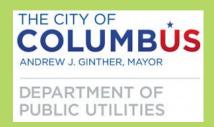




# SUSTAINABLE COLUMBUS: A COMMUNITY-WIDE EFFORT

Recognizing the role a healthy environment plays in contributing to Columbus continuing to be America's Opportunity City, the City of Columbus established the Sustainable Columbus initiative.

This initiative, under the leadership of Columbus Mayor Andrew J. Ginther, focuses on optimizing internal city operations and working with external stakeholders from throughout the community to enhance and promote environmentally-friendly policies throughout our community.





### **TABLE OF CONTENTS**

LETTER FROM THE MAYOR

Page 1

**KEY PRIORITIES AND 2020 GOALS** 

Page 2

**KEY PRIORITY 1: EDUCATION AND ENGAGEMENT** 

Page 4

**KEY PRIORITY 2: CLIMATE AND ENERGY** 

Page 7

**KEY PRIORITY 3: NATURAL RESOURCE PROTECTION AND CONSERVATION** 

Page 18

**KEY PRIORITY 4: WASTE REDUCTION** 

Page 28



Dear Friends and Neighbors:

Sustainability issues impact our City's quality of life and as such are crucial priorities for the City of Columbus. The City's sustainability work will help us protect our natural resources, spark innovation and progress, and ensure that the City of Columbus remains a beautiful and vibrant community and America's Opportunity City for years to come.

With that in mind, each year we as a community take stock and reflect on our progress, successes and future goals to ensure that our sustainability efforts continue to address emerging needs. In 2018, we were proud to unveil our **Sustainable Columbus** movement that will develop and promote our environmental policies, as well as continue with our award-winning **Smart Columbus** program and many other initiatives.

The City of Columbus has much to be proud of in the arena of protecting the environment:

- Columbus was named one of Bloomberg Philanthropies' winning cities in the American Cities Climate Challenge that will help us meet—or beat our near-term carbon reduction goals and improve the quality of life for our residents.
- GreenSpot, the city's marquee environmental education program, celebrated its 10th Anniversary!
- Our Sustainable Columbus movement is focused on protecting natural resources, fighting climate change, fighting the scourge of illegal dumping in our neighborhoods and reducing waste in general and engaging our residents through the award-winning GreenSpot program to protect those most impacted by environmental issues.

To have an impact at a large scale, the entire community must rally together and change the way energy is generated, consumed and conserved. We have the perfect opportunity for this work with Bloomberg Philanthropies as part of the Bloomberg American Cities Climate Challenge. We look forward to that work.

Let me be as clear as I can be about this. I believe that fighting climate change is a social-justice issue and we are working as diligently to fight this problem for our residents and taxpayers.

Thank you to each and every one of you for doing what you can to keep Columbus green!

I'm very pleased to present this Annual Sustainability Report to document our city's progress and celebrate our city's successes of 2018.

Thank you.

The Honorable Andrew J. Ginther Mayor, City of Columbus



### **KEY PRIORITIES AND GOALS**

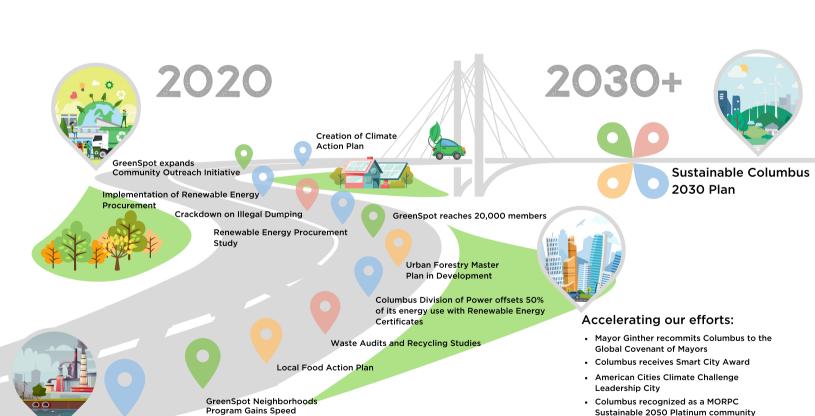
Sustainable Columbus is working with external partners and the public to guide the city in the critical work described in Mayor Ginther's message. The city is also working internally with city departments to develop and carry out environmentally-friendly city policies.



Implementation of Green Memo III



#### SUSTAINABILITY INITIATIVES TIMELINE



2015



Nation's First Non-Attainment Area to

Meet 2015 Ozone Air Quality Standard

#### **KEY PRIORITIES**

#### **GREENSPOT**

GreenSpot asks households, businesses and community groups to make pledges to conserve energy, conserve & protect water, and reduce waste.

#### **GOALS**

- Increase the number of GreenSpot members to 20,000
- Reduce the environmental impacts of daily life by motivating behavior change



#### WASTE REDUCTION

To build stronger, safer communities, we are working with residents in our opportunity neighborhoods to address illegal dumping and activate recycling.

#### **GOALS**

- Increase illegal dumping case resolutions by 15%
- Increase recyclable materials collected per participating household citywide by 5%

### RESOURCE PROTECTION & CONSERVATION

Through our Recreation & Parks and Public Health initiatives we connect our people through the power of nature, wellness and creativity.

#### **GOALS**

- Increase the number of city parks to 400
- Adopt a tree canopy strategic plan
- Greenspace within a 10minute walk of residences
- Support local food initiatives

#### **CLIMATE & ENERGY**

To reduce greenhouse gas emissions an do our part to help the U.S. meet the Paris Agreement, we are working to become a carbon neutral city.

