



A MESSAGE from our Mayor

Dear Friends:

The past year was one of major significance to the city as residents received a comprehensive recycling program, as promised, during our celebrated bicentennial year. With this new program, residents diverted over 49,000 tons of material including recyclables and yard waste from the landfill, saving \$2,737,000 in dumping fees. I applaud residents for making a minor lifestyle change, to use a recycling bin instead of a trash bin, in order to make a significant difference to our environment.



This same commitment to recycling will need to continue in 2013 as we set out to achieve an ambitious goal of increasing diversion to 70,000 tons of material. Additionally, public space recycling will be installed along High Street and recycling protocol for special events will be detailed to further make recycling the norm of our daily routines rather than the exception.

Each year, I make sure to thank the city employees, community volunteers, businesses, GreenSpot members, and program funders who step up to make Get Green Columbus a success. This year, our successful recycling rate reminds me that I need to thank all of the residents who started or continued recycling in 2012. Whether they know it or not, each has set a positive example and demonstrated that in Columbus we do not take our natural resources for granted. As always, I especially want to express my gratitude to the members of my Green Team for their ongoing guidance as well as to the Solid Waste Authority of Central Ohio for its support of the Mayor's Office of Environmental Stewardship.

Sincerely,

Michael B. Coleman

Mayor

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Education & Engagement

a. <u>GreenSpot</u> is the primary program used by the City of Columbus to educate and engage residents, businesses and community groups on topics of sustainability. The voluntary pledge program continues to grow and evolve since its inception in 2008. In 2012 the program grew from 3578 members to 5206. Annually, members are invited to meet Mayor Coleman and celebrate the winners of the <u>GreenSpotLight Award</u> which included Pepsi-Cola Bottling Company of Columbus, e-Cycle and Virtue Salon.

The <u>GreenSpot Kids</u> program has been provided to 65 classrooms within 44 different schools. The program received recognition from the American Advertising Federation in Columbus during the annual ADDY awards in the gold category for public service, Integrated Campaign and silver category for public service, digital and non-traditional. The Corporate Sustainability Initiative took 12 of the programs newest members through a step-by-step series of forums to introduce them to environmental concepts and to network and share ideas with one another.

- **b.** Litter clean-ups and beautification projects are primarily led by Keep Columbus Beautiful. The program is a division of the City of Columbus Department of Public Service offering residents resources and opportunities to improve their neighborhoods through litter clean ups and other efforts.
 - i. Keep Columbus Beautiful annually hosts the event, **Kick Butt Columbus**, targeting cigarette litter that has been discarded on area streets. In 2012 this effort brought together 504 volunteers, who together collected 4.47 tons of litter. G&J Pepsi-Cola Bottlers collected over 2,800 cigarette butts at the event earning them the Golden Ashtray Award.
 - ii. Regular clean-up activities were conducted by 140 groups who have pledged to Adopt-An-Area.
 - iii. 17 litter clean-ups were completed as service hours for convicted polluters. 11.4 tons collected during these events. Learn more about the work of the Environmental Crimes Task Force by reading the 2012 Report.
 - iv. National Planting Day was celebrated with the help of Keep Columbus Beautiful on September 8. Volunteers planted 126 pots along Parsons Avenue with species native to Ohio.
 - v. The Department of Public Utilities recruited an additional 226 volunteers to collect 16 cubic yards of litter from Hoover and Griggs Reservoirs.
- **c.** <u>GreenWalks</u>, a spin-off of the popular ArtWalks program developed by Columbus Public Health, was released in 2012. GreenWalks provides maps and audio interpretation of two separate designed walking routes at Whetstone Park. Audio interpretation can be accessed via cell phone and describes significant environmental features at the park including the Olentangy River, native trees, plants and more. Paper maps are available at the Whetstone Library and the Whetstone Recreation Center.
- **d.** Mayor Coleman's Green Team is a group of 35 residents, environmental enthusiasts and subject matter experts who donate their time to advise the Mayor and the Office of Environmental Stewardship on sustainability efforts and educate the public about Get

