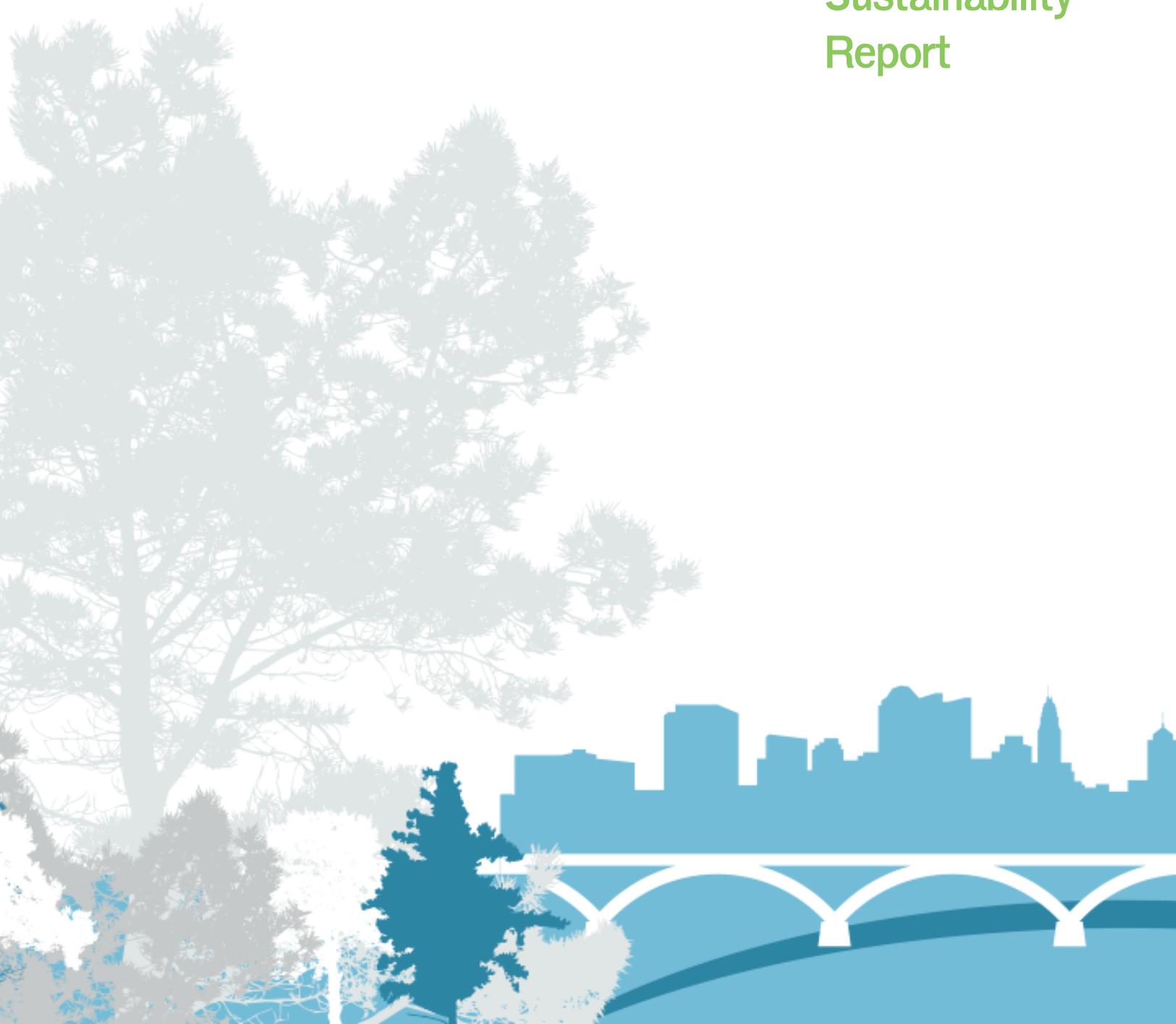




**SUSTAINABLE
COLUMBUS**

2017

**City of Columbus
Annual
Sustainability
Report**





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.

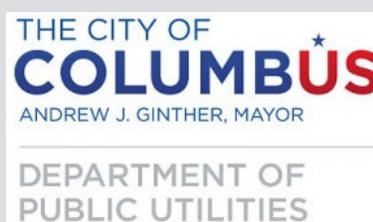


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A MESSAGE FROM THE MAYOR



Dear Neighbors:

Sustainability initiatives are a critical priority for the City of Columbus. They help protect our natural resources, promote innovation and progress, and ensure that Columbus remains a beautiful and vibrant community and America's Opportunity City.

Each year we reflect on our progress, successes, and future goals to ensure our sustainability efforts continue to develop and respond to emerging needs. In 2017, initiatives like Smart Columbus, GreenSpot, Pick It Up!, Blueprint Columbus, and many more, continued to grow and help us achieve our goals of becoming a thoughtful, sustainable community.

The City of Columbus has much to be proud of in the area of protecting the environment.

- RecyColumbus, our curbside recycling program, continues to save city taxpayers money in tipping fees at the landfill while also extending the life of that asset.
- Columbus continues to be a national leader in environmentally-friendly, cost-efficient fleet technologies.
- The City continues to expand its fleet of vehicles that use compressed natural gas (CNG). This technology uses inherently clean burning fuel and helps to reduce the City's dependence on foreign oil. Plus, CNG costs significantly less than both gasoline and diesel. Using CNG has saved the City 45 percent in fuel costs compared to using gas and diesel.

