



2009 ANNUAL REPORT

2009

*Baltimore City*

# Annual Sustainability Report

**SUSTAINABILITY:** meeting the current *environmental, social, and economic needs* of our community without compromising the ability of future generations to meet these needs.

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# Executive Summary

**THE BALTIMORE SUSTAINABILITY PLAN**, adopted as City Council Ordinance on March 2, 2009, was developed as a direct result of the vision, hard work, and creativity of over 1,000 Baltimore citizens and organizations. The Plan offers a broad, community-responsive sustainability agenda that articulates the type of community Baltimore wants to be – a community that invests in the quality of life of its people, the health and resilience of its environment, and the long-term success of its economy.



*The Annual Sustainability Report serves as a yearly accountability tool to track Baltimore's progress towards improving the economic, social, and environmental sustainability of the city. By providing both quantitative and qualitative measures of Baltimore's efforts to forward Plan goals, this report allow us to check in, renew our commitment, and celebrate our successes together as a community.*

The 29 goals and 131 strategies included in the Baltimore Sustainability Plan serve as an umbrella to connect previously disparate efforts while helping to expose gaps that warrant increased attention. In the fall of 2009, the Baltimore City Commission on Sustainability, the body tasked with monitoring the implementation of the Plan, voted to concentrate their near-term efforts on the six goals addressing litter elimination, energy use, food systems, tree canopy, green schools, and environmental awareness. While the Commission recognized the importance and interconnectedness of all 29 goals, it selected this subset based on the goals' urgency and opportunity for impact.

The passage of the Sustainability Plan a year ago represents a crucial step, but in many ways it is still a first step. Real progress can only be realized when the creativity, commitment, and participation of the entire Baltimore community is put to work to implement this vision. In the year since the Plan's adoption, a multitude of partners in a variety of forms and functions – community organizations, businesses, families, and schools – have continued to work to implement the goals of the Plan and make Baltimore a more sustainable place to live and work. Baltimore's first Annual Sustainability Report highlights these efforts.

The Annual Sustainability Report serves as an accountability tool to track Baltimore's progress towards improving the economic, social, and environmental sustainability of the city. By providing both quantitative and qualitative measures of Baltimore's efforts to forward Plan goals, this report allow us to check in, renew our commitment, and celebrate our successes together as a community.

The structure of the Annual Report is based on that of the Sustainability Plan. For each of the seven theme chapters of the Sustainability Plan - cleanliness, pollution prevention, resource conservation, greening, transportation, education & awareness, and green economy – the report features a success story from the past year.

*As these measures indicate, many areas are improving; recycling collection is up, residential energy use is down, and new sustainable transport projects are underway.*

Most of the 29 goals are accompanied by a quantifiable metric or measure of progress. In some cases, these metrics create a baseline from which we will measure future changes. In others, longitudinal data is already available, enabling the report to illustrate trends over time. As these measures indicate, many areas are improving; recycling collection is up, residential energy use is down, and new sustainable transport projects are underway. Other data points paint a less encouraging picture; water quality remains a major concern, reported toxic releases remain high, and trash and illegal dumping continue to litter our streets.

Each of the 29 goals also highlights key facts, related 2009 efforts, and a few action items which individuals can take to help be part of the solution. Many of the partners in these efforts are listed along with their web addresses for more information at the end of the report. While these pages begin to tell the story of the great work underway, we recognize the sample endeavors included here do not represent an exhaustive list.

There are doubtless many additional efforts accomplishing valuable work throughout Baltimore, and we look forward to recognizing those efforts. We encourage all entities in Baltimore to share their success stories of how they help to achieve the city's sustainability goals at our website [www.baltimoresustainability.org](http://www.baltimoresustainability.org). We will use the

projects and initiatives shared here to produce next year's Annual Report.

Thank you to the countless individuals and organizations that took action this past year to improve the quality of life and sustainability here in Baltimore. We look forward to continuing our work with you to transform Baltimore into a truly sustainable city that will thrive for generations to come.



STEPHANIE RAWLINGS-BLAKE  
MAYOR



THOMAS J. STOSUR  
DIRECTOR



*Success Story*

# One PLUS ONE Collection Program

**AS OF THE BEGINNING OF 2009**, sanitation collections in Baltimore City had remained unchanged for over 30 years. Baltimore was one of the only cities of its size still collecting household trash twice per week in addition to collecting recycling twice a month.



Servicing roughly 650,000 residents and approximately 210,000 households, the Department of Public Works, Bureau of Solid Waste, closely evaluated ways to deliver service to proactively create efficiencies, promote effective and sustainable waste management, and protect the environment by producing less waste and recycling more.

To do this, Public Works decided to implement One PLUS ONE collections in Baltimore City – one mixed refuse and one recycling collection each week.

“One PLUS ONE” collection was designed to benefit the increasing number of households already recycling and encourage more residents to follow suit by providing

## SUCCESS STORY

recycling collection more frequently. In addition, plans were developed for a complete overhaul of collection routing to optimize crew performance and reduce fleet costs, fuel consumption, and greenhouse gas emissions.

A four day/ten hour work week was proposed to address residents' concerns of frequent missed collection days due to many Monday holidays. This schedule would give crews more time off from a physically demanding job and hopefully lead to fewer injuries. A new 6 a.m. collection start would get crews off major roadways before rush hour traffic – reducing accidents, fuel use, and greenhouse gas emissions.

One PLUS ONE also provided for increased and improved services to improve overall cleanliness in Baltimore. The Bureau of Solid Waste could dedicate full-time crews to focus on street and alley cleanings, allowing for quicker responses to citizen service requests and proactive cleaning. To change behavior around cleanliness, increased sanitation code enforcement became an important component of One PLUS ONE.

To institute this tremendous change, the Department of Public Works launched a comprehensive communications and community outreach campaign. Before One PLUS ONE commenced on July 14, community meetings were held in every council district, postcards on proper waste disposal rules and automated phone calls reached every household, and a media blitz got out the word through major radio, television, and print media. Summer YouthWorks participants distributed 3,000 flyers in each of 33 different communities throughout the City. Special outreach efforts provided flyers and maps to community organizations looking for information through the Council representatives and through the Mayor's Office of Neighborhoods.

Though there was a brief transition period where residents and sanitation crews adjusted to all the changes in collections, routes, and schedules, the positive impacts which resulted have exceeded expectations. Residential mixed refuse tonnage has decreased roughly 25%, and recycling is up over 55%. Before One PLUS ONE, the bi-weekly average recycling collection was 646 tons; now it is 1,007 tons.

Alley cleaning has improved to the point that 311 service requests are completed in four days or less and proactive

alley cleaning is taking place in five specific zones. In addition, there is less than a 48 hours response time and an 80% increase in proactive graffiti cleaning.

The Department of Housing and Community Development has ramped up sanitation code enforcement to target those who are part of the litter and cleanliness problem. In the six weeks following program launch, the Baltimore Housing Special Investigations Unit issued 434 citations directly related to dumping violations compared to seven citations during the same period in 2008. The unit also is aggressively pursuing illegal dumping cases in Baltimore City District Court.

One PLUS ONE will continue to have a lasting and positive impact in Baltimore City. Reducing trash and increasing recycling saves landfill space and allows residents to look at their waste from a different perspective - as something they have to manage. One PLUS ONE has the added benefit of increasing resources devoted to street and alley cleaning and allowing the Bureau of Solid Waste to be more proactive in combating litter and waste. These benefits will have long-term effects to the overall cleanliness and livability of Baltimore City.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Improve the health of indoor environments
- Reduce Baltimore's energy use by 15% by 2015
- Reduce Baltimore's water use while supporting system maintenance
- Expand access to informational resources on sustainability
- Create green jobs and prepare city residents for these jobs
- Raise Baltimore's profile as a forward thinking, green city



## Goal 1: Eliminate litter throughout the city

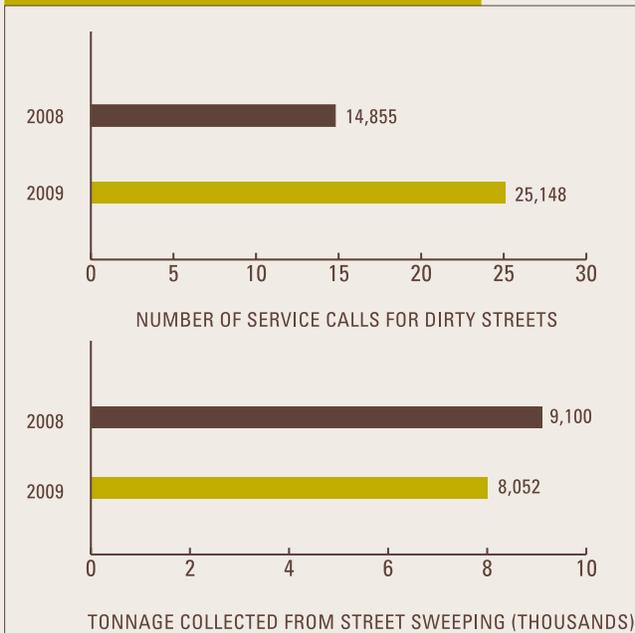
Litter is an expensive problem – it lowers property values, requires public resources to clean, detracts from tourism, and endangers the water quality and aquatic life on which Baltimore depends.

### KEY FACTS AND RELATED EFFORTS

- \* The Cleaner Greener Baltimore Initiative launched the “**Don’t Make Excuses. Make a Difference.**” media campaign in February 2009 to deter casual and intentional littering and improper trash disposal by educating City residents, commuters, and tourists about our litter problem. By leveraging resources, the campaign achieved broad placement of print messaging on City trash vehicles and trash cans, 8 MTA buses, kiosk ads in 6 metro stations, and 700 storm outlets.
- \* The City of Baltimore’s **Department of Public Works (DPW)** spent \$2.1 million on litter pick-up in business districts in 2009 alone. In addition, DPW spent \$4 million on mechanical street sweeping of nearly 69,000 miles, collecting over 8,000 tons of debris.
- \* First listed in 2008, 100% of the **Baltimore Harbor** remained designated as impaired for trash/debris/floatables by the Maryland Department of the Environment in 2009.
- \* As part of the **One PLUS ONE program**, Housing and Community Development Permits and Code Enforcement ramped up enforcement of sanitation codes involving trash and litter. During 2009, HCD issued 46,182 trash-related citations, up from 18,836 in 2008.
- \* CleanerGreener Baltimore has **55 program partners** city-wide which help facilitate community driven projects and initiatives around litter, recycling, and community greening.
- \* The **Waterwheel Powered Trash Interceptor** was installed in the Harris Creek outfall in May 2009. In 2009 alone, the equipment collected over 150 cubic yards of trash and debris from the waterway. A large portion of the collected material is litter including 55,000 Styrofoam cups, plates, and trays, 27,000 plastic bottles, 550,000 cigarette butts, 22,000 plastic bags, 5,500 aluminum cans, 25,000 pieces of miscellaneous trash.

CLEANLINESS

### STREET LITTER MEASURES



\* Source: City of Baltimore Department of Public Works

### 4 STEPS YOU CAN TAKE

- Organize a Community Pitch In through DPW
- Always place your trash in a can with a tight fitting lid
- Place your trash containers in the proper location the morning of your scheduled trash pick up
- Encourage your business or employer to become a sponsor of the CleanerGreener Baltimore Initiative

« The number of service calls is a function of both the level of street cleanliness and the diligence of citizens calling in to report dirty streets in their neighborhoods. The increase in calls in 2009 is believed to be a result of educational efforts encouraging citizens to report problems. Street sweeping tonnage is a function of both miles swept and amount of debris on streets.



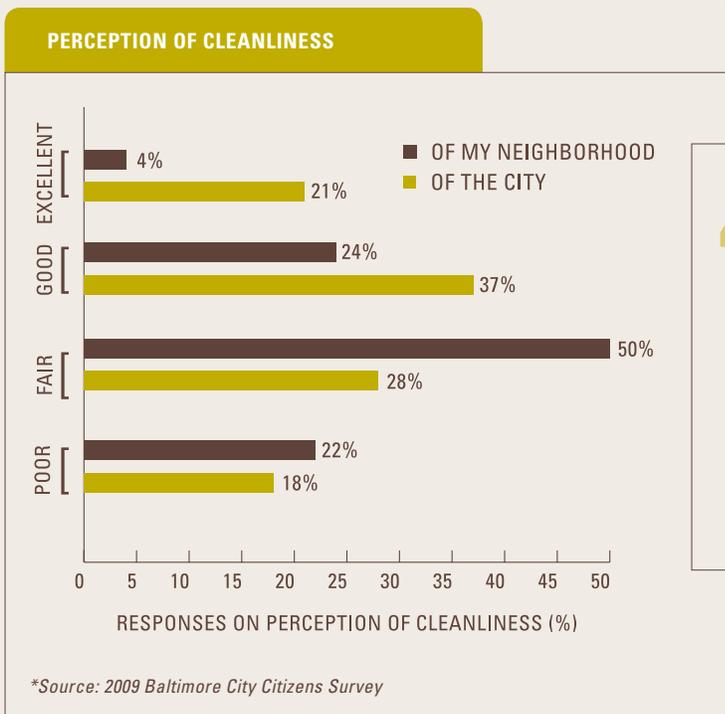
## Goal 2: Sustain a clean and maintained appearance of public land

Along with enjoying the benefit of publicly available land, the Baltimore community has a responsibility to properly maintain this space. Well maintained and cared for land raises the value of surrounding properties, increases social interaction, and helps stabilize communities.

### KEY FACTS AND RELATED EFFORTS

- \* In 2009, CleanerGreener Baltimore participated in over **50 community clean ups** including stream clean-ups, shoreline clean-ups around Fort McHenry and the Middle Branch, storm drain clean-ups, the Mayor’s Fall and Spring clean ups, Afro Clean Green Block Competition, Project Orange Thumb in the Oliver Community Garden, the Urban Eden Garden with the Park Heights Renaissance, and the Sharp Leadenhall Garden and Mural Project.
- \* As part of the **One PLUS ONE program**, Housing and Community Development Permits and Code Enforcement ramped up enforcement of sanitation codes. During 2009, HCD issued a total of 64,422 sanitation and maintenance related citations, up from 27,412 in 2008.
- \* The Department of Public Works took over **neighborhood park cleaning operations** and now provides weekly service during summer months.
- \* The City reduced response time for lot and **alley cleaning** complaints from 21 to 14 days and reduced response time for vacant house boarding from 21 to 7 days in 2009.
- \* Partnerships for Parks, a joint program of the Baltimore City Department of Recreation & Parks and the Parks & People Foundation, hosted 4 **GROW workshops** involving over 60 participants on topics including fundraising, trees, organizational leadership, and budgets for non-profits to meet the capacity-building needs of Baltimore’s park stewards.
- \* In partnership with the Housing Authority of Baltimore City, the Parks & People Foundation provides education, engagement, and hands-on projects to help **Baltimore’s public housing residents** incorporate trees, gardens, and other environmental improvements into their communities. In 2009, the effort engaged more than 80 residents during five community work days in public housing communities.
- \* The **Friends of Patterson Park Stewardship program** is organized into volunteer “teams” which each meet once a month. In 2009, the Boat Lake Team’s 117 volunteers removed 2,175 of trash and 1,300 lbs of invasive plant species, the Tree Team’s 137 volunteers planted 24 new trees and cared for 500 existing trees, and the Beautification Detail Team’s 190 volunteers completed six large clean-ups and planted 12 gardens.

CLEANLINESS



**4 STEPS YOU CAN TAKE**

- Call 311 to report illegal dumping as soon as it occurs
- Work with your neighbors to manage a community open space
- Organize a Community Pitch In through DPW
- Volunteer with one of Baltimore’s many Parks Friends groups

« In 2009, the city conducted the first in a series of annual citizen surveys which included questions about residents’ perception of cleanliness both in their neighborhood and citywide.



## Goal 3: Transform vacant lots from liabilities to assets that provide social and environmental benefits

Vacant properties can become targets of illegal dumping and litter, leading to an overall perception of neighborhood neglect. However, lots can also be transformed into useful community spaces through redevelopment or the creation and maintenance of open space.

### KEY FACTS AND RELATED EFFORTS

- \* As of the end of 2009, roughly **10,000 vacant or abandoned lots**, of an estimated 30,000 city-wide, were titled to the Baltimore Mayor and City Council. Over half of these (5,375) were vacant lots.
- \* **Community Greening Resource Network (CGRN)**, a joint initiative of the Parks & People Foundation and MD Cooperative Extension, had an estimated membership of 1,281 adults and 2,378 children from organizations, block clubs, businesses, neighborhood groups, churches, and schools in 2009. CGRN facilitates activities on city-wide and local levels to help groups connect to one another and take advantage of existing resources, ideas, lessons learned, and support in our gardening community.
- \* The City of Baltimore's **Adopt-A-Lot Program** is specifically designed for gardens and neighborhood beautification. Residents and neighborhood groups that complete an Adopt-a-Lot License Agreement can use a City-owned vacant property as a garden. As of the end of 2009, there were approximately 200 adopted lots in the city.
- \* **Baltimore Green Space (BGS)** preserves community-managed open spaces such as community gardens, pocket parks, horseshoe pits – any space that is taken care of by people in the neighborhood. BGS purchases established community-managed open spaces on behalf of neighborhoods. For each site, the land trust enters into a long-term management agreement with the “site manager” and a “community partner” organization. In 2009, the City of Baltimore approved criteria and a process for transferring City-owned land to BGS.
- \* As of the end of 2009, BGS protected three **community-managed open spaces**: a horseshoe pit in Pigtown, a community garden in Upper Fell's Point, and a half-acre fruit and vegetable garden in East Baltimore. In addition, Charm City Land Trust protected one large garden, the Amazing Port Street Garden, which occupies 12 lots in East Baltimore's McElderry Park neighborhood.

