



2010 ANNUAL REPORT

*Baltimore City*  
2010 Annual  
Sustainability Report



STEPHANIE RAWLINGS-BLAKE  
MAYOR



**Baltimore Office  
of Sustainability**  
People · Planet · Prosperity

*Better Schools. Safer Streets. Stronger Neighborhoods.*

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

	<b>Executive Summary</b> .....	2
	<b>Cleanliness</b>	
	Success Story: The Community Open Space Preservation Project .....	4
	Goal 1: Eliminate litter throughout the City .....	6
	Goal 2: Sustain a clean and maintained appearance of public land .....	7
	Goal 3: Transform vacant lots from liabilities to assets that provide social and environmental benefits.....	8
	<b>Pollution Prevention</b>	
	Success Story: Healthy Harbor Initiative.....	9
	Goal 1: Reduce Baltimore's greenhouse gas emissions by 15% by 2015.....	11
	Goal 2: Improve Baltimore's air quality and eliminate Code Red days.....	12
	Goal 3: Ensure that Baltimore waters bodies are fishable and swimmable.....	13
	Goal 4: Reduce risks from hazardous materials .....	14
	Goal 5: Improve the health of indoor environments.....	15
	<b>Resource Conservation</b>	
	Success Story: Climate Showcase Communities.....	16
	Goal 1: Reduce Baltimore's energy use by 15% by 2015.....	18
	Goal 2: Reduce Baltimore's water use while supporting system maintenance .....	19
	Goal 3: Minimize the production of waste.....	20
	Goal 4: Maximize reuse and recycling of materials .....	21
	<b>Greening</b>	
	Success Story: Improving Food Access Through Farmers Markets .....	22
	Goal 1: Double Baltimore's tree canopy by 2037 .....	24
	Goal 2: Establish Baltimore as a leader in sustainable, local food systems .....	25
	Goal 3: Provide safe, well-maintained recreational space.....	26
	Goal 4: Protect Baltimore's ecology and bio-diversity.....	27
	<b>Transportation</b>	
	Success Story: Zipcar .....	28
	Goal 1: Improve public transit services .....	30
	Goal 2: Make Baltimore bicycle and pedestrian friendly .....	31
	Goal 3: Facilitate shared-vehicle usage .....	32
	Goal 4: Measure and improve the equity of transportation .....	33
	Goal 5: Increase transportation funding for sustainable modes of travel.....	34
	<b>Education and Awareness</b>	
	Success Story: Growing the Tree Canopy of our City Schools .....	35
	Goal 1: Turn every school in Baltimore City into a green school.....	37
	Goal 2: Ensure all city youth have access to environmental stewardship programs and information.....	38
	Goal 3: Raise the environmental awareness of the Baltimore community .....	39
	Goal 4: Expand access to information on sustainability .....	40
	<b>Green Economy</b>	
	Success Story: Barclay Deconstruction Project .....	41
	Goal 1: Create green jobs and prepare City residents for these jobs.....	43
	Goal 2: Make Baltimore a center for green business .....	44
	Goal 3: Support local Baltimore businesses.....	45
	Goal 4: Raise Baltimore's profile as a forward-thinking, green city .....	46
	<b>Partner List</b> .....	47
	<b>Acknowledgements</b> .....	back cover

# 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.



Mayor Stephanie Rawlings-Blake  
Photo: Mark Dennis

*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 spring of 2010, the Baltimore City Commission on Sustainability, the body tasked with monitoring the implementation of the Plan, voted to continue the positive momentum that started in 2009 and continue to focus 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 in 2009 represented 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 two years 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 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 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 and Baltimore's tree canopy continues to grow.*

Most of the 29 goals are accompanied by a quantifiable metric or measure of progress. In some cases, these metrics are measured against baselines set in the 2009 Annual Sustainability Report and we will continue to measure future changes against those baselines. 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 on a neighborhood level is down, food access is increasing and Baltimore's tree canopy continues to grow. Other data points paint a less encouraging picture; water quality still remains a major concern, code orange and red days were exponentially higher, residential energy use increased on a city-wide level, and trash and illegal dumping continue to litter our streets.

Each of the 29 goals also highlights key facts, related 2010 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 organizations 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





Photo: Baltimore Green Space

### *Success Story*

# The Community Open Space Preservation Project

**THERE ARE NEARLY 30,000 VACANT AND ABANDONED LOTS IN THE CITY OF BALTIMORE**, with an estimated 11,000 of those being owned by the Mayor and City Council, and of those, 4000 are managed by the Department of Housing and Community Development. These vacant lots often attract dumping, drug use and other crimes, as well as negatively impact property values and the quality of life for residents in the area surrounding the vacant lot.



A number of City residents and organizations have taken it upon themselves to clean and improve a small number of these lots and turn them into community assets. Community-managed open spaces such as vegetable gardens, pocket parks, meditation gardens and recreational spaces all have a positive impact on a community – providing social, economic and environmental benefits. What once were littered, depressed lots are now clean, vibrant spaces.

In 2010, the Baltimore Office of Sustainability, in partnership with Baltimore Green Space and the Department of Housing and Community Development,

## SUCCESS STORY

published a report on the Community Open Space Preservation Project. Realizing that a number of these well managed and lovingly cared-for spaces had no clear and affordable way for communities to preserve their urban oases, the team set out to identify a streamlined process for protecting these neighborhood treasures. The project started in 2009, to identify the criteria and processes for protecting these open spaces through their transfer from City ownership to land trusts. As a result of this process, two treasured community open spaces, the Duncan Street Miracle Garden and the Pig Town Horseshoe Pit, were transferred to a local land trust for permanent protection in 2010.

A land trust is a 501(c)(3) nonprofit organization whose mission is to preserve land. Most commonly land trusts are associated with the conservation of large parcels of rural land and protecting that land from development in the future. A land trust can also exist in an urban environment, protecting community-based projects and providing affordable ways to purchase and preserve land. The City of Baltimore has a number of land trusts that work in a number of neighborhoods or city-wide.

Baltimore Green Space, a local land trust and partner for this project, outlined criteria to be met in order for a community-managed open space to be transferred to a land trust for \$1 per lot. These criteria include: requests for preservation must come from the people involved with the site; the community must demonstrate a capacity for long-term management of the site; the open space must have a strong function in at least one community use; and the green space must demonstrate a match between identified environmental risks and how the site is used.

Once these criteria are met, the next steps in the process of preserving these open spaces can get underway. Developing this process was an intensive period of review and evaluation, requiring the involvement of many partners including the Office of Sustainability, the Department of Housing and Community Development, the Planning Department's Comprehensive Planning Division, Comptroller's Office, and the Board of Estimates. The Community Open Space Preservation Project is a perfect example of how advancing the goals of the Sustainability Plan

require collaboration across many diverse sectors. The outcome of this collaboration was a detailed roadmap outlining the "Steps taken by a land trust" and the "Steps taken by the City" in order to move a community-managed open space through the process and to formal preservation through a Land Disposition Agreement. This agreement formally transfers ownership of the property from the City to the Land Trust for preservation. Community members are still responsible for maintaining the land, but they can now do so with peace of mind.