As with most initiatives that create lasting change, it takes many partners to make these successes possible. They advise and help implement various initiatives that make our community greener, and ensure that we develop comprehensive and efficient solutions. There are far too many to name, but this year we would like to issue a special thanks to Columbus City Council, the Solid Waste Authority of Central Ohio, and GreenSpot Advisory Board for their diligent efforts in guiding our progress. This report details the activities and accomplishments of Columbus' sustainability efforts in 2017.

Thank you.

A handwritten signature in blue ink that reads "Andrew J. Ginther".

The Honorable Andrew J. Ginther
Mayor, City of Columbus



EDUCATION AND ENGAGEMENT



COMMUNITY ENGAGEMENT IS CRITICAL TO THE SUCCESS OF COLUMBUS' SUSTAINABILITY PROGRESS. ONE PERSON'S ACTIONS MAY SEEM SMALL BUT, WHEN COMPOUNDED BY TENS OF THOUSANDS OF PEOPLE, THEY CAN HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT. IN 2017, THE CITY'S EFFORTS HAVE INCREASED AWARENESS AND UNDERSTANDING ABOUT HOW WE CAN ALL CONTRIBUTE TO IMPROVING OUR ENVIRONMENT.

Mayor Ginther renewed the city's commitment to the Global Covenant of Mayors. This Covenant is an international alliance of cities and local governments with a shared long-term vision of promoting and supporting voluntary action to combat climate change and move to a low emission, resilient society. The City participated in the OSU Columbus Climate Change Action Plan, which is an adaptation plan for climate change. The plan recommends necessary and aspirational actions that the city should take, and is slated to be finalized in 2018.



GREENSPOT

GreenSpot is the City's signature environmental education tool. The program educates and engages residents, businesses, and community groups on topics of sustainability.

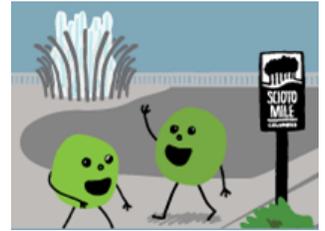
In 2017 the GreenSpot Advisory Board, made up of more than 25 businesses, nonprofits, and citizens, was formed to assist in the growth of the program. Some of their initial work included developing a new homeowner guide and a framework for how start a green group at work.

GreenSpot membership grew from 15,619 to 17,038 over the course of the year, for a total of 2,304 new members in 2017. Additionally, there are 1,239 registered business locations, 15,667 households, and 132 community groups. In March, GreenSpot members were invited to meet Councilmember Brown and celebrate the winners of the GreenSpotLight Awards which included the Ohio History Center, Dawes Arboretum, and CeraNet.



The Corporate Sustainability Initiative provides networking and learning opportunities to businesses going through the process of becoming GreenSpot members. In 2017 seven companies graduated including: Columbus Fair Auto Auction, Hot Chicken Take Over, IGS Energy, Kaufman Development, MAPFRE Stadium/Columbus Crew, Nestle Quality Assurance Center, and Olentangy Paddle.

The GreenSpot Kids website added more activities for educators to teach their students about sustainability. The GreenSpot coordinator gave presentations to more than a dozen classrooms on the topic of sustainability and how students can be good stewards at home.

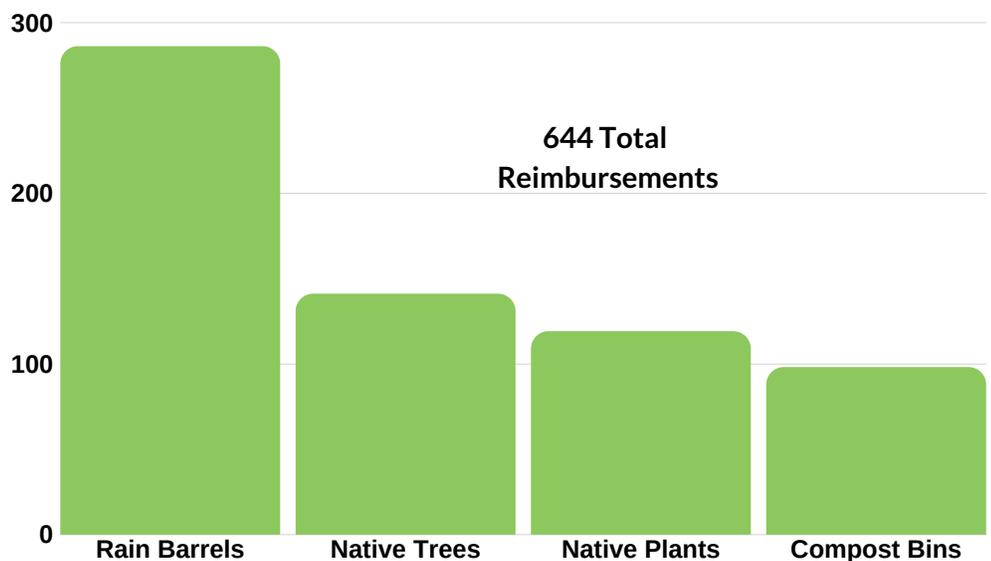


Also, in 2017 Columbus Public Health teamed up with GreenSpot to promote the GreenSpot Schools project, with St. Mary School in German Village becoming the first GreenSpot designated school. Their achievements include a school-wide recycling project, a garden, and a composting project which also teaches students about climate change. The students were integrally involved in the development and implementation of all the projects, and we applaud their hard work and vision in these efforts!

