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MATTHEW GRAY
is chief of sustainability for the
city of Cleveland.

On June 22, 2019, the city of Cleveland will host what organizers hope will be the largest clean water rally in the nation, in observance of the 50th anniversary of one of the most infamous and influential disasters in the city's history – an event that ultimately resulted in the establishment of the U.S. Environmental Protection Agency and the federal Clean Water Act.

It was on that date in 1969 that the Cuyahoga River caught fire... again.

It wasn't the first time flammable industrial waste had ignited on the surface of the river, nor was it even the largest such blaze. In fact, rivers in numerous U.S. cities had experienced similar fires on their polluted waterways for decades. But, after Cleveland's 1969 fire was featured in Time magazine, many Americans considered it the last straw.

Carl Stokes, Cleveland's mayor at the time, testified before Congress and joined many other voices expressing outrage and calling for the federal government to take a more active role in protecting America's waterways. The pressure was enough to convince then-President Richard Nixon to establish the EPA in 1970. Two years later, Congress passed the landmark legislation that became known as the Clean Water Act.

Since then, the Cuyahoga has largely recovered, but Cleveland's Chief of Sustainability Matthew Gray said the struggle to protect water quality in the river – and the Great Lakes into which it flows – goes on. Next year's rally will celebrate the progress made, and highlight the work yet to be done, he said.

Fair or not, the Time magazine article added to Cleveland's reputation as a city in decay. Rampant discrimination, race riots, the decline of the railroad and steel industries, and other post-war economic factors eventually led the once-prosperous city to lose half its population between 1930 and the end of the century. The economy hit bottom in 1983, when the city's 13.8 percent unemployment rate was among the highest in the nation.

Since then, it's been a long road back. Despite having a more diversified economy, the Great Recession of 2008 hit Cleveland harder than most, midway through current Mayor Frank Jackson's first term in office. In 2009, Jackson launched the Sustainable Cleveland 2019 initiative to engage the entire community in co-creating what sustainability means for the city.

“We were putting out a lot of fires at that time, but the mayor also saw an opportunity to build a more sustainable economy coming out of that crash. So, a key focus of the Sustainable Cleveland 2019 initiative was economic,” Gray said.

The mayor hosted his first Sustainability Summit in 2009, which was so successful that he's held one every year since. For Cleveland to begin transitioning its economy into a sustainable one, all sectors needed to be engaged.

“We realized early that the city could not do this alone, especially in a city like Cleveland with a large low-income population. But, the whole community bought in, so it's really been an engagement approach from the beginning, and it's still that way,” Gray said.

After being reelected to a fourth term in 2017 – unprecedented in Cleveland history – Jackson ordered an update of the CAP, first developed in 2013, to redraw the city's roadmap for cutting greenhouse gas emissions 80 percent below 2010 levels by 2050, with interim goals of 16 percent by 2020 and 40 percent by 2030.

In a letter accompanying the updated plan, Mayor Jackson said his decision to “accelerate progress” on climate action was influenced by the Trump administration's rolling back of environmental regulations and climate initiatives at the federal level. “When the U.S. pulled out of the Paris Climate Agreement in 2017, it became clear that leadership from local government, businesses, and civic institutions is needed now more than ever. So, I re-affirmed my commitment to climate action, along with 400 ‘Climate Mayors’ across the country,” Jackson wrote.

Gray said the updated CAP includes more aggressive actions to stem emissions, but also incorporates a general theme of environmental justice, which was less apparent in the original plan.



Illustration: ClevelandPD

■ Lake Erie Wind Farm

This artist's rendition depicts what could be the first offshore wind farm on a freshwater lake in the U.S. Currently in the permitting stage, the Icebreaker Wind Project will be a 20.7 MW demonstration wind farm located 8 miles north of Cleveland in Lake Erie.



Photo: City of Cleveland

■ Bike Share

In the past four years, Cleveland has added about 70 miles of new bike paths and has invested in other infrastructure to get more cars off the streets.

"The foundation of the whole plan is racial equity," Gray said. The city used a racial equity tool to make sure the 300 residents who participated in 12 neighborhood workshops reflected the racial diversity of the city. The 90-plus members of the city's Climate Action Advisory Committee (up from 50 engaged in the original CAP) used the tool to assess every objective in the plan for its ability to improve racial equity and establish a shared approach for equitable climate action. One of the city's partners, ioby, developed a Racial Justice Guide from lessons learned working in Cleveland.

The 12 workshops dedicated time and financial grants for supporting more than 20 neighborhood projects, which included tree plantings, composting of food waste, installation of solar panels, re-activating vacant land and capturing stormwater, among others.

