)

certifications are the Fire Station No. 2, the Decatur Police Department, the Beacon Municipal Center, the Decatur Recreation Center and the Public Works Building.

"Most people, when they think of public works they think of 'dirty and smelly' because of the work done there," Junger said. "But our public works facility is gorgeous. It looks like an office building."

However, it isn't just the environmentally sustainable renovations that make the building look so great.

"We used color paint, as opposed to antique white paint. We spend money every year on art. We're a supporter of art of all types here in the city, so our buildings are nicely decorated with art that we purchase through our arts festival every year. They're community



Decatur, Ga., has made it a priority to implement policies that encourage sustainability, making it one of the leading Metro-Atlanta communities in green energy and environmental sustainability. (Photo provided)

buildings. They're not just places employees come and do work."

In order to institute these renovations. the city had to get community stakeholders on board, which apparently wasn't too difficult thanks to a history of having members who support doing things differently in the name of environmental sustainability.

"We are always willing to challenge the status quo," Junger said. "We understand the greater good. The long-term 50-year goals. It's not always going to be easy, it's not always going to be the cheapest, but we're willing to make the investment."

Additionally, the state of the buildings made getting the community behind the renovations easier.

"It wasn't hard when they were all embarrassing," Junger said.

According to Junger, the building renovations began at the height of the recession and have continued since. This is because while housing values were dropping in

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other Metro-Atlanta communities, Decatur remained stable. They had also been financially conservative and were thus prepared to utilize the lower construction costs that came from the recession.

"Now construction would cost two, three or four times what we actually paid to have every single building renovated," Junger said.

Not only did the city get a good deal, but changes have helped with the community's overall economic viability.

"It brings a certain crowd that sees sustainability as a priority to do business in our city, to live in our city, to visit our city," Courtney Frisch, project manager for Decatur's public works, said. "It's a real marketing and economic tool for the city."

The changes to municipal facilities throughout the Decatur fall in line with the city's overall environmental sustainability plan, which also includes high-performance building standards for the construction of all family housing and commercial buildings over 3,000 square feet. This means that each needs to meet criteria set by nationally recognized certification programs such as Earth Craft.

In addition to being environmentally sustainable, Decatur is also on a mission to be good stewards of their resources.

"It's sort of an old-school notion that you want to be efficient and you want to get the most value you can for the resources you put into managing your community. We don't like to waste our resources. We use them efficiently and effectively. We like to spend our money thoughtfully. I would say, at least in terms of



Pictured is Decatur's Public Works Building, which also received a renovation. (Photo provided)

all the facilities that we've renovated over the past 10 years, we certainly didn't do it the cheapest way we could have. We did it in a way that provided what we needed to get the greatest long-term benefits."

With this mentality, Decatur may very well be a leader in environmental sustainability for years to come.





designated Clean Energy Community

By BARB SIEMINSKI | The Municipal

Give a big shout-out to White Plains, N.Y., for going for the gold and beyond where clean energy is concerned. Last May, White Plains-population 58,035 in 2014-was designated a Clean **Energy Community by the New York State Energy Research and Development Authority, according to Mayor Tom Roach.**

The city received the designation by completing four of 10 high-impact clean energy actions identified by NYSERDA as part of the Clean Energy Communities initiative. Additionally, the city, which is located in Westchester County, has the opportunity to apply for up to \$250,000 toward further clean energy projects with no local cost share. There were only two awards given out in the Mid-Hudson Region for large municipalities

at the \$250,000 level: Ulster County and White Plains.

The four actions completed by White Plains included:

• Energy Code Enforcement Training: This training educates energy code enforcement officials on what they need to know about the Energy Code in the context of its practical application on active construction projects.

- Unified Solar Permit: White Plains has issued 180 solar power system installation permits since the implementation of the Unified Solar Permit and has 237 systems in place as of 2017.
- Clean fleets: White Plains offers 20 publicly accessible electric vehicle charging stations, the most in Westchester County. The city has also begun to transition its fleet to electric and alternate fuel vehicles, with 20 percent of the city's fleet, approximately 65 vehicles, currently utilizing alternate fuels. As the still-gas-guzzling cars reach the end of their expedient life, they, too, will be replaced with electric cars.
- Energize NY Finance: A program that enables commercially owned buildings in the state of New York to secure funds to tackle

LEFT: Multiple vehicles take advantage of White Plains, N.Y.'s EV charging stations. (Photo provided by city of White Plains)

energy upgrades and renewable energy proFjects. It is also known as Property Assessed Clean Energy Financing.

As noted, White Plains' fleets have taken a major leap toward green energy. According to Linda Puoplo, deputy commissioner with White Plains' Department of Planning, the city's current truck fleet consists of compressed natural gas garbage trucks and street sweepers.

"We also own a hybrid electric bucket truck," said Puoplo. "Several of our diesel trucks run on biodiesel with the remainder running on ultra-low sulfur diesel. We have an extensive background in multifuel vehicles, including hydrogen, ethanol, CNG and methanol, and are now very confident about the future of electric vehicles. With the increased range, low maintenance and excellent reliability, this, we believe, is our future, and (we) are moving in that direction as quickly as possible.

"We currently have six electric/hybrid vehicles in the fleet and are excited about getting more. In the past, the cost of an electric vehicle versus traditional fuel vehicle was sometimes prohibitively restrictive; however, currently, we find the cost to be negligible and certainly worth the cost in the long run."

This shift has had it's challenges, with Puoplo stating, "The biggest effect of making the change to electric vehicles is training for our mechanics. As most of ours were recent purchases, they are now coming off the factory warranty and the mechanics are not fully trained on electric vehicles yet, which requires us to send it out to a dealer in most cases. This is our current top priority as far as training is concerned, and we expect to bring all our mechanics up to speed this year.

"The city of White Plains' Department of Public Works has a training room and often does on-site training. Since the fleet includes several different manufacturers, trained factory instructors from the various manufacturers are brought in for both classroom and hands-on training with the actual vehicles. In addition, since the city has a training facility, neighboring communities are often invited to participate, thereby reducing the cost of instruction while mutually benefitting from the training."

The city's 20 EV charging stations have been a hit with residents. Puoplo said, "There has been an increase in use and interest in EV charging stations located in city parking facilities by the public. Consumer interest in electric vehicles continues to grow. Recently, Sustainable Westchester has announced an initiative to give an additional \$10,000 rebate to any Westchester resident who purchases a Nissan Leaf (all-electric vehicle). This initiative will certainly help promote electric vehicles in Westchester."

Other energy-saving projects include clean energy upgrades to its municipal buildings and facilities. The city is also in the process of replacing all of its streetlights with energy-efficient LED fixtures.

An important part of White Plains' success has been its partnership with the Hudson Valley Regional Council; the Mid-Hudson Region has 18 designated communities, one of which is White Plains.

According to Carla Castillo, senior planner/Clean Energy Communities coordinator of the HVRC, it was a great pleasure working



White Plains, N.Y., has 20 publicly accessible electric charging stations, which have seen an increase in use and interest. (Photo provided by city of White Plains)



An EV car charges thanks to White Plains' charging stations. The city was designated a Clean Energy Community by the New York State Energy Research and Development Authority. (Photo provided by city of White Plains)



White Plains' current truck fleet consists of compressed natural gas garbage trucks and street sweepers. Approximately 20 percent of the city's fleet—about 65 vehicles—utilizes alternative fuels. (Photo provided by city of White Plains)

with White Plains and directly with Puoplo on the city's Clean Energy Communities designation and project development.

"Linda has a tremendous amount of knowledge and great interest in moving toward clean energy projects, and this is also a reflection of Mayor Tom Roach's hard work in that area," Castillo said.

She added, "The CEC Program provides grants, direct technical support to communities and recognition to local governments that demonstrate leadership in the area of clean energy and energy efficiency. Local governments demonstrate their leadership by completing four out of 10 clean energy high-impact actions.

"The CEC Program is a statewide program, which allocated 18 grants per NYS Economic Development Region for the first 18 municipalities within any region to become designated. Municipalities - village, towns, cities and counties — are eligible to participate." She noted, "Each of these first 18 communities must submit a project proposal for use of the CEC funds that they become eligible for upon designation."