#### **GOALS**

- Reduce greenhouse gas emissions by 30% from City operations
- Reduce greenhouse gas emissions by 20% from the community

#### LOOKING TOWARD THE FUTURE



The Sustainable Columbus 2030 Plan will set a framework to shape the City's sustainability efforts from 2020 to 2030. The plan will focus on high impact practices that advance our four key priorities: GreenSpot, Waste Reduction, Resource Protection & Conservation, and Climate & Energy and will incorporate each program's detailed plans to achieve its goals.



### **KEY PRIORITY 1: EDUCATION AND ENGAGEMENT**

Engaging the public is critical to the success of the City of Columbus' sustainability program. By joining together with like-minded folks, one person can make a difference. In 2018, the city undertook many initiatives to show how we can all work together to keep our community green.

#### **GREENSPOT**

2018 was the 10th anniversary of GreenSpot which celebrated by holding a birthday party at the Grange Insurance Audubon Center. More than 100 people attended the event. Attendees enjoyed live music, speakers on GreenSpot and its successes, and a chance to win a GreenSpot gift basket. Sponsors of the event included Green Columbus, Grange Insurance Audubon Center, SWACO, Great Lakes Brewing Company, and Metro Cuisine.



City Hall went green in commemoration of the occasion and GreenSpot Business members Jack & Benny's, Elevator Brewery, Portia's Café, and Skillet offered 10% off to GreenSpot members that week. Columbus City Council recognized GreenSpot with a Resolution of Expression.

The GreenSpot Advisory board, made up of more than 25 businesses, nonprofits, and citizens were vital to the GreenSpots success in 2018.

The Advisory Board helped plan and host both the 10th anniversary of GreenSpot, and the GreenSpotLight awards, developed a "How to Start a Work" Green Group at auide. identified artists to highlight, and businesses to recruit for the GreenSpot **Business** Sustainable Class.

In March, GreenSpot members came together in celebration of the GreenSpotLight awards where Councilmember Emmanuel V. Remy recognized the following winners:

- American Municipal Power
- Woolpert, Inc.
- ProSource Wholesale Flooring, Kitchen and Bath.

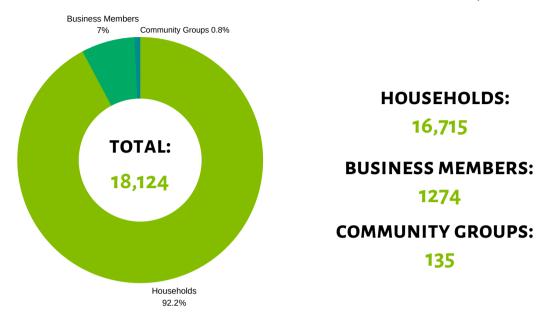






The GreenSpot Sustainable Business Class (formerly the GreenSpot Corporate Sustainability Initiative) provides networking and learning opportunities to businesses going through the process of becoming a GreenSpot member. In 2018 five companies graduated including: AC Lens, Cardinal Health, Columbus Zoo and Aquarium, L Brands, and Prime AE Group.

#### 2018 MEMBERSHIP: ON TARGET TO HIT THE 2020 GOAL OF 20,000 MEMBERS



The GreenSpot Community Backyards program, a service of the Department of Public Utilities administered by Franklin Soil and Water Conservation District, provided \$50 rebates on rain barrels, native plants, and native trees. To acquire the rebate, participants first must learn about the impacts of stormwater and ways to prevent polluted runoff. The program engaged 1,262 households in 2018 and distributed 576 reimbursement.









#### **KEEP COLUMBUS BEAUTIFUL**

Keep Columbus Beautiful is a City of Columbus community-improvement program and a national affiliate of Keep America Beautiful. KCB focuses on public education and volunteer service related to quality of life environment issues including litter, recycling and beautification projects.

The program is a division of the Department of Public Service offering residents resources and opportunities to improve their neighborhoods through community-based efforts.

In 2018, a total of 384 cleanups and beautification projects were conducted by 7,298 Keep Columbus Beautiful volunteers who gave 19,398 hours of their time to Keep Columbus Beautiful!

- These volunteers collected 247,905 pounds of debris.
- The total value of volunteer hours was \$499,877.

#### **BEAUTIFUL BY THE NUMBERS...**

15
BEAUTIFICATION PROJECTS



20,464

TOTAL

VOLUNTEER

HOURS



O Rate In 1

369
LITTER
CLEANUPS



247,905

POUNDS OF DEBRIS FROM LITTER CLEANUP

7646

TOTAL
VOLUNTEERS



\$499,877

VALUE OF VOLUNTEER HOURS





#### **KEY PRIORITY 2: CLIMATE AND ENERGY**

In June 2017, Mayor Andrew J. Ginther recommitted the City of Columbus to the Global Covenant of Mayors. Under this covenant, the city has agreed to build and conduct a community-wide greenhouse gas inventory with a breakdown of emissions for buildings and the transportation sector; identify climate hazards and to publicly report on its progress to reduce greenhouse gas emissions and its actions to build a resilient city, also known as climate adaptation.

The City of Columbus participates in the Carbon Disclosure Project, an initiative that supports cities and companies disclosing the environmental impact of major corporations. The project aims to make environmental reporting and transparency and risk management a business standard and to drive disclosure, insight and action towards a sustainable economy.