GreenSpot Neighborhoods engage residents and businesses in developing a three-year sustainability plan that includes actions to conserve energy, reduce waste, conserve and protect water, green transportation, and informing and engaging the public. After the first year, the city determines whether to designate the neighborhood as a GreenSpot Neighborhood based on progress towards commitments. GreenSpot welcomed German Village as the newest neighborhood to join in 2017.



The GreenSpot Community Backyards program, a service of the Department of Public Utilities administered with the help of Franklin Soil and Water Conservation District, provided \$50 rebates on rain barrels, compost bins, and native plants and up to \$100 on a native tree to GreenSpot members. To acquire the rebate, participants first must learn about the impacts of stormwater and ways to prevent polluted runoff. The program engaged 1,364 households in 2017 and distributed 664 reimbursements.





KEEP COLUMBUS BEAUTIFUL

Keep Columbus Beautiful (KCB) is 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 environmental issues including litter, recycling, and beautification by coordinating litter clean-ups 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.

A total of 487 clean-up and beautification projects were conducted by 11,167 Keep Columbus Beautiful volunteers who gave 29,464 hours of their time keeping Columbus streets and neighborhoods clean and beautiful.

- These volunteers collected 341,989 pounds of debris from neighborhood areas.
- The total monetary value of volunteer hours was \$702,409.64.
- 10,769 bags of trash were removed from city parks by 338 volunteers who gave 1,014 hours of their time.
- 45 litter clean-ups were completed by 303 individuals assigned to fulfill community service hours, resulting in 2,408 service hours performed and over 19.1 tons of debris collected, including 64 yards of yard waste, and 222 tires.

The Environmental Crimes Task Force also investigated 1,998 calls reporting illegal dumping or littering in Columbus. To learn more about the work of the Environmental Crimes Task Force visit www.swaco.org, and report littering or illegal dumping online at www.itsacrime.org.

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 2017, 18,000 PUP bags were distributed at city parks and 373 new individuals made the pledge to "doo" the right thing, bringing the total to 5,361.



The Department of Public Utilities also worked to protect our waterways through the Get Grassy! campaign, which promotes sustainable landscaping practices. Administered by the Franklin Soil & Water Conservation District, Get Grassy! educates residents about the effects of lawn care practices on water quality. In 2017 the program received 176 new pledges from homeowners committed to reducing private property runoff through their normal, everyday lawn care activities.

ENVIRONMENTAL EDUCATION

The Department of Public Utilities sent bill inserts to 300,000 households quarterly 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.

Customer service representatives in DPU's Division of Water also assist and educate customers about how to detect and fix water leaks and provide water conservation kits to residents, further promoting strategies to help individuals do their part to protect our water resources.

Columbus Recreation and Parks Department's (CRPD) Net-Zero Wyandot Lodge operates as a teaching tool and provides programming space, including an audio and visual room as well as a hand-on science lab. Beyond the walls of the buildings, participants learn about outdoor activities such as archery, rock climbing, canoeing, gardening, and native wildlife. The program also partners with the 29 CRPD community centers to provide outdoor experiences for Columbus youth throughout the city. In, 2017, the newly-opened McKnight Outdoor Education Center hosted 7,063 individuals and connected with 165 volunteers for a total of 7,126 hours of service.



MCKNIGHT OUTDOOR EDUCATION CENTER



2017 EVENTS

Through critical partnerships with various community organizations, Columbus was able to host a variety of events that helped connect citizens with sustainable education and resources:

Earth Day 2017, brought together by a large scale volunteer effort, was a successful celebration of our planet at the Columbus Commons Park. This was the largest Earth Day service event in the country, as verified by the Earth Day Network. The City of Columbus was a proud sponsor of the events coordinated by the non-profit organization, Green Columbus. More than 4,000 volunteers came out to 147 service sites, contributing more than 14,000 hours of citizen green service to improve the Central Ohio community:



- 12,800+ trees were planted or given away
- 1,593 trash bags of litter were collected
- 48 miles of roads and trails were cleaned
- 300 acres of parkland were cleaned
- 36 community gardens were prepared.



The Earth Day Challenge Cup was used in marketing volunteer opportunities, which successfully encouraged many school and corporate groups to come out this year. The winners of this year's Challenge Cup were Colonial Hills Elementary, Jeni's Splendid Ice Creams, and Friends of the Lower Olentangy Watershed.

The Department of Public Utilities once again partnered with local environmental professionals to engage with 630 local fifth grade students at the 2017 Central Ohio Children's Water Festival. The festival uses fun-filled, hands on activities to educate students on the importance of conserving and protecting this vital resource.

Franklin County saw six air quality alerts for ozone pollution and zero for particulate matter (PM2.5). A lawnmower exchange program, a partnership with Public Health and Lowes, continued to give out discounts on 70 zero-emission mowers to qualified buyers.