White Plains will submit an application to NYSERDA for the \$250,000 in funding over the next few months, and it is anticipated that it will use the funds in the following projects: White Plains microgrid, LED lighting for all parks — a total of 400 lights — and LED lighting in select parking garages.

Hats off to White Plains for showing us that, contrary to Kermit's wisdom, it is easy being green.



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By JULIE YOUNG | The Municipal

When city leaders in Huntington, W.Va., first learned about the "America's Best Community" competition, they thought it would provide them with the perfect opportunity to envision a stronger future for their constituents and to create the strategy that would turn that vision into a reality. They did not expect to walk away with the title when the winner was announced last April and a \$3 million prize for first place.

But that's exactly what happened.

"We knew there would be some stiff competition, especially from other cities within our own region so we didn't know if we would win, but we saw it as a prime opportunity to create a community-wide revitalization plan that could hopefully serve as a catalyst for other rural municipalities," said Bryan Chambers, communications director for the city of

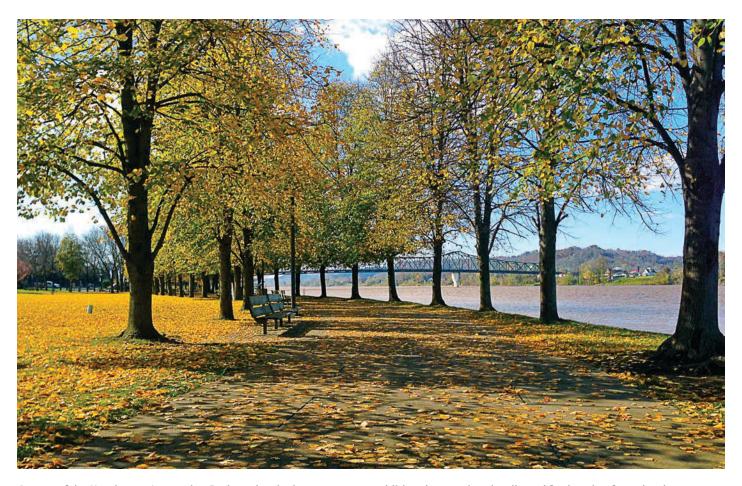
Huntington. "In the end, I think that's what helped us stand out."

Sponsored by Frontier Communications, Dish, CoBank and The Weather Channel, America's Best Community is a nationwide competition designed for smaller municipalities—populations of 9,500-80,000—in the Frontier Communications service area to showcase why they are a cut above the rest over a three-year period of time. While

ABOVE: Huntington, W.Va., was announced as the grand prize winner on April 19 in Denver; its community leadership team was brought onto the stage to receive the ceremonial check for \$3 million.
(Photo provided)

350 cities in 27 states originally applied to compete, they were quickly paired down to 50 quarter finalists who were best able to articulate the opportunities and challenges facing their community, a desire to implement change, detail current initiatives and outlines for future economic development and provide a clear vision for their community's future and prospects for achieving their revitalization goal.

Chambers said that's when the competition intensified. During the quarterfinal round, the municipalities were expected to complete a community revitalization plan



As part of the Huntington Innovation Project, the city hopes to create additional recreational trails and further riverfront development as well as implement stormwater improvements. Pictured is Harris Riverfront Park, Huntington's premier waterfront park. (Wvfunnyman via Wikimedia Commons)

focused on economic development, obtain \$15,000 in matching funds from the community, present a six-month budget outline for cash award and community matching funds and create a budget proposal of \$100,000 for a possible 11-month implementation of their community revitalization plan.

"At that stage, a lot of the quarterfinalists might receive one check from a large corporate entity, but what was really neat is that we received donations from dozens of contributors, including everyday citizens and the corporate sector as well," he said. "Instead of raising \$15,000, we managed to raise \$27,000 so we really went above the minimum of what we were supposed to do."

Huntington's revitalization plan, or the Huntington Innovation Project, is designed to transform neighborhoods and blighted areas that have been affected by the decline in manufacturing and coal industries into hip hubs for innovative manufacturing, advancement training and healthy community improvements that will all be connected



A variety of contributors — including citizens — came forth in the quarterfinals to support Huntington, W.Va., during the America's Best Community competition. Instead of raising \$15,000, the city raised \$27,000. (Wvfunnyman via Wikimedia Commons)

via high-speed broadband. The three most impacted areas in Huntington include the West End, Fairfield and Highlawn.

"Our West End has an old textile factory that has been closed for a while now, but we are using that space to retrain manufacturers and coal miners for the jobs of the 21st century. There is also a plan to transform vacant properties, continue with our healthy foods initiative through the Central City Farmer's Market and our main street renewal along 14th Street West," Chambers said. "We are really trying to support local farmers and rekindle the entrepreneurial spirit within the community, and this is a great opportunity to do that."

In Fairfield, Huntington plans an expansion of a healthy innovation corridor that

will spring from its regional medical anchors—Cabell Huntington Hospital, St. Mary's Medical Center, Robert C. Byrd Center for Rural Health and the Marshall University Joan C. Edwards School of Medicine.

In Highlawn, Huntington has received several EPA grants that will help study and redevelop "brownfield" properties that have been negatively impacted by environmental hazards and implement a reuse plan that will include research and development facilities, retail stores, recreational trails and riverfront development as well as stormwater improvements.

Chambers said that all three initiatives will be connected by Huntington's "Gigabit City" initiative, which will deploy high-speed internet capabilities that will create future job opportunities, enhance sustainability and serve as a gateway to the revitalizing of the Tri-State and Appalachian region.

"Make no mistake, some of the wheels for these initiatives were already in motion before the competition, but this allowed us to bring it all together and look at how the whole could benefit from the individual parts," Chambers said. "What the competition did was to serve as a catalyst to motivate the whole community to get involved."

He said the prize money will be overseen by a financial agent in a special account so that it does not fall into the city's general fund, never to be seen again. He knows the community that got behind these initiatives wants to see them come to fruition and he knows transparency is a big part of that.



Northcott Court
in the Fairfield
West section
of Huntington
is demolished
as part of its
revitalization
plan, which
is designed to
transform neighborhoods and
blighted areas
into hip hubs for

innovative manufacturing, advancement training and healthy community improvements. (Photo provided)

"It was really exciting to be part of such an exciting opportunity that encouraged communities to create their revitalization plans and take the steps necessary to start securing funding for them.

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Wadesboro Police Department gets new, repurposed digs

By BARB SIEMINSKI | The Municipal

The old shingle exterior of a North Carolina doctor's office has been replaced with tidy brick and a shiny new police badge. In fact, the building underwent surgery of sorts and is recovering nicely as it serves as the Wadesboro Police Department's new digs.

The town of Wadesboro, N.C. — population 5,467 in 2016 — had been faced with a space issue. Its police department shared the same building with the fire department across from the town hall. A 2014 Space Needs Assessment and Facility Programming Study of the fire and police building found that the police department only had 2,501 serviceable square feet, which included the separate detectives' building.

"We had outgrown the building we were in and needed more room," Chief of Police Thedis L. Spencer said. "We needed a building, and by locating (to) an empty edifice, we saved taxpayers money and the town didn't have to raise taxes to fund an already-existing building. I would guesstimate we saved \$500,000 to \$600,000 in not starting from scratch with a new building."

According to Town Manager Alex Sewell, the new space encompasses more than twice the amount of the old one, with 4,658 square feet in the main department building and 1,825 square feet in a separate storage building.

A great deal of work went into the new police department offices, including dedicated volunteers from all walks of life. Not only officers on their days off came to help, but ordinary citizens also looked for ways they could improve the building and property. And while professional assistance was used in some critical areas, again, it was the volunteers' work that cut down on costs. The building's windows were tinted for security, and doors and offices were kept locked, further enhancing security. A kitchen space with tables and chairs offered in-house meal breaks.