Each agency involved in the Community-Managed Open Space Team has agreed to work diligently and under the guidelines that were developed. By doing so, the hope is that other community-managed open spaces will be preserved and that communities and residents throughout the City of Baltimore will continue to improve the cleanliness of the City by transforming vacant lots into shining examples of environmental stewardship. All while knowing that their hard work and determination will not be jeopardized, but rather acknowledged and protected.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Sustain a clean and maintained appearance of public land
- Transform vacant lots from liabilities to assets that provide social and environmental benefits
- Provide safe, well-maintained recreational space within ¼ mile of all residents
- Raise the environmental awareness of the Baltimore community
- Eliminate litter throughout the city
- Protect Baltimore's ecology and biodiversity



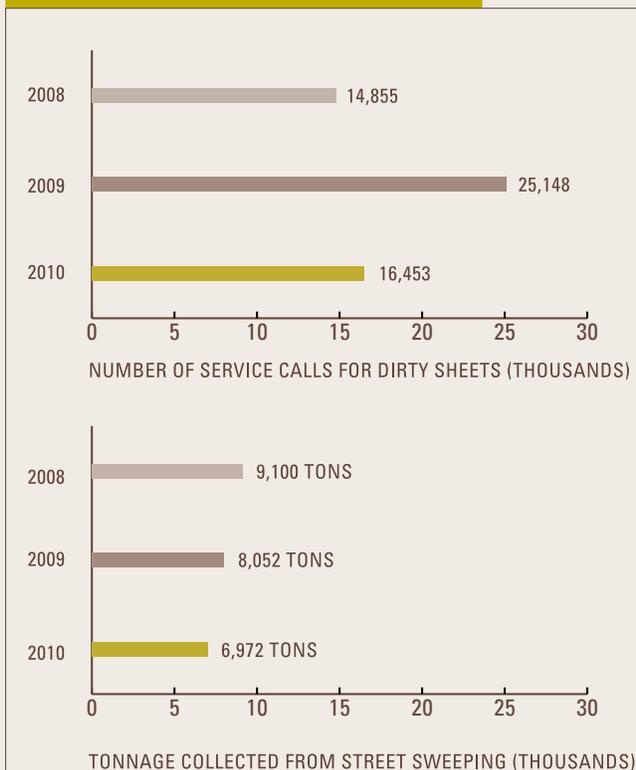
## Goal 1: Eliminate litter throughout the city

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 City of Baltimore's **Department of Public Works (DPW)** spent \$2.3 million on litter pick-up in business districts in 2010. In addition, DPW spent \$3.8 million on mechanical street sweeping of nearly 65,000 miles, collecting nearly 7,000 tons of debris.
- \* As part of the **One PLUS ONE program**, Housing and Community Development Permits and Code Enforcement (HCD) ramped up enforcement of sanitation codes involving trash and litter. During 2010, HCD issued nearly 45,000 trash-related citations, down from over 46,000 in 2009.
- \* During the summer of 2010, the **Baltimore Conservation Leadership Corps** filled over 50 bags and removed over 1000 pounds of litter along the Jones Falls Trail.
- \* The **Waterwheel Powered Trash Interceptor** was installed in the Harris Creek outfall in May 2009. In 2010, the Waterwheel Interceptor collected nearly 15 tons of litter that would have otherwise polluted the Harbor. The Interceptor collects everything from cigarette butts to Styrofoam cups and plastic bags that flow through the City's stormdrains and to the Harbor.
- \* In 2010, **Harris Creek Watershed Association** launched the Harris Creek Watershed Project, focused on bringing 17 diverse neighborhoods together around litter reduction. As part of the project, a "Coordinated Trash Sweep" occurred between June and August of 2010. This sweep targeted 4,000 houses within the watershed and was coordinated with the Department of Public Works, Baltimore Housing Department and community leaders. The project helped identify and clean over 100 major trash sites in the watershed, keeping litter from polluting the harbor. By the end of the sweep, the amount of trash collected by the Waterwheel Interceptor dropped from 5 tons a month to 1 ton a month.

### STREET LITTER MEASURES



\* Source: City of Baltimore Department of Public Works

### 5 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
- Call 311 to report excessive trash or mini landfills on vacant property

« The decrease in calls in 2010 is believed to be a result of educational efforts encouraging citizens to utilize proper trash and recycling receptacles and to assist in keeping their neighborhood clean. Street sweeping tonnage is a function of both miles swept and amount of debris on streets.



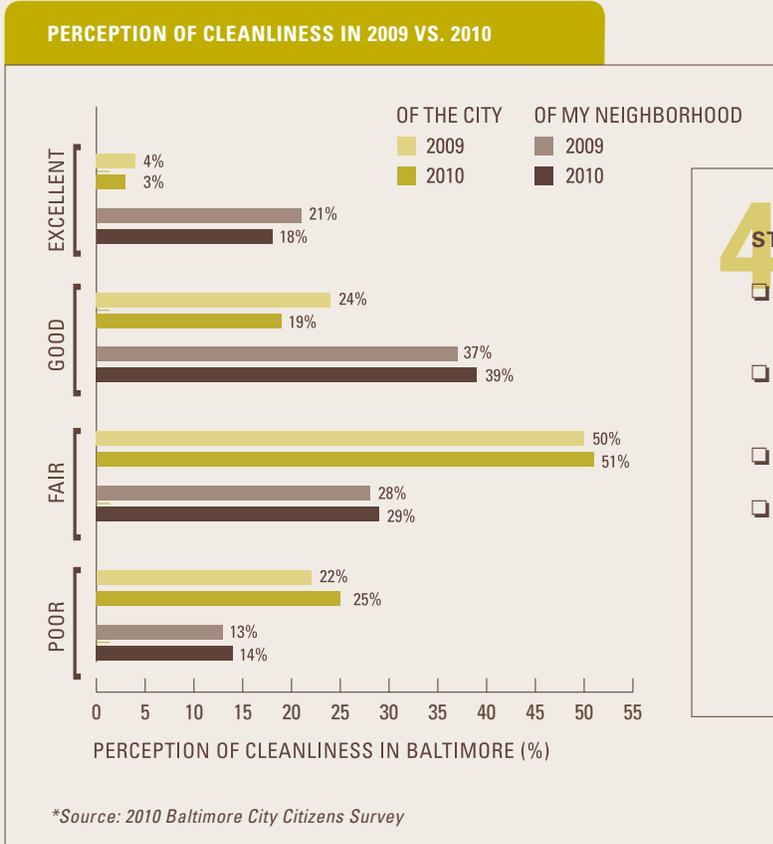
## Goal 2: Sustain a clean and maintained appearance of public land

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

- \* As part of the **One PLUS ONE** program, Housing and Community Development Permits and Code Enforcement ramped up enforcement of sanitation codes. During 2010, HCD issued a total of 50,605 sanitation and maintenance related citations, down from 64,422 in 2009.
- \* In the spring of 2010, **Housing Authority of Baltimore City** together with Parks and People and about 80 residents completed tree planting activities at various sites. Sixteen trees were planted at Perkins Homes, 10 at Westport Homes and 18 at various scattered sites.
- \* In November of 2010, Mayor Stephanie Rawlings-Blake announced the **“Vacants to Value”** program, a six-point plan which includes creating new community green space on what once were unused and littered vacant parcels of land.
- \* **Growing, Restoring, Organizing Workshops (GROW)** is a partnership with Baltimore City Recreation and Parks, the Parks & People Foundation and Baltimore Green Works, to coordinate a series of workshops to help small neighborhoods and non-profit groups with their greening projects. These free workshops are held throughout the city, and reach over 100 people.
- \* The **Friends of Patterson Park Stewardship program** is organized into volunteer “teams” which each meet once a month. In 2010, the Boat Lake Team’s 117 volunteers removed 3,150 pounds of trash and 1,900 pounds of invasive plant species, the Tree Team’s 158 volunteers planted 30 new trees and cared for over 500 existing trees, and the Beautification Detail Team’s 190 volunteers completed large clean-ups, removed 1,000 pounds of invasive plant species, and edged and cleared several thousand feet of walkways.