Neighborhood Pride is an annual series of events throughout the city, celebrating our unique neighborhoods and collaborating on improvements. Four neighborhoods are selected each year to receive a weeklong effort of intensive programs and services from City of Columbus staff. The neighborhoods selected in 2017 were Schumacher Place, Strawberry Farms, Beechwood/Pinecrest, and Georgian Heights. Roads are swept, storm sewers are cleaned, code violations are addressed, and the Mayor visits the community to answer questions and have fun with residents at a variety of events, such as bike rides and a Question & Answer night.



The Green Purge event, always a popular resource for the community, was coordinated by the City of Columbus, SWACO, Furniture Bank of Central Ohio, Goodwill Columbus, and the Ohio History Center. During this event residents dropped off 27,043 pounds of household hazardous waste; 21,500 pounds of home goods, e-waste, and cardboard; and 134 pieces of furniture.

Columbus Public Health hosted 3 farmer's markets throughout July and August. The Market hosted 14 farmers and over 5,230 visitors. A total of 3,912 WIC produce coupons were issued, 215 customers used their Ohio Directions Card to shop for fresh produce and \$2,088 in Produce Perks (SNAP Match incentive) were distributed.



COLUMBUS CITY COUNCIL

In 2017, Council took action to support our natural resources and pollinator communities, increase tree canopy, and encourage the purchase of sustainable goods and services. Some of Council's accomplishments in 2017 include:

- Under the leadership of Councilmember Elizabeth Brown, milkweed was struck from the noxious weed list. A public hearing on the benefits of milkweed with partner organizations was held, and free milkweed plants were distributed.
- Councilmember Brown emceed the GreenSpotLight Awards Celebration, which celebrated the accomplishments of businesses and local communities for their commitments to green practices.
- Council provided \$11,000 in funding for tree plantings during Earth Month.
- City Council adopted preferred purchasing legislation, which recognizes the sustainability efforts of our vendors.
- City Council passed a resolution, with Mayor Ginther's support, to join MORPC's Sustainable 2050, which benchmarks our sustainability efforts and tracks our progress in achieving our sustainability goals. These goals address areas of natural protection, energy consumption, economic opportunity, sustainable neighborhoods, and collaboration.

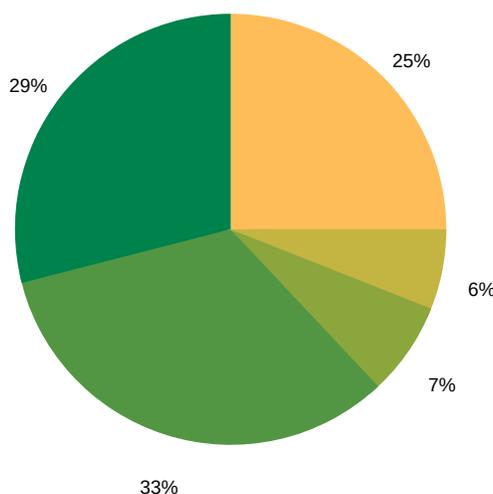




WHERE ENERGY COMES FROM, MATTERS. FOSSIL FUELS, LIKE COAL AND OIL, CONTRIBUTE TO CLIMATE CHANGE AND NEGATIVELY IMPACT COMMUNITIES. CLEANER ENERGY, LIKE WIND, SOLAR, HYDRO, NATURAL GAS AND ENERGY EFFICIENCIES CAN IMPROVE OUR CLIMATE, HEALTH, AND ECONOMY. IN 2017, THE CITY IMPLEMENTED SEVERAL EFFORTS TO MOVE TOWARDS CLEAN ENERGY INITIATIVES THAT PROVIDE MULTIPLE BENEFITS TO OUR COMMUNITY. ENERGY EFFICIENCY IS A QUICK AND EASY WAY TO SAVE MONEY AND GO GREEN. THE CITY USED THE FOLLOWING TARGETED STRATEGIES TO REDUCE ENERGY COSTS AND CONSUMPTION IN OUR OPERATIONS.

BUILDINGS AND FACILITIES

- Buildings & Facilities
- Street Lights & Traffic Signals
- Vehicle Fleet
- Solid Waste Facilities
- Water & Wastewater Treatment Facilities



- A booster station enhancement project replaced an asphalt shingle roof with a metal one for a 10-25% energy savings for our public utility operations.
- A new reflective roof at the Dublin Road Water Plant minimizes the heat island effect and saves on cooling costs.
- In 2017, the new Wyandot Lodge was constructed as the first Net Zero public building in Ohio. The Wyandot Lodge was designed to capture as much energy as occupants use over the course of one year through solar energy, geothermal, and building efficiency.
- The John Nance Fire Station No. 2 obtained a Leadership in Energy & Environment Design (LEED). Estimated savings include 40% reduction of water consumption and 26% in energy costs. This makes it the third most environmentally friendly station.
- The city's McKnight Outdoor Education Center generated 11,000 kWh from their solar panels.