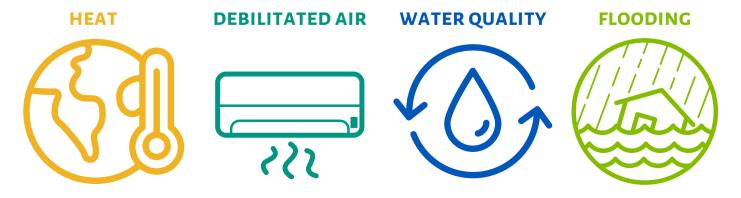
#### **CLIMATE ADAPTATION**

Climate Adaptation is recognizing that we are already experiencing some of the harmful impacts of climate change in our community and that Columbus must take action to become more resilient in the face of these challenges. Climate adaptation plans are important because they provide a road map on how to deal with the issue and show a commitment to addressing the issue.



The Ohio State University developed a Climate Adaptation Plan that was presented to the City of Columbus with recommendations for the City, such as:

- establishing a better network of centers where people can seek protection from extreme heat
- modernizing the electric grid
- improving education on how to decrease activities that contribute to some of climate change's most dangerous impacts:





Those are just some of the recommendations that were made in a report issued to the City of Columbus by a task force led by researchers at the Byrd Polar and Climate Research Center at The Ohio State University.

Many would agree that climate change is one of the most serious challenges facing our society. According to the recommendations, characterized by changes in temperature and precipitation, climate change will have a profound impact on challenges already confronting our globe including crop production, food security and water quality.







These recommendations are a good start to build upon as the City of Columbus moves to fight climate change. Much more work lies ahead.

Read the full report here: http://byrd.osu.edu/Columbus

#### **CLIMATE MITIGATION**

## GOAL: THE CITY OF COLUMBUS HAS AMBITIOUS GOALS TO REDUCE GREENHOUSE GAS EMISSIONS FROM MUNICIPAL OPERATIONS BY 30% AND CITY-WIDE BY 20%.



We are making great progress toward our municipal operations reduction goals but, as a growing city, we are significantly challenged when it comes to realizing citywide greenhouse gas emissions reductions. Through our work with the American Cities Climate Challenge and growing commitments to clean energy investment we are laying the foundation to realize reductions in greenhouse gas emissions from the buildings and transportation sector.









In 2018, Bloomberg Philanthropies awarded the City of Columbus as a winning city in the Bloomberg American Cities Climate Challenge.



The Bloomberg American Cities Climate Challlenge is a \$70 million program that will accelerate 25 ambitious cities' efforts - including the City of Columbus - to tackle climate change and promote a sustainable future for residents. Through the Climate Challenge - which is part of Bloomberg's American Cities Initiative, a suite of more than \$200 million in investments to strengthen city halls and advance critical policies - Columbus was accepted into a two-year acceleration program and will be provided powerful new resources and access to cutting-edge support to help meet or beat the city's near term carbon reduction goals.

# 2018 AMERICAN CITIES CLIMATE CHALLENGE WINNER



BLOOMBERG PHILANTHROPIES SELECTED THE CITY OF COLUMBUS AS A WINNING CITY BECAUSE OF ITS INNOVATIVE AND AMBITIOUS CLIMATE ACTION PLANS TO REDUCE AIR POLLUTION AND CITY-WIDE EMISSIONS WITH SPECIFIC PROJECTS AIMED AT REFORMING THEIR RESPECTIVE TRANSIT AND BUILDING SECTORS, AREAS WHICH ARE TYPICALLY RESPONSIBLE FOR MORE THAN 80 PERCENT TOTAL OF ALL CITY-WIDE EMISSIONS.

The City of Columbus plans to use this support for a number of new and existing initiatives, and Bloomberg Philanthropies will work with the city to achieve the following actions by 2020:



Deploy a workforce development program for community energy advocates and increase the number of homes audited with a focus on the City neighborhoods with the highest rates of energy poverty.



Accelerate existing and add new financing programs for energy efficiency and renewables for commercial buildings.



Roll out a multimodal trip planning app to drive behavioral insights and engagement strategies to encourage mode share.



Launch a communications campaign to increase ridership on newly expanded high-frequency transit lines.

#### **CLEAN ENERGY COMMITMENTS**

Where energy comes from matters. Fossil fuels, like coal and oil, contribute to climate change and negatively impact communities. Cleaner energy, like wind, solar, hydro, natural gas and energy efficiencies can improve our climate, health and economy. In 2018, the City continued efforts to move towards clean energy that will pay dividends for our community.

Through our participation in the energy special improvement district, Columbus is committed to connecting private building owners with financing options to invest in renewable energy installations and energy efficiency upgrades. In 2018, the City of Columbus approved 16 PACE (Property Assessed Clean Energy Financing) projects representing over \$42 million in clean energy financed.



Our portfolio of projects continues to grow each year as well as a substantial increase in the size of each project.

You can find more info here: https://columbusfinance.org/services/energy-program/.



Our Building and Zoning Department has also reduced the obstacles for private building owners to install renewable energy. In 2018, the City of Columbus issued 61 permits for solar panel installation and there have been 148 issued since the Department of Building & Zoning Services started keeping separate records on solar in October of 2015.