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 park stewardship groups

« In 2010, the city conducted their second 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

- \* At the end of 2010, roughly 7,000 vacant or abandoned properties were titled to the Mayor and City Council and over half of these, 4,000 were vacant lots. This shows a reduction in the number of vacant lots being carried by the **Department of Housing and Community Development** from 5,375 in 2009 to 4,000 in 2010.
- \* **Community Greening Resource Network (CGRN)**, a joint initiative of the Parks & People Foundation and MD Cooperative Extension now includes 196 members. In the network, there are 93 Community Gardens, 38 School Gardens, 36 Family/Private Gardens and 29 Advocates. 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 2010, there were 284 adopted lots in the city, which shows an increase of 84 lots since 2009.
- \* **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. In 2010, Baltimore Green Space completed a survey of green spaces in Baltimore. Taking photographs and using GPS enabled cell phones volunteers marked the locations of hidden green spaces throughout Baltimore City, to ensure their preservation.
- \* In November of 2010, Mayor Stephanie Rawlings-Blake announced the **“Vacants to Value” program**, a six point plan which includes creating new community green space on what once were unused and littered vacant parcels of land. Community organizations, residents and businesses will be encouraged to find innovative and unique ways to create community green spaces in their neighborhoods.
- \* In 2010, South Baltimore Neighborhood Association Heath Street Community Garden and Banner Neighborhoods Madeira Street Garden received funding through **Constellation Energy's EcoStar Grants** to transform vacant lots in their communities into vibrant community green space.

### CARRYING COST OF VACANT PROPERTIES

#### 3 GRASS CUTTINGS/SEASON

\$760

#### 4 TRASH/DEBRIS REMOVALS/YEAR

\$1,015

#### TOTAL AVERAGE MAINTENANCE COSTS

2009	\$9,540,625
2010	\$7,100,000

#### TOTAL VACANT LOTS

2009	5,375
2010	4,000

### 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 figures, the vacant lots the City owns can cost upwards of \$8 million annually. This does not include the direct and indirect costs of the many vacant and abandoned lots not owned by the City. These lots are Mayor and City Council owned properties that are managed by the Department of Housing and Community Development (HCD) and maintained out of HCD's budget.



Photo: National Aquarium In Baltimore

## *Success Story*

# Healthy Harbor Initiative

**SOME SAY THAT A CITY IS ONLY AS HEALTHY AS ITS WATER.** Baltimore's harbor, which is formed by the Northwest and Middle branches of the Patapsco River and fed by the Gwynns Falls, Jones Falls, and Direct Harbor watersheds, is in failing health and contains high levels of pollution.

The Maryland Department of the Environment has declared parts of the Inner Harbor and Middle Branch overrun by bacteria, which makes the water too dangerous for swimming. The water contains high levels of nitrogen and phosphorus from sewage, lawn fertilizer and pet waste, which cause algae blooms and fish kills. Although fish and crabs can still be found in the water, pollutants cause them to contain toxic chemicals, making them potentially dangerous to eat. Poor water quality in the harbor is primarily caused by practices upstream, throughout all watersheds that drain to the harbor.

Progress is being made through City efforts to reduce water pollution, improve water quality, and comply with state and federal regulations. However, in trying to address pollution sources so wide-spread, the city government cannot solve the problem alone. Because watersheds and their impacts are so far-reaching, it is important to develop partnerships in order to reduce water pollution and achieve the Sustainability Plan goal of swimmable and fishable water bodies.

The Waterfront Partnership of Baltimore (WPB) has been the primary collaborator with the City in the care of the Inner Harbor area and has taken a leadership

## SUCCESS STORY

role in addressing the health of the Harbor. The Board of Directors of WPB represents a diverse range of organizations and stakeholders, including elected officials, city agencies, key employers, non-profit organizations, attractions, and community residents. WPB has been making major progress in creating a plan, developing partnerships, and implementing steps towards a fishable and swimmable harbor by 2020.

*The strategy guide is organized around 6 main topic areas, including water quality, water conservation, landscape and ecology, mobility, energy and carbon, and materials and waster.*

WPB launched the Healthy Harbor Initiative in April 2010. The initiative began with the creation of the Healthy Harbor Strategy Guide, a set of goals and strategies to be implemented throughout the waterfront and local watersheds to improve the quality of the environment and serve as an example for others. The strategy guide is organized around 6 main topic areas, including water quality, water conservation, landscape and ecology, mobility, energy and carbon, and materials and waster.

After developing the strategy guide, WPB saw the need for a more extensive planning effort and the involvement of a greater number of partners and stakeholders. To raise further awareness about the health of the Harbor and inspire wider support of the Healthy Harbor Initiative, WPB hosted the first State of the Harbor Conference in February 2011. To provide a more structured plan for achieving a healthy Harbor by 2020, WPB is in the process of developing a Comprehensive Plan for the Healthy Harbor Initiative, which will be released later this spring.

In developing the Healthy Harbor Initiative, WPB recognized the need for strong partnerships with government agencies, non-profit organizations, businesses, and individuals throughout the Baltimore area to achieve shared goals. Because Baltimore's regional watersheds are so critical to the health of the Harbor, Blue Water Baltimore has been the Waterfront Partnership's primary partner in the Healthy Harbor Initiative. Blue Water Baltimore is a non-

profit organization focused on improving the health of Baltimore's watersheds and water bodies. Other non-profit organizations and city agencies such as the Baltimore City Department of Public Works, the National Aquarium, Living Classrooms Foundation, and Parks and People Foundation, continue to be key partners in achieving the shared goals of the Healthy Harbor Initiative.

In addition to the support of government and non-profit organizations, the Executive Director of the Waterfront Partnership, Laurie Schwartz, points to the outstanding business leadership which has helped to drive the Healthy Harbor Initiative. The involvement and support of local businesses is critical to implementing the strategies necessary to achieve the goals of the initiative.

The cooperation of so many strong partners in working towards a common goal helps generate the confidence we need to create a much cleaner Harbor by 2020.

## SUSTAINABILITY PLAN GOALS ADDRESSED

- Ensure that Baltimore water bodies are fishable and swimmable
- Protect Baltimore's ecology and biodiversity
- Eliminate litter throughout the City
- Raise the environmental awareness of the Baltimore community
- Reduce Baltimore's water use while supporting system maintenance
- Increase Baltimore's tree canopy by 2037
- Make Baltimore bicycle and pedestrian-friendly
- Raise Baltimore's profile as a forward thinking green city



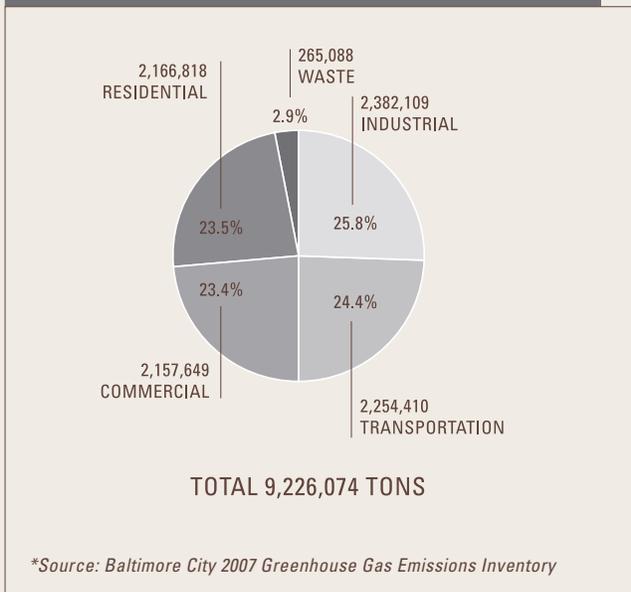
## Goal 1: Reduce Baltimore's greenhouse gas emissions by 15% by 2015