Other rooms included a secretary's office, an office for Chief Spencer, a shared sergeants' office, extra storage rooms, a room ABOVE: The move into a pre-existing building allowed the Wadesboro Police Department to save the town roughly \$1,000,000. Additional savings were seen with officers painting and cleaning on their days off. Several businesses and organizations also donated materials. (Photo provided by the town of Wadesboro)

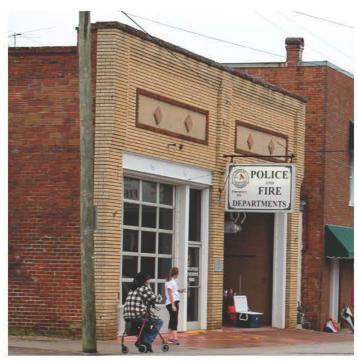
for outside agencies to work in, an interview room and meeting rooms.

The location, building condition, space, cost and layout of the offices all played into the decision to adapt the police department to an existing facility.

"The property changed dramatically from start to finish, including new roofing, flooring, painting and technology," said Sewell. "Our town council was very supportive in allowing us to be creative. To make this project a reality the staff did quite a bit of work internally and the community was very generous and supported the project through donations."

Spencer agreed, saying that to save money, several officers on their days off did a lot of the painting and cleaning.





Wadesboro Police Department shared a space with the fire department, right, before renovating a former doctor's office for its new home, left. Plans are in the works to build a new fire station. (Photo provided by Wadesboro Police Department)







Wadesboro, N.C., Police Department moved into a new-to-them space that once served as a doctor's office. After cleanup and renovation, the facility offers plenty of space while also saving the town money rather than building new. (Photos provided by Wadesboro Police Department)

"We also had talented carpenters who worked within the agency," Spencer said, adding that contractors were also used and that several businesses and organizations donated materials. "I would estimate the project saved the town at least \$1,000,000 compared to new construction."

Asked what the greatest challenges were in renovating the new space, Spencer said evidence security was one.

"Also, we needed to make sure the department of the future would continue to serve the public needs and the law enforcement operational requirements," Spencer said.

If police departments in other towns are deciding between moving to an existing building, Spencer has advice to offer.

"If they could find an existing building that could fill their needs, an existing building is the way to go," Spencer began. "At the same time, it would save thousands of dollars, but definitely officers need to have great input in the remodeling of the building. These officers would know daily operations and could articulate what they need in the way of changes."

Moving to an existing building would seem like the ideal solution for government offices that are running out of space, or that are facing mold or roof leaks, but potential movers should also be aware of other things.

One is that the building must be ADA compliant or must be renovated to be so. There may be a need for ramps, for wider restrooms, for public phones with T-coils or for extra wide room for service animals and power-driven mobility devices. Cities can hire an architect to do a walk-through a building to help determine these factors. Federal tax incentives also might be available to help with ADA costs.

Guests and supporters attended the new police station's official ribbon-cutting ceremony last December. While there, they were able to tour the facility and see the grand result.

As for other changes made or planned for 2017 at Wadesboro's new police station, Spencer said the parking lot and a generator were high on the list. Officers raised the money to install cable for visitors in the lobby, and the county donated the flagpole. There is still work to be done, but the majority is completed.

The erstwhile doctor's office, then, is well on its way to full operating speed under new, blue-uniformed management.



By DENISE FEDOROW | The Municipal

Even before rock salt prices got, well, saltier, officials in the city of Farmington Hills, Mich., looked for a way to reduce costs by starting their own municipal brine production facility.

Kevin McCarthy, superintendent of the Department of Public Works for Farmington Hills, explained the city uses the brine in more ways than one.

"We use it for anti-icing up to three days before (storms), for pre-wetting salt before applying it and in lieu of salt for direct application," he explained.

According to a presentation McCarthy and Bryan Pickworth, road supervisor and project manager, recently gave at the American Public Works Association's 2017 North American Snow Conference, Farmington Hills is approximately 33 square miles, 170 lane miles of major roads, 520 miles local roads and six major snow routes that are approximately 28 lane miles each. There are also 44 lane miles of gravel roads.

Prior to using brine, the city was using on average 12,000 tons of rock salt a year. It has cut that amount by more than half. McCarthy said on average they use 5,000 tons of rock salt annually, and in a recent bad winter, they used about 6,300 tons. He said it takes 9,000 gallons of brine to anti-ice the city, which the public works department started producing in 2005.

"We started small," he explained. "In its infant stages, we were able to produce 800 gallons an hour."

But it was a manual system and pretty labor intensive. "We were always making salt," he said. "Either mixing salt, cleaning the system or filling trucks."

So the city had an employee dedicated to the brine production in order to keep up; however, McCarthy saw it was paying off in ABOVE: Pictured is the Farmington Hills, Mich., Department of Public Works' brine production facility addition along with the new water tower in the background. (Photo provided)

cost savings on the amount of salt the city had to purchase, and by pre-wetting the salt workers were laying down, it was eliminating waste.

"As demand and benefits increased, we knew we had to have better equipment and new ways to store the salt and brine," he said.

So the department started looking at different plans, knowing that in the state of Michigan, if they were going to store more than 1,000 gallons, it had to be inside and in containers like hazardous materials. At the same time it was planning, city officials decided to build a new water tower located behind the public works brine facility.

The water tower project was going to take away one of their two salt domes—its 1,200-ton dome—leaving only the one with 3,700-ton storage capacity. The



Farmington Hills's new automated brine manufacturing system has saved the city money on salt purchasing. The yellow hoses to the right are the fill stations. (Photo provided)

3-million-gallon, 207-foot-tall tower was going to take three years of construction causing disruption to the brine facility's operation; additionally, the project would leave a 30-inch water main going through its site.

Because of the water tower project's impact on operations, the public works department was able to tack on to the project to receive funding for the brine facility's addition and improvements. McCarthy said the project was about \$13-\$14 million, and the new brine production facility portion was about \$2 million. The construction costs were approximately \$1.6 million and the new brine system cost about \$180,000

"We just had to convince the city council this was the way to go," McCarthy said, adding that since the project was going to save the city money, it wasn't too hard of a sell.

State-of-the-art facility

The ground breaking for the new addition occurred in late spring of 2015, and employees moved into the facility in October, according to McCarthy. The department now has capacity for 30,500 gallons of brine storage in the heated building and 36,000 gallons of anti-icing fluid blend storage and 6,000 gallons of storage for offloading for a total of 72,000 gallons of total storage.

McCarthy said they constructed everything so it wouldn't corrode from the salt—from the concrete floors and the 6-inch-diameter

trough around the system so the brine doesn't escape to the powder coating on anything metal.

The brine manufacturing system is now fully automated. Workers just have to load the machine with salt and it does all the analysis of the salinity. They can now produce 4,000-6,000 gallons of brine per hour versus the 800 gallons with the old system.

"There's no need to stand there and watch it," McCarthy said. "It's so smart it notifies us by cellphone when it needs more salt, and we go fill it with pure rock salt."

There are three fill points besides the pump so workers can fill three trucks at once rather than just one, and they no longer have to wait to clean the machine before filling another truck.

The system has a high-tech air flow system. There's enough space for indoor delivery of liquid additives, and there's storage space for off-season equipment, too.

Other uses

McCarthy further explained the additional ways his department uses the brine rather than just for direct application. He said they're able to anti-ice up to three days prior to weather turning bad because they add sugar beet juice to the salt mix so the brine is "stickier and stays on the road better." He said the carbohydrates in the sugar beets also make it easier to scrape off the roads.



An analogy he uses when describing the process is the difference between giving a child an ice cube to try to chew on versus a Popsicle—they both are made with frozen water, but the sugar and juice added to the Popsicle makes it easier to chew. When doing preemptive anti-icing, he said they watch the pavement temperatures, which could vary quite a bit from air temperature.

"It could be 10 degrees outside, but the pavement is 34 degrees or the air might be warmer and it's only 5 degrees on the pavement," he said.

He said the department manufactures brine for about 6 cents a gallon, and early anti-icing is usually done on major roads so it's not a major concern even if the weather or temperature doesn't get as bad as expected.

Due to the expansion, the city of Farmington Hills has more indoor storage for equipment like these salt spreaders. Indoor storage gives equipment longer life. (Photo provided)

The department also uses the brine to pre-wet the salt workers plan to apply directly to the roads.