#### **LEADING BY EXAMPLE**

IN 2018, THE CITY'S DIVISION OF POWER ACHIEVED ITS GOAL TO PURCHASE 20 PERCENT OF ITS ENERGY FROM RENEWABLE ENERGY RESOURCES FOR ITS MORE THAN 14,000 CUSTOMERS. ADDITIONALLY, CUSTOMERS HAVE THE OPTION TO PURCHASE AS MUCH AS 100 PERCENT RECS (RENEWABLE ENERGY CERTIFICATES) THROUGH THE ECOSMART CHOICE PROGRAM. IN 2018, THE CITY ALSO HIRED A RENEWABLE ENERGY OWNER'S REPRESENTATIVE TO EXPLORE PATHWAYS FOR THE CITY TO ACCELERATE ITS PROCUREMENT OF RENEWABLE ENERGY TO SERVE ITS MUNICIPAL LOAD.

Since adopting the program, we've accumulated 111,037,000 kWh of RECs. This number is equivalent to offsetting 90,410,966 pounds of coal burned, which is saving 91,100 tons of CO2 that would have otherwise been produced by nonrenewable sources and dumped into the environment.



#### **SMART COLUMBUS: TRANSFORMING TRANSPORTATION**

Smart Columbus is envisioning a future for our city that benefits us all, and transforming mobility to make our community safer, more equitable, more vibrant and more sustainable. Through its work, Smart Columbus is harnessing technology to enhance transportation and provide for more environmentally sustainable ways to get around the city.

#### **SMART BY THE NUMBERS...**

10
COC PUBLIC
CHARGING
STATIONS



92
CITY OF COLUMBUS
ELECTRIC VEHICLES
PLACED IN
OPERATION





32
CITY OF COLUMBUS
ELECTRIC VEHICLES
PURCHASED

219
EV TEST DRIVES
AT EXPERIENCE
CENTER





In 2018, Smart Columbus also made significant progress on development of the Multimodal Trip Planning Application and Common Payment System that will allow users to select methods of transportation that work best with their time, budget, and sustainability goals. Lowering the use of single occupancy vehicles, the MMTPA/CPS will make it easier to access the COTA bus line through decreasing first mile/last mile challenges.

In 2018, Smart Columbus also moved into a new Experience Center that houses the project's operations and provides showroom space for electric vehicles.



59 RIDE AND DRIVE **ROADSHOW EVENTS** 



99,714 RIDE AND DRIVE **ROADSHOW ATTENDEES** 



FE

6,837 RIDE AND DRIVE **ROADSHOW TEST DRIVES** 



102 **COC CHARGING STATIONS FOR PUBLIC FLEET** 



As part of the approach to promote the use of electric vehicles in Columbus, Smart Columbus is working closely with companies that commit to be Acceleration Partners to support smart mobility projects and Smart Columbus helps fund these incentives or projects through the Ignite Action Fund.

IN 2018, THERE WERE 63 ACCELERATION PARTNERS AND \$60,850 OF **ELECTRIFICATION FUNDING WAS AWARDED TO COMPANIES TO ADVANCE** THEIR SMART MOBILITY PROJECTS.

#### **CITY VEHICLES**

Columbus Fleet Management continues to be a front-runner in the nation in "greening" our environment. The last year has yielded significant accomplishments toward this end goal:

- Petroleum use by city vehicles has been reduced by 27 percent in 2018 compared to 2010 levels. Compared to 2014 levels, city vehicle petroleum use has been reduced by 16 percent.
- In 2018, city vehicles consumed 2,536,323 gallons of petroleum fuel, 161,755 gallons (6 percent) less than in 2017.

Alternative fuel use as well as green technologies have contributed to the city's reduction of petroleum. The reduction is largely because of increased usage of gaseous fluids, namely Compressed Natural Gas (CNG), which increased 25 percent over last year's counts.



THE USE OF CNG LOWERS FUEL COSTS AND REDUCES THE EMISSIONS OF THE CITY'S FLEET BY THE CONVERSION OF VEHICLES TO RUN ON COMPRESSED NATURAL GAS (CNG). CNG IS FAR LESS EXPENSIVE AND A MUCH CLEANER FUEL THAN GASOLINE OR DIESEL.

The City of Columbus purchased 26 heavy duty vehicles (excluding Department of Public Safety) in 2018. Of these all 26 were green. Green heavy duty purchases include CNG vehicles as well as vehicles equipped with other green technologies such as diesel particulate filters and diesel exhaust fluid.

In terms of expanding the city's CNG fueling infrastructure, the city has increased the number of city-owned CNG fueling stations.



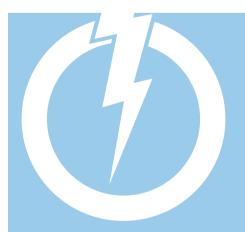


THE CITY'S FOURTH CNG FUELING STATION OPENED ON THE WEST SIDE IN JULY OF 2018.

The City also added 24 CNG vehicles to its ranks in 2018, bringing the CNG total to 244. City vehicles consumed 696,240 gges of CNG in 2018, a 24 percent increase compared to the previous year. The use of CNG saved Columbus taxpayers about \$658,000 in fuel costs compared to diesel fuel in 2018.

In the area of electric vehicle policy, through the Smart Columbus program, the City of Columbus is offering rebates to help central Ohio-based taxis, transportation network companies (TNCs), TNC drivers, car sharing, ride sharing and limo services make the switch to electric vehicles. Thirty incentives of \$3,000 each (\$90,000 total) are available to transportation service providers who purchase new, fully electric vehicles between Nov. 20, 2018 and April 15, 2019. Earlier in 2018, the City awarded another \$30,000 in rebates to Columbus Yellow Cab during a similar incentive program.