The updated CAP includes strategies and initiatives in five sustainability focus areas that include energy efficiency, clean energy, sustainable transportation, clean water and green space, and local food/less waste. New to the updated plan are four "cross-cutting priorities" that are addressed throughout the CAP across all five focus areas. These are social and racial equity, good green jobs, climate resilience and business leadership.

The new Climate Action Advisory Committee includes technical experts from Cleveland Neighborhood Progress, ioby, Brendle Group,

the Racial Equity Institute, BrownFlynn, Cleveland Urban Design Collaborative, and the University at Buffalo.

Cleveland's plan highlights six key benefits the advisory committee identified:

- Local green job creation and sustainable economic development
- Reduced utility and maintenance costs for homes, businesses, and government
- Improved risk management and resilience to climate change
- Healthier, more comfortable homes
Improved air quality, public health, and quality of life
- A more educated population with the tools to take action at home, at work, and in their community



Photo: City of Cleveland

■ Engaging Everyone

The Cleveland Climate Action Fund Crowd-Funding Challenge presented at 12 engagement workshops inspired more than 40 neighborhood projects, including tree plantings like this one.

Gray said climate change is impacting Cleveland in two primary areas: water and heat. He serves as co-chair, with Matt Naud in Ann Arbor, Mich., of the Great Lakes Climate Adaptation Network, which is a regional subset of the Urban Sustainability Directors Network (USDN). He said many cities in the Great Lakes area are facing similar impacts.



Photo: City of Cleveland

Local Foods

Cleveland has become a national leader in local food due partially to re-use of vacant land, which has been repurposed for community gardens and farmers markets. Cleveland's goal is to reduce the number of residents with low access to healthy food from 61 percent in 2015 to 40 percent in 2022.

"We have a combined sewer system here in Cleveland, as many of these legacy cities do, so that is impacting water quality," he said. Lake Erie, and the other Great Lakes, are seeing declining ice coverage, which results in more lake-effect precipitation, warming surface temperatures and more robust algae blooms, which are all detrimental to water quality and wildlife, Gray added.

He said the city's heat island problem is getting worse and its tree canopy is currently only 19 percent, which is about half what it was 50 years ago. Cleveland, once known as The Forest City, now has the goal of planting 50,000 trees by 2020 and getting to a 30 percent tree canopy by 2040, Gray said.

In 2015, the local nonprofit Cleveland Neighborhood Progress received a \$660,000 Climate Resilience and Urban Opportunity grant from the Kresge Foundation to help counter historic disinvestment in four low-income neighborhoods within the city. The program helps residents develop policies and undertake projects that reduce energy demand, prepare for climate change impacts and foster social cohesion. It was one of 15 U.S. nonprofits (and the only one in the Midwest) to receive the grant.

"We have climate ambassadors in each of those neighborhoods... and we're hoping to take the



Photo: City of Cleveland

Rain Barrels

More than 4,000 rain barrels have been provided to Cleveland residents through the Mayor's Summer Youth Employment Program.

best practices from those neighborhoods to all the neighborhoods in Cleveland," Gray said.

Cleveland is also working on the cutting edge of renewable energy development, hoping to become the first North American city to create an offshore wind farm in a freshwater lake. Once approved, the Icebreaker Wind Project, a 20.7 MW demonstration wind farm that will consist of six 3.45 MW turbines, will be located 8 miles north of Cleveland in Lake Erie. Gray said the city is working with the Lake Erie Energy Development Corporation (LEEDCo), a non-profit, public-private partnership that first started working on the project in 2009. The development is currently in the permitting stage at the federal and state levels and officials hope to have the facility online by 2021, Gray said.



Photo: City of Cleveland

Solar Power

Cleveland is using community outreach to educate citizens on solar energy. A county-wide solar strategy will expand community solar projects, especially to low and moderate income households.

Cleveland is also a SolSmart "bronze community" and is working to convert some of its vacant land to solar energy arrays. Gray said three large-scale solar projects are currently under way, and the city helps support a countywide solar co-op focused on home installations.