"It keeps it from bouncing—it comes out more like a paste," he explained. "It really reduces the bounce and scatter and works at lower temperatures."

And of course workers use the brine in lieu of salt for direct application on the icy and snowy roads.

Farmington Hills uses traditional rock salt turned into brine versus organic brine pulled up from the ground. McCarthy said the organic well brine is not pure sodium chloride; it also contains other minerals like magnesium chloride or calcium chloride.

"We think it changes the characteristics of the brine, and it's harder on the equipment—it's more corrosive," he said.

Benefits of brine production

According to McCarthy, there are numerous benefits of this new facility. The increased production of brine has resulted in 80 percent savings on salt; the city is also using 50 percent less than before and it has less waste. He said that there was a time when the city was





paying \$20-\$25 a ton for rock salt, but around 2011-12 when fuel prices skyrocketed to over \$4 a gallon, the salt prices went as high as \$100 a ton. Currently, his department is paying approximately \$56 a ton.

The quicker fill time of the trucks means more hours spent on the road. The city is also seeing savings on labor because they don't have to have someone watching the system, and employees don't get called out so early since they are able to do the anti-icing in advance.

The increased space allows for the storage of off-season equipment inside the facility so the equipment is better maintained. The city can also purchase larger quantities of salt and additives, like the sugar beet juice, resulting in better prices.

There are also environmental benefits, including the reduction of salt used and the decrease of salt leaving roadways as runoff into streams and fields. This practice also keeps it from corroding vehicles and lawns.

Catching on

McCarthy said the idea of municipalities producing their own brine is catching on. He certainly recommends it, and he and his staff have been speaking at conferences about Farmington Hills' experience.

His suggestion for communities with tight budgets is to start out small. "Get a cheap plastic tank and mix your own," he suggested. "Or start by teaming up and partnering with neighboring communities."



Plows directly apply the brine to snowy roads in Farmington Hills, Mich. (Photo provided)

He said Farmington Hills has other communities coming to them now for brine.

He suggested adding a spray bar to a truck and getting brine elsewhere, or getting into an agreement with neighboring communities to build a facility that all can use and benefit from.

When McCarthy runs across a skeptic, he said he fills a 2- to 3-gallon weed sprayer bottle with brine and tells the person to take it home and try it on his or her driveway.

"Test it out — see how easy it is to scrape up," he tells them.

McCarthy said the test run usually makes a believer out of the person and the cost savings gets city officials on board.





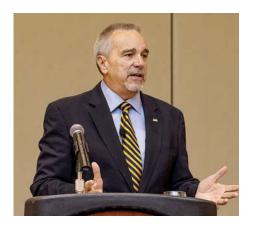
You say you want a resolution? Solving conflict in the municipal workplace

By JULIE YOUNG | The Municipal

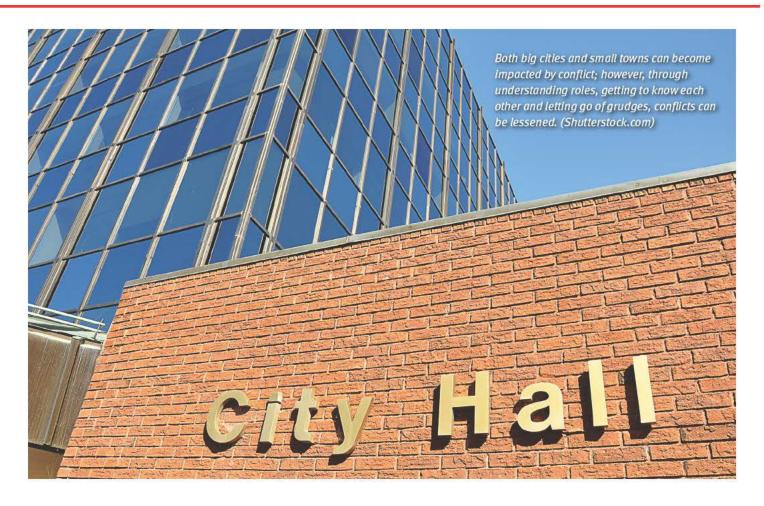
a workshop on conflict resolution in the municipal workplace, he knows the room will be packed. It's one of the biggest issues facing community leaders, and with more than 27 years in local government, including stints as an elected official, he is determined to help. He is not only a consultant and motivational speaker, but also the author of "The Amazing City — Seven Steps to Creating an Amazing City," and he has traveled the world to find

formulas that work. He said conflicts happen all the time, but there are effective methods for dealing with them.

"Sometimes I think I get more calls than Dr. Phil," he joked. "Sometimes the governing body of a particular municipality has a difficult time bonding or working together as a team. They may not know how to communicate effectively or lack the ability to plan strategically. Both big cities and small towns can become mired in the mud and impacted by conflict, but there are things leaders can do to make it better."



Jim Hunt offers workshops on conflict resolution in the municipal workplace—it is always a packed room. (Photo provided)



ABOVE LEFT: Local government officials should find ways to form relationships with one another in order to see things from the other's point of view. This approach can help officials to get to know and appreciate their staff members as well. (Shutterstock.com)

Know your role

The first step is to make sure that everyone knows what their role is and what their boundaries are. Most people understand that the city manager and mayor are the most important positions in local government, but they may not understand how these positions work or who has more responsibility for the decisions that are made. In a community with a council-manager government, the city council oversees policy and budgets but appoints a professional city manager to carry out the day-to-day administrative tasks. Under a mayor-council government, the mayor is elected by the public and has either strong or weak powers depending on the municipal charter.

Hunt said he gets calls frequently from council members who are convinced their mayor is doing something illegal or something the council did not approve of and they want to take action. He said when everyone wants to interfere with everyone else's job, nothing will ever get done, and he encourages community leaders to understand the job they have been asked to do and to stay within the perimeter of that role.

"When you are a city manager of a community, you are effectively the CEO of the government. You go to college and have a degree in public administration so that you are well versed in the kinds of issues that will come up in your job, but a council member and a mayor is an elected role and sometimes they think they can bypass the city manager and do whatever they want. It doesn't work that way, so it is important that everyone know what their job is and where the boundaries are," Hunt said.

Get on the bus

It is also important that folks in local government find ways to form relationships with one another in order to see things from their point of view. People become involved in local government for a wide variety of reasons and they come from a diverse range of backgrounds. Hunt said the more you are willing to get to know someone, the better you will be able to appreciate their position on a specific issue and the more you may be willing to compromise with them in order to do the most amount of good for the largest amount of people.

"There is no cookie-cutter method for forming a perfect government and no guarantee that if you put four engineers on a city council that they will work well together," he said. "Likewise, you can have a retired teacher, those who are activists and others who have served as police officers or firefighters. There are going to be conflicts, but if you are more effective in the way you deal with those conflicts, the better off everyone will be."

When he was involved in local government, Hunt said he learned a lot about his fellow council members when they would get on a bus to visit a site or to take a tour in a nearby community. He said those bus rides provided him with a great opportunity to talk with other members, discover those things they had in common and be able to see issues in another way. He said community leaders can often avoid conflict by being proactive in their approach to one another whether on

a bus ride, a retreat or through staff development programs.

"We need to get back on the bus and have that time to bond with one another. Not only do we have to bond with our fellow council members, but we also have to get to know and appreciate our staff as well. If we never "The first step is to make sure that everyone knows what their role is and what their boundaries are."

"I was working with one little town in Kansas and there was all this animosity on the council. When I met with each member to try and find out what was going on, every one of them had a way out of the debate. Everyone said, 'If only this would happen; I would be

meet with them outside of the weekly meeting, we will never discover those things that we have in common," he said. "Relationships are not formed on the dais, but rather in the field, and they can go a long way when it comes to avoiding conflict in the municipal workplace."

willing to work with so-and-so, but when I want to speak, they won't recognize me.' Sometimes you have to find out what is going on below the surface and try to eliminate it as best as you can," Hunt said.