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

- \* In the fall of 2010, the City of Baltimore embarked on a planning process to develop a **Climate Action Plan (CAP)**. The CAP process will look at trends in green house gas emissions; Baltimore's program to guide our efforts to achieve greenhouse gas emissions reductions; energy supply issues including both current and future trends to ensure adequate energy supply; and adaptation and resilience strategies related to changes in weather patterns such as extreme heat or storm events and increased flooding. The Climate Action Plan will be formally adopted by the Mayor and City Council in 2011.
- \* In 2010, the **Baltimore Biodiesel Cooperative** sold over 4,000 gallons of biodiesel to its members. Since the Cooperative opened in 2008, over 119 tons of CO<sub>2</sub> has been displaced by its members.
- \* The **Back River Wastewater Cogeneration Facility** is a combined heat and power plant that uses wastewater and methane as fuel. The Back River plant reduces emissions by 7.7 million grams of nitrogen oxide yearly and captures 1.7 million cubic feet of methane daily. This methane is then used to power generators that produce 3 megawatts of power annually.
- \* The City of Baltimore, through efforts by the **Department of General Services** has increased the use of renewable energy. Approximately 10% of the power the City used in 2010 was from renewable sources. In 2010, the City generated 3 megawatts of renewable power and hopes to increase this to 15 megawatts by the end of 2012.
- \* The **Baltimore Neighborhood Energy Challenge** is helping to reduce greenhouse gas emissions from the residential sector by helping Baltimore residents to consume less energy through behavior change and home improvements.
- \* On March 27, 2010 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.
- \* The **Department of General Services** is responsible for the City's fleet of vehicles. The fleet is 35% green, using alternative fuels such as compressed natural gas and biodiesel.

**BALTIMORE CITY 2007 GREENHOUSE GAS EMISSIONS**



## 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. This inventory is being updated in 2011 and the updated version will be included in 2011's Annual Report.



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

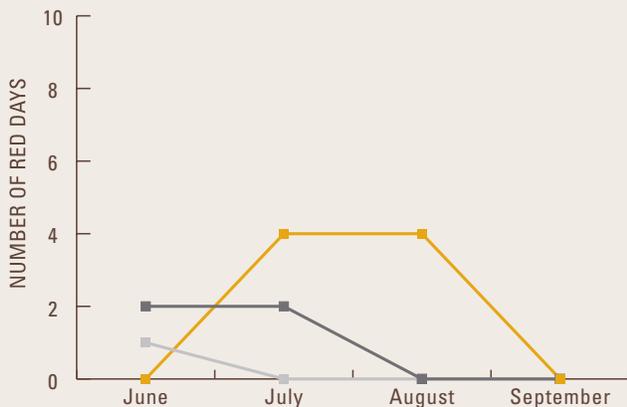
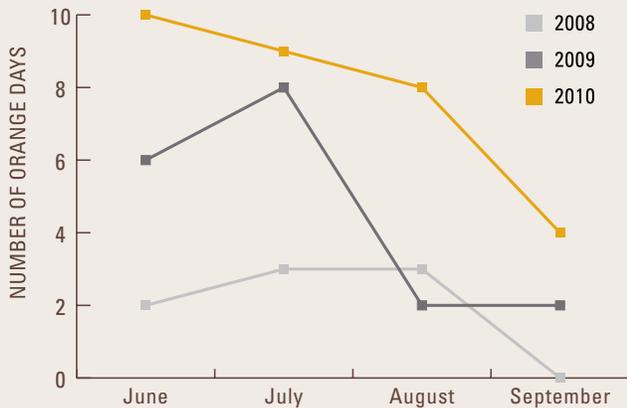
Because of its direct impact on public health, air quality is regulated by the federal government. This goal seeks to eliminate Code Red days, minimize Code Orange days, and keep Baltimore in compliance with air quality standards.

### KEY FACTS AND RELATED EFFORTS

- \* In 2010, The Audubon Maryland-DC office, partnered with Herring Run Watershed Association and held a **“Cash for Lawn Clunkers”** trade in event. Over 40 people traded in their gas powered lawn mower for a deeply discounted coupon for the purchase of a cleaner, electric powered mower.
- \* Air pollution levels in Maryland have dropped dramatically over the last 10 years and currently Maryland is in compliance with fine particle forming emissions statewide and ozone forming emissions are compliant in every jurisdiction except for the Baltimore region.
- \* 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. By the end of 2010, there have been dramatic reductions in SOx emissions and NOx emissions. Reductions are expected to continue through 2012.
- \* In 2010, the **Department of General Services** installed nitrogen stations to fill tires on the City's fleet of vehicles. Using nitrogen keeps the tires inflated longer, resulting in greater fuel efficiency and improved wear.

POLLUTION PREVENTION

### POOR AIR QUALITY DAYS IN THE BALTIMORE AREA



\*Source: Clean Air Partners

## 6

### 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
- Work with your employer to arrange for teleworking during Code Red and Orange days.

« 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.

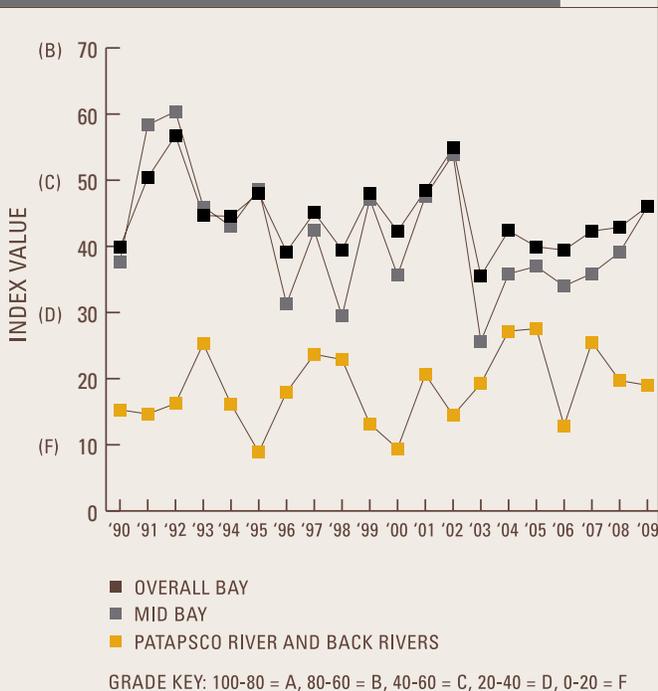
#### KEY FACTS AND RELATED EFFORTS

- \* According to Eco-check's 2009 **Chesapeake Bay Report Card**, the Patapsco and Back Rivers scored a 0% on both water clarity and chlorophyll for the fifth year in a row. The dissolved oxygen score in 2009 was 46%, the lowest score in the bay and down from 2008's score of 59%.
- \* In 2010, **Harris Creek Watershed Association** launched the Harris Creek Watershed Project, focused on bringing 17 diverse neighborhoods together around litter reduction. As part of the project, a **"Coordinated Trash Sweep"** occurred between June and August of 2010. This sweep targeted 4000 houses within the watershed and was coordinated with the Department of Public Works, Baltimore Housing Department and community leaders. The project helped identify and clean over 100 major trash sites in the watershed, keeping litter from polluting the harbor. By the end of the sweep, the amount of

trash collected by the Waterwheel Interceptor dropped from 5 tons a month to 1 ton a month, greatly reducing the amount of trash flowing into the Harbor.