### CARRYING COST OF VACANT PROPERTIES

3 grass cuttings per season

\$760

4 trash/debris removals per year

\$1,015

#### TOTAL AVERAGE MAINTENANCE COSTS

\$1,775

#### TOTAL ESTIMATED 2009 MAINTENANCE COST

$\$1,775 \times 5,375 = \$9,540,625$

## 3

### STEPS YOU CAN TAKE

- Work with your neighbors to preserve a community open space
- Work with your neighbors to create and manage a community open space
- Volunteer with CGRN

« These figures represent the average carrying cost of City-owned vacant lots. Based on these estimate, the vacant lots alone the City owns can cost upwards of \$9.5 million annually. This does not include the direct and indirect costs of the many vacant and abandon lots not owned by the City.



Photo: The Coalition to End Childhood Lead Poisoning

## Success Story

# Green and Healthy Home Initiative

**BALTIMORE'S CHILDREN** spend more than half of their time indoors where the concentrations of pollutants can be five times higher than outside. Infants and children often live in homes that expose their vulnerable lungs to dangerous chemicals and asthma irritants and their bodies to other hazards such as lead paint and dust. The Baltimore Sustainability Plan includes efforts to address pollution and hazards in Baltimore's homes by focusing on improving the health of indoor environments, reducing exposure to hazardous materials, and reducing greenhouse gas emissions.

The Green and Healthy Homes Initiative, an innovative new project being lead by the Baltimore-based National Coalition to End Childhood Lead Poisoning, address all of these goals. The Coalition, in partnership with the Annie E. Casey Foundation, the Council on Foundations, HUD, DOE, EPA, CDC, fourteen pilot project sites, and philanthropic communities, is leading the national Green and Healthy Homes Initiative (GHHI). The program is designed to improve health outcomes for lead poisoning and Healthy Homes indicators and reduce energy consumption by increasing the adoption

of health-based standards in housing interventions and leveraging housing related funding resources to comprehensively target home-based environmental health hazards.

In developing GHHI, the Coalition recognized that the American Recovery and Reinvestment Act (ARRA) presented a historic national opportunity to leverage dollars targeted for weatherization and energy efficiency with existing programs providing in-home lead hazard reduction and Healthy Homes

## SUCCESS STORY

interventions. The results could bring increased funding for health interventions and a systemic change in the approach to housing interventions. Through the GHHI approach, reduction of lead hazards and other home-based environmental health hazards are infused into weatherization and energy efficiency interventions to create new comprehensive housing standards that include the improving of health outcomes for occupants. In so doing, limited but varied financial resources can be aligned, blended, and coordinated to provide a single stream intervention, while ensuring work is done in a safe manner to benefit both workers and residents. The goal of the GHHI approach is to deliver the triple net benefits of healthier homes, higher quality green jobs, and better health outcomes for children and families.

*The lessons drawn from the GHHI Baltimore Pilot are informing national policy by demonstrating how to cost effectively integrate housing assessment and intervention services that advances a “whole house solution” for environmental health and green strategies.*

The Coalition’s GHHI Baltimore Pilot Project site is improving 450 homes in Baltimore. The goal of the GHHI Pilot Project is to provide Baltimore residents green (energy efficient), healthy (free of asthma triggers, lead paint hazards, and safety risks that household injury) and affordable homes. The pilot also provided employment opportunities to unemployed and underemployed City residents through green trades training and jobs.

Each property enrolled in the GHHI project receives a comprehensive health and environmental assessment as well as an energy audit. The findings from the assessment are addressed through an integrated GHHI intervention that includes: lead hazard reduction (paint stabilization and window replacement); asthma trigger reduction (integrated pest management, mold, indoor allergen reductions, air filtering system installation, HEPA-vacuum distribution); safety measures (smoke alarms, carbon monoxide detectors, outlet covers, and cabinet locks for hazardous

chemical areas); weatherization (furnace replacement or servicing, caulking, air duct sealing, gutter and downspout replacement, weatherstripping, venting, cool roofs); and energy efficiency interventions (CFL installation, programmable thermostats, pipe insulation, hot water heater insulation). The result is a property that not only has a healthier indoor environment, but one that is also more stable and green due to reductions in high energy consumption and energy costs that can often lead families to face eviction or foreclosure.

The lessons drawn from the GHHI Baltimore Pilot are informing national policy by demonstrating how to cost effectively integrate housing assessment and intervention services that advances a “whole house solution” for environmental health and green strategies. GHHI is also a model in how to utilize short term ARRA funding to stimulate long term, sustainable strategies through the adoption of a national healthy housing standard. The GHHI Baltimore Pilot Project includes diverse partners such as: Annie E. Casey Foundation, Baltimore Community Foundation, Baltimore City Departments of Housing and Health, Maryland Energy Administration, Baltimore Neighborhood Energy Challenge, Civic Works, and Rebuilding Together Baltimore among others.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Reduce risks from hazardous materials
- Improve the health of indoor environments
- Create green jobs and prepare city residents for these jobs
- Raise Baltimore’s profile as a forward thinking, green city



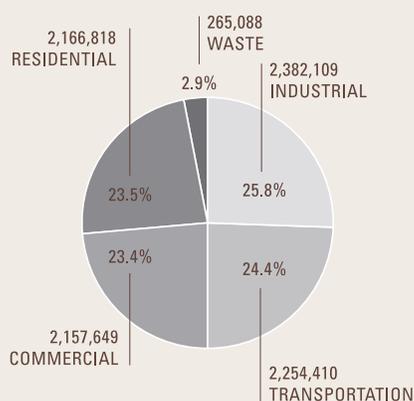
## Goal 1: Reduce Baltimore's greenhouse gas emissions by 15% by 2015

Climate change is one of the greatest challenges of our time. Baltimore is vulnerable to the effects of climate change in the form of rising sea levels threatening real estate and infrastructure, increased cooling loads raising the cost to air-condition our buildings, and rising temperatures endangering public health.

### KEY FACTS AND RELATED EFFORTS

- \* The City of Baltimore received Milestones One and Two from ICLEI - Local Governments for Sustainability's **Five Milestones for Climate Mitigation** process in 2009. To earn these, the City completed greenhouse gas emissions inventories for both government operations and the entire community and adopted a greenhouse gas emissions reduction target of 15 percent by 2015.
- \* In 2009, the **Baltimore Biodiesel Cooperative** sold over 6,700 gallons of biodiesel to its members. Since the Coop's biodiesel is converted from used cooking oil, every gallon of biodiesel that displaces petroleum diesel eliminates 18 pounds of carbon dioxide from entering the atmosphere. In 2009, the Coop helped avoid 121,000 pounds of carbon dioxide emissions.
- \* The first **landfill gas co-generation center** in Maryland opened in Baltimore City on the U.S. Coast Guard Yard in April 2009. The main generators will burn methane from a nearby Baltimore City Landfill and convert the renewable gas into electricity and steam. Combined, the generators will be able to produce four megawatts of electricity and reduce greenhouse gas emission equivalent to taking 33,000 cars off the road.
- \* Baltimore Gas & Electric began operating a **155 kilowatt solar array** on their property in South Baltimore in December 2009. The array is the largest to date in Baltimore City and will produce an estimated 200,000 kWh a year of renewable electricity, reducing the equivalent of 130 tons of greenhouse gas emissions annually.
- \* Launched in August 2009, the **Baltimore Neighborhood Energy Challenge** is helping to reduce greenhouse gas emissions from the residential sector by encouraging Baltimore residents to consume less energy through behavior change and home improvements.
- \* On March 28, 2009 the City of Baltimore took part in **Earth Hour**, a global event in which millions of people turn out their lights for one hour to draw attention to the urgent need for climate change action. Baltimore's participation was led by the Office of Sustainability Youth Advisory Group and City Hall.

### BALTIMORE CITY 2007 GREENHOUSE GAS EMISSIONS



TOTAL 9,226,074 TONS

\*Source: Baltimore City 2007 Greenhouse Gas Emissions Inventory

### 4 STEPS YOU CAN TAKE

- Calculate your greenhouse gas emissions at [www.baltimoreenergychallenge.org](http://www.baltimoreenergychallenge.org) and plan actions to make your home more energy efficient
- Drive less. Use public transit or, better yet, try walking or biking to your destination
- Check out [www.energystar.gov](http://www.energystar.gov) for tips on using less energy at home and work
- Recycle. Just one person recycling for one year is enough to save 471 pounds of greenhouse gases

« This 2007 baseline of Baltimore City's greenhouse gas emissions represents the most recent emissions inventory and the five largest emitting sectors.



## Goal 2: Improve Baltimore's air quality and eliminate Code Red days

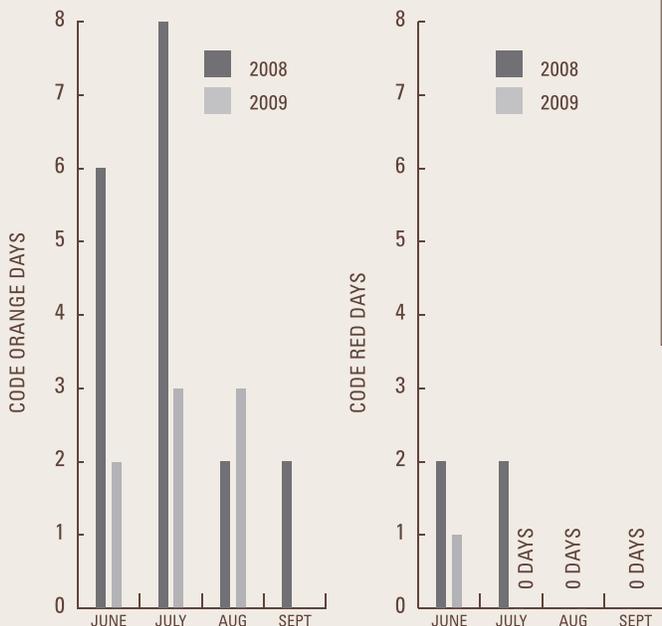
Because of its direct impact on public health, air quality is regulated by the federal government. This goal seeks to eliminate Code Red days, minimize Code Orange days, and keep Baltimore in compliance with air quality standards.

### KEY FACTS AND RELATED EFFORTS

- \* In 2009, overall ozone forming and fine particle forming emissions continued to decrease in the Baltimore region. For the first time since 1997, when the EPA originally developed fine particle standards, the **region's air quality monitors** showed fine particle levels below the EPA standard maximums.
- \* Implementation of the **Maryland Healthy Air Act**, one of the county's most aggressive power plant emission reduction programs began in 2009. Over \$2 billion worth of pollution control technologies were installed to Maryland power plants because of this program.
- \* In July 2009, the U.S. Environmental Protection Agency awarded Maryland Environmental Service a \$3.5 million grant on behalf of the MD Port Administration to implement clean diesel technologies on vehicles and equipment operating at the **Port of Baltimore**. The grant covers engine repowers, vehicle and equipment replacements, exhaust retrofits, and idling control devices in 83 units of cargo handling equipment, 50 short haul dray trucks, 7 locomotives, and 2 tugboats operating at the Port. These technologies will significantly reduce emissions of nitrous oxide, particulate matter, and carbon monoxide.

POLLUTION PREVENTION

POOR AIR QUALITY DAYS IN THE BALTIMORE AREA



\*Source: Clean Air Partners

### 5 STEPS YOU CAN TAKE

- Drive less. Use public transit or, better yet, try walking or biking to your destination
- Keep your car and boat engines tuned and tires filled to improve fuel efficiency and reduce air pollution
- If in the market for a new car, look for the most efficient, lowest polluting vehicles
- Select paint products that are water-based or have low amounts of volatile organic compounds
- Avoid gas-powered lawn mowers and leaf blowers that create air pollution

« Code Orange and Red day designations are announced when air quality is unhealthy for people to be outside, either because of the heat index, high pollen counts, or pollutants. Code Orange days indicate when it is unhealthy for sensitive groups such as children and elderly populations. Code Red days indicate when it is unhealthy for everyone.



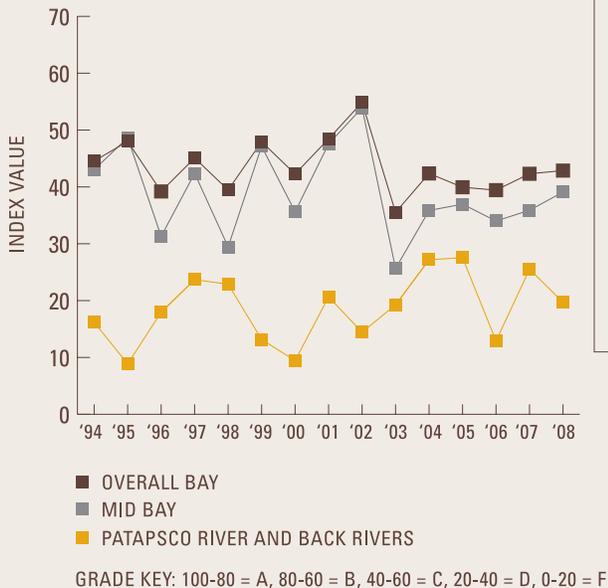
### Goal 3: Ensure that Baltimore waters bodies are fishable and swimmable

In accordance with the federal Clean Water Act, the City of Baltimore is striving to restore area water quality to fishable and swimmable levels by 2020, a very aggressive goal. Baltimore has thousands of stormwater outfall pipes that drain our streets and land, often carrying pollutants into the Harbor.

#### KEY FACTS AND RELATED EFFORTS

- \* According to Eco-check's 2008 **Chesapeake Bay Report Card**, the Patapsco and Back Rivers scored a 0% on both water clarity and chlorophyll. This scoring is consistent with the poor to very poor scores for all water quality indicators over the past 20 years. The dissolved oxygen score in 2008 was 59%, the second lowest score in the Bay.
- \* First listed in 2008, 100% of the Baltimore Harbor remained designated as **impaired for trash/debris/floatables** by the Maryland Department of the Environment in 2009.
- \* The **Waterwheel Powered Trash Interceptor** was installed in the Harris Creek outfall in May 2009. In 2009 alone, the equipment collected over 150 cubic yards of trash and debris from the waterway. An estimated composition includes: 60 cubic yards of organic material, 55,000 Styrofoam pieces, 27,000 plastic bottles, 550,000 cigarette butts, 22,000 plastic bags, 5,500 aluminum cans, and 25,000 pieces of miscellaneous trash.
- \* **Herring Run Watershed Association** built and sold 198 rain barrels in 2009, each one capable of capturing 55 gallons of rainwater during every significant rain storm. In most cases, this captured water was completely removed from the storm drain system and rerouted into the ground, where plants and soils could filter out pollutants.
- \* In 2009, **Jones Falls Watershed Association** and its volunteers planted over 800 trees, removed 11,765 lbs. of invasive plants and 21,705 lbs. of trash from school campuses, public parks, and watershed streams and rivers throughout Baltimore City and County.
- \* Maryland will use ARRA funds for a total of \$92.8 million in **pollution reduction projects**, including wastewater treatment improvements, sewer upgrades, and stormwater runoff controls. The proposed water quality projects in Baltimore City include improvements to the Patapsco wastewater treatment plant and creation of tidal wetlands in the Westport waterfront.

BAY HEALTH INDEX SCORES



\* Source: Eco-check 2008 Chesapeake Bay Report Card

#### 5 STEPS YOU CAN TAKE

- Make your lawn Bay-friendly by planting native grasses that don't require watering
- Avoid pouring toxic substances down storm drains that go directly into our streams
- Plant a tree
- Do your part to prevent and clean up litter
- Get involved in your local watershed group

« The Bay Health index rates 15 reporting regions of the Bay using six indicators that are combined into a single overarching index of health. 2008 is the most recent report currently available. Included here are figures for the overall Bay, the Mid Bay, which Baltimore is part of, and the Patapsco and Back Rivers which flow through Baltimore.



## Goal 4: Reduce risks from hazardous materials

Commonly-used chemicals including pesticides, ingredients in household products, and synthetic fertilizers, as well as waste materials from homes, businesses, and industry can pose serious hazards to human and environmental health.