#### **EV CHARGING STATIONS**



AEP OHIO IS OFFERING \$10 MILLION IN INCENTIVES TO INSTALL EV CHARGING STATIONS FOR LOCAL GOVERNMENT, PUBLIC CHARGING, WORKPLACE CHARGING, AND MUD CHARGING.

IN ADDITION TO THE AEP OHIO INCENTIVE PROGRAM, SMART COLUMBUS IS OFFERING UP TO \$25,000 PER SITE FOR MUD EV CHARGING STATIONS.

IN 2018, THE CITY OF COLUMBUS DIVISION OF POWER OFFERED ITS RESIDENTIAL CUSTOMERS UP TO \$500 IN REBATES TO INSTALL LEVEL 2 EV CHARGERS AT THEIR HOME OR APARTMENT/CONDO. THIS INCENTIVE IS STILL ACTIVE AND AVAILABLE.

#### **SMART MOBILITY**

After e-scooters arrived in the city without warning in the summer of 2018, Mayor Ginther offered legislation ultimately approved by City Council to protect users of the fledgling devices like e-scooters and dockless rental bikes. The Mayor also put in place emergency rules to protect pedestrians and other mobility device users.

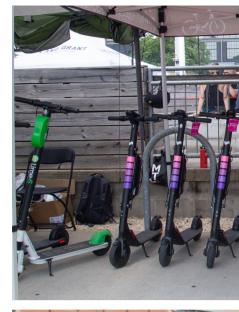
This legislation, coupled with common-sense rules and regulations put in place by the city to address companies who use the public's right of way to rent e-scooters and dockless bikes, were a part of a comprehensive look at the fast-emerging industry that has taken root in the City of Columbus and in many other cities around the state and the nation.

The legislation and accompanying rules and regulations governed where these devices could be operated such as keeping them on the roads and not on the sidewalks as well as what safety precautions riders must take and the need to follow all traffic regulations.

THE CITY OF COLUMBUS MOVED STRATEGICALLY TO MANAGE THE INFLUX OF NEW WAYS IN WHICH RESIDENTS, VISITORS AND OTHERS CAN GET AROUND THE CITY INCLUDING E-SCOOTERS, ELECTRIC BIKES AND OTHER INNOVATIVE AND NEW MOBILITY DEVICES.

Also in Smart Mobility, CoGo Bikeshare, which is owned by the City of Columbus, stretched further outward into Central Ohio and added to the bicycle infrastructure in the region.

The City Council approved in 2018 a contract extension with the vendor that operates the bike system to add 13 stations in neighboring suburbs in Bexley, Grandview Heights and Upper Arlington, adding to the former 46 stations in the City with about 350 bikes. The addition pushed the system's total to about 600 bikes.







#### **PARKING SERVICES**



The newly-created Parking Services Division within the Department of Public Service implemented several initiatives to more efficiently manage parking for motorists and to help them better plan their travels so as to limit the length of time motorists are searching for parking and therefore reduce greenhouse gas emissions.

In the Short North neighborhood of Columbus, the division deployed the comprehensive Short North Parking Plan in preparation for deployment in 2019. The division also collaborated with neighborhood groups around Nationwide Children's Hospital at Livingston and Parsons avenues to create a permit parking system that prioritized access for residential parking.



### ParkColumbus App Perks



Easy to register & use



See suggested nearby zones



Find available parking



Save "Favorite" parking zones



Extend your parking session on-the-go (where available)



Set customizable parking expiration reminders



Multiple payment options offered



Add up to 5 license plate numbers on your account at a time



In 2018, the division also added new technology - and convenience - to city meter parking. The ParkColumbus app launched to offer motorist the option of paying by cell phone at 600 Short North meters. Plans are in the works to ultimately offer the possibility of mobile payment at all 4,500 parking meters and kiosks citywide.

Parking Services also worked with the Columbus City Council to update the city's parking code to improve access and safety and revised the city's car-sharing program and added vendor Zipcar to increase mobility options for residents, businesses and visitors.

# KEY PRIORITY 3: RESOURCE CONSERVATION AND PROTECTION

As a growing city, we also recognize that protecting and conserving our natural resources is critical to maintaining our natural eco-systems, preserving our quality of life, and protecting public health. Through our natural resource protection and conversation programs we connect the people of our community through the power of nature, wellness, and creativity.

Parks, Waterways, and other natural areas reduce stress, provide habitat for thousands of species and contribute to a thriving city. The City of Columbus continues to develop and preserve these assets, and implement protective measures to reduce our footprint.

#### SUSTAINABLE EDUCATION AND CONSERVATION EFFORTS

Through critical partnerships with various community organizations, the City of Columbus was able to host or participate in a variety of events that helped connect citizens with sustainable education and resources.

#### EARTH DAY 2018

Green Columbus, a local non-profit organization, hosted Earth Day 2018, brought together by a large scale volunteer effort, was another successful celebration of our planet at Genoa Park. More than 5,700 volunteers came out to nearly 200 service sites, contributing more than 17,800 plus hours of citizen green service to improve the Central Ohio community.

In addition, a highly visible festival was held for the event, featuring bands, food trucks and kids activities and booths of all kinds.