- \* In October of 2010, Mayor Rawlings-Blake held a Fall Cleanup. The theme for the cleanup was **"Streets are Streams – Clean Water Starts in Your Own Yard!"** emphasizing and raising awareness that litter and trash in the streets ends up in Baltimore's streams, harbor and the Chesapeake Bay.
- \* During the summer of 2010 the National Aquarium and the Waterfront Partnership of Baltimore installed approximately 400 square feet of **Floating Wetland Islands** split between locations near the Aquarium and the World Trade Center. Floating wetland islands appear to be a promising strategy to help improve water quality and enhance habitat values in Baltimore's Inner Harbor.

#### BAY HEALTH INDEX SCORES



\* Source: Eco-check 2009 Chesapeake Bay Report Card

#### 6 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
- Do not discard any medications down the toilet or drain - ask your local pharmacist for safe disposal techniques

« The Bay Health index rates 15 reporting regions of the Bay using six indicators that are combined into a single overarching index of health. 2009 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

- \* In 2010, Baltimore City personnel from Parks and Recreation and the Health Department attended an all day **Maryland Pesticide Network** training program with national experts, Tom Green, President of the IPM Institute of North America and Charles Osborne, President of Osborne Organics. The training covered the topics of Integrated Pest Management and Organic Landcare.
- \* Mercy Hospital, University of Maryland Medical Center, Johns Hopkins Hospital and Johns Hopkins Bayview all voluntarily participate in the **Health Care Facilities Project** and are at various stages of implementing Integrated Pest Management (IPM) in their facilities. Mercy Hospital has adopted an official IPM policy.
- \* **Baltimore City Public Schools' Office of Student Placement Service Learning** approved the IPM Community Outreach

project offering Baltimore City high school students an IPM community service project to fulfill their community service hours. Interested students will be trained and become "IPM Ambassadors" in their communities.

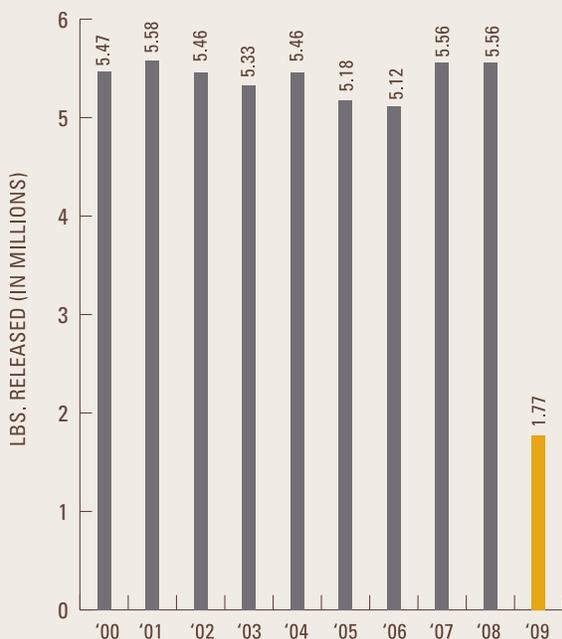
- \* In 2010, the **Department of General Services** instituted the Baltimore Green Cleaning Program in 70 city buildings - protecting the health of building occupants and visitors.

POLLUTION PREVENTION

## 4 STEPS YOU CAN TAKE

- Before you buy household products, always check the product labels for hazardous materials
- 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

CHEMICAL DISPOSAL IN MILLIONS OF LBS.



\* Source: EPA's Toxics Release Inventory

« EPA's Toxics Release Inventory is a database of information about releases and disposal of toxic chemicals from large quantity generators. This indicator measures total annual releases and disposal in pounds, reported by facilities within Baltimore. Toxic releases and disposal includes many chemicals such as dioxin, chromium, methanol, sodium nitrate and more, which could affect the air, soil and water. The number of reporting facilities varies each year, and the quantities of the chemicals vary greatly year over year. This data however does NOT mean that the public has been exposed to the chemicals - but it is a starting point to evaluate exposures that could be harmful or where caution is advised. To learn more about the chemicals and the disposal process, visit [www.epa.gov](http://www.epa.gov).



## 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. In 2010, they trained over 2700 people and reached target communities such as high-risk, low-income residents, day laborers, students studying construction, and the Latino community.
- \* In 2010, the **Coalition to End Childhood Lead Poisoning** served 1,194 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 39,229 individuals in Maryland through direct outreach efforts in the past two years.
- \* **Baltimore's Green Building Standards** are required for all new and extensively modified buildings over 10,000 square feet. In 2010, six projects registered under the BGBS program and five registered under LEED® Silver. The requirements for the Baltimore program 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 the 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 and the Coalition to End Childhood Lead Poisoning, with an emphasis on asthma reduction for families with children. The program improves indoor air quality by replacing furnaces, improving air flow, installing carbon monoxide detectors, and detecting and addressing gas leaks.
- \* In 2010, the **Department of General Services** instituted the Baltimore Green Cleaning Program in 70 city buildings – protecting the health of building occupants and visitors.

### PROGRAMS TO IMPROVE THE HEALTH OF INDOOR ENVIRONMENTS

	2008-09	2010
<b>COALITION TO END CHILDHOOD LEAD POISONING PROGRAMS</b>		
Properties receiving lead hazard reduction interventions	323	165
Properties receiving Healthy Homes interventions to reduce indoor allergens and safety hazards	261	201
Tenants provided with tenant's rights assistance to repair lead hazards in their home	414	152
Families receiving relocation assistance from lead hazardous housing to lead certified housing	213	62
<b>BALTIMORE CITY HEALTH DEPARTMENT'S HEALTHY HOME PROGRAM</b>	<b>2008-09</b>	<b>2010</b>
People trained in home environmental asthma	NA	368
People trained in lead and healthy home interventions	1,580	1,058
People trained on integrated pest management/bed bugs	NA	1,750
Families provided with a comprehensive home visit to assess conditions	2,633	1,108
People who received lead and healthy homes materials and outreach at health fairs	37,269	39,229

### 4 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
- Install a Carbon Monoxide detector in your home

« While not exhaustive of all efforts, these figures illustrate examples of ongoing efforts in Baltimore to improve the health of indoor environments. Integrated Pest Management (IPM) is an effective approach to pest management that is environmentally friendly and cost effective. IPM reduces hazards to humans and assists in improved indoor environments.



Photo: Johns Hopkins Office of Sustainability

## Success Story

# Climate Showcase Communities

**THE CITY OF BALTIMORE'S NON-PROFIT ORGANIZATIONS** represent nearly one-third of the total private employment in Baltimore. These organizations work with limited funds that are focused on fulfilling their missions – whether that be feeding the hungry, providing art opportunities to the public or greening communities. Non-profit organizations are often eager to work with partners, welcome assistance when offered and are willing to share what they learn with the population that they serve. Recognizing the need by these organizations, their willingness to participate and their significant place in Baltimore's economy prompted several partners search for a way to assist these organizations in reducing their energy consumption and costs.

The United States Environmental Protection Agency (EPA) announced a grant opportunity, "Climate Showcase Communities", in 2009. This grant's mission was to provide the financial assistance to communities for developing and implementing climate change initiatives. The EPA also hoped to foster programs that were cost efficient and that could be easily created by other communities.

The Baltimore City Department of Planning (Office of Sustainability) and the City Department of General Services partnered with Johns Hopkins University's Office of Sustainability to create a grant proposal that focused on engaging non-profit organizations in Baltimore in the effort to reduce the City's green house gas emissions. In February of 2010, the City of Baltimore was awarded \$190,000, one of 25 grant recipients selected nationally from a competitive

## SUCCESS STORY

pool of over 450 applicants, to implement the Climate Showcase Communities program that the City submitted in their grant proposal - "Supporting Non-profit Organizations to Realize Energy Use and Greenhouse Gas Reductions."