- Green Columbus. The group is further divided into working groups that focus on areas of interest including: Transportation, Education & Engagement, Energy, Growth & Development, Green Building and Green Business. A new group will be added in 2013 focusing on Greenspace. Staff known as "Green Coordinators" representing each city department further supports the Mayor's Green Team.
- e. An Environmental Management System continues to be used and further developed by the Department of Public Utilities to build staff awareness of city and department environmental policies as it relates to their job function. Through this training and intensive planning effort, staff are well informed about how their job may impact the environment, what actions can be done to lessen those impacts and how to respond to an environmental emergency.

f. Events

- i. Earth Day 2012: Root Down once again brought together a large scale volunteer effort and a celebration of our planet at the new Columbus Commons park downtown. The City of Columbus was a proud sponsor of the events coordinated by the non-profit organization, Green Columbus, that attracted 2,200 volunteers donating a combined 7,200 hours of time planting trees, cleaning litter, removing invasive plants and more. The event is rumored to be the largest of its kind in the Universe.
- ii. The EcoSummit arrived in Columbus on September 30 along with over 1300 delegates from 76 countries around the world. Attendees of the professional conference not only expanded their knowledge of issues of significance impacting the ecology of the planet, but they were also introduced to our city. The City of Columbus was a proud sponsor of the event coordinated by the Mid-Ohio Regional Planning Commission and The Ohio State University.
- **Indian Village Outdoor Education Center**, operated by the Recreation and Parks Department, hosted 3748 visitors in 2012. This facility, located along the banks of the Scioto River, offers a natural environment for students to explore and learn.
- iv. Classroom presentations were given by <u>Keep Columbus Beautiful</u> 154 times in 2012 reaching over 7500 children and adults.
- v. Central Ohio Children's Water Festival brought 670 fifth-grade students and teachers together with environmental professionals from local organizations for a day of fun and learning. The Department of Public Utilities was, once again, a partner in this initiative striving to promote environmental awareness about our valuable water resources in celebration of National Drinking Water Week.
- vi. Neighborhood Pride is an annual series of events. Four neighborhoods are selected each year to receive a weeklong of intensive programs and services from City of Columbus staff. 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 including bike rides and a Question & Answer night.

g. Informational materials

- i. <u>Interpretive signage</u> was installed at each of the city's reservoirs and the utilities complex to describe the benefits of green infrastructure which remove pollutants from stormwater before it enters our streams and drinking water supply. Signs are positioned alongside projects such as rain gardens that feature native plants.
- **ii. Utility Bill Inserts** were sent to over 300,000 households twice throughout the year helping to inform residents of important environmental topics in Columbus.
- **Take A Look**, a <u>brochure</u> and accompanying <u>video</u> highlighting the most significant environmental features of Columbus, was produced in 2012. These materials were first displayed at EcoSummit, but will continue to be used to promote Columbus as a green city locally, nationally and internationally into the future.

I. Energy

a. Energy Efficiency is a top concern of city departments and projects to upgrade lighting at city facilities is ongoing. For example, in 2012, the Department of Public Utilities saved 94,593 kWh / year by replacing fixtures with T-8 lamps and efficient LED lighting. The Department of Public Service continued replacing incandescent intersection signals with more efficient LED options; 182 were replaced in 2012 saving 184,000 kwH / year. Additionally, four city buildings have been enrolled in a Demand Response Program, agreeing to reduce electric usage during peak times to reduce the need for additional power generation facilities.

The city also helped its Power customers become more efficient at home by providing energy audits and repair to qualifying households through a partnership with the Mid-Ohio Regional Planning Commission.

Through the AMP-Ohio Efficiency\$mart program, the city has helped municipal electric customers reach a lifetime savings of 32,855,000 kwH through this rebate program.