### KEY FACTS AND RELATED EFFORTS

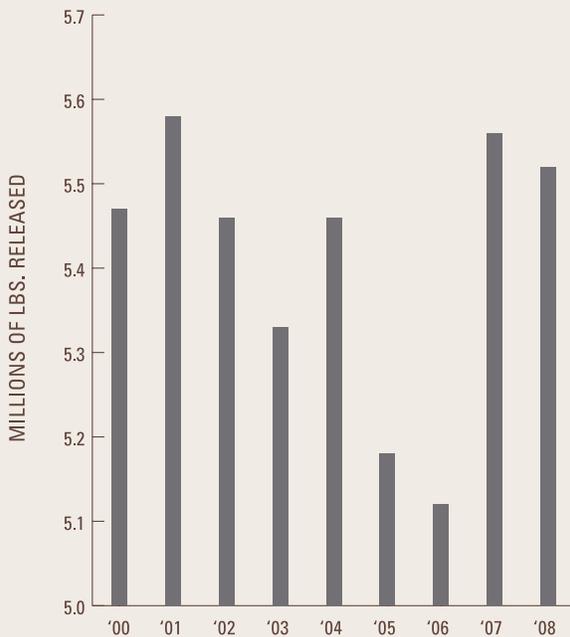
- \* The City of Baltimore’s Department of Public Works hosted a two-day **Household Hazardous Waste Drop-off** free of charge to City residents October 10-11, 2009 at Baltimore Polytechnic Institute.
- \* As of 2009, 100% of the Baltimore City Public Schools had adopted an **Integrated Pest Management** policy for their facilities.
- \* 100% of hospitals in the **Maryland Hospital Association** have pledged to eliminate the use of any devices which have mercury, in accordance with the worldwide HealthCare Without Harm Initiative. Mercury is found in thermometers, blood pressure monitors, feeding tubes, laboratory chemicals, and medical batteries. If not disposed of properly, mercury can get into water streams, where it is absorbed by fish, which are then eaten by humans, or into the air and inhaled.

- \* The Baltimore Development Corporation staffs the city’s **Brownfields** activities, addressing and overcoming regulatory, financing, and liability hurdles to encourage Brownfields redevelopment. Since 1996, Baltimore has completed over 30 Brownfields projects, producing more than 3,000 new/retained jobs, and leveraging \$300 million in new investment.

### 4 STEPS YOU CAN TAKE

- Before you buy, always check the product labels
- Keep products in their original containers that display product information and store them in safe places away from kids and pets
- Never pour harmful household products down sink, toilet, or storm drain that are not intended for that purpose
- Practice Integrated Pest Management (IPM) at school and at work

REPORTED TOXICS RELEASED IN BALTIMORE CITY



\* Source: EPA's Toxics Release Inventory

« EPA's Toxics Release Inventory is a database of information about releases of toxic chemicals from large quantity generators. This indicator measures total annual releases in pounds from facilities located within Baltimore. Toxic releases include releases to air, soil, and water. The EPA tracks only those facilities that report releases, and the number of reporting facilities varies from year to year.



## Goal 5: Improve the health of indoor environments

Americans spend close to 90% of their time indoors. Hazards found in indoor environments including lead, carbon monoxide, mold, allergens, radon, and second-hand smoke can pose a serious threat to the health and productivity of building occupants.

### KEY FACTS AND RELATED EFFORTS

- \* The Baltimore City Health Department’s **Healthy Homes & Communities Division** reaches a variety of community members through lead and healthy homes training and educational initiatives. The training initiative reaches target communities such as high-risk, low-income residents, day laborers, students studying construction, and the Latino community.
- \* Between 2008 and 2009, the **Coalition to End Childhood Lead Poisoning** served 3,333 low income individuals and organizations through lead hazard control interventions, legal services, relocation assistance, home safety interventions, and family advocacy services. The Baltimore-based Coalition reached 37,269 individuals in Maryland through direct outreach efforts in the past two years.
- \* As of 2009, 100% of the Baltimore City Public Schools had adopted an **Integrated Pest Management policy** for their facilities.
- \* Baltimore’s **green building regulations** went into effect for all new and extensively modified buildings over 10,000 square feet on July 1, 2009. The requirements are based on the U.S. Green Building Council’s LEED Silver certification. Projects are required to achieve indoor environmental quality requirements and are awarded points for implementing additional measures to improve indoor health such as low VOC materials, increased ventilation, and chemical pollutant controls.
- \* The Baltimore **Weatherization Assistance Program** combines healthy home strategies with the Baltimore City Health Department, including an emphasis on asthma reduction for families with children under years of age. The program improves indoor air quality by replacing furnaces, improving air flow, installing carbon monoxide detectors, and detecting and addressing gas leaks.

HEALTHY INDOORS EFFORTS 2008-2009	
<b>COALITION TO END CHILDHOOD LEAD POISONING PROGRAMS</b>	
Properties receiving lead hazard reduction interventions	323
Properties receiving Healthy Homes interventions to reduce indoor allergens and safety hazards	261
Tenants provided with tenant’s rights assistance to repair lead hazards in their home	414
Families receiving relocation assistance from lead hazardous housing to lead certified housing	213
<b>BALTIMORE CITY HEALTH DEPARTMENT’S HEALTHY HOME PROGRAM</b>	
People trained in lead and healthy home interventions	1,580
Families visited to assess home conditions	2,633

### 5

#### STEPS YOU CAN TAKE

- Do not smoke or allow smoking in your home
- Use natural household cleaning products
- Regularly clean the vents in your kitchen, bathroom, and dryer
- Open your windows to circulate fresh air inside when not using your heating or cooling system
- If you know or suspect you have lead paint and/or asbestos in your home have professionals handle control and cleanup

« While not exhaustive of all efforts, these figures illustrate examples of ongoing efforts in Baltimore to improve the health of indoor environments.



## Success Story

# Baltimore Neighborhood Energy Challenge

**THE BALTIMORE NEIGHBORHOOD ENERGY CHALLENGE (BNEC)** is an innovative pilot program designed to help educate and support Baltimore residents in taking action on home energy conservation as well as to research and evaluate effective strategies for energy conservation.

Tackling this challenge both through encouraging home energy retrofits and conservation-minded behavior change, BNEC primarily targets the Sustainability Plan's resource conservation goal of reducing energy use 15% by 2015, specifically using Strategy B: Improve the energy efficiency of existing homes and buildings, as well as Strategy E: Increase energy conservation by residents, City government, businesses, and institutions. BNEC also helps to forward Baltimore's sustainability pollution prevention, education, and green economy goals through conserving energy, educating

the public and Baltimore youth, and stimulating market demand for local energy retrofit services.

Organized as a partnership between the Office of Sustainability and the Baltimore Community Foundation, BNEC combines positive reinforcement, community norms, personal interaction, tailored resources, and a dose of fun, to provide residents with the extra incentives they need to act. In its 2009 pilot year, BNEC worked with community groups in eight neighborhoods across the city, chosen for

## SUCCESS STORY

diversity in terms of geography, race, income, housing type and percentage of homeownership. The pilot neighborhoods included Fulton Avenue, Neighborhoods of Greater Lauraville, Mount Washington, Reservoir Hill, Banner Neighborhoods, Ten Hills, Park Heights, and Roland Park. In each, BNEC partners with a community organization that helps to recruit a network of volunteers who the program trains in home energy efficiency basics.

*By building civic networks to communicate energy conservation information and support residents and other neighbors, Baltimore is taking a grassroots approach to furthering urban sustainability.*

Residents are asked, with the help of volunteers, or Neighborhood Energy Captains, to be part of the Challenge through a wide variety of outreach strategies tailored for individual neighborhoods. These strategies include individual volunteers canvassing door-to-door, large public education events, energy retrofit contractor events, large public service volunteer canvassing days, outreach at neighborhood events, and articles in neighborhood newsletters.

Residents who agree to participate receive a free Energy Savers Kit with informational resources, some basic energy and health supplies, access to energy efficiency “coaching,” and public recognition. Many take yard or window signs to advertise BNEC and their participation. In return, residents sign a public pledge to increase the energy efficiency of their homes, a waiver to allow their energy use data to be shared by Baltimore Gas and Electric with program organizers, and fill out an extensive survey about their home, energy consumption behaviors, and spending and action priorities.

For residents to take action on energy conservation, they must have not only knowledge about what steps are required and how to access local resources to take these steps, but also the attitude that taking action is worth the time and money. BNEC helps share information about local resources, including local contractors who can perform energy retrofit work,

nearby stores to purchase energy-efficient products, tax incentives and subsidies, energy-related assistance programs for low-income residents, and demand-management utility programs.

The Baltimore Neighborhood Energy Challenge is firmly rooted in the diversity that makes Baltimore great. By building civic networks to communicate energy conservation information and support residents and other neighbors, Baltimore is taking a grassroots approach to furthering urban sustainability. The BNEC pilot will not only help Baltimore residents support one another while reducing their energy consumption and energy bills, it will also help the city as a whole learn how to successfully meet Sustainability Plan goals. In the fall of 2010, BNEC will add additional neighborhoods to its network, as well as provide support and education to residents through new organizational partners around the city.



### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Improve the health of indoor environments
- Reduce Baltimore's energy use by 15% by 2015
- Reduce Baltimore's water use while supporting system maintenance
- Expand access to informational resources on sustainability
- Create green jobs and prepare city residents for these jobs
- Raise Baltimore's profile as a forward thinking, green city



## Goal 1: Reduce Baltimore's energy use by 15% by 2015

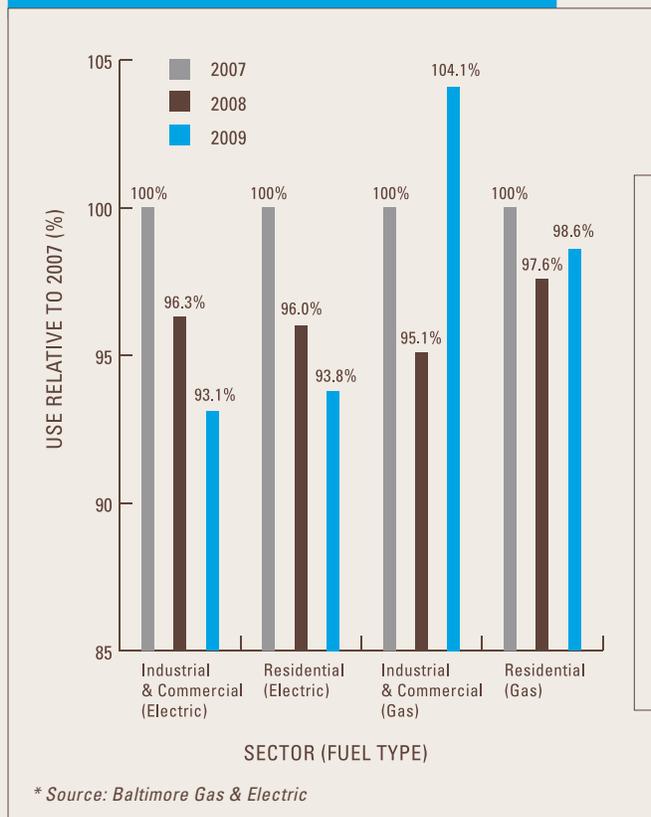
Reducing our energy consumption can help improve air quality, reduce dependence on foreign fuels, curb greenhouse gas emissions, prevent the construction of more power plants, reduce the risk of blackouts, and save money on electric bills.

### KEY FACTS AND RELATED EFFORTS

- \* In 2009, the Baltimore City Department of General Service's Energy Office managed roughly \$4 million of **energy efficiency improvements to City facilities** and equipment. These improvements will pay for themselves in reduced energy bills in an average of 5.8 years.
- \* The **Baltimore Neighborhood Energy Challenge** uses social marketing to inform residents about home energy conservation. In 2009, BNEC trained 129 Neighborhood Energy Captains to help their neighbors save energy and worked with more than 800 participating households in eight neighborhoods across the city.
- \* Civic Works' **Project Lightbulb** program engages individual homeowners in low-moderate income neighborhoods in Baltimore and installs low-cost energy saving devices in their homes. In 2009, the program retrofitted 1,097 houses and showed an average energy savings of 53 kwh per house per month.
- \* In 2009, **Civic Works' EnergyReady** applied energy saving "Cool Roofs" on 47 homes and made building envelope improvements in 38 homes achieving an average air infiltration reduction of between 15% and 30%.
- \* Baltimore's **green building regulations** went into effect for all new and extensively modified buildings over 10,000 square feet on July 1, 2009. Projects are required to achieve a minimum of 10% reduction from baseline energy use and are awarded points for implementing additional energy efficiency and renewable energy measures.
- \* The **Baltimore City Weatherization program** received \$15.7 million in ARRA funding in 2009 with which it plans to weatherize over 2,000 Baltimore homes over a three year period. Weatherized homes are predicted to save an average 30-40% in energy use and bills.
- \* In 2009, Baltimore Gas & Electric unveiled **Smart Energy Savers**, a suite of energy efficiency programs to help Baltimore residents save energy and money. Among these programs is the Quick Home Energy Check-Up, which includes installation of no-cost energy-saving items. BGE also offers subsidies of up to 80% of the cost of efficient lighting retrofits for small businesses in Baltimore.

RESOURCE CONSERVATION

ENERGY USE BY RELATIVE TO 2007 BASELINE



### 5 STEPS YOU CAN TAKE

- Sign up for the BGE Quick Home Energy Check-Up
- Replace your lightbulbs with energy-saving compact fluorescent lightbulbs (CFLs)
- Install a programmable thermostat and set it to Energy Star recommendations
- Set your thermostat at no higher than 68 in the winter and no lower than 78 in the summer
- Turn off your computer and monitor when not in use

« Changes in electricity and natural gas consumption are affected by a variety of factors including weather variations, behavior changes, economic health, technology, and population shifts.



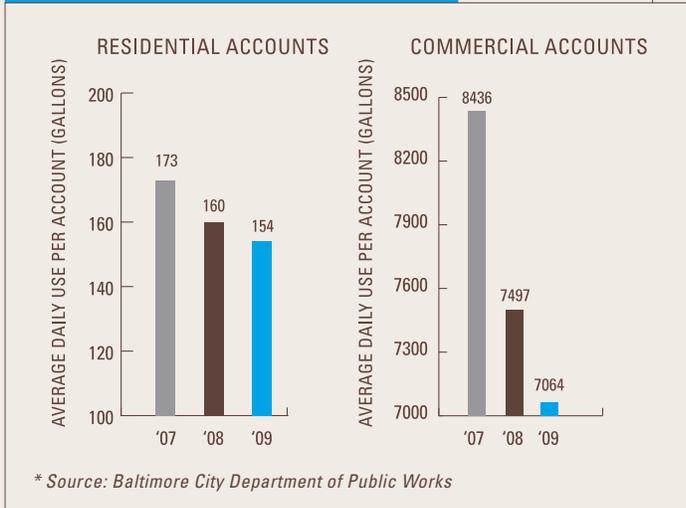
## Goal 2: Reduce Baltimore's water use while supporting system maintenance

Excessive water use depletes our freshwater supplies and requires significant amounts of energy to treat, deliver, and collect. Wise use of our water resources, along with maintenance of the City's water supply system, will help sustain Baltimore's system so that residents can continue to have clean, readily-available water.

### KEY FACTS AND RELATED EFFORTS

- \* In 2009, the Baltimore City Department of General Service's was awarded \$2.4 million for **water conservation projects in City facilities**. The funds will be used to install low flow fixtures in over 30 fire stations and more than 20 libraries throughout the City and will save roughly \$150,000 a year in water bills.
- \* The Baltimore City Department of Public Works Bureau of Water and Wastewater installed 8,500 linear feet of **new water pipes** and replaced another 3,620 linear feet of water pipes throughout the city in 2009.
- \* Baltimore's **green building regulations** went into effect for all new and extensively modified buildings over 10,000 square feet on July 1, 2009. Projects are required to demonstrate a minimum of 20% reduction from baseline non-irrigation water use and are awarded points for implementing additional water conservation measures such as low-flow fixtures and rainwater capture.
- \* Civic Works' program **Project Lightbulb** installed water saving faucet aerators and shower heads in 1,097 homes free of charge to low-moderate income homeowners in 2009. The estimated water savings of these efforts is 26,426,730 gallons per year.
- \* The **Baltimore Neighborhood Energy Challenge** distributed over 1,000 toilet tank banks in 2009. Each of these banks can save nearly a gallon per flush in older toilets. If all of these banks are installed, Baltimore would save 3 million gallons of water per year.
- \* The **Herring Run Watershed Association** built and sold 198 rain barrels in 2009, each one capable of capturing 55 gallons of rainwater during every significant rain storm. In total, this program has the potential to lead to an estimated 400,000 gallons of annual reduction in municipal water use for lawn and garden maintenance.
- \* The State of Maryland proposed a total of \$26.4 million for improvements to drinking water treatment, water storage, and conservation. Baltimore City's **water quality proposed projects** include improvements to the Montebello water reservoir and treatment plant and retrofits of low-flow toilets, sinks, and urinals.

### BILLED WATER CONSUMPTION IN CITY OF BALTIMORE (2007-2009)



### 4 STEPS YOU CAN TAKE

- Look for and stop leaks around your home which can waste more than 10% of your water
- Replace your old toilet, the largest water user inside your home
- Replace your clothes washer with an ENERGY STAR rated model
- Plant the correct plants with proper landscape design and irrigation

« Since 2007, water consumption has declined in both residential and commercial sectors. This may be due to water conservation efforts such as installation of more efficient fixtures in kitchens, bathrooms, and laundry rooms.