STREET LIGHTS AND TRAFFIC SIGNALS

672 LED street lights were installed in 2017, resulting in 64,104 less watts of power than the old High Pressure Sodium (HPS) High Intensity Discharge (HID) street lighting. Emissions resulting from streetlight and traffic signal operations have decreased for the second year in a row (-6% from 2015 to 2016, and -26% from 2016 to 2017). LED retrofit programs are responsible for a portion of this decrease, and as we continue implementation of these programs we expect similar to see similar trends in the subsequent years.



VEHICLE FLEET

City fleet operations have experienced a reduction in emissions over the last two years – 10% reduction from 2015 to 2016, and a 4% reduction from 2016 to 2017. See the Transportation section for further details.

SOLID WASTE, WATER AND WASTE WATER FACILITIES

Solid waste facilities have shown an increase in emissions of 6% from 2015 to 2016, and 2% from 2016 to 2017. This increase is likely due to an increase in population, operation size, and services. In collaboration with SWACO, the City of Columbus is working to strategically plan for how to divert food waste and other organic waste materials to reduce emissions in the future.

Although 2016 data was not finalized, a linear trend between 2015 and 2017 would also show a 13% increase in emissions from our water and wastewater treatment facilities in 2016, and an 11% increase in emissions from 2016 to 2017. As treatment requirements change and our population grows, so does the intensity of our energy usage. In order to address this, the city has planned several capital improvement projects for the near future, including Co-Generation at the two wastewater treatment plants.



RENEWABLE ENERGY COMMITMENTS

The average number of sunny hours in Columbus is 2,183 hours per year, and solar continues to grow in Columbus. There are a total of 307 buildings (residential and commercial) that have been issued electric permit(s) for the installation of solar since 2008, and 182 are AEP Ohio customers that have a combined solar capacity of 4,435 kW as of December 2017, resulting in less reliance on fossil fuels and grid congestion.

The Columbus Division of Power directly purchased about 12,000,000 kwh of power from green resources in addition to the EcoSmart Choice program offsets. This power is generated from two primary sources: Central Ohio BioEnergy and the New York Power Authority. Central Ohio BioEnergy is a bio-waste facility that diverts 25,000 wet tons of bio-solids from incineration and additional 35,000 wet tons of organic waste from landfills each year from regional biomass sources. The New York Power Authority operates three large hydroelectric complexes, four small hydroelectric complexes and seven small, clean power plants fueled by natural gas.



GREEN BUILDINGS

Green Buildings and neighborhoods improve our quality of life while reducing costs. Columbus continues to grow its green buildings stock as the region grows.

Green Columbus Fund program continued to encourage sustainable development. In 2017, it awarded 1 reimbursement grant to projects doing brownfield environmental site assessments and in some cases expenses associated with LEED certification. The grant total awarded for the project was \$42,997.50.

The City of Columbus achieved LEED certification for the following facilities: Coleman Center 111 North Front Building, Fire Stations #2 and #3, McKinley Complex, Hap Cremean Water Plant Ozone Generation Building, and the McKnight Outdoor Education Center.



RESIDENTS THAT HAVE TAKEN ADVANTAGE OF THESE PROGRAMS ARE ONE REASON WHY THE COMMUNITY-WIDE GREENHOUSE GAS EMISSIONS WERE REDUCED BY 839,231 METRIC TONS.



EcoSmart Choice is offered by the Columbus Division of Power through American Municipal Power (AMP). AMP's program allows our customers to purchase Renewable Energy Certificates (RECs) for up to 100% of their electricity usage.

The cost is \$0.005 per kilowatt hour (kwh). All 169 city facilities served by Columbus Division of Power have been enrolled in the program since its adoption in 2016. In 2017, through increased marketing, the number of participants doubled to 340, offsetting nearly 34,000,000 kwh in energy consumption, which is equivalent to 2,906 households.

Columbia Gas of Ohio's Demand Side Management Programs have been widely embraced by Columbus residents. In 2017, there were 50,243 customers that took advantage of these energy efficiency programs. Since program inception in 1987, there have been 339,069 customers served in Columbus. The estimated lifetime energy savings as a result is 2,354,030 thousand cubic feet (MCF) from measures installed in 2017, and 17,259,972 MCF for measures installed since program inception.

REDUCE, REUSE, RECYCLE



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.