A variety of multi-year efficiency projects funded through the Department of Energy, Energy Efficiency Conservation Block Grant were completed in 2012 including:

- 26 fire stations received lighting retrofits saving 919,800 kWh / year
- Central Safety Building received an upgraded chiller, cooling tower, boiler, pump and weatherization improvements which should save approximately 700,000 kWh / year.
- Center of Science and Industry received upgrades to the air handler to improve efficiency.

b. Renewable Energy

- i. Hydroelectric power in the amount of 1,300,000 kWh was generated at O'Shaughnessy Dam in 2012.
- ii. Quasar Biodigester generated 3,213,000 kWh of electricity using biosolids, among other waste products, from the city's waste water treatment plants. This project was awarded the Solid Waste Innovator of the Year Award from the Solid Waste Authority of North America, Buckeye Chapter. The city purchased 611,000 kWh from the Quasar biodigester for use by the city's Power customers.
- iii. Solar preparations continued through 2012 to see the installation of an array on the roof of the city's Fleet Management building as part of a Power Purchase Agreement in cooperation with Tipping Point Renewable Energy. The system is expected to be functional by summer 2013 and generate 812,862 kWh / year serving up to two-thirds the power needs of the building.

The existing array located at Bicentennial Park generated 57,721 kWh of electricity in 2012.

- 1024 smart parking meters operated with solar power were installed by the Department of Public Service in 2012, a continuation of an ongoing initiative.
- **iv. Wind** power regulations were reviewed and a <u>fact sheet</u> was produced by the Mayor's Green Team to help inform those interested in installing turbines on their property within the City of Columbus.

II. Green Buildings

- **a.** Green Columbus Fund continued to provide reimbursable grant funding to encourage sustainable development and redevelopment. Private businesses and non-profit organizations can apply for grants to either redevelop polluted brownfield sites or to build green facilities to accredited LEED standards. During 2012 the city awarded \$347,000 in Green Columbus Funds of which \$204,250 went to brownfield redevelopment projects and \$142,750 went to green buildings.
- **b.** The Neighborhood Stabilization Program of the Department of Development completed 177 housing units using <u>AWARE standards</u> that maximize efficiency, health and sustainability. Due to the AWARE standards, these homes are, on average, 1.5 times more energy efficient than a standard new home built in America.
- c. <u>LEED</u> buildings or Leadership in Energy and Environmental Design is a certification program used to limit the impact of buildings on the environment. An additional seven buildings were certified in 2012 bringing the city's total count of public and private LEED buildings up to 108. The City of Columbus is currently in a series of planning stages to achieve LEED accreditation for the following city owned facilities: the former Central Police Headquarters, Morse Road Eco Center, John R. Maloney Health and Wellness Center, Fire Station #2 and #3 (in design).

d. ME3 or Materials, Economy, Energy, Environment is a program that offers Ohiobased manufacturing companies a unique opportunity to receive professional assistance aimed at simultaneously reducing operating costs, improving productivity and lowering their environmental footprint. ME3 represents a merger of two successful programs, the Ohio By-product Synergy Network and E3. The Mid-Ohio Regional Planning Commission administers ME3 with partners including The City of Columbus, The Ohio State University, the University of Dayton, AEP Ohio, Duke Energy, MAGNET and TechSolve.

Through the end of 2012, eight manufacturing companies are participating in ME2. The total potential CO2 savings identified from the program is 22,550 metric tons for just seven of the participating companies.

III. Reduce, Reuse and Recycle

- **a.** RecyColumbus was chosen as the name to market the long awaited residential recycling program. Residents first began receiving 64 gallon blue recycling carts in the spring. By June 4th the first of five geographic regions of the city were receiving their first recycling collection which then alternated every other week with yard waste collection. By the end of the year, all but one area of the city had been phased into the new program. Residents were reminded about the program and how to use it through a variety of methods including:
 - Program website <u>www.RecycleColumbus.org</u> and accompanying 311 call center to answer questions for residents.
 - Television commercials aired 997 times reaching 143,000 households.
 - Robo-calls were made to over 75,000 residents reminding them that their recycling cart was soon to be delivered and, later, reminding them to set their cart out for their first collection day.
 - Door hangers were delivered to eligible households (approximately 220,000) notifying them that their recycling cart would soon be delivered.
 - A special section in the Columbus Dispatch was published to coincide with America Recycles Day.
 - 539 posters were hung throughout the city at local businesses, schools, libraries and community centers advertising the program.
 - Brochures and information cards translated into Spanish, Somali and Mandarin.
 - Worksheets for students were distributed to every elementary school within the Columbus Public School district.
 - Banners were set up at recreation centers, libraries and other community destinations featuring the program.
 - 111 volunteers provided 275 presentations to neighborhood groups and passed out program literature and promotional items at special events.