Don't hold grudges

The memories of local government officials are long, and a fight on the council that happened 30 years ago has a way of simmering under the surface for years. It can be a simple slight such as someone not voting with someone else or a personality conflict that can create a rift that is difficult to overcome. Some people are champion grudge holders while others can be obstinate on a tough issue, and while you cannot wave a magic wand to make it all better, it is important to find out what the underlying problem is.

Above all, Hunt said it is important to stay involved in the community. Attend local events. Show that you get along with your fellow council members outside of the meeting room and extend the hand of friendship beyond the issues. It will make an impression not only to your colleagues, but to your staff and your constituency.

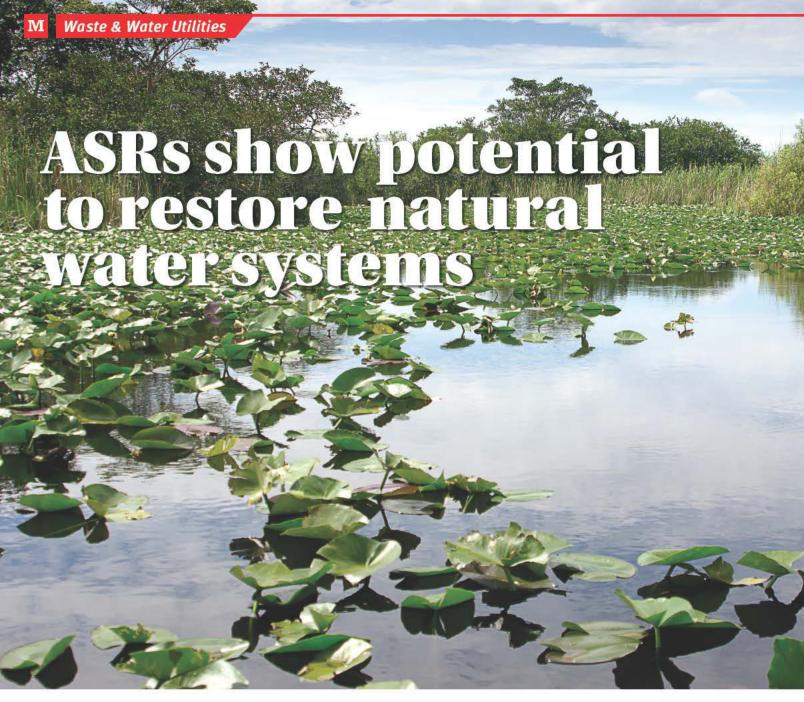
"When seven council members are at the Little League baseball game, believe me, the public you serve is watching. Show them that you can be civil even when you think the spotlight isn't on," he said. ■











By LAUREN CAGGIANO | The Municipal

Florida Everglades (Shutterstock.com)

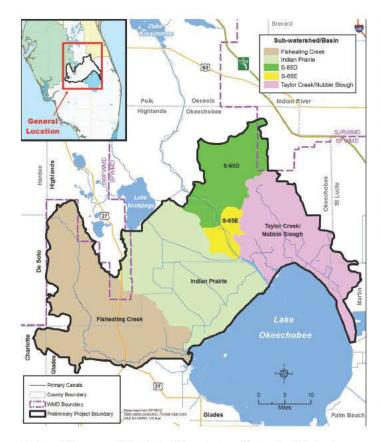
Beyond water storage, aquifer storage and recovery facilities have the potential to be used as part of a concerted effort to restore the condition of natural resources like the Florida Everglades.

ASRs have been used in Florida and throughout the United States for about 40 years. More than a century of canal drainage and water management has led to extensive losses of natural water storage, leaving the Everglades in critical need of new storage. As part of the Comprehensive Everglades Restoration Plan by the U.S. Army Corp of Engineers, it was estimated that up to 333 ASR wells could store water underground for the Everglades and natural systems.

ASR is one viable solution because the technology makes it possible to inject and recover treated and untreated groundwater, partially treated surface water and reclaimed wastewater. One advantage of ASR technology

is that it can store more water than a typical above-ground reservoir. An ASR system also can provide large volumes of water over longer periods of time, thus increasing water supplies during droughts. Still, the benefits are not always realized for some time.

Bob Verrastro, lead hydrologist with the South Florida Water Management District, knows this firsthand. The South Florida Water Management District is the oldest and largest of the state's five water management districts, managing water resources in



Pictured is a map of the Lake Okeechobee Watershed Project area. (Map provided)

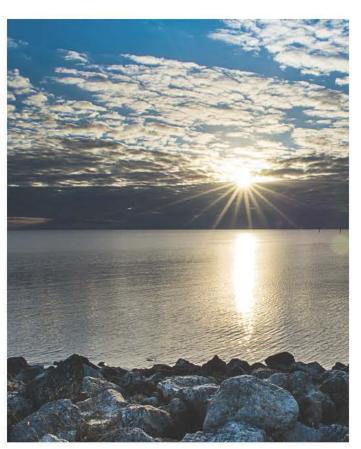
a 16-county region that stretches from Orlando to the Florida Keys, serving a population of 8.1 million. Verrastro has been involved with the program since first joining the district 17 years ago.

"It has taken over a decade to evaluate the success (of the ASR project)," he said. "We have plans to expand the system to become a comprehensive component of the restoration of the Everglades."

As Verrastro explained, the Florida Legislature in 2007 expanded the Lake Okeechobee Protection Act to include protection and restoration of the Lake Okeechobee Watershed and the Caloosahatchee and St. Lucie estuaries. To that end, the Lake Okeechobee Watershed Construction Project Phase II Technical Plan was developed by the South Florida Water Management District, in coordination with the Florida Department of Environmental Protection and the Florida Department of Agriculture and Consumer Services. The plan was submitted to the governor and Legislature on Feb. 1, 2008.

According to the SFWMD, the plan "builds upon and dovetails with other ongoing restoration activities and successfully consolidates many previous Lake Okeechobee restoration efforts into a broader, Northern Everglades-focused approach."

Verrastro said one challenge to ASR technology is ensuring water quality and environmental protection, while managing the level of the lake. According to a 2004 U.S. Geological Survey, the project team leader identified several challenges with ASR in southern Florida, including "(1) poor recovery due to mixing within the aquifer; (2) issues concerning the quality of water allowed for recharge into the aquifer; and (3) the release, or potential for release, of water-quality constituents of concern, such as arsenic and radionuclides, into the



The Lake Okeechobee Watershed Project will increase water storage capacity in the watershed and help restore the Everglades. Aquifer storage and recovery facilities could potentially be used as part of a concerted effort to restore the condition of natural resources. (Shutterstock.com)

stored water, due to the interaction between injected freshwater and the aquifer matrix."

Despite these scenarios, Verrsatro said the general public remains "cautiously optimistic." And that caution is a consistent theme with the district. The phased approach, including expansion and continued testing of pilot facilities and construction of new ASR systems, allows for closer monitoring.

Verrastro said planning efforts are underway for the Lake Okeechobee Watershed project. The purpose of this project is to restore more natural water deliveries to Lake Okeechobee and improve its health, as well as that of the estuaries and surrounding wetlands. One of the next steps involves identifying opportunities to restore the quantity, quality and timing and distribution of flows into Lake Okeechobee. The LOW Project preliminary project area, where placement of features will be considered, covers a large portion of the Lake Okeechobee Watershed north of the lake.

According to Verrastro, wetland restoration calls for a collaborative effort. "There's a combination of projects all going on to work in tandem with each other," he said.

Public education and support is one key to success with any restoration project. In the case of the LOW project, the district is conducting a series of workshops in the near future to solicit public input on plan alternatives for the project.



Science beats assumptions when judging flow

By CATEY TRAYLOR | The Municipal

Ask any firefighter the most critical component of containing a blaze, and they'll likely tell you getting water on it—but what happens when water isn't doing the trick?

The answer often lies in the study of hydraulics, the science behind the movement of liquids through pipes and channels. Firefighters must ensure that the hoses they're using, the water pressure being pumped through those hoses and the concentration of liquid hitting the flame is all in balance; otherwise, their efforts become futile when up against massive flames.