### Goal 3: Minimize the production of waste

There really is no such thing as “throwing something away,” the material ends up somewhere and must be dealt with. By addressing how waste is generated and handled, Baltimore can reduce the amount of non-recyclable, non-organic, non-combustible materials used and ultimately sent for disposal.

#### KEY FACTS AND RELATED EFFORTS

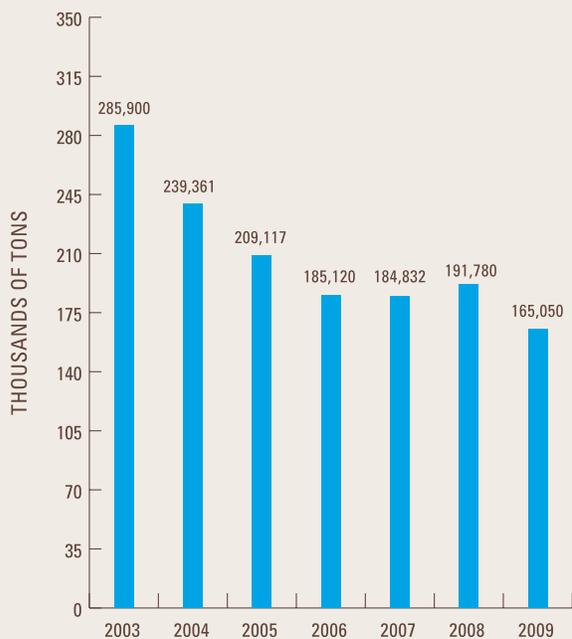
- \* At the beginning of 2009, Baltimore was one of the only cities of its size still collecting household trash twice per week. When Baltimore City’s Department of Public Works transitioned to the One PLUS ONE program, residential **mixed refuse tonnage decreased** roughly 25%, from a total of 100,620 tons from July through December 2008 down to 74,813 tons from July through December 2009.
- \* In 2009, more Baltimore businesses and institutions recognized food waste as a resource that can be recycled to **compost**. Locally owned, green sector businesses such as Waste Neutral Group were created to meet this growing demand and are projected to recycle about 225,000 pounds of food waste in 2010.
- \* The “**Compost Circus**” educational outreach program was initiated by the Parks & People Foundation to educate residents on how they

could compost their food waste at home. At farmers markets and festivals across the city, this group of volunteers hosts booths to promote residential composting.

- \* The Baltimore Refuse Energy Systems Company (BRESKO) provides disposal of up to 2,250 tons per day of municipal solid waste from Baltimore City and surrounding jurisdictions. The BRESKO **waste-to-energy facility** reduces the volume of incoming waste by approximately 90%. At full capacity, the plant can generate in excess of 500,000 pounds of steam per hour. Part of the steam is used to make electricity and the rest is used for district heating and cooling. The ash residue is approximately 28%, by weight, of the incoming waste and is used by the City of Baltimore for alternate daily cover at its Quarantine Road landfill.

RESOURCE CONSERVATION

#### QUARANTINE ROAD LANDFILL TONNAGE



\* Source: Baltimore City Department of Public Works, Bureau of Solid Waste

#### 4 STEPS YOU CAN TAKE

- Consider how much packaging will be thrown away when selecting purchases
- When possible, purchase in bulk to reduce packaging waste
- Purchase items that can be recycled
- Compost yard and food waste instead of placing it in the garbage

« Over the past six years, landfill waste has been declining, supported by efforts to increase recycling and composting. Roughly half of the landfill’s tonnage is the ash created from the Baltimore Refuse Energy Systems Company’s waste to energy processing, which is used as a daily cover.



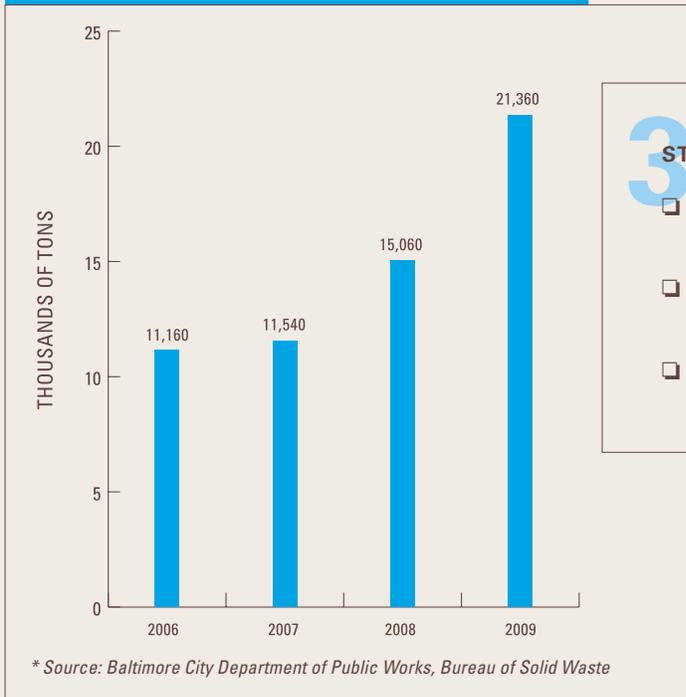
## Goal 4: Maximize reuse and recycling of materials

Baltimore has made great strides with its city-wide, single stream recycling program. The expansion of materials accepted into the program combined with an increase in recycling rates will reduce the amount of material entering the waste stream and generate revenue and jobs.

### KEY FACTS AND RELATED EFFORTS

- \* Baltimore City transitioned from two monthly recycling collections to weekly unlimited recycling collections as part of the Department of Public Works One PLUS ONE program. The program was designed to benefit the increasing number of households already recycling and encourage more residents to follow suit by providing **more frequent recycling collection**. After the transition, recycling tonnage increased by 55% from a bi-weekly average was 646 tons to 1,007 tons.
- \* CleanerGreener Baltimore, in partnership with the Baltimore Community Foundation, awarded over \$17,000 to communities through **32 Recycling More grants** in 2009. The grants allowed communities to encourage their residents to recycle more through a variety of ways – block parties, workshops, youth events, and give-a-ways. A sample of the impressive results included 13 community events, 1,009 recycling bins distributed, 800 door-to-door conversations, and over 3,000 participants.
- \* In 2009, the Baltimore Biodiesel Cooperative sold over 6,700 gallons of biodiesel to its members. By converting **used cooking oil into vehicle fuel**, the Coop is reusing a resource that would otherwise enter the waste stream while displacing greenhouse gas emitting fuel.
- \* Baltimore’s green building regulations went into effect for all new and extensively modified buildings over 10,000 square feet on July 1, 2009. The requirements are based on the U.S. Green Building Council’s LEED Silver certification. Projects are required to **dedicate recycling areas in all buildings** and are awarded points for reusing and recycling building materials.
- \* Second Chance trains workers in the environmentally-sound practice of **deconstruction**, the removal of reusable building materials from sites designated for demolition so these materials may be used again. In 2009, Second Chance grew from 46 to 65 employees deconstructing buildings in the Mid-Atlantic region and operating the 150,000 square feet of warehouses serving the sales of material for reuse.

**TOTAL RECYCLING TONNAGE COLLECTED BY DPW**



### 3 STEPS YOU CAN TAKE

- Participate in the City’s weekly single stream recycling program
- Recycle electronics at drop off centers around the City
- Encourage your employer to recycle

“ Consistent with waste reductions, recycling has increased quite dramatically since the introduction of Single Stream Recycling and the One PLUS ONE program began offering curbside recycling every week.



Photo: Great Kids Farm

*Success Story*

# Great Kids Farm

**GREAT KIDS FARM AT THE BRAGG NATURE CENTER** is a 33-acre working organic farm owned and operated by the Baltimore City Public Schools System as an educational and vocational training component of its larger school food reform, the Farm to Cafeteria Initiative. In the schools, students are enjoying healthy, freshly cooked meals with many locally sourced ingredients. At the Farm, students have the opportunity to understand and participate in every aspect of food preparation, from seed to fork.



The farm believes that teaching students to grow, harvest, and prepare wholesome food can play a critical role in improving their health, nutrition, and readiness to learn. By teaching students about what they eat and where it comes from, the Farm encourages students to make better choices for their own health and the planet. This education extends beyond students; the Farm has been the subject of dozens of local and national media stories, several U.S. congressional visits, and presentations at local, regional, and national conferences.

## SUCCESS STORY

### HARVESTING RESULTS

Since the Farm's opening December 2008, Farm Manager Greg Strella and Lead Horticultural Educator Gloria Rosen, along with students and volunteers, have worked to revive this unique educational space. The result is a dynamic farm where 14 living systems, including mushrooms, composting worms, fruit, goats, honeybees, vegetables, and chickens, combine to showcase the diversity and interconnectedness of the nourishment humans coax from the earth.

In 2009 alone, 15 interns, 65 vocational trainees, and more than 1,500 students on service projects and field trips have participated in bringing Great Kids Farm to life. Over 1,200 people participated in community events such as volunteer days, tours, and workshops. A nearly all-volunteer force has planted fruit trees and berries and nurtured thousands of vegetable plants. Over 7,000 free organic transplants, along with training, consultation, and services were donated to schoolyards and community gardens to spread around our city an appreciation of fresh food and where it comes from.

*Great Kids Farm also serves as an incubator for dramatically increasing the number of schoolyard gardens in the Baltimore region. A year from now, we hope to see the number of school gardens double, if not triple.*

Students and volunteers assisted the Farm's small staff in rehabilitating two greenhouses and an animal shed, while other committed stakeholders built a solar heated hoop house for growing vegetables year round. The Farm has also started construction of a vegetable wash station for increasing the efficiency of product delivery to Community Supported Agriculture farm members, farmers markets, and local restaurants.

None of this work would be possible without those visionaries who contributed key resources in the very beginning: The Sach's Family Foundation; Jane Harrison, Richard Cone and their late daughter Tania; The Abell Foundation; The Baltimore Community Foundation; The Baltimore County Agricultural Resource Center;

and many others. Their commitment was met by the sweat and ingenuity of thousands of students, skilled volunteers, incredible partnering organizations, and Baltimore City Public Schools staff.

### PLANTING SEEDS FOR THE FUTURE

Great Kids Farm expects to double its farming, outreach, field trip, and volunteer efforts in 2010. Students and visitors will find new life in the Farm's historic buildings, which are now in the early stages of renovation. Great Kids Farm also serves as an incubator for dramatically increasing the number of schoolyard gardens in the Baltimore region. A year from now, we hope to see the number of school gardens double, if not triple.

What began with a historic space, several dedicated individuals, and a few thousand dollars is now a rich, living landscape that is reseeding itself across Baltimore.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Establish Baltimore as a leader in sustainable, local food systems
- Protect Baltimore's ecology and biodiversity
- Turn every school in Baltimore City into a green school
- Ensure all city youth have access to environmental stewardship programs and information
- Raise the environmental awareness of the Baltimore community
- Expand access to informational resources on sustainability
- Create green jobs and prepare city residents for these jobs
- Raise Baltimore's profile as a forward thinking, green city



## Goal 1: Double Baltimore's tree canopy by 2037

Trees are essential to healthy, vibrant communities. Trees are proven to stimulate economic development, clean and reduce the amount of stormwater running into the Bay, improve air quality, reduce cooling and heating costs, and increase property values.

### KEY FACTS AND RELATED EFFORTS

- \* In 2009, Baltimore's urban tree canopy was classified by the USDA Forest Service, in cooperation with the University of Vermont Spatial Analysis Laboratory, using City LiDAR data. The analysis determined that the **canopy cover was 27.4%** or 14,134 acres out of the city's 51,640 acres.
- \* The Mayor's Office committed **\$500,000 in seed funding** to the TreeBaltimore initiative in 2009. Of this, \$250,000 is designated for a cost share program to encourage planting trees on residential, institutional, and other privately-owned land in the city. Another \$200,000 was committed to best practices for street and median strip trees, and the remaining \$50,000 was used to purchase tree-related materials such as gator bags and tree guards.
- \* Sappi Paper awarded \$38,000 to the TreeBaltimore marketing campaign promoting residents to take action: **'One Tree Can Make a Difference. Where Will You Plant Yours?'**. The campaign rolled out in October 2009, appearing on buses, bus shelters, magazines, door hangers, and lawn signs.
- \* In the fall of 2009, **Constellation Energy** committed \$300,000 over three years to increase the canopy through tree planting and maintenance efforts in neighborhoods, schools, and parks. In the first year, 16 neighborhoods were targeted to receive intense tree planting efforts to create a visible and sustained impact.
- \* Baltimore became one of the pilot cities for CSX Corporation's **'Trees for Tracks' program** with the goal to plant a tree for every mile of the 23,000 tracks throughout the country. CSX will sponsor two plantings in Baltimore annually.
- \* TreeBaltimore's **TreeNeighborhood program** offers community associations free and reduced priced 3-4 gallon trees for homes and businesses and provides free delivery for neighborhoods that order 10 or more trees. In a spring 2009 pilot, 300 trees were delivered to 9 neighborhoods, and in the fall, 475 trees were delivered to 15 neighborhoods. In addition, 2000 1-gallon trees were given away free to city residents.
- \* The City of Baltimore's **Forest Conservation program** ensures that developments in Baltimore preserve existing trees and forests onsite or plant new trees to advance the City's tree canopy goal. In 2009, approximately 1,200 trees and 800 shrubs were planted under the program.

GREENING

TREEBALTIMORE TREES PLANTED IN 2009	
PRIVATE PROPERTY	# TREES
Growing Home Campaign	350
Marylanders Plant Trees Program	415
<b>Private Sub-Total</b>	<b>3,391</b>
PUBLIC PROPERTY	
Planted by Forestry	1,800
<b>Public Sub-Total</b>	<b>2,652</b>
<b>TOTAL TREEBALTIMORE TREES PLANTED</b>	<b>6,043</b>

### 4 STEPS YOU CAN TAKE

- Plant and care for trees around your property
- Pick up a FREE tree from TreeBaltimore in the spring or fall
- Sign up for a tree through the TreeNeighborhood Program
- Volunteer with TreeBaltimore or your watershed association

« While not inclusive of all tree plantings in 2009, these figures represent the planting efforts with which TreeBaltimore was directly involved. In addition to these efforts, many other organizations helped increase Baltimore's tree canopy in 2009.



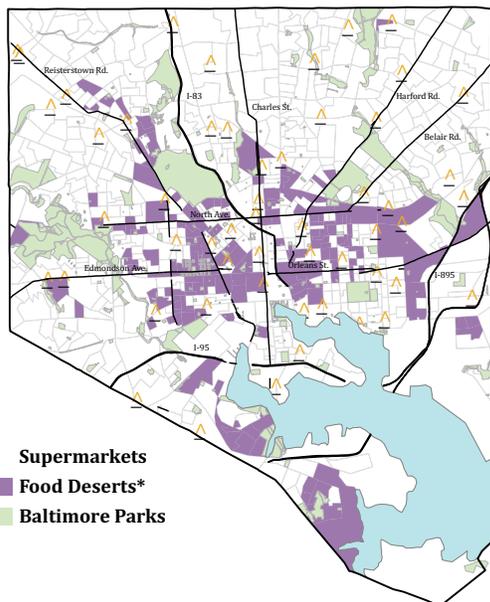
## Goal 2: Establish Baltimore as a leader in sustainable, local food systems

Food systems have critical connections to public health, quality of life, environmental stewardship, and greenhouse gas emissions. Enhancing our local food system infrastructure can improve citizens' access to healthy, locally-grown food.

### KEY FACTS AND RELATED EFFORTS

- \* Real Food Farm, an urban agriculture project of Civic Works in Clifton Park opened in October 2009. RFF joined with Safe Healing Foundation to build “**Hoop Village**”, 3 agricultural hoophouses to provide agriculture education and demonstration in Baltimore. RFF will offer students, community residents, and farmers year-round opportunities for education, jobs, and healthy food access.
- \* Transform Baltimore is an initiative to update and correct **Baltimore City’s Zoning Code**. The Office of Sustainability worked to ensure that the new code allows for urban agriculture, community gardens, and farmers markets.
- \* The **Virtual Supermarket Project program** is designed to broker a common food delivery point in underserved urban neighborhoods by providing internet purchasing and credit card to guarantee the purchase. As of the end of 2009, there were two virtual supermarket sites - Orleans Street and Washington Village Branches of the Enoch Pratt Free Library.
- \* The **Baltimore City Food Policy Task Force** released its recommendations report in 2009. The task force was created to identify means to create demand for healthy food and to ensure opportunities for all Baltimoreans to access affordable healthy food options to achieve and sustain better health outcomes and a higher quality of life.
- \* The **Baltimore City Public School System** continued to expand its projects to encourage students to eat and learn about healthy, environmentally-friendly choices in 2009. Efforts included becoming the nation’s first fully Meatless Monday school system, teaming up with local farmers and distributors to provide students fresh, local food, and cultivating Great Kids Farm, a 33-acre teaching farm.
- \* Parks & People expanded their **Community Greening Resource Network** to provide individuals and communities the materials, education, and connections they need to garden in Baltimore City.