 A Segway outfitted in a blue recycling cart was used to capture the attention of guests at festivals, parades and other events throughout the year.

2012 RecyColumbus efforts captured over 10,000 tons of material that previously would have been taken to the county landfill and over 23,000 tons of yard waste. 2013 will provide the first opportunity for the city to see just how much material residents can divert with the entire city using the comprehensive recycling and yard waste program for an entire year.

Residents who were not eligible to participate in the RecyColumbus program continued recycling by depositing over 16,000 tons of material at one of over 200 drop box locations or by subscribing to service through a hauler.

Together, these efforts diverted an impressive total of more than 49,000 tons of material and equates to a residential diversion rate of 20%.

Additional waste was diverted through the efforts of city departments including composting, tire disposal, office recycling and more. Examples of recycling and conservation methods used by city staff include:

- 92.9 tons of **asphalt** was recycled from resurfacing projects to repair potholes, berms and shoulders.
- **Beet juice** was used as an environmentally preferred option to salt in order to help melt snow and ice on roadways.
- Paper saving measures are a priority to all departments. Human Resources began a paperless pay system in 2012. Additionally, over 300,000 pounds of confidential documents were shredded and recycled.
- **Biosolids**, or the product of the waste water treatment process, produced 29,578 dry tons of material that were able to be put to good use rather than be incinerated. For example, the city's ComTil operation produces a rich soil amendment that is sold commercially. Additionally farmers make used of treated liquid biosolids as a fertilizer. The Quasar biodigester also uses city biosolids and other organic material to generate electricity and operate a compressed natural gas fueling station. This project was awarded the Solid Waste Innovator of the Year Award from the Solid Waste Authority of North America, Buckeye Chapter. In 2013 the city will follow through with an agreement with Ohio Mulch to provide biosolids for use enriching soil in an abandoned strip mine in southeast Ohio to provide nutrients for rapidly-growing hybrid poplar trees. The trees will provide a renewable source of wood chips, offsetting the foresting of virgin timber, while restoring a higher quality organic and nutrient spectrum to the depleted mine soils.
- **Drain tiles** and other materials were distributed to gardeners and landscapers for use as planters rather than disposed of as originally planned. Keep Columbus Beautiful organized the opportunity and these innovative

ceramic planters could even be found at the Parade of Homes and highlighted on Tom McNutt's Saturday morning NBC4 garden show.

- b. Deconstruction as opposed to demolition was researched and piloted (small-scale) in the City of Columbus in preparation for a larger initiative in 2013. The Department of Development has over 900 nuisance homes slated for demolition and rather than send this material to the landfill (an average of 122 tons per demolition), it is Mayor Coleman's intent to salvage as much of each home as possible to be reused or recycled. This project will also serve a workforce development benefit as labor used to deconstruct homes will be done by ex-offenders seeking entry into the construction trades.
- c. Looking forward to 2013, planning started in 2012 to bring additional opportunities to recycle in public spaces in the next year. For example, recycling containers will be installed lining High Street from Broad Street north to Lane Avenue. Restaurants and bars along the same corridor will be invited to pilot a recycling program through an effort led by the city and supported by the Ohio EPA. Additionally, equipment will be tested and acquired to make recycling easier for festival planners and guests.