#### Volunteers:

- Planted and distributed 14,350 trees that will increase the region's tree canopy fighting urban heat island effects.
- Collected 2,211 bags of litter and 317 bags of recyclables.
- Cleaned 147 miles of roads and trails, as well as 315 acres throughout the region.
- Prepared 35 community gardens for the growing season.

### WATER RESOURCE PROTECTION AND CONSERVATION

## 2018 CENTRAL OHIO CHILDREN'S WATER FESTIVAL

The Department of Public Utilities once again partnered with local environmental professionals to engage with about 650 local fifth grade students in the 2018 Central Ohio Children's Water Festival. Activities included:





650 STUDENTS



HANDS-ON ACTIVITIES



FUN PRESENTATIONS
ABOUT DRINKING
WATER, STORMWATER
AND WASTEWATER



GOAL: EDUCATING STUDENTS ON THE IMPORTANCE OF CONSERVING AND PROTECTING THIS VITAL NATURAL RESOURCE!









The Department of Public Utilities continued its tradition of promoting water resource protection and conservation by sending bill inserts to nearly 300,000 households to help them learn about simple practices that conserve and protect water; volunteer river cleanup and storm drain marking opportunities; and free or discounted tools available to help implement strategies such as rain barrels, rain gauges and pet waste bags.

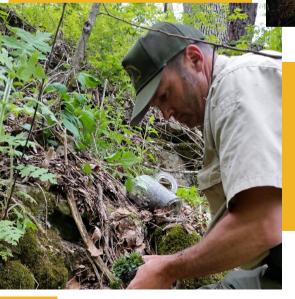
# IN 2018, THE DEPARTMENT OF PUBLIC UTILITIES, DIVISION OF WATER CONTINUED THE DIVISION'S EFFORTS PROTECT OUR WATER RESOURCES BY:

Providing 117 site visits and educational materials on stormwater best practices, spill prevention and response to 86 businesses located along critical waterways immediately upstream of water plant intakes. This effort aims to minimize threats of spills and encourage proper and timely reporting of spills with potential to affect the raw water supply.

Supporting students interested in watershed management and water quality through a variety of tours, classroom visits, STEM activities, and served as technical advisors on student research projects at both middle school and collegiate levels.



Assisting and educating customers about how to detect and fix water leaks and providing water conservation kits to residents, further promoting strategies to help individuals do their part to protect our water resources.



Partnering with Delaware Soil and Water Conservation to support the Regional Conservation Partnership Program (RCPP) which provides conservation funding to assist agricultural operators within the Upper Big Walnut watershed, a significant source of Columbus' drinking water. Additional funding from RCPP is allowing the study of edge-of-field technology to filter tile drainage and reduce nutrient runoff.

Hosting two reservoir litter clean ups with more than 350 community volunteers participating.



Removing invasive honeysuckle in 19 acres of parkland. In addition, we are proud to continue our long-standing partnership with BMW Financial volunteers who have assisted with honeysuckle removal at Griggs Reservoir for 13 years.

Distributing 13,700 pet waste bags were distributed at reservoir park areas to reduce pet waste through the maintenance and upkeep of pet waste/litter bag dispensing stations.



Providing oversight and stewardship of reservoirs and city-owned property surrounding the reservoirs including efforts to protect shoreline integrity, improve and restore native vegetation, and monitor for unauthorized uses.

Working in cooperation with the Division of Sewers and Drains and DOW water plant staff to improve communication and response to accidental spills which might threaten local waterways or reservoirs.



#### 2018 CONSERVATION BY THE NUMBERS...

24,850 168,308 10,742 10,324 **KWH GENERATED BAGS OF TRASH VOLUNTEERS** FROM WYANDOT **VOLUNTEER REMOVED FROM HOURS LODGE SOLAR PARKS PANELS** 6,278 **LINEAR FEET OF STREAM RESTORED** 3502 **TREES PLANTED ON CITY PROPERTY** 1,097 **NATIVE PLANTS PLANTED BY CERP** 300 20 232 **ACRES OF** TREES DONATED **COGO BIKES TREE POLLINATOR** BY KURTZ BROS. **ADDED AND 26 PLANTING HABITAT ADDED GIVEN TO THE BIKE STATIONS EVENTS ON CITY LAND COMMUNITY** 

# NATURAL RESOURCE PROTECTION AND CONSERVATION, EXPERIENTIAL LEARNING OPPORTUNITIES

Columbus Recreation and Parks Department's Net-Zero Wyandot Lodge operates as a teaching tool and provides programming space, including an audio and visual room as well as a hands-on science lab in the Leadership in Energy & Environmental Design (LEED)-certified, Silver designation building.

# WYANDOT LODGE ACTIVITIES AND PROGRAMS:

- BEAVERS AND DAM BUILDING- 5
- BIRDS AND BIRD OBSERVATIONS-5
- Fossils and Geologic History-6
- GREEN BUILDING TOURS-3
- POLLINATORS AND GARDENING- 4
- PRESCHOOL AGED WILDLIFE PROGRAMS-7
- · REPTILES-8
- · SHELTER ENGINEERING- 6
- STREAM STUDY-13
- · TEAMBUILDING- 2
- TRACKING AND WILDLIFE- 10
- · VOLUNTEER DAYS/PARK CLEAN UP- 5





Beyond the building walls, participants learn about outdoor activities and many other things at this center. The program also partners with the 29 community centers to foster an appreciation of outdoor experiences for youth throughout this great city.