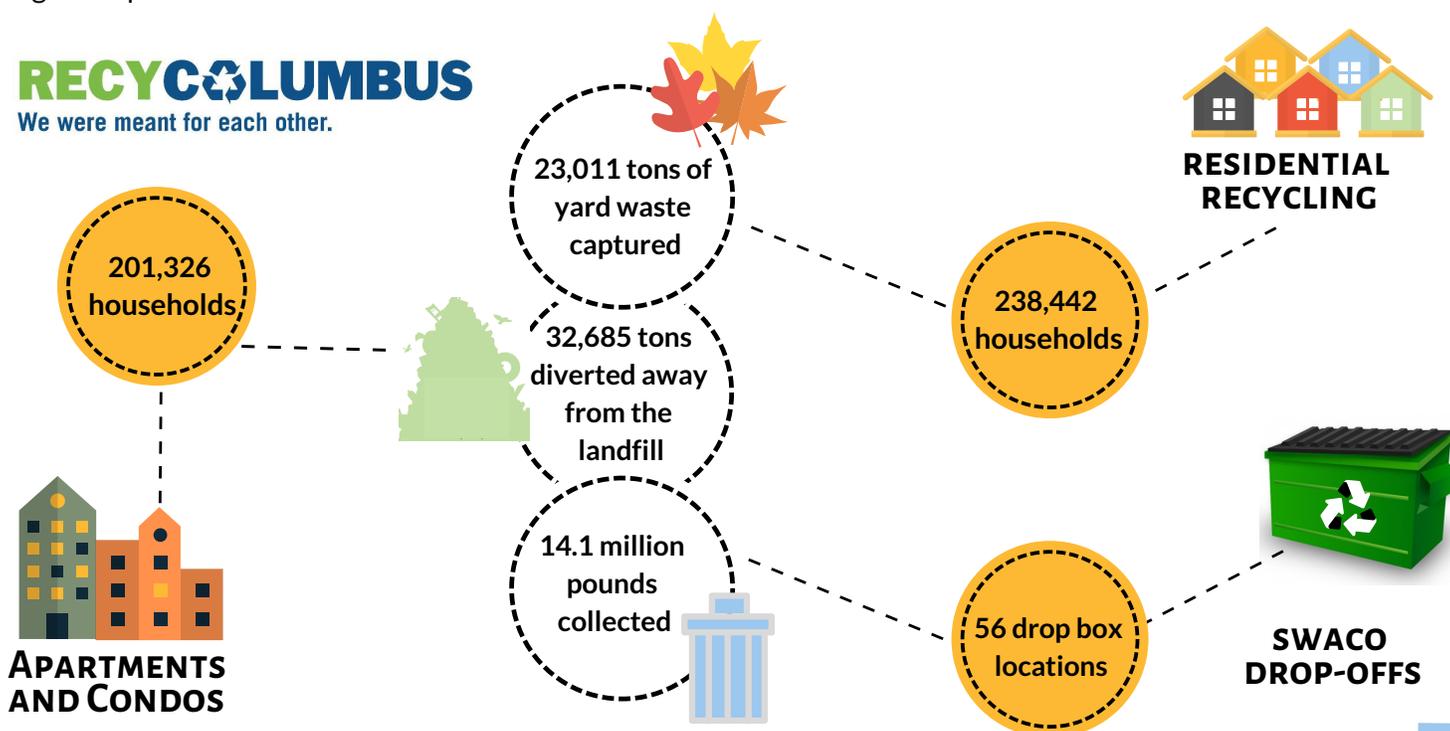


RecyColumbus, a popular program, included 201,326 households located in apartment and condominium communities. Additionally, the program was modified for ease of use and operational efficiency to collect recycling and yard waste on the same day, every other week. The program captured 32,685.64 tons of material that previously would have been taken to the county landfill, and more than 23,011.27 tons of yard waste. The RecyColumbus program is further supplemented by SWACO's Drop Box program consisting of 56 locations where over 14,176,000 pounds of material were collected.

The City's residential recycling program had a participation rate of 75 percent. To date, more than 238,442 households have used the service, with over 42,000 signed up to receive phone, email, Twitter, or calendar reminders for pick-up. Through the Waste Wizard, more than 43,564 items were searched. Additionally, through the Recollect collection reminder service, there were more than 233,000 addresses searched, over 16,000 calendars downloaded, and 69,611 households signed up for active reminders.

RECYCOLUMBUS

We were meant for each other.



ADDITIONAL WASTE REDUCTION AND RECYCLING EFFORTS IN COLUMBUS INCLUDE:



- ✓ The City Employee Office Recycling Program collected a total of 740 .81 tons of mixed recyclable material and shredded paper.
- ✓ Biosolids, or the product of the waste water treatment process, were beneficially reused (instead of incinerated) at the highest rate (100%) recorded to date. Beneficial reuse methods include the city's compost operation (ComTil) which composted 123,009.34 tons of biosolids.
- ✓ Public Health diverted 78 pounds of waste from the landfill and collected 148 pounds of pharmaceutical material for proper disposal.
- ✓ Department of Public Utilities offered paperless billing in September 2017, with initial enrollment of 23,000--even stronger than expected. The portal is ideal for those who prefer online paperless billing, the ability to enroll in autopay, and easier access to their consumption records, among other features.



- ✓ The Glass Act program encourages bars and restaurants along High St, Park St, and 4th St to recycle their glass and other materials. To date, there are 43 bars participating in the program and have recycled 1,000 tons of glass since the program began in 2014.
- ✓ The City is supporting Columbus City Schools (CCS) on implementation of a 2017 USDA Farm to School grant. CCS will purchase and install a fresh apple processing line (core and slice) in the Districts' Foodservice Production Facility. They found that apple waste decreased by more than 60% when elementary students were offered slices apples instead of whole apples. The processing line will reduce waste and the waste that is generated can be captured in one location for composting. The processing line has the capacity to slice other produce such as cucumbers, carrots and squash. In a similar vein, the City is considering supporting the Keep America Beautiful campaign (still in development) which will advocate for a manufacturer responsibility, cradle-to-grave, for waste generated by its product.

RESOURCE PROTECTION AND CONSERVATION



PARKS, WATERWAYS, AND OTHER NATURAL AREAS REDUCE STRESS, PROVIDE HABITAT FOR THOUSANDS OF SPECIES, AND CONTRIBUTE TO A THRIVING CITY. COLUMBUS CONTINUES TO DEVELOP AND PRESERVE THESE ASSETS, AND IMPLEMENT PROTECTIVE MEASURES TO REDUCE OUR FOOTPRINT.