Fire Chief Kirk Allen with the Kansas, Ill., Fire Protection District has dedicated decades of his career to understanding this science and educating fire departments on its importance.

"Anything the water comes into contact with has an impact on the ability of the water to move forward," he said. "Our education system taught us to size up a fire and estimate how much water we'll need, but the actual science behind it proves this method is insufficient."

Allen, who hosts courses at fire departments across the country on the understanding of hydraulics, stresses to his attendees that science beats an assumption every time.

The most important piece of information to have, Allen said, is a measurement of how many gallons of water are flowing through the hose each minute. Often, departments think they have this number down but are proven wrong after implementing Allen's process of measurement.

"In one training, the department thought they were flowing 150 gallons per minute but in reality were flowing less than 100. That's a huge difference in saving a structure," he said. "They implemented our training and suggestions, bought a few new pieces of equipment, and in the next year, their estimated fire loss had fallen by 60 percent. This just goes to show, the gallons per minute have a direct correlation to fire loss."

The way Allen teaches departments to measure their flow per minute is simple. First, they bring in flowmeters and pressure gauges. They show departments how to use the equipment to get a measured result of flow per minute with their current hoses and nozzles. This is then compared to what the department thought they were flowing per minute and industry standards. This part is crucial to learn, Allen said, because it's the difference between salvaging or losing a structure.

"We are sure to show them the process and explain to them why their per minute flow isn't where they think it is," Allen said. "We show them how to get a measured result versus what we're taught in the industry, which is a calculated result. We have to teach them why what they've been taught is inadequate."

Once departments have an understanding of assumption versus reality, Allen turns to the department's equipment, starting with the engine.

"Every engine is built by a different manufacturer and requires different pressures to achieve the correct flow. It's not that the machinery doesn't have the ability to perform, it's that departments don't know they're not flowing what they think they are." ▶



Allen monitors gallons per minute using a flow meter. (Photo provided)



A portable flowmeter relays the actual flow, which might not actually be the amount fire departments think they are pumping. (Photo provided)



In his training sessions, Allen uses flowmeters and pressure gauges to show departments how to use the equipment to get a measured result of flow per minute with their current hoses and nozzles. (Photo provided)



Fire Chief Kirk Allen with the Kansas, Ill., Fire Protection District conducts an outdoor training exercise intended to teach firefighters how to measure how many gallons of water are flowing through the hose each minute. (Photo provided)

Next, he turns to the hoses and nozzles, which he said tend to cause a majority of the problem. The difference of flow per minute in a cheap hose versus a quality, more expensive one could be as great as 80 gallons per minute.

"When you buy cheap hoses, you're flowing less than you think you are. You've shot yourself in the foot right there," Allen said. "We don't buy low-grade bulletproof vests for our police officers; we don't need to buy low-grade hoses for our fire departments."

However, Allen assures all hope isn't lost if the department doesn't have the means to purchase more expensive equipment.

"The most important thing on the flow side of this equation is even with all the issues bad hoses and plumbing present, you can always turn up the pressure," he said. "Sometimes your nozzle won't be able to handle it, but from a pure flow standpoint, I don't care how bad your equipment is, I want these departments to know how much they have to pump to get the flow they want."



Once departments have an understanding of this, Allen teaches them how to meet the minimum standards of the industry and build a pump chart for the equipment they have.

The bottom line? Invest in a few simple pieces of equipment, because knowing your flow rates and building a pump chart will go a long way.

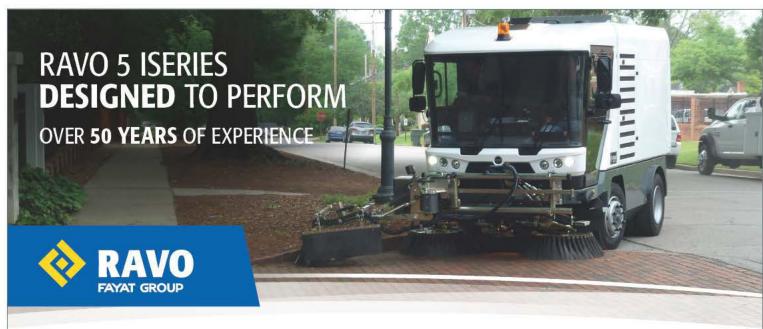
"If you're going to buy anything, buy a flow meter and start measuring your flows and build your pump charts based off of flows, not assumptions," Allen said. "For those who can't afford it, get ahold of your local fire equipment dealer and borrow one for the weekend. It's worth it - you'll save more property, and in the long run, the effort will pay for itself." M



Knowing your flow can mean a reduction in structure losses as it ensures the right amount of water is getting on the fire. (Photo provided)

On the Web

Visit The Municipal's website to view two videos, featuring a couple of Allen's training sessions.



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SEPTEMBER

Sept. 10-13 Missouri Municipal League Annual Conference

Tan-Tar-A, Osage Beach, Mo. www.mocities. com/?page=AnnConf

Sept. 12-14 NCSFA 2017 State Fleet Managers Workshop

Des Moines, Iowa www.ncsfa.net

Sept. 13-15 Michigan **Municipal League Convention**

Holland, Mich. http://blogs.mml.org/wp/ events/

Sept. 17-20 International **Economic Development Council Annual Conference**

Toronto, Ontario, Canada www.iedcevents.org/Toronto/ index.html

Sept. 17-20 ARTBA National Convention

Omni Amelia Island Hotel, Fernandina Beach, Fla. www.artba.org/news/trainingevents/

Sept. 20-23 North Carolina League of Municipalities' CityVision 2017

Greenville Convention Center, Greenville, N.C. www.nclm.org

Sept. 21-23 Illinois Municipal League 104th Annual Conference

Hilton Chicago, Chicago, Ill. conference.iml.org

Sept. 25-27 ISWA World **Congress and WASTECON 2017**

Baltimore Convention Center, Baltimore, Md. swana.org/Events/WASTECON. aspx

Sept. 25-27 F.I.E.R.O. Fire **Station Design Symposium**

Sheraton Raleigh Hotel, Raleigh, N.C.

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Sept. 25-29 Emergency and Municipal Apparatus Maintenance Symposium

Ohio Fire Academy, Reynoldsburg, Ohio www.oaevt.org

Sept. 26-28 NRPA 2017 Annual Conference

Ernest N. Morial Convention Center, New Orleans, La. www.nrpa.org/conference2017/

Sept. 27-29 lowa League of **Cities 2017 Annual Conference** and Exhibit

Davenport, Iowa www.iowaleague. org/Conference2017/ Pages/2017PreConference.aspx

Sept. 30-Oct. 4 WEFTEC 2017

McCormick Place, Chicago, Ill. www.weftec.org

OCTOBER

Oct. 1-3 Virginia Municipal **League Annual Conference**

Williamsburg Lodge, Williamsburg, Va. www.vml.org/2017-annualconference-williamsburg

OCTOBER

Oct. 3-4 Sustainable **Communities 10th Annual** Conference

Grand River Center, Dubuque, Iowa

www.gscdubuque.com

Oct. 3-6 Kentucky League of Cities

Northern Kentucky Convention Center, Covington, Ky. http://www.klc.org/news/4099/ KLC Conference Expo -October_3-6_in_Covington

Oct. 5 Southeastern **Wisconsin Fourth Annual** Outdoor Public Works/Parks/ **Building and Grounds Expo**

5151 W. Layton Ave., Greenfield, Wis.

www.ci.greenfield. wi.us/564/2017-Public-Works-Ехро

Oct. 5-7 Pennsylvania Municipal League 118th **Annual Summit**

Bayfront Convention Center, Erie, Pa.

www.pamunicipalleague.org/ summit

Oct. 8-11 Southeast **Governmental Fleet Managers Annual Meeting**

Embassy Suites & North Charleston Convention Center, North Charleston, S.C. www.sgfma.org

Oct. 8-11 APTA Annual Meeting and Expo

Georgia World Congress Center, Atlanta, Ga. www.apta.com

Oct. 9-11 SFPE 2017 North America Conference & Expo

Fairmont the Queen Elizabeth, Montreal, Canada sfpe.site-ym.com/mpage/ MontrealHome

Oct. 10-12 Aim Ideas Summit Evansville, Ind.

aimindiana.org

Oct. 12-15 Association of Fire Districts of the State of New York 2017 Fall Leadership **Summit & Vendor Expo**

Saratoga Hilton & City Center, Saratoga Springs, N.Y. www.afdsny.org/fall_education_ and_conference.php

Oct. 16-20 EMS World Expo

Las Vegas, Nev.

www.emsworldexpo.com

Oct. 17-20 National **Procurement Institute**

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The Crowne Plaza New Orleans French Quarter, New Orleans, La. npiconnection.org/ development/conference.asp

Oct. 21-24 International **Association of Chiefs of Police Conference and Exposition**

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Oct. 22-25 ICMA Annual Conference

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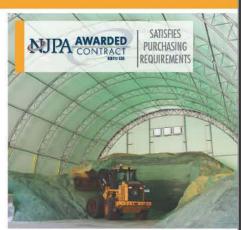
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NAFA wows procurement execs at ISM Show, receives encore request

PRINCETON, N.J. — Procurement executives gave NAFA rave reviews for its presentation on The Economics of Fleet at the recent Institute for Supply Management annual conference in Orlando.