#### **BLUEPRINT COLUMBUS**

Blueprint Columbus is an innovative way of eliminating sanitary sewer overflows while also investing in our neighborhoods and our local economy. Rain gardens and porous pavement, known as green infrastructure, are rapidly becoming an important part of the storm sewer system in Columbus. Rain water is routed through the green infrastructure, filtering through layers of stone, soil and plants before draining into the pipes that empty into our rivers. This natural filtering process slows the release of stormwater and keeps pollutants and trash out of the system, which protects our rivers and streams.



Implementation of Blueprint Columbus began in the Clintonville 1 project area in 2017. In 2018, green infrastructure construction neared completion and the project began the second phase of implementation: lining individual home sewer laterals and assessing and implementing solutions for roof water redirection.

#### **CLINTONVILLE 1 ACCOMPLISHMENTS**

423

RAIN GARDEN INSTALLATIONS, INCLUDING A WETLAND FEATURE IN WHETSTONE PARK



31,193

SQUARE FEET OF PERVIOUS PAVEMENT INSTALLED
IN 3 ROADWAY SECTIONS



350 SUMP PUMPS INSTALLED



674

HOMES ASSESSED FOR LATERAL/DOWNSPOUT IMPROVEMENTS IN 2018 EQUALING

25%
OF THE PROJECT AREA





Blueprint Columbus is committed to active resident engagement in the development and implementation of neighborhood solutions. Blueprint conducted 22 presentations about the project, concentrating education and outreach efforts in the areas in active design: North Linden 1, Hilltop 1 and 4, Miller-Kelton, and 5th by Northwest.











#### STORMWATER EDUCATION

In 2018, the City worked to achieve enhanced integration of the multiple stormwater education programs offered in Columbus. Blueprint Columbus continues to be an excellent opportunity to introduce Stormwater management strategies to residents while also connecting them with additional education and resources such as the GreenSpot Community Backyards program, which can assist residents with private property stormwater management. The presence of green infrastructure in neighborhoods has also increased interest in Stormwater education among the area schools – OSU and Indianola Informal middle school students have participated in green infrastructure/BMP curriculums. Additionally, a stronger emphasis has been placed on cross-promotion of programs and messaging through the various promotional strategies used by each program (i.e. GreenSpot eNewsletter, Blueprint e-updates, etc.). This allows each program to leverage their respective audiences to achieve wider distribution.

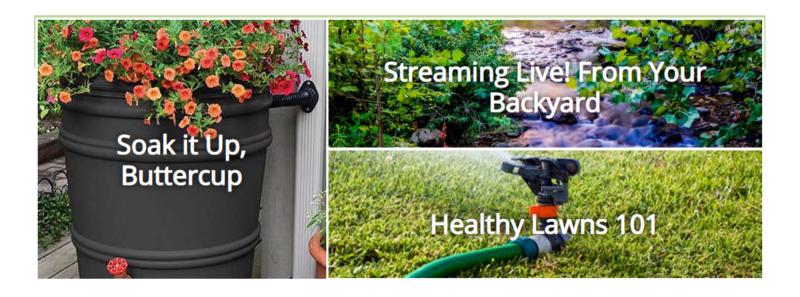
#### PUP AND GET GRASSY! CAMPAIGNS

The Department of Public Utilities continued its PUP (Pick Up Poop) campaign to increase awareness about the harmful effects of dog waste on our waterways and encourage dog owners to pick up after their pet. In 2018, 112 pet waste stations installed at 86 city parks and at city reservoirs were maintained and repaired throughout the year.

Program staff used the PUP wagon during the Arts Fest in June and were able to discuss how pet waste harms the environment, a high-saturation message that was able to be delivered during one of the largest community events of the vear.



GETGRASSY.ORG RECEIVED 1,800 VIEWS IN 2018, UP 35 PERCENT FROM THE PREVIOUS YEAR. GETGRASSY! WAS ALSO FEATURED ON AN ABC 6 GOOD DAY COLUMBUS MARKETPLACE SEGMENT THAT ORIGINALLY AIRED ON SEPT. 13.





The Department of Public Utilities also worked to protect our waterways through the Get Grassy! campaign, which promotes sustainable landscape practices. Administered by the Franklin Soil & Water Conservation District, Get Grassy! educates residents about the effects on lawn care practices on water quality. In 2018, the program conducted 10 educational events in the City of Columbus; promoted Get Grassy! Messaging in four district-wide publications to more than 10,000 Franklin County residents.



#### PROMOTING LOCAL FOODS

In 2018, Columbus Public Health held three Farmers' Market Days – July 26, Aug. 2 and Aug. 9 – which attracted 14 vendors and served 7,180 patrons. As part of the Local Food Action Plan, the Local Food Board supported the implementation of a farmers' market management collaborative in 2018.



Additionally, about 14,000 summer meals were served to youth aged 1-18 by the Columbus Recreation and Parks Department's food truck. Columbus Public Health said at these events that \$94,120 in WIC (Women, Infants and Children) vouchers were distributed. The events also generated \$3,122 in federal Supplemental Nutrition Assistance Program (SNAP) sales and distributed \$3,122 in Produce Perks SNAP Match.





#### **AIR QUALITY PROTECTION**

Our local air quality is a critical to public health and a resource that is often overlooked. A lawnmower exchange program, a partnership with the Columbus Department of Public Health and the Lowe's retail company continued to give discounts on 36 zero emission mowers to qualified buyers. Using zero emission mowers helps lower air pollution. According to the U.S. Environmental Protection Agency, gas-powered lawnmowers produce as much volatile organic compounds and nitrogen oxide emissions in one hour of using as 11 new cars each being driven for an hour.