### FOOD DESERT MAP



▲ Supermarkets  
■ Food Deserts\*  
■ Baltimore Parks

\*Source: Center for a Livable Future

### 6 STEPS YOU CAN TAKE

- Shop at your local farmers’ market
- Join a community supported agriculture program
- Join the Community Greening Resource Network
- Grow your own backyard garden or get involved in a community garden
- Purchase fresh, local foods that are, when possible, organic
- Request that places where you eat (work, restaurants, schools) buy local, fresh food

« The food deserts, represented in purple, were delineated based on areas of extreme poverty (where 40% or more of the population’s household income is \$25,000 or less annually) and where the center of census block groups were more than ¼ mile from the nearest supermarket. The center and other parts of the census block group might be farther than a ¼ mile to the supermarket, even if the supermarket is on the border or within the block.



### Goal 3: Provide safe, well-maintained recreational space within 1/4 mile of all residents

Access to recreational space is critical to the health and livability of any community. In each of Baltimore's neighborhoods, providing safe and open access to well maintained green spaces is a key resource necessary to living balanced lives in our urban environment.

#### KEY FACTS AND RELATED EFFORTS

- \* The City of Baltimore Department of Recreation and Parks works with the community to coordinate park stewardship and conservation projects in order to raise awareness and educate the public about the city's urban natural resources. Their 2009 efforts included the **Urban Weed Warrior program** and the **Neighborhood Tree Stewards program**.
- \* The **Greater Baltimore Parks & Recreation Alliance**, a new citizen advocacy group, was formed in 2009 to support the area's park and recreational opportunities.
- \* Baltimore Green Space identified **222 green spaces** in Baltimore City in a 2009 survey. These included publicly owned parks, community gardens, and other neighborhood green and recreational spaces.
- \* **Partnerships for Parks**, a joint program of the Baltimore City Department of Recreation & Parks and the Parks & People Foundation, awarded 29 small grants totaling \$87,231 for a variety of unique and valuable park projects in 2009.
- \* The **Friends of Patterson Park Stewardship program** is organized into volunteer "teams" which each meet once a month. In 2009, the Boat Lake Team's 117 volunteers removed 2,175 of trash and 1,300 lbs. of invasive plant species, the Tree Team's 137 volunteers planted 24 new trees and cared for 500 existing trees, and the Beautification Detail Team's 190 volunteers completed six large clean-ups and planted 12 gardens.

#### MAP OF PARKS AND ¼ MILE POPULATION BUFFER



\* Source: Baltimore City Department of Planning

#### 4 STEPS YOU CAN TAKE

- Visit one of Baltimore's great parks
- Form a neighborhood organization to steward the parks and green spaces in your community
- Volunteer with the existing stewardship group in your neighborhood
- Volunteer your time to help with the city green-space survey

« This map identifies communities where less than half of the residents live further than ¼ mile from a public park. Not included in this map are small privately-managed parks and green spaces.

« 41.1% of Baltimore City area, 21,305 acres, is within a ¼ mile buffer of a public park .

« 71.3% of Baltimore City population, 460,036 people, live within the ¼ mile buffer of a public park .



## Goal 4: Protect Baltimore's ecology and bio-diversity

Baltimore City is part of a very unique collection of ecosystems including the Chesapeake Bay and four regional watersheds. Practicing good stewardship of our natural world improves the ability of future generations to eat fresh food, breath clean air, drink healthy water, and enjoy open space.

### KEY FACTS AND RELATED EFFORTS

- \* The Chesapeake Bay Critical Area includes all land within 1,000 feet of tidally-affected water. The Baltimore City **Critical Area Management Program** holds waterfront development to higher environmental standards to protect this sensitive ecosystem. All projects must protect and enhance Baltimore's ecology and diversity by reducing pollutant runoff and enhancing wildlife habitat through retaining or planting native vegetation near the water. Over 800 trees, 1,600 shrubs, and many herbaceous species were planted by developers under this program in 2009.
- \* In 2009, Baltimore City Recreation and Parks and Department inventoried and mapped all the stand-alone trees and shrub collections in the 209-acre Cylburn Arboretum. The Department also identified and mapped all trees in Patterson Park and hired a consultant to create a **Tree Master Plan** for Baltimore City's five major parks.
- \* Begun in 1997, the **Baltimore Ecosystem Study** is a long-term ecological research project funded by the National Science Foundation and the Environmental Protection Agency to learn how an urban area works as an ecological system. In the summer of 2009, BES re-inventoried 201 plots throughout the city as part of their work to better understand the ecological interactions in the whole range of habitats -- from the center city of Baltimore out into the surrounding rural areas.
- \* According to Eco-check's 2008 **Chesapeake Bay Report Card**, the Patapsco and Back Rivers' benthic community condition declined from unusually good conditions in 2007. Benthic and phytoplankton community condition tend to vary greatly between years. Aquatic grass distribution has remained very poor since 1989, with the exception of a short two-year period (2004 and 2005), when the score increased to 72%.
- \* In 2009, **Herring Run Watershed Association** installed 198 rain barrels and 3 rain gardens, planted over 1100 trees, removed 1.2 acres of invasive plants, and sold over \$41,000 worth of native plants, all of which increased the quality and availability of in-stream and upland fish and wildlife habitat.
- \* **Jones Falls Watershed Association** and its volunteers planted over 800 canopy and understory trees, removed 11,765 lbs. of invasive plants, and collected 21,705 lbs. of trash from school campuses, public parks, watershed streams, and rivers throughout Baltimore City and County in 2009.

## 5

### STEPS YOU CAN TAKE

- If you have a garden, plant native species to provide habitat for local pollinators and birds
- Tell your workplace that native landscaping matters
- Compost your organic waste and add it to your soil
- Use a rain barrel to reduce stormwater runoff
- Volunteer with your local watershed organization on their days of action



### *Success Story*

## Charm City Circulator

**THE CITY OF BALTIMORE ANNOUNCED THE CHARM CITY CIRCULATOR** in the summer of 2009 and launched the service on January 11, 2010. This eco-friendly, fare-free bus service transports riders in and around the downtown area. The Circulator consists of three routes. The Orange Route, which is currently operating, runs between Hollins Market, UMB Biopark, the Inner Harbor, Downtown, and Harbor East. Two more routes will launch in 2010; the Purple Route which will run between Federal Hill through the Central Business District and Mount Vernon to Penn Station, and the Green Route which will connect City Hall, Fells Point, Johns Hopkins Hospital, and EBDI.

## SUCCESS STORY

The goal of the Charm City Circulator is to reduce congestion and greenhouse gas emissions by offering a convenient, reliable, and eco-friendly form of public transportation. Additionally, the new Ecosaver IV bus used by the service is a hybrid bus that operates in “zero-emissions mode,” or completely on electricity generated by an on-board auxiliary power unit, about 25% of the time.

The Charm City Circulator ties in with the Baltimore Sustainability Plan in several areas. The first is transportation. One goal of the Sustainability Plan is to improve public transit services, and a strategy to address this goal is the implementation of an integrated system of downtown shuttles. The Circulator directly addresses this strategy by offering a new, easy-to-use public transportation service that reduces the need for automobile use downtown. The intent of the Circulator service was to directly address shortcomings of regular local bus service by ensuring short headways, fewer stops, and offering user-friendly maps to entice people who would not normally ride a bus to do so.

*Riders on the Circulator are helping the City reach its goal of reducing greenhouse gas emissions by 15% by 2015 by riding hybrid public transportation rather than their own cars.*

Other transportation-based goals advanced by the Charm City Circulator include improving equity in transportation and seeking increased funding to sustainable forms of transportation. By offering a fare-free service and connecting emerging neighborhoods to downtown and vice versa, the Circulator is contributing to improved equity in transportation. Additionally, the Charm City Circulator is funded by an increase in parking taxes dedicated to operating the free service, furthering the goal of increasing funding to sustainable forms of transportation.

Pollution prevention is another focus of the City’s Sustainability Plan. Riders on the Circulator are helping the City reach its goal of reducing greenhouse gas emissions by 15% by 2015 by riding hybrid public transportation rather than their own cars. The introduction of bus-and-

bike-only lanes on Lombard and Pratt Streets—while primarily intended to ensure that the Circulator meets its goal of ten-minute headways—also demonstrates Baltimore’s dedication to cleaner, greener transportation to help reduce greenhouse gas emissions.

*Baltimore City residents, employees, visitors, and students are using the Charm City Circulator to get to work or class, to run errands, to attend meetings, to visit attractions, to try a new lunch spot, and to get home.*

Baltimore City residents, employees, visitors, and students are using the Charm City Circulator to get to work or class, to run errands, to attend meetings, to visit attractions, to try a new lunch spot, and to get home. Ridership has already surpassed predicted levels and continues to increase into tourist season. Once all three lines are running, people will be able to ride all over downtown Baltimore for free, hopefully leading to a reduction in congestion in Baltimore as folks choose to leave their cars in favor of the Charm City Circulator.

*For more information, including route information, hours of service, and latest news, please visit the Charm City Circulator’s website at [www.charmcitycirculator.com](http://www.charmcitycirculator.com).*

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore’s greenhouse gas emissions by 15% by 2015
- Improve Baltimore’s air quality and eliminate Code Red days
- Reduce Baltimore’s energy use by 15% by 2015
- Improve public transit services
- Measure and improve the equity of transportation
- Increase transportation funding for sustainable modes of travel
- Raise Baltimore’s profile as a forward thinking, green city



## Goal 1: Improve public transit services

Public transit is a central component of a sustainable city. Effective and efficient public transportation can reduce living costs, create jobs, clean the environment, foster energy independence, and improve quality of life.

### KEY FACTS AND RELATED EFFORTS

- \* The City of Baltimore began the free **Harbor Connector water taxi** service from Fells Point to Tide Point in April of 2009 and from Canton to Tide Point in November 2009. Average ridership during the spring and summer months exceeded 200 trips daily.
- \* The first hybrid buses for the free **Charm City Circulator** were delivered to the City of Baltimore in May 2009. Service on the Circulator's first route, the Orange route from Hollins Market to Harbor East, began on January 11, 2010.
- \* In August 2009, Governor O'Malley joined City and State elected officials to announce the locally-preferred alternative for **Baltimore's Red Line Transit project**. The 14-mile, east-west rail line would operate between Woodlawn to the west and the Johns Hopkins Bayview medical complex to the east. The Red Line will connect with the existing Baltimore Light Rail system, MARC stations, the Baltimore Metro subway, and local bus routes to create a comprehensive regional transit network.
- \* The Maryland Transit Administration (MTA) introduced the new **QuickBus 48 route** along the York Road/Greenmount Avenue corridor in August 2009, building on the Quickbus 40 route between Security Square & Middle

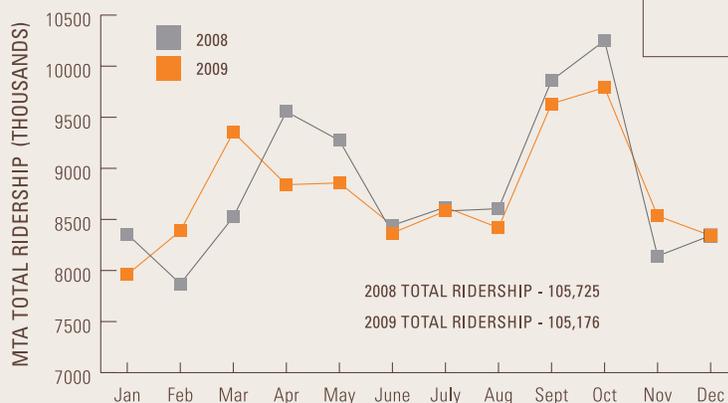
River. QuickBus service is intended to be used along high-volume transit bus routes where limited stops and other enhancements have the potential to reduce travel times and increase ridership.

- \* MTA commitment to convert 75% of its **bus fleet to hybrid-diesel vehicles** by 2014 was accelerated by ARRA funding made available to purchase more hybrid buses in 2009. Hybrids have proved to be twice as reliable as diesels, with hybrids logging nearly twice as many miles between service calls, saving money in vehicle service and fuel. The new hybrid buses feature ergonomic passenger seating, an advanced video surveillance system, wider exit doors, LED lighting, and tip-in windows for improved circulation and passenger safety.
- \* The MTA discontinued and/or reduced certain **commuter services** to Baltimore City from Howard and Hartford Counties.

### 4 STEPS YOU CAN TAKE

- Leave your car at home
- Use the free Charm City Circulator to get around downtown
- Ride the MTA to work
- Contact your elected officials and let them know public transit is critical to our city's economy, tourism, and quality of life

MTA RIDERSHIP 2008-2009



\*Source: Maryland Transit Administration

« This chart represents the number of trips taken on MTA's various forms of public transit statewide in 2008 and 2009. While there is some monthly variation, annual totals for the two years remained largely unchanged.



## Goal 2: Make Baltimore bicycle and pedestrian friendly

Walking and bicycling are the most immediately accessible, environmentally-friendly, and affordable transportation modes. As modes of transport, walking and cycling promote health, enhance neighborhood connectivity, emit no pollution, and encourage development scaled to people, rather than cars.

### KEY FACTS AND RELATED EFFORTS

- \* Baltimore City Department of Transportation continues to work with the Baltimore Metropolitan Council to develop a “**Bike to Work**” program. In 2009, they released a bicycle commuter guide to aid both workers and their employers in their transition to cycle commuting. [www.baltometro.org](http://www.baltometro.org)
- \* Baltimore ranks 12th in the nation for **most walkable cities** according to Walk Score which calculates the walkability of cities and neighborhoods based on the distance from your house to nearby amenities to measure how easy it is to live a car-lite lifestyle. Fells Point, Federal Hill, and the Inner Harbor neighborhoods were all considered Walkers’ Paradises, the highest rating awarded.
- \* Baltimore had its first official “**Sunday Streets**” recreational street closure program in October 2009 on Roland Ave between Northern Parkway and Cold Spring Lane. The successful event promoted walking, bicycling, and exercising by temporarily closing select streets to automobiles.
- \* According to the 2010 **Bicycle Benchmarking Report**, Baltimore ranks 11th nationally for city bicycling and walking commuting levels. While the report stated that Baltimore ranked 13th nationally for lowest city bicycling and pedestrian fatalities, the City ranked 27th in bicycle safety.
- \* Progress toward completing the Baltimore City **Bicycle Master Plan** continued in 2009. The second phase of implementation of the Bicycle Master Plan will occur throughout Summer 2010 in the Park Heights and Southeast Baltimore communities.
- \* In June 2009, about 1,000 riders participated in the 7th annual **Tour Dem Parks** event which included 4 routes, from 14 to 64 miles, all focused on Baltimore's park system. In October 2009, about 2,000 individuals participated in the 16th **Tour du Port** ride which toured the Baltimore waterfront in 3 routes from 12 to 63 miles. Additionally, over 150 riders participated in the Baltimore City site for Bike to Work Day 2009, and an estimated 650 participated in the Bike Blast in Druid Hill Park.

### 5 STEPS YOU CAN TAKE

- Walk or use a bicycle for small trips
- Walk or bike to work
- Encourage your workplace and businesses you frequent to add parking for bikes
- Consider letting your child walk or bike to school
- Drive respectfully of cyclists

### BICYCLE INFRASTRUCTURE IMPROVEMENTS

	2008	2009
MILES OF BIKE LANES ADDED	14.5 MI	5.5 MI
<i>Currently there are a total of 70 miles of bike lanes in Baltimore city.</i>		
# OF BIKE RACKS INSTALLED	33	135
<i>*Source: Baltimore City Department of Transportation</i>		

« While these figures do not tell the entire story of Baltimore’s efforts to improve bicycle and pedestrian facilities, they do illustrate an upward trend in bicycle infrastructure investment.



### Goal 3: Facilitate shared-vehicle usage

The Baltimore region increasingly endures traffic jams, parking shortages, and citizens unable to afford motor vehicle ownership. Vehicle-sharing programs allow individuals and families to trade the burden of car ownership in favor of a more affordable, more sustainable option.

#### KEY FACTS AND RELATED EFFORTS

- \* In June 2009, the nation's first **all-electric car-sharing program** debuted in Baltimore's Inner Harbor. Ten cars were available for the public to rent at the Maryland Science Center. The all-electric cars got juice from a regular 110-volt outlet and could go up to 120 miles on one charge of its lithium-ion battery system.
- \* Baltimore's **CityCommute program** aims to promote commuter alternatives by educating on the benefits of using alternative transportation rather than driving alone in single-occupancy vehicles. The program was largely dormant for much of 2009 due to the vacancy of the Transportation Management Coordinator.
- \* Baltimore City Department of Transportation secured federal funds in 2009 for **Transportation Management Association (TMA)** in Southeast Baltimore, operated by the Waterfront Partnership of Baltimore. TMA focuses on providing timely and accurate information to major employers and their workforce, visitors, and others regarding available commuting alternatives.
- \* Johns Hopkins University, in partnership with Zipcar, offered **16 shared vehicles** to students, staff, faculty, and Baltimore community members in 2009. Zipcar members drive an average of 2,500 fewer miles than their non-member counterparts.
- \* The Baltimore City Parking Authority has entered into negotiations with **Zipcar** to expand car sharing services in Baltimore. As of the end of 2009, over 700 people had signed up as "interested parties" on the Parking Authority's website. Locations for the city Zipcar program will be based on the geographic areas where people have expressed interest. The Parking Authority has found significant interest in the Mt. Vernon, Fells Point, Butchers Hill, and Canton neighborhoods.