The Climate Showcase Communities program trains student coaches to engage with non-profits, benchmark their energy use and conduct visual energy audits of their buildings. The criteria for the non-profits, established by both the Johns Hopkins University Office of Sustainability and the Baltimore City Office of Sustainability, were:

- Facility must be located within Baltimore City limits
- Facility must be no larger than 50,000 square feet
- Must own or lease their building and have the ability to authorize changes
- Must be willing to share 12 months of past utility data and to continue collecting and sharing utility data for 12 months following the assessment
- Must select a point person, preferably a Facilities Operations manager, Director, or enthusiastic staff member to offer 3-6 hours of their time during the week of the assessment to answer questions, walk through the building, and mobilize staff members for brainstorming and report-back meetings with interns

Over ten weeks, from June to August 2010, six Johns Hopkins students conducted free sustainability assessments for twenty area non-profit organizations. The students, a cohort of both undergraduate and graduate students who were recruited, trained, and supervised by Johns Hopkins' Office of Sustainability, worked in teams of two to assess the energy and water use of the organization's building, discuss the transportation and office supply purchasing practices of staff, as well as facilitate brainstorming sessions to uncover opportunities for engagement in new sustainable actions.

A priority of the program was to be flexible and adaptable to the needs of the non-profits. Each non-profit received a customized written report outlining resource conservation recommendations, a cost-benefit analysis spreadsheet, Energy Star score and an information packet of shared resources. By November of 2010.

By November of 2010, the program had not only met but surpassed all expectations that had been set by achieving the following:

- Helping equip twenty organizations to save a collective \$20,000 on annual operations costs
- Assisting 10 organizations in applying for and receiving Baltimore City Community Energy Savers grants for energy audits, upgrades, and education initiatives
- Helping 6 non-profits receive free lighting audits and low cost lighting upgrades through BGE's Smart Savers Small Business Lighting Solutions Program
- Donating more than thirty donated LCD computer monitors to five non-profits
- Sending two teams of students back to non-profits during the school year to follow up with community leaders
- Fostering strong professional relationships with non-profit leaders who have referred nearly sixty organizations who are interested in being scheduled for a Climate Showcase Assessment in 2011

The Climate Showcase Communities program will continue to engage non-profits in Baltimore for another two years, and will continue to help non-profit organizations as well as the City of Baltimore meet their environmental and financial goals.

*For more information on the program, or to participate, contact Joanna Calabrese, the Sustainability Outreach Associate at Johns Hopkins University: [jcalabrese@jhu.edu](mailto:jcalabrese@jhu.edu).*

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Reduce Baltimore's energy use by 15% by 2015
- Improve health of indoor environments
- Reduce Baltimore's water use while supporting system maintenance
- Expand access to informational resources on sustainability
- Raise the environmental awareness of the Baltimore community
- Support local Baltimore businesses
- Minimize the production of waste



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

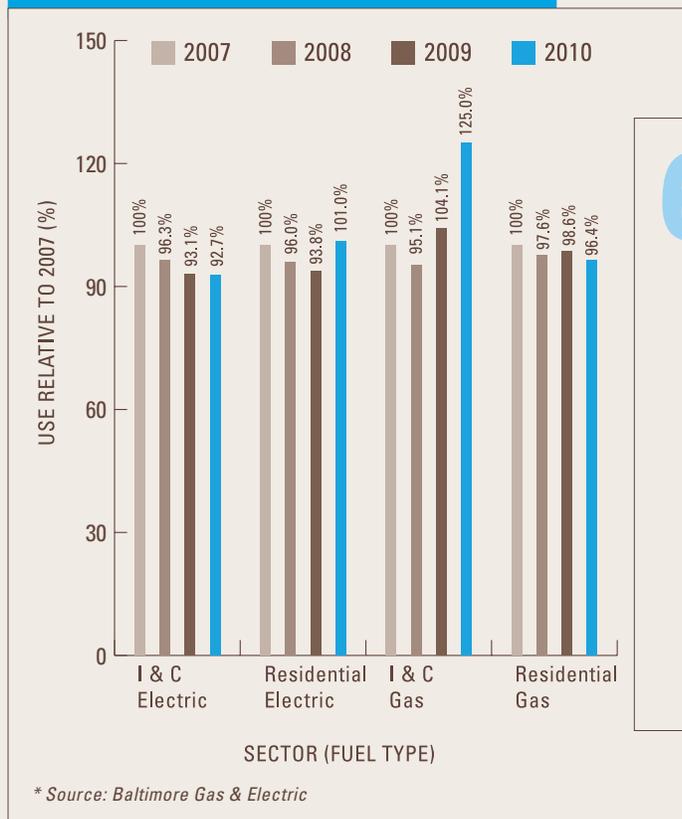
Reducing our energy consumption can help improve air quality, reduce dependence on foreign fuels, curb greenhouse gas emissions, prevent the construction of more power plants, reduce the risk of blackouts, and save money on electric bills.

### KEY FACTS AND RELATED EFFORTS

- \* In 2010, the **Baltimore City Department of General Service's Energy Office** continued their efforts to reduce energy use and costs. Through energy efficiency improvement to City facilities and equipment, the City reduced its energy use by 2% - which shows a steady decline in usage at City facilities since 2007.
- \* The **Baltimore Neighborhood Energy Challenge** uses social marketing to inform residents about home energy conservation. Working with more than 1400 participating households in 16 neighborhoods, BNEC distributed more than 2000 energy saving kits to residents across the City. The BNEC pilot results, published in June of 2010, showed that utilizing neighborhood and community networks to distribute energy conservation materials, can motivate behavior change and reduce energy consumption. All eight neighborhoods in the pilot realized energy savings, with the highest being a 12.8% average savings in the Park Heights community.
- \* 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 2010, the program retrofitted 750 houses and saved residents over 477,000 kwh and over \$52,000.
- \* In 2010, **Civic Works' EnergyReady** applied energy saving "Cool Roofs" on 43 homes and made building envelope improvements in 82 homes, achieving an average air infiltration reduction of between 15% and 30%.
- \* In 2010, 6 projects registered under the **Baltimore Green Building Standards** and 5 projects registered under LEED® Silver certification. Projects are required to achieve a minimum of 10% reduction from baseline energy use.
- \* In 2010, **Baltimore's Weatherization Assistance Program (WAP)** spent more than \$5.5 million dollars weatherizing more than 1000 homes in Baltimore City. Baltimore's WAP team has been a leader in finding new and innovative ways to leverage funds. Because of the program's ability to incorporate multiple programs in one intervention, weatherized homes are predicted to save an average 30-40% in energy use and bills.