PARK LAND AND GREEN SPACES

- Columbus park land area grew with the addition of 133 acres to the Columbus Recreation and Parks Department inventory and 16 conservation easements in 2017.
- Nearly 200 non-street trees were planted and 500 native trees were given out at the Branch Out tree giveaway, sponsored by Kurtz Brothers and SWACO.
- An additional 300 tree saplings were handed out by Public Health to Columbus residents.

TRAILS AND WATERWAYS



8

ACCESS POINTS TO THE OLENTANGY RIVER WATER TRAIL (WITH KING AVE. ADDITION)

3.74

ACRES OF WETLANDS CONSTRUCTED, RESTORED OR SAVED IN SHARON MEADOWS PARK, ALTON RD. PARKLAND AND WILSON RD. PARKLAND

24

PARK SITES COMMITTED TO DELAYED MOWING TO PROMOTE WILDLIFE HABITAT

140

ACRES OF INVASIVE SPECIES WERE REMOVED

2

ACRES OF POLLINATOR GARDENS PLANTED IN ANTRIM PARK, COLERAIN ST. ISLAND, AND BUSCH BLVD.

25,175

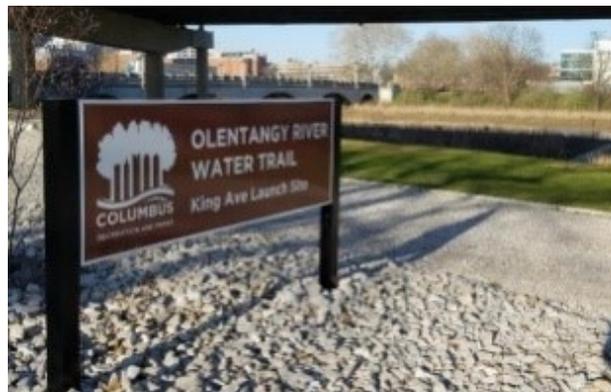
25,175 FEET OF STREAM WAS RESTORED IN 2016 AND 2017

30

ENDANGERED WILDFLOWERS PLANTED ON COLUMBUS' THREE RESERVOIRS BY DPU'S WATERSHED OFFICE

1,113

NATIVE PLANTS PLANTED THROUGHOUT THE CITY AS PART OF THE COLUMBUS ECOLOGICAL RESTORATION PROGRAM



BLUEPRINT COLUMBUS

BLUEPRINT COLUMBUS

Clean streams.
Strong neighborhoods.

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.

2017 BLUEPRINT PROJECT MILESTONES

86

**RAIN GARDENS
INSTALLED**



31,193

**SQUARE FEET OF
PERVIOUS PAVEMENT
INSTALLED**



922

**HOMES SIGNED UP FOR
THE VOLUNTARY SUMP
PUMP PROGRAM**



PROTECTION EFFORTS

The Olentangy-Scioto-Interceptor-Sewer Augmentation Relief Sewer, known as OARS, opened and can prevent nearly 2 billion gallons of combined sewer overflows each year.

Citywide, the Department of Public Utilities treated 48.6 billion gallons of water, down from 49.5 billion gallons in 2016. The average per capita gallons per day is 111, down from 115 in 2016.

DPU received recertification of its Environmental Management System (EMS) to the environmental standards established by the Organization of International Standards (ISO 14001:2015). The City of Columbus is one of very few public utilities in the country known to have a fully operational ISO certified EMS.

TRANSPORTATION



MASS TRANSIT, MOBILE OPTIONS, AND INFRASTRUCTURE CAN REDUCE AIR POLLUTION FROM THE TRANSPORTATION SECTOR AND INCREASE MONEY IN THE POCKET BOOK. COLUMBUS HAS MANY OPTIONS TO GETTING AROUND TOWN, AND THEY ARE ONLY GROWING.



SMART COLUMBUS

Smart Columbus is working to increase central Ohio electric vehicle sales by 486% and reduce single occupant vehicle commutes to large workplaces by 10% by 2020. Smart Columbus unveiled Central Ohio's first deployment of mobile solar technologies implemented in partnership with DC Solar Freedom at ODU. Twenty-four solar energy products, together valued at more than \$3.6 million, were deployed to help improve campus safety and mobility.

Smart Columbus launched the 'Smart Columbus Ride and Drive Roadshow,' a touring educational event that will give Columbus residents the opportunity to get behind the wheel of available electric vehicles and explore alternative commuting options. More than 800 electric vehicle test drives have been conducted at events held by AEP, Battelle, the City of Columbus, the Columbus Idea Foundry, Columbus State, Grange, Huntington, IGS Energy, State Auto and White Castle.

CITY VEHICLES

In December, Columbus City Council approved the procurement of 93 electric vehicles and plug-in hybrid vehicles, which will be incorporated in to the City of Columbus' fleet, serving the divisions of Code Enforcement, Fire, Fleet, Development and Facilities Management. As part of the Smart Columbus initiative, Fleet secured a contract for 93 electric vehicles—72 Nissan Leafs, 20 Fusion Energi, and 1 Chevy Bolt. Fleet also added 33 CNG vehicles, bringing their CNG total to 220.