TRANSPORTATION

#### BENEFITS OF JOHNS HOPKINS UNIVERSITY ZIPCAR PROGRAM

- 16 CARS** currently available for use
- 40 MEMBERS** per car average
- 2,500 FEWER MILES** driven per member per year
- 27 MPG** on average and **19.4 LBS CO2** per gallon

As a result, the Zipcar program created the following benefits:

- 100,000 LESS MILES** driven by members
- 3,703 LESS GALLONS** of fuel used
- 71,838 LBS LESS** greenhouse gas emitted

\*Source: Johns Hopkins University

#### 3 STEPS YOU CAN TAKE

- Team up with you neighbors and coworkers to start a rideshare program for commuting
- Sign up to get updates on the Parking Authority's car share program
- Try AltCar at the Maryland Science Center

*« These figures demonstrate the potential benefits of car sharing programs. If shared fleets were replicated more widely throughout Baltimore, the impacts would be exponential.*



## Goal 4: Measure and improve the equity of transportation

Equity is a key component of sustainability. In a car-oriented city like Baltimore, where a third of residents lack a car, the urban transport fabric can intensify inequity. Baltimore's low-income residents have limited transportation options, experience relatively low-quality service, and pay heavily for those limited options.

### KEY FACTS AND RELATED EFFORTS

- \* The **Housing and Transportation Affordability Index**, developed by the Center for Neighborhood Technology and Brookings Urban Markets Initiative, is an interactive web tool that allows individuals, urban planners, and transportation and housing advocates to calculate the cost of housing and transportation by neighborhood. In 2009, this resource was expanded to include the greater Washington/Baltimore region.
- \* The City of Baltimore Red Line office hired an **Economic Empowerment Officer** in 2009 to begin developing workforce and small contractor pipeline programs to benefit neighborhoods throughout the proposed Red Line.
- \* The University of Baltimore's Jacob France Institute of the Merrick School of Business conducted a study to estimate the number of **jobs and scope of economic activity** the Red Line would bring to Baltimore. Results of the study approximated the Red Line would support 1,307 jobs during its design and planning and another 8,494 once actual construction begins - a total of 9,801 jobs with a direct impact of \$1.4 billion.
- \* The MTA awarded **Job Access/Reverse Commute Grants** to improve transportation services to employment activities for welfare recipients and low-income individuals. In July 2009, the BWI Business Partnership received over \$200,000 to support shuttle services to and from work for BWI employees who live in Baltimore City. In addition, The League received over \$100,000 worth of support to provide transportation to and from job interviews and employment for Baltimore residents with disabilities.

### TRANSPORTATION COSTS AS A PROPORTION OF INCOME



- Data Not Available
- 0 to 15%
- 15 to 18%
- 18 to 20%
- 20 to 28%

Household Transportation Costs are calculated as the sum of Auto Ownership Costs, Auto Use Costs, and Public Transit Costs. Dividing these costs by the Area Median Income illustrates the Cost Burden placed on the average household by Transportation Costs.

\* Source: *The Housing and Transportation Affordability Index*



## Goal 5: Increase transportation funding for sustainable modes of travel

While our existing infrastructure is in dire need of maintenance and repair, the capital and operating costs for new transportation projects are extremely high. Still, Baltimore has a strong foundation as a compact city. The high density of residences, combined with distributed commercial services, can support high quality transit services. While up-front expenses are high, sustainable transportation projects are ultimately far more economical over time than building or expanding freeways.

### KEY FACTS AND RELATED EFFORTS

- \* Baltimore City Department of Transportation's FY2010 operating budget for **cleaner greener forms of transportation** was \$6,819,320. This includes the Charm City Circulator, Water Taxi Harbor Connector, Red Line, and Bicycle/Pedestrian programming.
- \* The City of Baltimore received ARRA transportation funds in 2009, much of which were dedicated to sustainable transportation uses. Approximately \$1.5 million in **ferry boat funding** will help the City to construct docks and purchase two all-weather vessels to move commuters from Canton to other areas of the City connected with the Downtown Circulator. This free service for commuters will run all year and withstand seasonal weather conditions. Additional ARRA funding was allocated to make major improvements to the **West Baltimore MARC Center**.
- \* In September 2009, the State of Maryland announced a \$30 million surplus availed through savings generated in highway and transit contracts. More than \$17 million will be invested to rehabilitate the **Mondawmin Transit Center** in Baltimore, the MTA's aging bus maintenance facilities, and electrical systems critical to the operation of the Baltimore Light Rail system.
- \* The Maryland Transit Administration (MTA) introduced the new **QuickBus 48 route** along the York Road/Greenmount Avenue corridor in August 2009. This corridor was chosen in part based on the role they play connecting people to major employment centers downtown, along York Road, and Towson. QuickBus service is intended to be used along high-volume transit bus routes where limited stops and other enhancements have the potential to reduce travel times and increase ridership.

AS OF SEPTEMBER 10, 2009, THE STATE OF MARYLAND HAD AWARDED A TOTAL OF *59 highway contracts, representing an investment of \$189 million.*

ARRA-FUNDED TRANSIT PROJECTS AWARDED TO THAT DATE REPRESENT *an investment of \$99 million.*

\*Source: The Office of Governor Martin O'Malley

## 2 STEPS YOU CAN TAKE

- Show your support for transit projects by using them
- Urge your elected officials at all levels to support sustainable transit projects

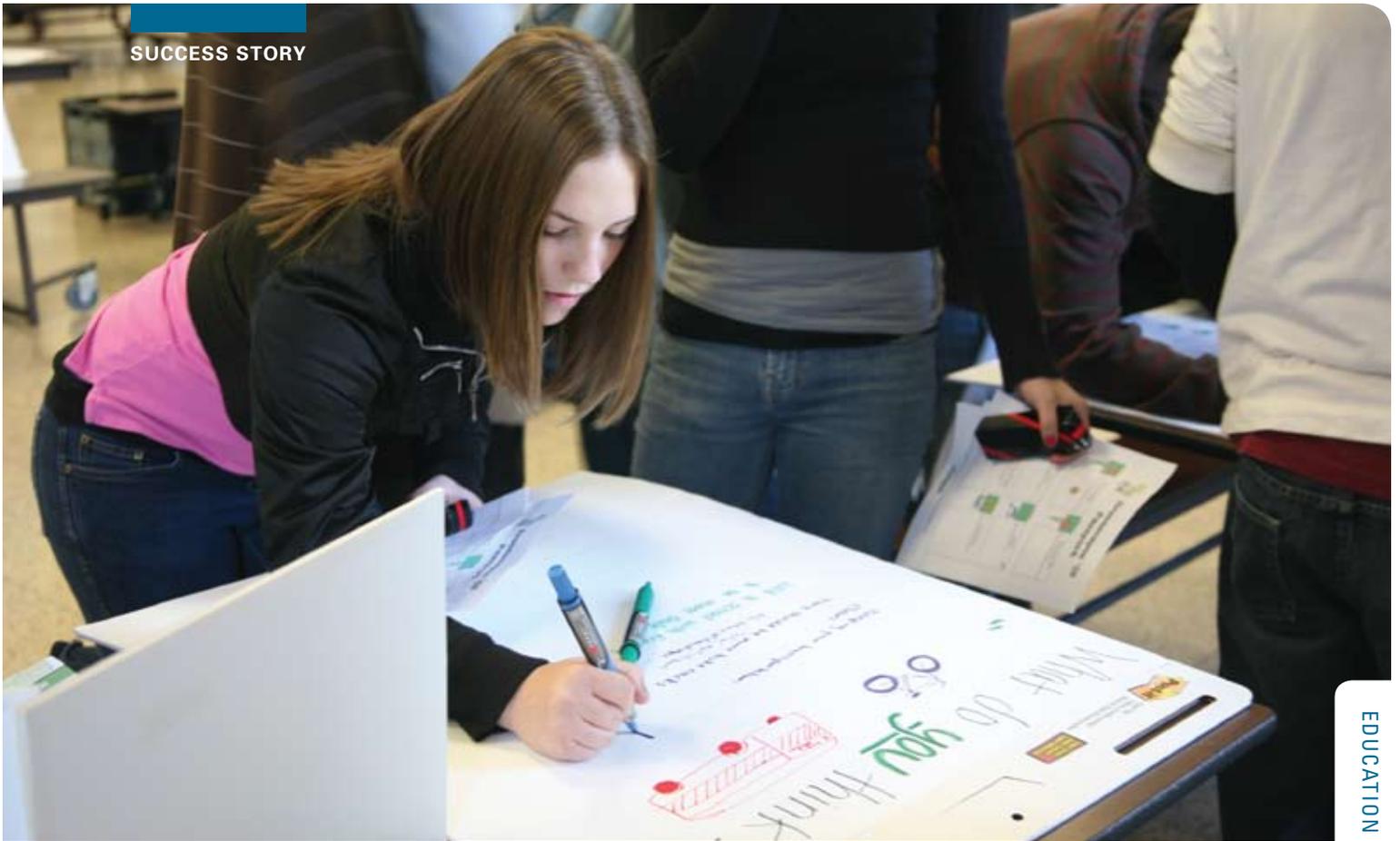
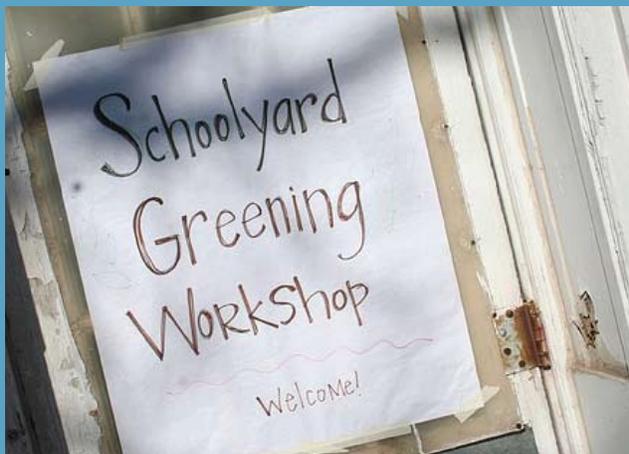


Photo: Cassandra Kapsos-Scouten

*Success Story*

# Baltimore City Public Schools Cleaner, Greener, Sustainability Challenge

**THE BALTIMORE CITY PUBLIC SCHOOLS CLEANER, GREENER, SUSTAINABILITY CHALLENGE** is a joint venture between Baltimore City Public School System (BCPSS), CleanerGreener Baltimore, the Baltimore Community Foundation, and the Office of Sustainability. The Challenge is a pilot program focused on empowering Baltimore City Public School students to take a leading role in making their schools more environmentally-friendly places to learn and play.



During the summer of 2009, the partners came together and developed a template for the Challenge, outlining questions to which the students could respond. With the help of an adult adviser and support from the principal, teams of students from BCPSS were encouraged to submit a short plan that laid out how they could improve the environment at their school.

Sixteen schools, with over 150 students pledging to participate, applied and received \$1,000 each to further develop and implement their school's plan over a four-month period. Project proposals focused

## SUCCESS STORY

on reducing waste, increasing recycling, and creating educational gardens and outdoor habitat among other ideas. Teams are tasked with implementing their visions and recording their progress throughout each stage of the project in preparation for a presentation of their work in spring 2010 to program partners and school officials. The results of the projects will be the basis of a student handbook that the BCPSS will create for students who wish to initiate projects in their own schools in the coming years.

The Baltimore City Public Schools Cleaner, Greener, Sustainability Challenge directly contributes to the furthering of the Baltimore Sustainability Plan, especially the Education & Awareness Goal 1: Turn every school in Baltimore City into a green school, and Goal 2: Ensure all city youth have access to environmental stewardship programs and information. Not only do these projects enable teachers to bring sustainability into the classroom, they improve the physical environment of the schools, and engage students in making a meaningful impact to their direct environments. Lessons learned by the participating students will continue to be shared with other students and community members in years to come.

### WINNING IDEAS

Students at Mergenthaler Vocational-Technical High are working to expand their recycling program beyond just paper and are also implementing a campus greening program with support from the Herring Run Watershed Association. They hope to link to the Mervo School Family Council to promote community-wide greening.

At Chinquapin Middle School, students are conducting a solid waste stream analysis for the school and using the data to determine necessary source reduction and recycling opportunities. Students are also conducting a school-wide energy audit and use results to identify areas where energy can be saved.

Students and volunteers at Fort Worthington Elementary on Oliver Street are building and maintaining a native plant green space in front of the school. The space will serve as a green community space and as a hands-on classroom for the teaching of the Maryland State Science curriculum. It will also help to treat approximately 50,000 gallons of rain water runoff per year.

Curtis Bay Elementary/ Middle School students are creating a designated outdoor space for reading and teaching surrounded by native trees, a rock garden (to help solve a flooding problem), butterfly bushes, and student made bird houses. Project will be worked on jointly by the school, community, and the Parks & People Foundation. The school is pursuing MAEOE "Green School" Certification.

Students and parents at Baltimore Montessori Public Charter School Team are starting a vermicomposting and compost barrel program to handle the food waste generated from their garden and food preparation. The student team will create a communications packet for other schools interested in starting a similar program.

Calverton Elementary/ Middle School's Team, CEMS Teens Going Green Team is hosting workshops for parents and staff on how to reduce waste production and teaching elementary students how to reuse items. In addition, the team is researching and creating a directory of Baltimore City Public Schools Green Approved Vendors from throughout the Baltimore region.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Sustain a clean and maintained appearance of public land
- Minimize the production of waste
- Maximize reuse and recycling of materials
- Turn every school in Baltimore City into a green school
- Ensure all city youth have access to environmental stewardship programs and information
- Raise the environmental awareness of the Baltimore community
- Expand access to informational resources on sustainability
- Create green jobs and prepare city residents for these jobs
- Raise Baltimore's profile as a forward thinking, green city



## Goal 1: Turn every school in Baltimore City into a green school

Every student deserves to receive the best education available in a safe and healthy environment. By “greening” our schools, we provide a healthy environment for both students and staff, improve academic performance, and save money which can then be spent on educational resources.

### KEY FACTS AND RELATED EFFORTS

- \* Baltimore City Public Schools **Cleaner, Greener, Sustainability Challenge** awarded 16 student volunteer teams \$1,000 in 2009 to further develop and implement their plan to “green” their schools over a four-month period. Teams will record their progress throughout each stage of the project and will present their work in spring 2010. These projects will then be used as models as Baltimore City Public Schools works towards achieving the goals laid out in the Baltimore City Sustainability Plan.
- \* In 2009, 2,000 children participated in educational programs offered by the Baltimore City Public School System’s **Great Kids Farm**, including field trips, workshops and vocational training.
- \* As a certified MD Green Center, Parks & People Foundation hosted 25 **professional development workshops** assisting over 100 teachers how to use schoolyard habitats as outdoor classrooms and how to become a certified MAEOE MD Green School. They helped remove more than two acres of asphalt from public school playgrounds, installed seven schoolyard habitats and vegetable gardens, and planted more than 75 trees and 500 perennials/vegetable starters on school grounds.
- \* Irvine Nature Center’s **Schoolyard Discovery Program** offers a dynamic, cross-age teaching environmental education program to Baltimore City elementary, middle, and high school students. The program helps install habitat/greening projects at all participating elementary schools. During the summer of 2009, the program offered paid employment opportunities to 10 Baltimore City high school students through its Summer Fellowship Program.
- \* 100% of the Baltimore city public schools have implemented the policy on **Integrated Pest Management**.

### 14 CERTIFIED GREEN SCHOOL IN BALTIMORE CITY

YEAR CERTIFIED	SCHOOL
1999, 2009	Barclay School (Elementary/Middle)
1999, 2004, 2008	Bryn Mawr School
2009	Catholic High School
2007	Catonsville Educational Center at RICA
2006	Cross Country Elementary School
2004, 2008	Father Kolbe School
2007	Gilman Lower School
2005, 2009	Medfield Heights Elementary School
2009	Roland Park Elementary School
2003, 2007	Rosemont Elementary School
2009	The Green School
2009	Thomas Jefferson Elementary School
2006	WEB Dubois High School

### 3 STEPS YOU CAN TAKE

- Volunteer to help your child’s school create or maintain an outdoor education space
- Organize a tree planting at your local school
- Encourage your local school to work towards the Maryland Association for Environmental and Outdoor Education “green school” certification

« Schools which received “Green School” certification by the Maryland Association for Environmental and Outdoor Education



## Goal 2: Ensure all city youth have access to environmental stewardship programs and information

Young people are eager to learn about ways that they can improve their environment through community service projects, after-school groups, and other opportunities to give back. Cultivating a sense of environmental stewardship and responsibility in youth paves the way for Baltimore's sustainability efforts will continue into the future.