RESOURCE CONSERVATION

ENERGY USE RELATIVE TO 2007 BASELINE



### 6 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 or unplug your computer, monitor and printer when not in use
- Call 410-927-6088 (BNEC) to receive your **free** Energy Savers Kit

« 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

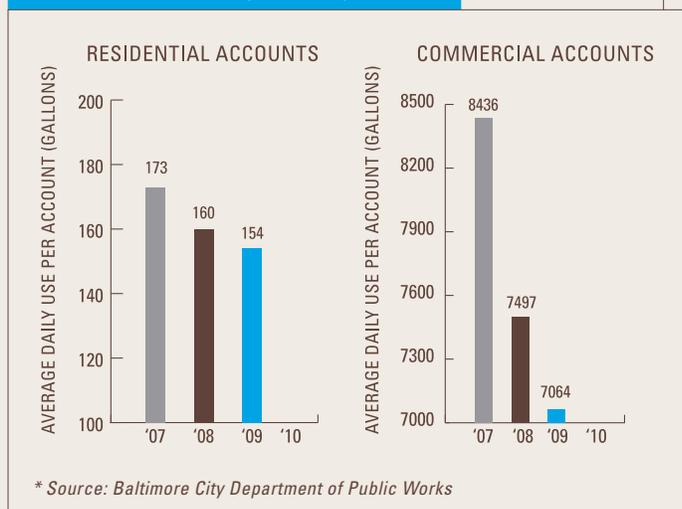
- \* In 2010, the **Baltimore City Department of General Services** systematically installed new equipment in City buildings and libraries that substantially reduced water usage.
- \* The **Baltimore City Department of Public Works Bureau** of Water and Wastewater replaced over 44,000 linear feet of water pipes throughout the city in 2010.
- \* 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 demonstrate a minimum of 20% reduction from baseline in non-irrigation water use and are awarded points for implementing additional water conservation measures such as low-flow fixtures and rainwater capture. In 2010, 6 projects registered under the **Baltimore Green Building Standards** and 5 projects registered under LEED® Silver certification.
- \* Civic Works' program **Project Lightbulb** installed water-saving faucet aerators and shower heads in 750 homes free of charge to low-moderate income homeowners in 2010. The estimated water savings

of these efforts is 17,520,000 gallons per year (based on 30 minutes of daily usage).

- \* The **Baltimore Neighborhood Energy Challenge** distributed nearly 1000 toilet tank banks in 2010. 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.
- \* **Blue Water Baltimore**, the newly formed watershed group which combined the forces of 5 organization into one, built and sold 109 rain barrels in 2010, 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.
- \* Through water conservation efforts, **Johns Hopkins University** has been able to decrease its water consumption by an average of 21% since 2006.

RESOURCE CONSERVATION

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



### 5 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
- Call 410-927-6088 (BNEC) to receive your **free** toilet tank bank

« At the time of publication, 2010 figures were not available from the Department of Public Works. We will amend the report when they become available.



### 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.

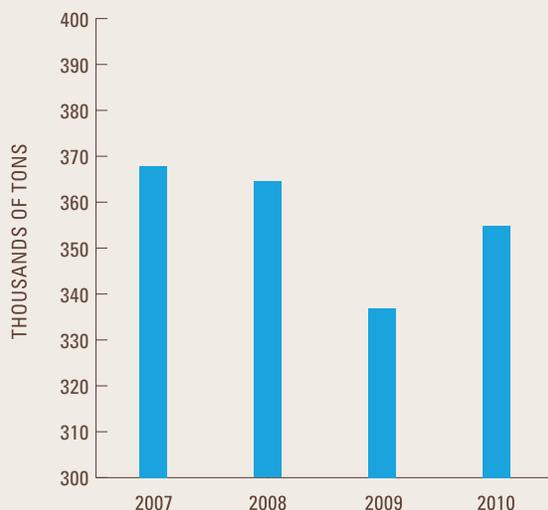
#### KEY FACTS AND RELATED EFFORTS

- \* In July of 2010, Mayor Stephanie Rawlings-Blake and Al Foxx, Director of Public Works, announced that since the start of the City’s **One PLUS ONE** program in 2009, City residents recycled over 50,000,000 pounds of material. During the period of July 2009 – July 2010, recycling in Baltimore increased by 50%.
- \* In 2010, 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. Waste Neutral Group recycled over 1,820,000 pounds of food waste in 2010.
- \* In 2010, **Baltimore City Department of Public Works** and the **Cleaner Greener Baltimore** initiative sponsored the **RecycleMore Community Tonnage Competition**. The contest tracked recycling tonnage from 39 participating communities. Radnor Winston Improvement Association won the competition,

recycling 2,500 pounds of material. Hampden and Cheswold were not far behind, recycling 2,440 pounds and 2,420 pounds respectively.

- \* 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.
- \* In 2010, the Baltimore Community Foundation awarded 23 **Recycling More Grants**, totaling over \$8,000 to community associations across the City of Baltimore.
- \* In 2010, over 27,000 tons of curbside recycling was collected and over 351,000 tons of curbside trash was collected. This is a 28.71% increase in recycling since 2009, and a 35.84% increase in the diversion rate.

#### 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

“2009’s chart showed data in 6 month increments, this chart shows data for full calendar years. There are 24 different categories of waste from private haulers, to city mixed refuse, to special clean-ups that are deposited at the Quarantine Road Landfill. Totals for these categories can vary from year to year and the overall increase in 2010 could be due to additional community clean-ups and an increase in city mixed refuse. It is also important to note that roughly half of the landfill’s tonnage is the ash created from the Baltimore Refuse Energy Systems Company’s (BRESKO) waste to energy processing, which is used as daily cover.”

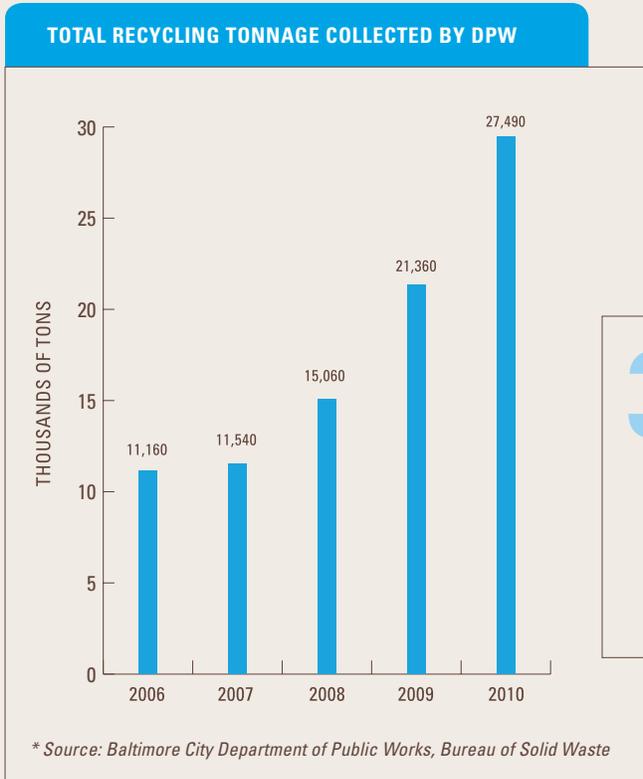


## Goal 4: Maximize reuse and recycling of materials

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. In July of 2010, Mayor Stephanie Rawlings-Blake and Al Foxx, Director of Public Works, announced that since the start of the City's One PLUS ONE program in 2009, City residents recycled over 50,000,000 pounds of material. During the period of July 2009 – July 2010, recycling in Baltimore increased by 50%.
- \* **Cleaner Greener Baltimore**, in partnership with the Baltimore Community Foundation, awarded over \$8,000 to communities through 23 Recycling More grants in 2010. 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.
- \* In 2010, the **Baltimore Biodiesel Cooperative** sold over 4,000 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.
- \* In 2010, 6 projects registered under the **Baltimore Green Building Standards** and 5 projects registered under LEED® Silver certification. Projects are required to dedicate recycling areas in all buildings and are awarded points for reusing and recycling building materials.
- \* The **Baltimore Free Store** takes donated and salvaged goods and redistributes them at their store in Baltimore City - free of charge. In 2010, over \$125,000 worth of donated items moved through their store.
- \* In 2010, **One PLUS ONE** pickup started in the Downtown Service Area. This change completes the transition of solid waste collections to One PLUS ONE pickup that launched in 2009.
- \* In 2010, Councilman Jim Kraft sponsored the **“Recycling is Fun for Everyone!”** school recycling competition. Nine schools in the First District participated in the competition and Holabird Academy won the competition, earning the most points through their recycling efforts.