IV. Resource Protection and Conservation

- **a. Parkland** grew with the addition of 164.31 acres to the Columbus Recreation and Parks Department inventory in 2012. Additionally, 4,975 square yards of hard, impervious surface and 11,940 square yards of buildings were demolished to make way for more natural spaces.
- **b.** Over 5,000 **Trees** were planted by the city's Division of Forestry. Despite the Division's focus on tree planting, the Emerald Ash Borer has impacted an estimated 30,000 trees citywide causing need for removal of dead and dying trees. A specific report on this critical issue will be issued in 2013 by the Columbus Recreation and Parks Department.
- c. The Backyard Conservation Program, a service of the Department of Public Utilities administered with the help of Franklin Soil and Water Conservation District provided low cost rain barrels to GreenSpot members. The program engaged 950 households in 2012 and reached beyond the city's borders by partnering with adjacent communities. To acquire the rain barrel participants first must learn about the consequences of stormwater and ways to limit its adverse impacts.
- d. Columbus Ecological Restoration Program grew in its second year of operation. The program provides city support to volunteer groups taking on efforts to remove invasive plants. 360 volunteers donated 1440 hours to this program (a 20% increase over 2011 records). These dedicated individuals cleared 13.16 acres of parkland of invasive plants in 2012.
- e. Local Foods remains a focus of city departments including Columbus Public Health, the Department of Development and others as staff participate in community initiatives taking shape such as Weinland Park planning for a food hub that is expected to create neighborhood employment opportunities and the newly formed Franklin County Local Food Council.

- i. Farmers markets are popular throughout the city, even at the city's own Health Department where over 5,500 visitors came to buy nutritious foods with WIC and ODC public assistance.
- ii. Community gardens were provided with grant funding from the City of Columbus in partnership with Franklin County, Fifth Third Bank, The Scotts Miracle-Gro Company, Franklin Park Conservatory, The Columbus Foundation, CleanTurn and Columbus Public Health's Institute for Active Living. Grant winners collectively received \$72,500 in support as well as product donations such as soil and much and free educational classes of their choosing at Franklin Park Conservatory.
- iii. Rain catchment systems were offered to all community gardens operating on city Land Bank property. Cisterns up to 500 gallons in size are installed on each site and come equipped with a drip irrigation system, solar pump and other components. Through a partnership with the Rebuilding Together
 Central Ohio
 Tool Library, equipment is weatherized and maintained each year.
- **f.** The Ohio EPA conditionally approved delaying some of the projects in the City's **Wet Weather Management Plan** to allow time to explore effective, environmentally friendly methods of reducing basement backups and sanitary sewer overflows to waterways. Through research and community outreach, the Department of Public Utilities will learn whether to remedy sanitary overflow events using an environmentally sensitive approach or solely rely on building a network of tunnels. OhioEPA requires the City to develop a plan by 2015 describing how they would prefer to proceed. This effort, among others, will be led by the Department's newly created Office of Sustainability and the Division of Sewerage and Drainage.
- g. The Big Darby, a designated state and national scenic river, continues to receive protection through the <u>Big Darby Accord</u>. The Accord is made up of local governments bordering the waterway with a shared agreement to protect the natural resource through thoughtful preservation and development in the area. In 2012, the City of Columbus and Prairie Township entered into a participation agreement to facilitate implementation of development in a designated Town Center area.
- h. The Lower Olentangy Urban Arboretum is restoring the tree canopy in the Clintonville neighborhood with species that were historically present there. The project protects water quality and enhances the biodiversity of plants and animals. The project was developed by area residents through the support of the Columbus Foundation and the expertise of the City of Columbus Division of Forestry.
- **i. Wetland and Stream Restoration** projects were implemented by the Columbus Recreation and Parks Department as well as the Department of Public Utilities.

<u>The Fifth Avenue Dam</u> along the Olentangy River was breached through a partnership between the City of Columbus, the State of Ohio and The Ohio State University creating cause for celebration. This lowhead dam reduced water quality

and presented a safety hazard. Construction will continue into 2013 as restoration of the Olentangy River takes place from Fifth Avenue north to Lane Avenue to improve aesthetics, recreational functionality and habitat. Volunteers assisted with the project by removing 3 acres of honeysuckle along the waterway in just one morning. Additionally, volunteers removed litter from the exposed former stream bed. A second dam, the Main Street Dam, located on the Scioto River in the heart of downtown was studied in 2012 for removal and restoration in 2013 pending successful fundraising efforts. The Main Street Dam removal would add an additional 33 acres of greenspace to the riverfront.