### KEY FACTS AND RELATED EFFORTS

- \* The Mayor's YouthWorks program provides well-prepared, multi-skilled high school and college students with summer employment and an opportunity to explore careers in Baltimore. In the summer of 2009, **120 YouthWorks students** worked with CleanerGreener Baltimore and the Baltimore Harbor Watershed Association, canvassing neighborhoods with information about how they can protect the watershed.
- \* Civic Works programs such as **Baltimore Conservation and Leadership Corps** provides opportunities for Baltimore youth to learn about and work on urban conservation issues while earning money and educational awards.
- \* Partnerships for Parks, a joint program of the Baltimore City Department of Recreation & Parks and the Parks & People Foundation, hosted one of four UMBC "**Alternative-to-Spring-Break**" teams. Nine young adults participated in a full-time week of service on the Gwynns Falls Trail through the program, donating over 180 hours of time and participating in fun activities like biking and kayaking.
- \* The **Masonville Cove Environmental Education Center** opened in April 2009. The Center offers environmental programs for the community and school groups. Partners such as the National Aquarium in Baltimore and Living Classrooms Foundation use the facility to lead programs with local schools on growing wetland grasses and reducing runoff pollution in the local communities.
- \* In 2009, the **Holistic Life Foundation** coordinated and facilitated five community clean-ups, partnered with Tree Baltimore and Baltimore Green Works for an Earth Day tree planting with over 30 students, constructed a raised-bed community vegetable garden, had three students sit on the Office of Sustainability Youth Advisory Group, and facilitated many environmental education and advocacy programs with students from their mentoring and after school programs promoting at-home and in-school greening.
- \* Parks & People Foundation, through the **Building Resources and Nurturing Community Health program** and the Maryland Department of Natural Resources Civic Justice Corps, provided environmental education enrichment, summer employment, and green jobs training to 240 Baltimore City youth 14-21 years old, giving them the opportunity to gain employment skills while cleaning the Chesapeake Bay.

## 2 STEPS YOU CAN TAKE

- ❑ Get involved with an after school group, summer program, or recreation center and work on a sustainability project
- ❑ Volunteer with a group that works with young people in Baltimore City



### Goal 3: Raise the environmental awareness of the Baltimore community

Creating a sustainable city requires broad and continued participation. Engaging the community at all levels through grassroots outreach and education can encourage behavior change with tangible environmental outcomes and personal benefits.

#### KEY FACTS AND RELATED EFFORTS

- \* The **Baltimore Neighborhood Energy Challenge** educates residents about energy conservation and sustainability. BNEC trained 129 volunteers as Energy Captains, distributed over 1,300 kits with energy efficiency information to homes, participated in 62 community events, and taught over 60 elementary school students about energy conservation in 2009.
- \* In 2009, **Herring Run Watershed Association** lead over 65 volunteer restoration events and hosted 45 workshops and outreach events engaging and educating approximately 3,700 residents on stormwater, the benefits of trees and native plants, green building design, invasive plant management, stream monitoring and restoration, and much more.
- \* **Baltimore Green Works**, formerly Baltimore Green Week, is a non-profit organization with a mission to offer programming that educates Maryland's diverse communities on sustainable ways of living. In 2009, BGW hosted the 6th Annual EcoFest in Druid Hill Park to kick off Baltimore Green Week, the 1st Annual EcoBall, and launched its Sustainable Speaker Series.
- \* The Maryland Chapter of the **U.S. Green Building Council** hosted an average of four events a month in the greater Baltimore area in 2009 including workshops, roundtables, master speakers, and green building tours.
- \* The 2009 **Baltimore Bioneers conference** at Goucher College presented leading scientists and social innovators who are creating practical solutions to help restore the Earth's imperiled ecosystems and heal our human communities.

#### BALTIMORE GROUPS OFFERING WORKSHOPS AND RESOURCES

Baltidome: Green Guide and Insider  
[www.baltidome.com](http://www.baltidome.com)

Baltimore Green Map  
[www.baltimoregreenmap.org](http://www.baltimoregreenmap.org)

Baltimore Green Works  
[www.baltimoregreenworks.com](http://www.baltimoregreenworks.com)

Herring Run Watershed Association  
[www.baywatersheds.org](http://www.baywatersheds.org)

Jones Falls Watershed Association  
[www.jonesfalls.org](http://www.jonesfalls.org)

Masonville Cove Environmental Education Center  
[www.masonvillecove.org](http://www.masonvillecove.org)

Neighborhood Design Center  
[www.ndc-md.org](http://www.ndc-md.org)

Parks & People Foundation  
[www.parksandpeople.org](http://www.parksandpeople.org)

USGBC Maryland Chapter  
[www.usgbcmd.org](http://www.usgbcmd.org)

#### 2 STEPS YOU CAN TAKE

- Share your sustainability success story at [www.baltimoresustainability.org](http://www.baltimoresustainability.org)
- Attend an event hosted by one of the partners listed here



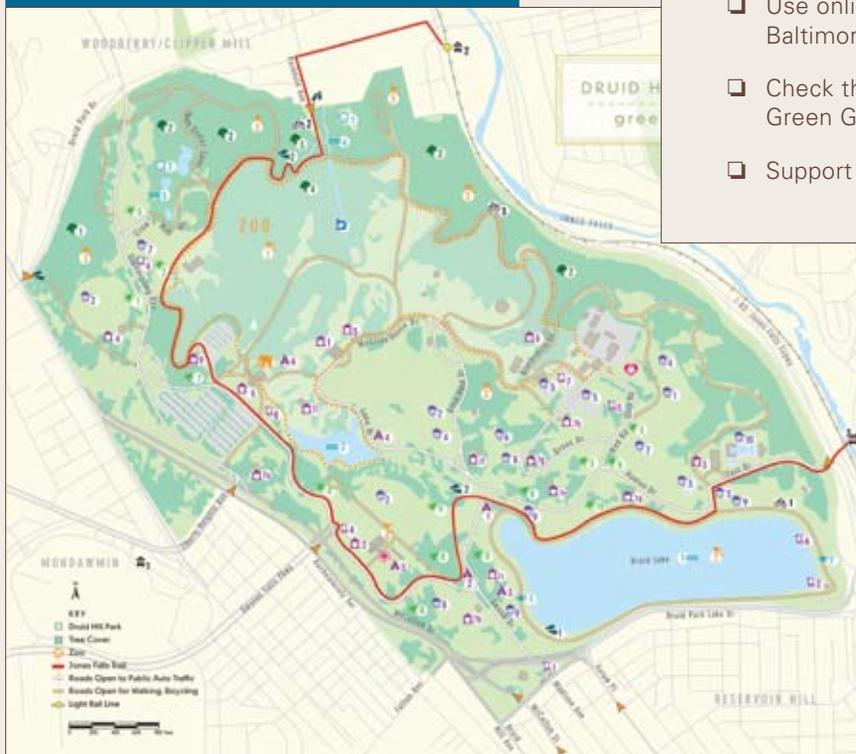
## Goal 4: Expand access to information on sustainability

Access to information is critical to supporting citizen action. Convenient, accessible, easy to use, and understandable information about how to live more healthy and economical lives enables people to make behavior changes and support sustainability.

### KEY FACTS AND RELATED EFFORTS

- \* **Baltimore Green Map** is one of over 400 local organizations participating in the international Green Map® System. Using the international icons, BGM maps Baltimore's ecological and cultural resources and the city's progress toward becoming a healthy, sustainable urban environment. In 2009, the Baltimore Regional Green Map featured 330 sites and BGM began two new area maps, Roland Park & Environs and Charles Village/Greenmount/Waverly.
- \* The **Neighborhood Design Center** launched GreenNDC in 2009 to educate residents and partner organizations on the benefits of green design and what it means to "go green". NDC provides volunteer services to incorporate green design into the earliest phases of the design, cultivates a volunteer base with strong green design skills and experience, and serves as an ongoing resource for area nonprofits and community leaders.
- \* In 2009, the **Community Greening Resource Network** hosted 23 workshops and trainings which were attended by 194 gardeners. CGRN's shared calendar included over 189 workdays, workshops, trainings, tree sales, celebrations, volunteer days, films, short courses, conferences, Give-Away Days, and tours for Baltimore's gardeners, led by a variety of organizations and groups throughout the City.
- \* Urbanite Magazine created a **Baltimore Green Guide** as part of its April 2009 issue featuring local green businesses in areas including construction, groceries, recycling, beauty, transportation, and much more. [www.urbanitebaltimore.com](http://www.urbanitebaltimore.com)

### BALTIMORE GREEN MAP: DRUID HILL PARK



## 4 STEPS YOU CAN TAKE

- Explore the Baltimore Office of Sustainability website
- Use online resources like Buy Local Baltimore to buy green and local first
- Check the Urbanite's Baltimore Green Guide
- Support Baltimore Green Map

« The Baltimore Green Map continues to grow, showing an increasing number of associations, organizations, events and businesses that are green. The Druid Hill Park green map is available for download and print at [www.baltogreenmap.org](http://www.baltogreenmap.org).



Photo: Marathonfoto

## Success Story

# Under Armour and Baltimore's First Green Marathon

**WITH GLOBAL HEADQUARTERS IN BALTIMORE,** Under Armour is a performance brand focused on making athletes better. With over 700 employees in Baltimore, Under Armour has helped raise the profile of Baltimore City, through events like the Under Armour Baltimore Marathon. UA GREEN, the company's environmental sustainability program, strives to build and deliver the world's greatest performance product with a lighter environmental impact. This year, Under Armour helped show residents of Baltimore and visitors from all over the world that Baltimore is thinking green.

On October 10th, 2009, Under Armour, Corrigan Sports, and the City of Baltimore hosted Baltimore's First Green Marathon. The 2009 Under Armour Baltimore Marathon welcomed over 20,000 participants from all 50 states and 44 countries. In ten years, the marathon has transformed from a local race to a world-class event and an opportunity to showcase Baltimore.

The green marathon concept was born in the product innovation department at Under Armour, with the development of the UA Catalyst T – a performance shirt made from recycled plastic bottles. Fabric made from recycled plastic bottles bolsters the market for recycled

materials and helps keep waste out of landfills, and the performance characteristics of the UA Catalyst T are actually superior to those of most performance T-shirts. Under Armour Baltimore Marathon, featuring some of the fastest marathon runners in the world competing for the top spot, presented the perfect opportunity to introduce the T.

Working closely with event organizer Corrigan Sports, a team of Under Armour interns spent the summer of 2009 researching ways to significantly lighten the environmental impact of the event and to connect with runners and fans on the topic of sustainability.

## SUCCESS STORY

Throughout the process, the team enlisted many partners from around Baltimore to discuss ideas, opportunities for enhancement, and implementation plans.

### THE RESULTS WERE REAL

The Under Armour Baltimore Marathon was certified as a green event by the Council for Responsible Sport, an organization that validates the environmental claims of events across the country. To receive this designation, event organizers had to demonstrate improvements in the areas of waste, climate, equipment and materials, community outreach, health and innovation.

Over 20,000 UA Catalyst Tshirts, made from recycled plastic bottles, were distributed as the official race-day shirt.

*The 2009 Under Armour Baltimore Marathon welcomed over 20,000 participants from all 50 states and 44 countries. In ten years, the marathon has transformed from a local race to a world-class event and an opportunity to showcase Baltimore and its commitment to sustainability.*

Recycling and composting systems were implemented at the starting line and finish line, at all water stops, and at the post-race celebration village. In the end, 75% of the waste generated on raceday was recycled or composted, 16,640 pounds of material were recovered for recycling, and 2,200 pounds of material were recovered for composting.

Carbon offsets were purchased to counterbalance the greenhouse gas emissions from raceday activities and runners were offered the opportunity to offset the greenhouse gas emissions from their transportation to and from the event through event registration.

The raceday committee used hybrid and electric vehicles to get where they needed to be for the events, and the celebration village used biodiesel for power, further reducing the energy use and associated greenhouse gas emissions of the event.

Working with the Baltimore City Park & Recreation's TreeBaltimore program, Under Armour employees and community residents planted 100 trees along the marathon racecourse, as long-standing symbols for the marathon's efforts.



Runners donated over 160 pairs of shoes to Soles-4Souls, a non-profit organization delivering footwear to those in need. The runner's race book was posted online rather than printed and the raceday program was printed on recycled materials. But most importantly, the message that reached more than 50,000 runners, friends and family was clear: Under Armour and the City of Baltimore believe in the green economy.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Minimize the production of waste
- Maximize reuse and recycling of materials
- Double Baltimore's Tree Canopy by 2037
- Raise the environmental awareness of the Baltimore community
- Make Baltimore a center for green business
- Raise Baltimore's profile as a forward thinking, green city



## Goal 1: Create green jobs and prepare City residents for these jobs

“Green jobs” have come to represent employment opportunities associated with a clean, sustainable economy. As investment in the new clean economy ramps up nationally, Baltimore would benefit from positioning itself as a market ready to receive, train for, and fill these jobs.

### KEY FACTS AND RELATED EFFORTS

- \* Legislation introduced by then-City Council President Stephanie Rawlings-Blake led to the June 2009 establishment of the **Baltimore City Green Jobs Coalition**. The group is charged with examining the current and projected green labor market, identifying needs of businesses, developing training programs, and working to move the City’s unemployed and under-employed into the workforce.
- \* The **Coalition to End Childhood Lead Poisoning** offered a variety of green jobs training and workforce development programs in 2008 and 2009. Seventy individuals were trained in the Healthy Homes program, 54 individuals in lead hazard control training, and four individuals in weatherization and energy efficiency training.
- \* In 2009, **Civic Works’ B’More Green program** graduated 36 certified environmental field technicians and abatement workers. Of the 36 graduates, 28 successfully secured positions that offered an average starting wage of \$12 to \$16 per hour with benefits.
- \* With the creation of **EnergyReady**, a full service home energy performance team, Civic Works created eight new jobs in Baltimore that directly contribute to environmental sustainability. Civic Works’ EnergyReady hired and trained previously unemployed Baltimore residents to fill these positions.
- \* In 2009, the Baltimore City **Weatherization Assistance Program** provided Department of Energy approved training to 68 weatherization auditors and contractor crew members. Eight of these trainees received advanced weatherization auditor training in building systems analysis. All trainees are currently employed helping to weatherize Baltimore homes.
- \* **Thirteen community colleges** throughout Maryland offered home energy analysis programs and five offered weatherization classes in 2009.

### NUMBER OF GREEN JOBS CREATED THROUGH SPENDING

These job creation estimates demonstrate the economic potential of green sector investment..

#### GREEN CONSTRUCTION

**13 jobs** created for each \$1 million in commercial construction expenditures

**8 jobs** created for each \$1 million in residential additions and alterations expenditures

#### ENERGY EFFICIENCY

**10 jobs** created per \$1 million invested in high performance buildings

**10 jobs** created per \$1 million invested in residential energy efficiency retrofit.

\* Source: Maryland Governor’s Workforce Investment Board



## Goal 2: Make Baltimore a center for green business

The emerging clean economy brings with it both jobs and entrepreneurial opportunities. By cultivating a fertile ground for green business, Baltimore can help create jobs, widen the tax base, and attract investment in industries slated for major growth in the years ahead.

### KEY FACTS AND RELATED EFFORTS

- \* Chesapeake Sustainable Business Alliance represents a wide variety of locally-owned and operated businesses, many of which have implemented sustainable features into their business operations. CSBA's **Green Mondays** offer a chance to network and learn about key issues relating to sustainability and the local economy.
- \* The Maryland Technology Enterprise Institute at the University of Maryland announced the launch of the **Chesapeake Bay Seed Capital Fund** in 2009. The fund will invest \$250,000 annually over a three-year period into Maryland-based startup companies with innovative technologies that may help improve air and water quality in the Chesapeake Bay area.
- \* The Maryland Energy Administration (MEA) offers low-interest loans to help Maryland businesses improve their facilities' energy performance through the **EmPOWER Commercial and Industrial Energy Efficiency Loan Fund**. Proposed funding for the EELF is approximately \$5.6 million through the end of fiscal year 2011.
- \* MEA created the **Clean Energy Economic Development** Initiative to assist in the growth of a clean energy industry throughout Maryland. Businesses and organizations that seek financial support for renewable energy projects can apply through the Initiative for support.
- \* Urbanite Magazine created a **Baltimore Green Guide** as part of its April 2009 issue featuring local businesses in areas including green construction, groceries, recycling, beauty, transportation, and much more. [www.urbanitebaltimore.com](http://www.urbanitebaltimore.com)
- \* The Baltimore City Department of Planning began incorporating sustainability review into all projects going before the **Baltimore City Planning Commission**. The required Project Impact Statement, historically limited to economic impact reporting, expanded its scope of inquiry to include sustainability measures such as resource efficiency, green infrastructure, and sustainable transportation linkages.