27

#### **KEY PRIORITY 4: WASTE REDUCTION**

Illegal dumping is a persistent problem with extensive economic, social and environmental impacts in cities across the U.S. The City of Columbus is no exception. In order to be responsive to our neighborhoods and to combat the increase in illegal dumping, Columbus Mayor Andrew J. Ginther in 2018 unveiled a wide-ranging plan focused on prevention, enforcement and education. It is called the Clean Neighborhoods initiative.

#### FIGHTING ILLEGAL DUMPING

In support of Clean Neighborhoods, the City of Columbus has committed resources to fighting illegal dumping with Division of Refuse Collection equipment and crews by deploying:

- 9 refuse drivers who focus solely on cleaning up illegal dumping
- 28 additional covert cameras to spot illegal dumping
- 400 locations where cameras have rotated
- Division of Police officers assisting in reviewing video footage
- Department of Development code enforcement officers cross-trained with solid waste inspectors to expedite investigations

#### CLEAN NEIGHBORHOODS IS MAKING PROGRESS. IN 2018, THERE WERE:

662
REPORTS OF ILLEGAL
DUMPING
INVESTIGATED



5,496
REFUSE CODE
VIOLATIONS
INVESTIGATED



20

CASES REFERRED TO
FRANKLIN COUNTY
ENVIRONMENTAL COURT
FOR PROSECUTION



The City is a member of the Environmental Crimes Task Force of Central Ohio. Thanks to the task force's work, 24 defendants were convicted on 35 counts of environmental crimes in 2018.

In 2018, City Council focused on the illegal dumping issue, working with Mayor Ginther on the Clean Neighborhoods initiative as well as shining a light on the issue of litter throughout our community. Under the leadership of Councilmember Emmanuel V. Remy, the chair of Council's Environment Committee, City Council held two public hearings on the litter issue including one that featured a panel of topic experts from the Solid Waste Authority of Central Ohio, Franklin County Environmental Court, Division of Refuse Collection and local leaders.

#### **INCREASING RECYCLING RATES**

Reducing, Reusing and Recycling saves landfill space, reduces litter and is the responsible thing to do. Residents continue to embrace RecyColumbus and other efforts to keep Columbus green.

RecyColumbus, the city's popular recycling program, included 201,326 households located in apartment and condominium communities. In 2018, the program captured 31,889 tons of material that previously would have been taken to the Franklin County landfill, saving city taxpayers more than \$1.66 million in tipping fees. The program also captured more than 23,700 tons of yard waste in 2018.



PLASTIC BOTTLES ARE RECYCLED INTO PLASTIC STRAPPING AND CARPET.







# **RECYC&LUMBUS**

#### We were meant for each other.

With the support of City Council, the program entered the first of its five implementation phases in April 2012 and concluded in February 2013 with 187,926 single family households. Recycling and yard waste were collected on alternating weeks. In March 2014, the program was expanded to service low-density condos, townhouses and apartments and the schedule was altered to increase efficiencies for Rumpke as well as reduce confusion among our residents. Now, under the recycling program, recycling and yard waste are collected on the same day, every other week.





City staff has regular conversations with Rumpke, the city's recycling contractor, to find ways to increase the types of materials that are recyclable in the residential program. In addition, the City will continue to encourage residents to fit more material in the carts by compacting the recyclables. The City will also continue efforts to encourage signing up for collection reminders and will target outreach to specific neighborhoods to increase participation.

The chasing arrows recycling symbol represents "Reduce, Reuse, and Recycle." Even with all of the City's measurements to quantify recycling, we have few viable methods to measure "reduce" and "reuse" activities, although we know people are engaged in all three activities. The more residents reduce and reuse, the more the recycling waste stream shrinks.

NOT ONLY IS RECYCLING GOOD POLICY, BUT THE ACTIVITY ALSO HELPS THE CITY REDUCE ITS GREENHOUSE GAS EMISSIONS.

When products are dumped in the landfill, the energy used to make them is lost. Recycling organic waste also helps the city reduce its impact on the climate by reducing the amount of methane gas released into the atmosphere.



# The City of Columbus is proud to partner with the following organizations who make significant contributions to furthering the sustainability of our city:

Audubon Society of Ohio Central Ohio Rain Garden Initiative Clean Fuels Ohio

**COTA** 

Columbus Audubon

Columbus Green Building Forum

**Columbus Outdoor Pursuits** 

Columbus Zoo and Aquarium

**COSI** 

EarthShare Ohio

Franklin Park Conservatory

Friends of Alum Creek and Tributary

Friends of the Lower Olentangy Watershed (FLOW)

Friends of the Scioto Watershed

**Grange Insurance Audubon Center** 

**Greater Columbus Growing Coalition** 

**Green Energy Ohio** 

**Local Matters** 

The Nature Conservancy

**MetroParks** 

Mid-Ohio Regional Planning Commission (MORPC)

No Child Inside Central Ohio Collaboration

Ohio Chapter Sierra Club

Ohio Department of Natural Resources (ODNR)

**Ohio Environmental Council** 

Ohio Environmental Education Fund

Ohio EPA

Ohio to Erie Trail

Rails to Trails Conservancy

Sierra Club Central Ohio Group

Simply Living

Solid Waste Authority of Central Ohio (SWACO)

Yay Bikes!



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https://www.columbus.gov/utilities/