The use of CNG saved Columbus approximately \$227,800 compared to diesel fuel in 2017. Columbus' two CNG fueling stations pumped over 760,200 gasoline gallon equivalents (GGEs), with approximately 40% going to public retail customers. The alternative fuel tax credit of \$.50/GGE will generate over \$380,100 for Columbus from the sale of CNG in 2017, making their combined CNG fuel savings almost \$608,000 over diesel for the year. Construction began on the west side fueling station during 2017.

City of Columbus Fleet Management Initiatives Alternative fuel vehicles and other strategies to reduce the impact of the city's fleet on the environment have been thoroughly outlined in the Green Fleet Action Plan. In 2017, the city purchased 144 light duty vehicles, 69% of which are 'green' and 50 heavy duty vehicles (excluding safety) were purchased, of which 92% are 'green'. Overall petroleum fuel use declined by 7,640 gallons. The City currently owns a total of 1,439 vehicles/equipment that are "green," meaning they are either CNG, electric, hybrid, flex fuel, or propane powered.

IDLE REDUCTION

Anti-idling technology has also helped drive down petroleum consumption. Columbus has installed anti-idling technology, known as GRIP units, on approximately 250 new police cruisers since 2015. These devices allow the cruisers to reduce idling, thereby significantly reducing fuel consumption. The technology stops and restarts a cruiser automatically without affecting the on-board power needs that are essential to operate computers and radio communications. The cumulative effects include a life-to-date reduction in idle time of approximately 33%, or 346,050 hours, which equates to saving approximately 11,419,719 miles on the cruisers, avoiding wear and tear on the engines.



THE GRIP SYSTEM HAS SAVED AN ESTIMATED 152,262 GALLONS OF FUEL AND REDUCED CARBON EMISSIONS BY 1,355 METRIC TONS SINCE BEING INSTALLED IN 2015 – THE EQUIVALENT OF REMOVING 250 PASSENGER VEHICLES FROM THE ROAD.



WALKING INFRASTRUCTURE

Designated as a Silver level Walk Friendly Community (the first in Ohio!), Columbus is committed to expanding infrastructure that makes walking a safe and viable option for residents, and the Columbus Public Health's Healthy Places Program continues to work with the built environment to provide opportunity for increased walking and physical activity. The program does this through review of re-zoning requests and produces walking and biking maps, which identify safe and enjoyable walking routes in selected neighborhoods. Four maps were created and 69% of re-zoning requests were submitted with Healthy Places recommendations implemented.



Columbus Public Health's Healthy Places works with many initiatives connected to the built environment. In 2017, 4,070 Columbus City Schools students were reached through Safe Routes to School biking and walking programs; 2,009 people attended a Walk With A Doc walking club event; and 1,258 people attended a Columbus Art Walks & Landmark Talks event.





Part of more than 300 miles of bikeways in Columbus and surrounding communities

BICYCLES

Bicycling remained a major focus of work in city departments as evidenced by a variety of exciting improvements to infrastructure and ongoing programming. The Recreation and Parks Department Central Ohio Greenway trails are a favorite amenity for Columbus residents and visitors. The Trail Miles Traveled (TMT) along the Olentangy Trail reach 2,805,601. TMT is a measure of overall trail and system usage; helping to answer the question of how much activity is occurring along the system throughout the year. This trail network spans beyond the city's borders and into neighboring communities offering over 300 miles of trails combined to enjoy connecting many destinations including the Scioto Mile, The Ohio State University, parks and more. In 2017, 3.6 miles of bike lane were added, 2.9 miles of shared use path, and 27 bike racks installed.



Organized rides are a way of introducing bicycling to new groups of people and encouraging others to continue riding. Beginning with Bike to Work Day, nearly 147 people joined 11 group rides into downtown, each ending at Columbus Commons for breakfast and festivities. Other group rides included Bike the C-Bus organized by Yay! Bikes and Pelotonia, and five Engineer Bike Rides, examining bike facilities in various stages including planning/design, construction, and completion. In 2017, Columbus renewed our designation as a Bronze-level Bike Friendly Community and recruited four new LAB-designated Bike Friendly Businesses, bringing total to 12.

Yay Bikes! organized the 11th Ride of Silence which honors those injured or killed while cycling. This year's event saw an attendance of 263, with speakers from Columbus City Council, Public Safety, and those who lost loved ones killed while riding.



COGO BIKESHARE

Since its launch in 2013, CoGo Bike Share, was launched in July 2013. It has grown to 46 stations and 365 bikes. The program enables users to visit any station to borrow a bike, ride for any amount of time and return the bike at any of the stations. At the end of 2017, 217,957 trips were taken, 2,805 annual subscriptions created, 52,405 casual passes created, 581,688 miles rode, 395,000 pounds of carbon saved, and over 25 million calories burned.

COLUMBUS POLICE

The Columbus Police Department used 148 bikes in 2017. They obtained 25 bikes from Cleveland Police Department after the Republican National Convention and purchased 41 Volcanic bikes. These bikes will be replacing some of our very old and aging bikes.

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!



SUSTAINABLE COLUMBUS[★]

ANDREW J. GINTHER, MAYOR

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