## 3

### STEPS YOU CAN TAKE

- Check out the Maryland Green Registry
- Take advantage of funds available for green businesses
- Contact the Baltimore Development Corporation to discover what Baltimore has to offer as a home for green business

AS OF THE END OF 2009,

*there were over 100 businesses in the Maryland Green Registry and 43 are in the city.*

### THE MARYLAND GREEN REGISTRY

The Maryland Green Registry is a voluntary, self-certification program offering tips and resources to help organizations set and meet their own goals on the path to sustainability. Between its launch in the summer of 2009 and the end of the year, 130 businesses throughout the state had registered with the Maryland Green Registry. Forty-three of these businesses were located in Baltimore City. [www.mde.maryland.gov/marylandgreen/](http://www.mde.maryland.gov/marylandgreen/)



### Goal 3: Support local Baltimore businesses

Supporting local businesses is economically, socially, and environmentally beneficial for Baltimore. Local businesses provide a training ground for entrepreneurial and managerial talent, generally maintain a greater allegiance to their communities, and conserve resources by reducing the need to transport goods long distances.

#### KEY FACTS AND RELATED EFFORTS

- \* Baltimore Business Journal held its second annual **Green Business Awards** and luncheon in April 2009. The awards recognized winners in categories including green product, green development, and green entrepreneur. Gensler & Associates' Baltimore office won the BBJ's 2009 Green Business of the Year honors.
- \* **Buy Local Baltimore** is an educational and marketing campaign designed to encourage area residents to patronize local, independent businesses in an effort to improve the quality of life in Baltimore neighborhoods and enhance the economic vitality of the greater Baltimore region.
- \* The Baltimore City Public School System and many local hospitals bought an increasing share of their **food from local farms and suppliers** in 2009.
- \* Urbanite Magazine created a **Baltimore Green Guide** as part of its April 2009 issue featuring local green businesses in areas including construction, groceries, recycling, beauty, transportation, and much more. [www.urbanitebaltimore.com](http://www.urbanitebaltimore.com)
- \* Chesapeake Sustainable Business Alliance represents a wide variety of locally-owned and operated businesses, many of which have implemented sustainable features into their business operations. **CSBA's Green Mondays** offer a chance to network and learn about key issues relating to sustainability and the local economy.

## 4

#### STEPS YOU CAN TAKE

- Shop at your neighborhood businesses
- Visit a farmers' markets to support your local farmers and retailers
- Check out the Urbanite Magazine's Green Guide
- Tell a friend about the importance of buying local

#### TOP 6 REASONS TO BUY LOCAL

①  
**KEEP MONEY IN NEIGHBORHOODS**

②  
**CREATE AND KEEP JOBS IN THE COMMUNITY**

③  
**BUY WHAT YOU NEED AND WANT**

④  
**HELP THE ENVIRONMENT  
REDUCE CARBON AND POLLUTION**

⑤  
**INVEST IN YOUR COMMUNITY**

⑥  
**CELEBRATE BALTIMORE'S DIVERSITY  
AND UNIQUE CHARACTER**



## Goal 4: Raise Baltimore's profile as a forward-thinking, green city

Highlighting Baltimore's sustainability achievements helps to attract forward-thinking investors, businesses, and residents who are drawn to the quality of life and opportunity provided by a sustainable city.

### KEY FACTS AND RELATED EFFORTS

- \* The Baltimore City Council adopted the **Baltimore Sustainability Plan as ordinance** in March 2009. The Plan articulates 29 goals toward improving Baltimore and is designed as a resource to help guide actions and decisions in ways that benefit people, the economy, and the environment. The Plan has been nationally recognized for its comprehensiveness, broad applicability, and extensive public engagement process.
- \* The **University of Maryland Medical System** won the U.S. Environmental Protection Agency's Trailblazer Award for leadership in advancing sustainability practices in their daily operations. The 2009 award recognized UMMS's establishment of a University Farmers' Market which helped improve the availability of fresh, locally grown food to employees, patients, and area residents.
- \* The 2009 **Baltimore Running Festival**, attended by over 20,000 participants from all 50 states and 44 countries, made great strides to be a green event. Recycling and composting systems were implemented throughout the event, carbon offsets were purchased for event operation greenhouse gas emissions, and trees were planted along the race route. In ten years, the marathon has transformed from a local race to a world-class event and an opportunity to showcase Baltimore and its commitment to sustainability.
- \* The **National Aquarium** in Baltimore's Inner Harbor was recognized by Smart CEO Magazine for exceptional green business practices in 2009.
- \* The **Baltimore Convention Center** is one of a growing number of large convention facilities across the United States to go green. The facility has initiated a green cleaning program, a substantial recycling program, energy-saving initiatives, a composting program, and a catering program using locally sourced food. Future initiatives include transforming the center's outdoor terrace into a green space and redesigning the water system to promote conservation.

GREEN ECONOMY

### BALTIMORE'S 2008 SUSTAINLANE RANKINGS

CITY RANK	CATEGORY
5th out of 50	Green Economy
9th out of 50	City Commuting
9th out of 50	City Innovation
11th out of 50	Knowledge Base
12th out of 50	Solid Waste Diversion
13th out of 50	Metro Transit Ridership
15th out of 50	Housing Affordability
15th out of 50	Water Supply
17th out of 50	Local Food & Agriculture
18th out of 50	Planning & Land Use
18th out of 50	Green Building
19th out of 50	Water Quality

\*Source: Sustainlane

## 2 STEPS YOU CAN TAKE

- Consider Baltimore's green amenities when planning your association's upcoming event or convention
- Take Baltimore's Local Action Challenge through SustainLane ([www.sustainlane.com](http://www.sustainlane.com))

« SustainLane researches best practices in urban sustainability and ranks cities throughout the country on a variety of factors. Baltimore ranked in the top 10 most sustainable cities nationally in 2008, the most recent rankings. This graph shows how Baltimore stacked up against other cities in some of the categories.

## Partnerships

### CLEANLINESS

Baltimore City Department of Housing and Community Development

[www.baltimorehousing.org](http://www.baltimorehousing.org)

Baltimore City Department of Public Works

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Department of Recreation and Parks

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore Green Space

[www.baltimoregreenspace.org](http://www.baltimoregreenspace.org)

Baltimore Waterfront Partnership

[www.waterfrontpartnership.org](http://www.waterfrontpartnership.org)

CleanerGreener Baltimore Initiative

[www.cleanergreenerbaltimore.com](http://www.cleanergreenerbaltimore.com)

Friends of Patterson Park

[www.pattersonpark.com](http://www.pattersonpark.com)

Parks & People Foundation

[www.parksandpeople.org](http://www.parksandpeople.org)

### POLLUTION PREVENTION

Baltimore City Department of General Services

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Department of Health

[www.baltimorehealth.org](http://www.baltimorehealth.org)

Baltimore City Department of Housing and Community Development

[www.baltimorehousing.org](http://www.baltimorehousing.org)

Baltimore City Department of Public Works Bureau of Water and Wastewater

[www.ci.baltimore.md.us](http://www.ci.baltimore.md.us)

Baltimore City Department of Planning

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Fire Department

[www.ci.baltimore.md.us](http://www.ci.baltimore.md.us)

Baltimore City Public School System

[www.bcps.k12.md.us](http://www.bcps.k12.md.us)

Baltimore Development Corporation's Brownfields program

[www.baltimoredevelopment.com](http://www.baltimoredevelopment.com)

Baltimore Gas & Electric

[www.bgesmartenergy.com](http://www.bgesmartenergy.com)

Baltimore Neighborhood Energy Challenge

[www.baltimoreenergychallenge.org](http://www.baltimoreenergychallenge.org)

Civic Works

[www.civicworks.com](http://www.civicworks.com)

Coalition to End Childhood Lead Poisoning

[www.leadSAFE.org](http://www.leadSAFE.org)

Herring Run Watershed Association

[www.herringrun.org](http://www.herringrun.org)

Jones Falls Watershed Association

[www.jonesfalls.org](http://www.jonesfalls.org)

Maryland Department of the Environment

[www.mde.state.md.us](http://www.mde.state.md.us)

Maryland Energy Administration

[www.energy.state.md.us](http://www.energy.state.md.us)

Maryland Hospitals for a Healthy Environment

[www.cms.h2e-online.org](http://www.cms.h2e-online.org)

Maryland Pesticide Network

[www.mdpestnet.org](http://www.mdpestnet.org)

Maryland Port Authority

[www.marylandports.com](http://www.marylandports.com)

Maryland Transit Authority

[www.mta.maryland.gov](http://www.mta.maryland.gov)

Maryland Pesticide Network

[www.mdpestnet.org](http://www.mdpestnet.org)

### RESOURCE CONSERVATION

Baltimore Biodiesel Coop

[www.baltimorebiodiesel.org](http://www.baltimorebiodiesel.org)

Baltimore City Commission for Historical & Architectural Preservation

[www.ci.baltimore.md.us](http://www.ci.baltimore.md.us)

Baltimore City Department of General Services

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Department of Housing and Community Development

[www.baltimorehousing.org](http://www.baltimorehousing.org)

Baltimore City Department of Public Works

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore Gas & Electric

[www.bgesmartenergy.com](http://www.bgesmartenergy.com)

Baltimore Neighborhood Energy Challenge

[www.baltimoreenergychallenge.org](http://www.baltimoreenergychallenge.org)

Cdm-eCycling

[www.cdm4recycle.com](http://www.cdm4recycle.com)

CleanerGreener Baltimore Initiative

[www.cleanergreenerbaltimore.com](http://www.cleanergreenerbaltimore.com)

Civic Works

[www.civicworks.com](http://www.civicworks.com)

Herring Run Watershed Association

[www.baywatersheds.org](http://www.baywatersheds.org)

Maryland Department of the Environment

[www.mde.state.md.us](http://www.mde.state.md.us)

Maryland Energy Administration

[www.energy.state.md.us](http://www.energy.state.md.us)

Northeast Maryland Waste Disposal Authority

[www.nmwda.org](http://www.nmwda.org)

Parks & People Foundation

[www.parksandpeople.org](http://www.parksandpeople.org)

Rebuilding Together

[www.rebuildingtogether.org](http://www.rebuildingtogether.org)

Second Chance Inc.

[www.secondchanceinc.org](http://www.secondchanceinc.org)

Waste Neutral Group

[www.wasteneutral.com](http://www.wasteneutral.com)

### GREENING

Baltimore City Department of Planning

[www.ci.baltimore.md.us](http://www.ci.baltimore.md.us)

Baltimore City Department of Recreation and Parks

[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Food Policy Task Force

[www.baltimorecity.gov/government/agenciesdepartments/planning/food-policytaskforce](http://www.baltimorecity.gov/government/agenciesdepartments/planning/food-policytaskforce)

Baltimore Green Space

[www.baltimoregreenspace.org](http://www.baltimoregreenspace.org)

Baltimore City Health Department

[www.baltimorehealth.org/foodshelter](http://www.baltimorehealth.org/foodshelter)

Baltimore City Public School System

[www.bcps.k12.md.us](http://www.bcps.k12.md.us)

Baltimore Ecosystem Study

[www.beslter.org](http://www.beslter.org)

Civic Work's Real Food Farm

[www.real-food-farm.org](http://www.real-food-farm.org)

Constellation Energy

[www.constellation.com](http://www.constellation.com)

CSX Corporation

[www.csx.com](http://www.csx.com)

Eco-Check

[www.eco-check.org](http://www.eco-check.org)

Herring Run Watershed Association

[www.baywatersheds.org](http://www.baywatersheds.org)

Johns Hopkins Center for a Livable Future

[www.jhsph.edu/clf](http://www.jhsph.edu/clf)

Jones Falls Watershed Association

[www.jonesfalls.org](http://www.jonesfalls.org)

Maryland Department of Agriculture

[www.mda.state.md.us](http://www.mda.state.md.us)

Maryland Master Gardeners

[www.mastergardener.umd.edu](http://www.mastergardener.umd.edu)

**Partnerships, continued.**

Parks & People Foundation  
[www.parksandpeople.org](http://www.parksandpeople.org)

TreeBaltimore  
[www.treebaltimore.baltimorecity.gov](http://www.treebaltimore.baltimorecity.gov)

Urban Agriculture Task Force  
[www.baltimoreurbanag.org](http://www.baltimoreurbanag.org)

**TRANSPORTATION**

AltCar  
[www.altcar.org](http://www.altcar.org)

Amtrak  
[www.amtrak.com](http://www.amtrak.com)

Baltimore City Department of Transportation  
[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Department of Planning  
[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Parking Authority  
[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Public School System  
[www.bcps.k12.md.us](http://www.bcps.k12.md.us)

Baltimore Neighborhood Indicators Alliance  
[www.bnia.org](http://www.bnia.org)

Baltimore Metropolitan Council  
[www.baltometro.org](http://www.baltometro.org)

Central Maryland Transportation Alliance  
[www.cmtalliance.org](http://www.cmtalliance.org)

Johns Hopkins Zipcar  
[www.zipcar.com/jhu](http://www.zipcar.com/jhu)

Maryland Transit Administration  
[www.mta.maryland.gov](http://www.mta.maryland.gov)

Maryland Transportation Authority  
[www.mtda.maryland.gov](http://www.mtda.maryland.gov)

Mayor's Bicycle Advisory Council

One Less Car  
[www.onelesscar.org](http://www.onelesscar.org)

Waterfront Partnership  
[www.waterfrontpartnership.org](http://www.waterfrontpartnership.org)

**EDUCATION & AWARENESS**

Baltimore City Department of Recreation and Parks  
[www.baltimorecity.gov](http://www.baltimorecity.gov)

Baltimore City Public Schools  
[www.bcps.k12.md.us](http://www.bcps.k12.md.us)

Baltimore Green Map  
[www.baltimoregreenmap.org](http://www.baltimoregreenmap.org)

Baltimore Green Works  
[www.baltimoregreenworks.com](http://www.baltimoregreenworks.com)

Baltimore Neighborhood Energy Challenge  
[www.baltimoreenergychallenge.org](http://www.baltimoreenergychallenge.org)

Chesapeake Bay Foundation  
[www.cbf.org](http://www.cbf.org)

Chesapeake Bay Trust  
[www.cbtrust.org](http://www.cbtrust.org)

Chesapeake Sustainable Business Alliance  
[www.csballiance.org](http://www.csballiance.org)

Children in Nature Network  
[www.childrenandnature.org](http://www.childrenandnature.org)

CleanerGreener Baltimore Initiative  
[www.cleanergreenerbaltimore.com](http://www.cleanergreenerbaltimore.com)

Community Greening Resource Network  
[www.parksandpeople.org](http://www.parksandpeople.org)

Enoch-Pratt Libraries  
[www.prattlibrary.org](http://www.prattlibrary.org)

Herring Run Watershed Association  
[www.baywatersheds.org](http://www.baywatersheds.org)

Holistic Life Foundation  
[www.hlfinc.org](http://www.hlfinc.org)

Irvine Nature Center  
[www.explorenature.org](http://www.explorenature.org)

Living Classrooms  
[www.livingclassrooms.org](http://www.livingclassrooms.org)

Maryland Association for Environmental and Outdoor Education  
[www.maeoe.org](http://www.maeoe.org)

Masonville Cove Environmental Education Center  
[www.masonvillecove.org](http://www.masonvillecove.org)

Neighborhood Design Center  
[www.ndc-md.org](http://www.ndc-md.org)

Parks & People Foundation  
[www.parksandpeople.org](http://www.parksandpeople.org)

Urbanite Magazine  
[www.urbanitebaltimore.com](http://www.urbanitebaltimore.com)

USGBC Maryland Chapter  
[www.usgbcmd.org](http://www.usgbcmd.org)

**GREEN ECONOMY**

Baltimore Area Convention and Visitors Association  
[www.baltimore.org](http://www.baltimore.org)

Baltimore Business Journal  
[www.baltimore.bizjournals.com](http://www.baltimore.bizjournals.com)

Baltimore City Green Jobs Coalition

Baltimore City Mayor's Office of Employment Development  
[www.oedworks.com](http://www.oedworks.com)

Baltimore Development Corporation  
[www.baltimoredevelopment.com](http://www.baltimoredevelopment.com)

Baltimore Green Works  
[www.baltimoregreenworks.com](http://www.baltimoregreenworks.com)

Baltimore Office of Promotion & the Arts  
[www.bop.org](http://www.bop.org)

Baltimore Running Festival  
[www.thebaltimoremarathon.com](http://www.thebaltimoremarathon.com)

Baltimore Workforce Investment Board  
[www.baltoworkforce.com](http://www.baltoworkforce.com)

Buy Fresh Buy Local Campaign  
[www.buyfreshbuylocalcr.org](http://www.buyfreshbuylocalcr.org)

Chesapeake Sustainable Business Alliance  
[www.csballiance.org](http://www.csballiance.org)

Civic Works  
[www.civicworks.com](http://www.civicworks.com)

Coalition to End Childhood Lead Poisoning  
[www.leadsafe.org](http://www.leadsafe.org)

Construction and Energy Technologies Education Consortium

Maryland Department of Business & Economic Development  
[www.choosemaryland.org](http://www.choosemaryland.org)

Maryland Division of Labor and Industry  
[www.dlir.state.md.us/greenjobs](http://www.dlir.state.md.us/greenjobs)

Maryland Energy Administration  
[www.energy.state.md.us](http://www.energy.state.md.us)

Maryland Green Registry  
[www.mde.maryland.gov/MarylandGreen](http://www.mde.maryland.gov/MarylandGreen)

Maryland Technology Enterprise Institute  
[www.mtech.umd.edu](http://www.mtech.umd.edu)

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Urbanite Magazine  
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