The Department of Public Utilities completed construction of a wetland and stream restoration as part of the overall project scope to solve area street and yard flooding occurring along Idlewild and Manor Drives.

Phase two of the Clover-Groff Run project included 1.1 miles of stream and floodplain restoration including 30,000 tree and shrub plantings in the Darby Watershed. Innis Park received 0.15 miles of boardwalk in order to protect the wetlands there and provide opportunity for visitors to observe the habitat. A wetland created at Woodbridge Green Park was further expanded and restored to mitigate wetlands lost from an Ohio Department of Transportation project.

V. Transportation

- **a. Bicycling** remained a major focus of work in city departments as evidenced by a variety of exciting improvements to infrastructure and ongoing programming.
 - i. <u>Trails</u> are a favorite amenity for Columbus residents and visitors. This 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 downtown riverfront, the Ohio State University, parks and more. Seven miles of trail were developed along the Scioto and Alum Creek Greenways and four bridges were constructed by the City of Columbus in 2012 adding to the regional inventory of bikeways.

When complete the Ohio to Erie Trail will connect Cincinnati, Columbus and Cleveland. In 2012 the Department of Recreation and Parks acquired land and began engineering the last section needed to complete the route through central Ohio along the Camp Chase rail line.

- **ii.** On-Street bikeways on city streets were increased by 12 miles in 2012, broken down as follows:
 - 210 sharrow pavement markings- 3.9 miles
 - 186 bike lane pavement markings-5.4 miles
 - 40 bike boulevard pavement markings- 1.2 miles
 - Shared-use path- 1 mile
 - Other bikeways- .3 miles

- Additionally, ongoing work to adjust loop detector sensitivity at 35 signalized intersections throughout the city continued in 2012.
- **iii. Parking Facilities** are much less difficult to find near Columbus destinations after the work completed by partner organizations in 2012.

The City of Columbus passed American Recovery and Reinvestment Act funding through to the Capital Crossroads Special Improvement District to establish bicycle parking in the downtown core. Capital Crossroads completed the work this year with installation of eye catching covered bicycle parking shelters. The shelters add an additional style and sense of place to downtown streets with the stylized design including green roofs to reduce stormwater. Capital Crossroads also added bicycle commuter locker rooms to serve city and county employees as well as bike lockers and clusters of bicycle racks installed near the Columbus Convention Center and other large employment centers.

The city's Department of Public Service also installed 10 bicycle parking shelters throughout the city. These locations offer riders practical amenities including informational signage and bicycle maintenance tools allowing riders to fix a flat tire or repair a chain if they encounter a problem during their commute. In addition, the city's first bike corral was installed on Oak Street in the Near East Side. This innovative design uses street parking to cluster racks for cyclists. The annual effort to install bike racks for businesses continued with 88 racks installed in 2012.

- iv. <u>BikeShare</u> got its start in Columbus in 2012 with authorization for a city investment of \$2,268,550 and a contract with Alta to operate the system. The system will initially be made up of a network of 300 bikes at 30 downtown stations, enabling users to visit any station to borrow a bike, ride for any amount of time and return the bike at any of the stations. The program is expected to take shape quickly with public outreach, equipment manufacturing, station siting and installation culminating with an expected launch in the summer of 2013.
- v. Pedal Instead, initially developed by Mayor Coleman's Green Team and the Department of Recreation and Parks continues to thrive under the leadership of the University Area Enrichment Association and Yay! Bikes. The project provides free, secure valet style bicycle parking at public festivals and events. In 2012 the program parked nearly 8,000 bicycles at 33 events, saving 4,372 gallons of fuel and 84,779 pounds of related carbon dioxide emissions. Health benefits included 4,200,185 calories burned though 7,720 hours of active transportation.
- vi. Organized rides are a way of introducing bicycling to new groups of people and encouraging others to continue riding. The Columbus Public Health, Institute for Active Living hosted another Mayor's Twilight Ride on July 13 with a 10 or 20 mile route ending with live entertainment at WaterFire. The

city also celebrates Bike to Work Week coordinated by the Department of Public Service in partnership with <u>Consider Biking</u>. Other group rides the city is proud to have take place along its streets include Bike the C-Bus organized by <u>Yay! Bikes</u>, Market to Market Ride organized by <u>Local Matters</u> and, of course, <u>Pelotonia</u> that uses an organized ride to raise funds for cancer research. Pelotonia alone reported 6,200 riders participating in 2012 raising \$15 million.