Nearly 150 supply chain experts attended the fleet-centric session presented by NAFA's Director of Professional Development, Katherine Vigneau, CAFM. Using a hands-on exercise directly from NAFA's best-in-class fleet management tools, Vigneau taught the audience how to apply a lifecycle approach to their fleet and calculate the optimal replacement point for a given vehicle.

"Your fleet is not just another commodity that can be managed like any other widget," Vigneau said. "Applying a lifecycle approach to fleet management requires specialty knowledge and experience that is not gained simply because you own your own vehicle. You need a fleet management expert on your staff to make sure this is done consistently and done correctly."

NAFA's message clearly resonated with, and brought value to, the audience. The post-session evaluations showed the course scored an overall 4.33 out of a possible high score of 5. The course was evaluated on speaker effectiveness, timeliness and relevancy of content, usefulness for attendees' jobs, use of visuals/materials, response to questions, and ability to hold attendees' interest.

On the heels of those reviews, ISM invited NAFA to make an encore presentation at its Indirect Procurement Conference this November in Las Vegas. For information about that conference, go to https://ecommerce.instituteforsupplymanagement.org and click on the "Conferences & Events" link.

"NAFA is proud and honored to be invited by ISM to speak at its next conference," said Phillip E. Russo, CAE, NAFA's chief executive officer. "It is important for our two groups to collaborate so that NAFA members know about and understand procurement, and so that ISM members know about and understand fleet. This really is a perfect match and a fantastic blending of our strengths to make everyone better."

Minimizer named finalist for award

BLOOMING PRAIRIE, MINN. - For the second straight year, Min-

nesota Business magazine has named Minimizer a finalist for its Manufacturing Awards.

Minimizer is one of three companies up for the title of Best in Class — Mid-size.

"It's a huge honor for Minimizer to be mentioned in the same breath as so many other great companies," Minimizer CEO and Chief Visionary Craig Kruckeberg said.

"It's a testament to the people we have in place," Minimizer VP of Operations Jim

Richards said. "Everyone works hard and contributes to the team. It really is like a family around here."

Minimizer debuted the poly fender more than 30 years ago, when founder Dick Kruckeberg sold his invention out of the back of his truck.



His son, Craig, bought the company in 2007, and Minimizer has since expanded to nearly 100 employees.

"Innovation is the name of our game," Craig said. "We're constantly looking at new products that are tested and tortured to save the consumer time and money."

Each year, Minnesota Business recognizes the manufacturing sector for outstanding achievements. The panel of judges chose the finalists from a pool of manufacturing companies and executives.

"We really appreciate Minnesota Business going to bat for the manufacturing sector," Craig said. "We always hear about 'Made in the USA,' and these awards do their part to help celebrate that."

Winners in each category will be announced at an awards event Sept. 28. Both winners and finalists will be honored in the feature story of the all-manufacturing October 2017 issue of Minnesota Business magazine.

New survey highlights salary trends for park and recreation officials

ASHBURN, VA. — A recent survey conducted by the National Recreation and Park Association highlights salary and bonus data for park and recreation agency directors, planning directors, finance directors, recreation directors and park operations directors. The data included in the survey report includes detailed comparisons based on agency size, type and characteristics of the persons in the positions — e.g., education, certifications and years in the profession.

Based on the responses from 480 park and recreation agencies, the NRPA Park and Recreation Salary Survey found that:

- Salaries are typically higher for those with greater professional experience, greater education attainment and a professional certification
- Park and recreation agencies cover 85 percent of their full-time employees' health insurance premiums
- The majority 80 percent of park and recreation agencies offer their full-time employees a defined benefit retirement plan
- More than half—61 percent—of park and recreation agencies offer their full-time employees a defined contribution retirement plan The survey report also identifies typical 2016 to 2017 salary increases and median annual vacation days.

"Public support for parks and recreation is strong; therefore, compensation for the people who manage our local parks and recreation centers should reflect that," said Barbara Tulipane, CAE, NRPA president and CEO. "Agencies everywhere are encouraged to use this data as a benchmark to ensure their salaries and benefits are fair and competitive."

According to the U.S. Bureau of Labor Statistics, in 2015, there were more than 153,000 full-time employees of local park and recreation agencies in the United States. These individuals provide opportunities for people of all ages to experience the benefits of nature and improve their health and wellness. They also provide affordable out-of-school time programming and activities, along with summer meals, to children and families across the country.

To access all of the survey resources, visit www.nrpa.org/salary-survey. ${\color{orange}}{\color{orange}}$

News releases regarding personnel changes, other non-product-related company changes, association news and awards are printed as space allows.

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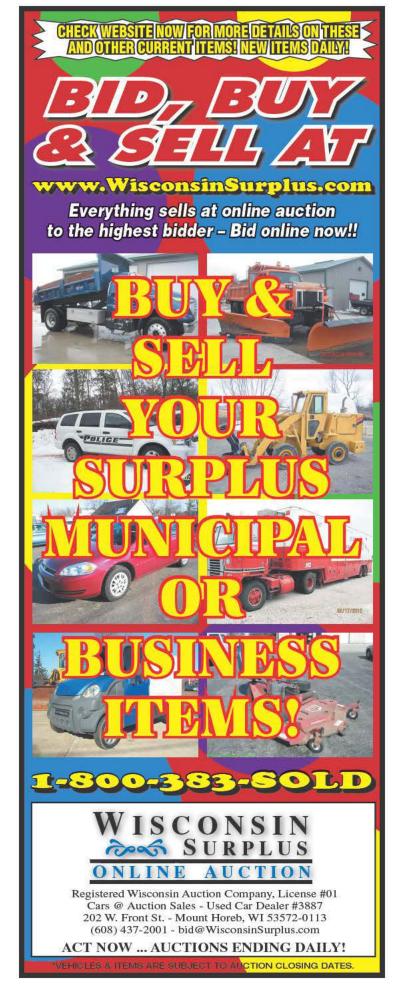
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Cary Glickstein | Guest columnist Mayor of Delray Beach, Fla. with

Ana Puszkin-Chevlin | Guest columnist Sustainability Officer, Delray Beach, Fla.

ABOVE: Delray Beach has a community orchard and six community gardens run by diverse organizations that address food-insecurity. The city's planning and zoning staff has also created a progressive urban agricultural ordinance to encourage farm-to-fork production of local food. (Photo provided)

stickers appeared in the storefront windows, Delray Beach leaders understood that "localism" — the increased local ownership of the economy, including in the public, private and nonprofit sectors — was a keystone to downtown revitalization and prosperity. Localism is also inherently sustainable because the proximity between production and consumption is

energy efficient and keeps money and talent in the community. Sustainability is thus a potent economic tool with positive quality of life outcomes for residents, but a governance paradigm requiring a concomitant responsibility to lower a community's carbon footprint.