In the next few years, Gray said the city will focus on energy efficiency and transportation to meet its short-term emission reduction goals, with particular emphasis on the multi-family residential and

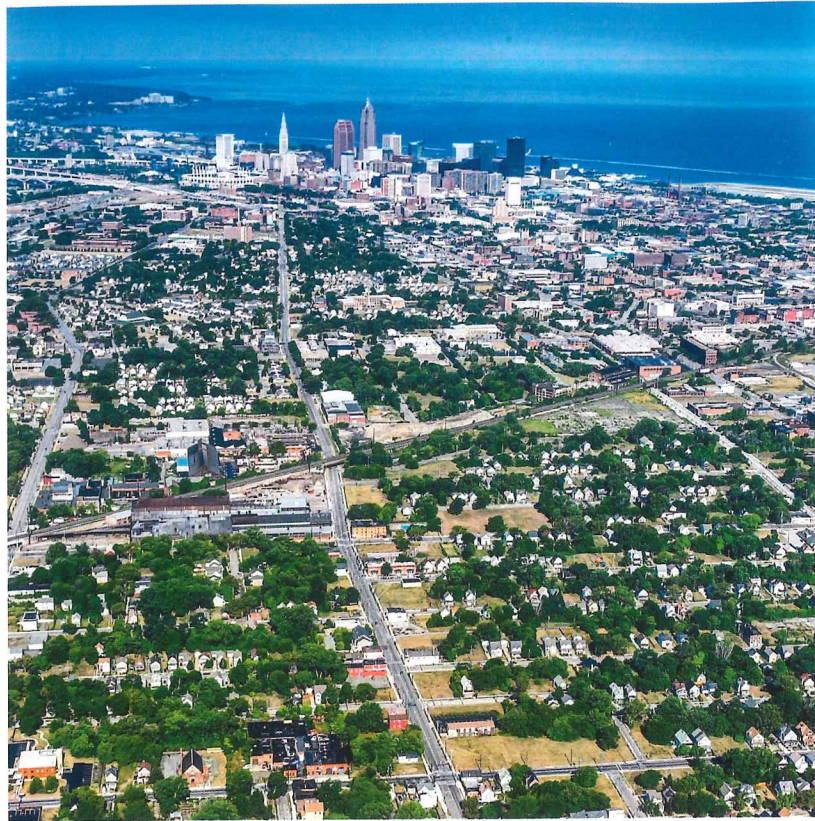
industrial/commercial sectors. Cleveland was the second city in the nation to adopt the 2030 District model, which supports the development of “high performance buildings” in business districts around the world. It has one of the largest districts in the network, with about 60 building owners responsible for more than 60 million square feet of commercial real estate, who have committed to significant reductions in water use, energy and transportation emissions.

While the State of Ohio has recently reduced funding of transit systems, Gray said the city has been focusing on developing its bicycle infrastructure. In the past four years, he said, Cleveland has added about 70 miles of new bike infrastructure. Future efforts will increase investment in electric car infrastructure, which Gray said is an area in which Cleveland has fallen behind.

“We’ll also be re-thinking our waste reduction strategies over the next couple of years,” he said, pointing out that China has reduced its consumption of U.S. recyclables recently, which has diminished a once-reliable market for some of these materials.

Gray said the city – through its sustainability initiatives and other programs – is having a positive impact on Cleveland’s national reputation and, more importantly, the way its citizens perceive themselves.

“In 2012, a survey showed 34 percent of Clevelanders would recommend the city as a place to visit,” he said. “That number is now 77 percent, as of last year.”



■ Cleveland Skyline

Cleveland lost half its population between 1930 and the end of the century, leaving its poorest neighborhoods with many vacant lots. Once known as “The Forest City,” its tree canopy has since fallen to just 19 percent. The city plans to plant 50,000 trees by 2020 and get to a 30 percent tree canopy by 2040.

Photo: City of Cleveland

Cleveland has been through a lot since that fateful day the Cuyahoga River caught fire in 1969. Since then, local action and federal policies have made a lasting difference for both the ecology of the river, and the people who live along side it.

“The fish are back, industry is still there, but there are a lot of kayakers and stand-up paddle boaters, and it really is a very active river now,” Gray said. “There’s still work to be done, but it is a significant difference.”

He said plans for the June 22 observance have been going on since early this year and organizers hope other cities will join Cleveland in recognizing the

important role clean water plays in the health and wellbeing of the American people. “We want to celebrate that progress, but also shine a light on the issues we face today, which are just as urgent, if not more urgent, than those we faced in 1969 – climate change, algae blooms, plastic pollution, invasive species, and many others,” he said. “To meet these current challenges, we’re going to need continued local action and federal and state policy support.” ■

Sustainable City Network will host a free 1-hour webinar on Thursday, Oct. 25 featuring the sustainability initiatives of Cleveland, Ohio. You’ll hear from Chief of Sustainability Matthew Gray, who will describe the city’s new Climate Action Plan and its dashboard of sustainability indicators. Register at <http://sCityNetwork.com/Cleveland>.