- **b.** Walking infrastructure was increased by 1.33 miles in 2012 with new sidewalks.
- c. Green Driver Training was piloted to a class of 50 city employees through the Department of Human Resources training center in partnership with Clean Fuels Ohio. Employees drove a designated route with monitoring equipment installed on their vehicles. After learning techniques to increase fuel efficiency, employees drove the same route again to apply the knowledge they had gained. The group will continue to be monitored throughout the year to analyze whether or not training can significantly benefit city fuel efficiency on a larger scale.
- **d. GPS** units were installed on 538 city fleet vehicles in 2012. First piloted in the Department of Public Utilities, GPS units are proven to increase efficiency of drivers, reduce idling time and reduce miles driven. The equipment will also help automatically calculate vehicle emissions and related carbon footprint metrics.
- e. Alternative fuel vehicles and other strategies to reduce the impact of the city's fleet on the environment have been thoroughly outlined the <u>Green Fleet Action Plan</u>. Overall fuel use was reduced by 1.5% in 2012 and many more accomplishments were achieved by the Division of Fleet Management. A full report on 2012 progress for the Green Fleet Action plan is available <u>online</u>.
 - i. Compressed natural gas (CNG) is a cleaner burning and more cost effective fuel that the city has made an effort to use as described in the city's Green Fleet Action Plan. Not only does the city use the fuel in its own fleet, but the city opened a public fueling station to help other fleets and the general public take advantage of the fuel which is growing in popularity. In its first year of operation, the station pumped an equivalent of 51,117 gallons of gas. A second city owned CNG station is being planned for the Morse Road area. Together with other CNG fueling locations offered by the City of Dublin, Quasar, and SWACO, a central Ohio network is taking shape to make it possible for more fleets to use this alternative fuel source. The city's own 24 CNG vehicles are expected to displace over 69,000 gallons of diesel fuel a year. This investment will reduce carbon dioxide emissions by 617 metric tons/year, which is equivalent to removing 121 passenger cars a year from the road. Using these CNG vehicles also saves approximately \$128,000 per year compared to the average cost of diesel fuel. Twelve more CNG vehicles are on order and expected to be delivered in 2013 and an additional 56 are budgeted for purchase in 2014.
 - **ii. Electric vehicles** now have designated parking spaces that were installed in two downtown locations by the city. These metered spaces allow drivers an opportunity to charge the vehicle battery. The city's two locations were used

to make 230 connections supplying 8,316 KWH since July 2012. The city is joined by the State of Ohio, Easton Town Center and others in offering a total of 22 electric vehicle charging stations throughout the City of Columbus. In 2012, the city purchased two electric vehicles for use in the Department of Public Utilities. Additionally, permitting information was developed to help inform residents who are interested in installing charging facilities in their homes.

iii. Off road vehicles also make up a significant portion of the city's fleet and therefore are being considered for cleaner fuel sources as well. In 2012, the city purchased 14 propane powered mowers to be put into service during the mowing season in 2013. Through a purchase incentive program, \$14,000 for this project was secured through the Propane Education and Research Council in exchange for data from the city over the course of one mowing season for research purposes.

A wheel loader used in the Department of Public Utility's Comtil operations was retrofitted with a Huss diesel particulate filter in 2012 through a partnership with the Ohio Environmental Council. This device will prevent 700 pounds of pollution from entering the air each year, a reduction of 99%. Watch a video about the project to learn more here.





Mayor's Office of Environmental Stewardship 90 West Broad Street Columbus, Ohio 43215 www.GetGreenColumbus.org

Support Get Green Columbus by becoming a member of GreenSpot at www.ColumbusGreenSpot.org