Nearly a decade ago, our city commission convened a citizen-led Green Task Force to provide recommendations that would help the city meet its commitment to the Sierra Club Cool Cities program and the U.S. Mayors Climate Protection agreement of 2005. The resulting report outlined 136 action steps and led to the creation of a permanent seven-member Green Implementation Advancement Board tasked with advancing initiatives that would achieve sustainability objectives. And, during recent elections, stakeholders organized a well-attended Green Forum, allowing voters to assess each candidate's environmental platform.

Grass roots civic engagement is foundational to advancing sustainable and resilient communities, as these voices frame public sentiment and drive progressive conversations. Municipal government is uniquely positioned to translate public support and innovative solutions for environmental objectives into policy and programmatic action because local elected officials are both embedded in their communities and directly accountable to constituents. Moreover, it is at the local level where a multitude of specific, discrete decisions are made about land development, transportation, public infrastructure and services. In aggregate, these decisions can have a powerful impact, and local policy directives can help fill the gap created when state and federal policy retreats from the climate challenge.

A 2015 report issued by ICLEI and the World Wildlife Fund noted that if only 116 U.S. cities, representing 14 percent of the U.S. population adhered to their stated 2050 emission reduction goals, it would be equivalent to shutting down 86 coal-fired power plants. As cities represent 70 percent of emissions globally, the role of mayors and local government cannot be underestimated. In signing the Climate Mayor's pledge, Delray Beach joined 353 jurisdictions nationwide to combat GHG emission. While my city of approximately 70,000 residents does little to offset large emitters with industrial-oriented economies reliant on dirtier fuels, Delray Beach can be a laboratory of innovation and an inspiration for collective action for communities that seek pragmatic ways to address this global challenge.

Localities are well positioned to support the tenets of the Paris Climate Agreement by framing land development, building regulations and supporting transportation alternatives policies in terms of resource consumption and the GHG emissions generated. Delray Beach's form-based land development regulations encourage a pedestrian-oriented, village-scale urban form. Since 2012, 1065 units of housing were approved downtown, and approximately 1,200 more are planned, creating a vibrant beach-town urban dynamic that supports more than 350 small business.

In November 2016, our city adopted a Complete Streets Policy—one of two in the county and the state's best ranked policy by Smart Growth America. Prioritizing pedestrian mobility and supporting alternative transportation modalities, like the city's free



Vendors present sea turtle safe lighting at an educational session. Delray Beach sponsors educational outreach on sustainability topics year-round. (Photo provided)



Delray Beach's 2017 Earth Day celebration showcased 27 local green businesses and environmental organizations and drew a crowd of over 350. (Photo provided)

Roundabout Trolley and the home-grown Downtowner Inc., a golf-cart-based rideshare service, takes cars off the road, reduces traffic congestion and lessens parking demand.

As mayor of a city in the Sunshine State, a demonstrated commitment to implementing renewable energy, especially solar, is paramount. Delray Beach was an early signatory to an interlocal agreement establishing a Property Assessed Clean Energy financing district back in 2012. This year we upheld support for PACE by joining three additional PACE districts, providing our residents a choice of

PACE finance providers. We are following the growth of the solar cooperatives throughout the state, particularly in the greater Orlando and Miami metropolitan areas, and we are eager to see how a solar cooperative being organized by the League of Women Voters in Palm Beach County can help Delray Beach residents reduce their energy bills and move our city toward the 100 percent clean energy goal by 2025.

Our dynamic city attracts incredibly talented and motivated citizens willing to move great ideas forward. As a city government,



Members of Community Greening, a local nonprofit, hold saplings during Delray Beach's Earth Day celebration. The nonprofit has worked with Delray Beach's Parks and Recreation Department to help restore the city's urban tree-canopy. (Photo provided)

we endeavor to support these social entrepreneurs. Community Greening, a local nonprofit, sought to restore the urban tree-canopy by engaging young volunteers to replant trees with our city's Parks and Recreation Department facilitating their initiatives by providing park locations, tools, support staff and irrigation. The successful partnership lead to planting a free-pick community orchard, which addresses food-insecurity and fresh-produce food deserts often found in lower-income neighborhoods.

Delray Beach has six community gardens run by diverse organizations. This spring the city revised the land development regulation to reduce barriers to entry. Planning and zoning staff took that opportunity to create a progressive urban agricultural ordinance to encourage farm-to-fork production of local food. Next the Sustainability Office will explore connecting the garden organizations to volunteers, local restaurants and food pantries to create a vibrant ecosystem.

Sustainability goals must have broad and diverse public support. As mayor, I have hosted public town halls with nationally recognized speakers, film producers and civic innovators. John Englander,



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author of "High Tide on Main Street," educated residents about climate change in 2016, and Charles Kropke's documentary, "Unseen Everglades," was previewed this past April. We reach out and learn from innovators.

Delray Beach sponsors educational outreach on sustainability topics year-round. Near the autumnal equinox, numerous South Florida cities experience coastal flooding related to king tides. Our Sustainability Office, takes this opportunity to organize a teach-in on South Florida sea level rise projections and flooding impacts. The April Earth Day celebration showcased 27 local green businesses and environmental organizations and drew a crowd of over 350. In cooperation with neighborhood organizations we have offered programs on dune management, water conservation and "dark skies." It is equally important to train city employees. Starting in 2016, new employee orientation includes a presentation on Delray Beach's sustainability objectives.

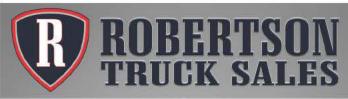
And, while Delray Beach may be viewed as a leader, there are projects and programs that we have yet to tackle, such as a comprehensive GHG inventory, a mandatory commercial recycling program and energy retrofits of public buildings. What is most exciting, however, is that Delray Beach's efforts and its commitment to goals of Climate Mayors and the Sierra Club are acknowledged and replicated by surrounding jurisdictions. Delray Beach and adjoining municipalities

are organizing "micro-regional" cooperation on sustainability and resiliency planning.

As early adopters it's our responsibility to bring others into the fold. The willingness of others to follow suit is the cornerstone to mitigating climate change.

Cary Glickstein is a fourth generation native Floridian, the father of three and has resided in Delray Beach since 1989. Glickstein earned his bachelor's degree from the University of Hawaii and his law degree from the University of Miami School of Law. Glickstein, a member of the Florida Bar since 1985, is the founder of Ironwood Properties. He previously served as vice president and general counsel of Falcor Industries Inc., the U.S. subsidiary of a pacific-rim hospitality, real estate and manufacturing conglomerate. He also practiced law at Finley, Kumble, Wagner, Manley, Myerson and Casey, an international law firm, where he specialized in land-use and corporate matters.

Ana Puszkin-Chevlin, Ph.D., is Delray Beach's sustainability officer. An urban planner with a specialization in coastal development and climate adaptation, Puszkin-Chevlin has 25 years of experience working with real estate companies, nonprofit organizations and community groups to create sustainable and resilient communities.



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TOP 10

Green cities for families

Looking for a city that is environmentally friendly to settle down in with your family? SmartAsset used 11 different metrics to determine its "The Best Green Cities for Families in 2017" list, which ranked 446 of the largest U.S. cities. Five of those metrics assessed the quality of life for families in certain cities, such as high school graduation rates, crime rates and access to affordable housing.

SmartAsset's website notes, "Our study also considers six factors that gauge whether a city is environmentally friendly. We pulled data on air quality, local government use of renewable energy and the average household carbon footprint."

Below are the 10 cities that topped the list.

- 1. Honolulu, Hawaii
- 2. Cambridge, Mass.
- 3. Somerville, Mass.
- 4. Iowa City, Iowa
- 5. Ann Arbor, Mich.

- 6. Arlington, Va.
- 7. Beaverton, Ore.
- 7. Mountain View, Calif.
- 9. San Francisco, Calif.
- 9. Boulder, Colo.



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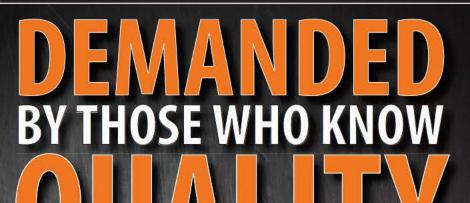
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