**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

“ Recycling has continued to increase since the introduction of Single Stream Recycling and the One PLUS ONE campaign began offering curbside recycling every week.



Photo: Alicia Feuillet

### Success Story

# Improving Food Access Through Farmers Markets

**THE FOOD ENVIRONMENT IMPACTS HEALTH.** Millions of low-income Americans live in “food deserts” (A group of blocks that are more than ¼ mile from a supermarket and have 40% or more of the population with an income below 125% of poverty.). In Baltimore, 18% of Baltimore City is considered a “food desert”. Concurrently, more than two-thirds of Baltimore's adult population and nearly 40% of high school students in Baltimore City are overweight or obese as of 2007. Poor diet and obesity are associated with chronic health problems such as cardiovascular disease, hypertension, type 2 diabetes, and numerous poor health outcomes.



The Baltimore Food Policy Task Force convened for one year in 2008 and developed a roadmap to food access policy strategies in Baltimore City. In May of 2010, Mayor Stephanie Rawlings-Blake released the ten priority recommendations to the public and introduced Baltimore's new Food Policy Director, Holly Freishtat.

The Baltimore Food Policy Initiative (BFPI) is an inter-governmental collaboration with the Baltimore Office of Sustainability, Department of Planning, and the Health Department. BFPI includes the Food Policy Taskforce Recommendations, Food Policy Director, and Food Policy Advisory Committee (Food PAC). BFPI embraces health prevention and greening strategies to address multiple priority outcomes such as increasing access to healthy foods, providing viable healthy food retail in food deserts and reducing urban blight. BFPI prioritized five of the ten Food Policy Taskforce Recommendations to implement in year one. The five recommendations chosen are to expand and promote farmers markets, to support urban agriculture, to develop a targeted marketing campaign to encourage healthy eating, to expand supermarket home

## SUCCESS STORY

delivery programs and to support continued research on “food deserts” and collaboration with policymakers.

One of the key Food Policy Taskforce recommendations is to “expand and promote farmers markets” from a policy, partnerships and project perspective. From a policy perspective, the Baltimore Food Policy Initiative conducted a farmers market assessment of the 14 farmers markets in Baltimore city to identify strategies for farmers markets to address food access issues in Baltimore city food deserts. A key finding identified a state policy barrier that prohibited first year farmers markets to accept federal nutrition assistance (SNAP benefits, WIC and Senior Farmers Market Coupons). This is significant because the majority of the newly formed farmers markets are located in low-income communities. As a result, Maryland Department of Agriculture changed this policy and first year markets are now able to accept federal nutrition assistance. From a partnerships and perspective, Maryland Hunger Solution, community foundations and farmers market managers were instrumental in the successful pilot of the first three farmers markets that accept SNAP benefits.

These partners completed the “Farmers Market EBT Pilot Project” to identify and break through barriers to ensure that a farmers market – whether new or established - could utilize EBT machines. The Food Supplement Program (FSP) is what used to be commonly known as “food stamps” or paper coupons and now are only issued by Electronic Benefits Transfer or “EBT” cards. In November of 2010, over 190,000 Baltimore residents were using EBT cards but were not able to use their EBT card at farmers markets in Baltimore.

Funding was secured to provide \$6,000 per market in the pilot project to provide for the EBT machine, market currency (tokens), administrative costs and marketing costs. An informal advisory committee consisting of ten stakeholders determined criteria that would be used to select markets to participate in the pilot project. They determined that the criteria would include the following six main points: market location, market size, presence of a “Market Champion”, hours/day of operation, existing bank account and accepting of WIC, FVP and FMNP benefits. The three markets chosen to participate in the pilot were the Waverly Farmers Market, Park Heights Community Farmers Market at Pimlico and the Highlandtown Farmers Market.

Over the course of the pilot project, 668 EBT transactions occurred at the three markets totaling \$13,000 in sales. Opening the door for federal nutrition assistance (SNAP) recipients to shop at farmers markets was only one of the many benefits from the pilot. The markets realized an increase in number of customers from outside of the immediate neighborhood, an increase media attention for the markets and a strengthening of the volunteer programs. An integral component to launching EBT machines at farmers markets is the introduction of the Baltimore Bonus Bucks, an incentive for SNAP customers which doubles the amount of money a SNAP customer has to spend at the market. These incentive programs attract new customers to farmers markets and encourage these customers to make healthy food choices.

The Baltimore Food Policy Initiative (BFPI) will be using the number of EBT machines at farmers markets and number of markets that accept federal nutrition assistance as a measure of its success in implementing the Food Policy Task Force recommendations. Over the next year the BFPI will be notifying all 196,000 Baltimore residents enrolled in SNAP benefits as to which markets accept federal nutrition assistance. With the efforts of the Food Policy Initiative, the use of EBT machines and ability to use federal benefits at farmer’s markets will effect positive change for the citizens of Baltimore.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Establish Baltimore as a leader in sustainable, local food systems
- Raise the environmental awareness of the Baltimore community
- Expand access to informational resources on sustainability
- Make Baltimore a center for green business
- Support local Baltimore businesses
- 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 2010, LiDAR data was used to do an analysis of the tree canopy of **Baltimore City Public School System** school property. Only 12.7% of over 1200 acres of school properties in Baltimore is tree canopy.
- \* TreeBaltimore's **TreeNeighborhood** program offers community associations free and reduced priced trees for homes and businesses. In 2010, 400 trees were delivered to 20 different neighborhoods. In addition, 2000 1-gallon trees were given away free to city residents.
- \* TreeBaltimore's marketing campaign promoting **"One Tree Can Make a Difference"** won the Creative Programming Award from the Maryland Recreation and Parks Association for 2010.
- \* In 2010, the **Critical Area Offset Program** provided funding to the Herring Run Watershed Association for the implementation of the Herring Run Masterplan. In 2010, they planted 250 trees and cared for over 700 more trees.
- \* **CSX Corporation** will sponsor two plantings in Baltimore annually and in 2010, TreeBaltimore joined with CSX to plant 30 trees in Solo Gibbs.
- \* The City of Baltimore's **Forest Conservation** program ensures that developments in Baltimore

preserve existing trees or plant new trees. In 2010, approximately 1,624 trees and 800 shrubs were planted under the program.

- \* To ensure the health and longevity of the trees being planted at schools, **P. Flanagan & Sons** donated a truck, water tank and trailer to the City and **Blue Water Baltimore (BWB)**. BWB will be responsible for watering all newly planted trees at schools over the summer months.
- \* In 2010, **Civic Works' Real Food Farm** planted 75 fruit trees as part of their project.
- \* In 2010, **Friends of Patterson Park Stewardship** program planted 30 new trees, installed 100 new gator bags, watered 400 trees and mulched over 500 trees.

GREENING

### 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 Blue Water Baltimore your watershed association

### TREEBALTIMORE TREES PLANTED IN 2009

	# OF TREES	
<b>PRIVATE PROPERTY</b>	2009	2010
Growing Home Campaign	350	180
Marylanders Plant Trees Program	415	unrecorded
<b>Private Sub-Total</b>	<b>3,391</b>	<b>2,780</b>
<b>PUBLIC PROPERTY</b>		
Planted by Forestry	1,800	900
<b>Public Sub-Total</b>	<b>2,652</b>	<b>3,155</b>
<b>TOTAL TREEBALTIMORE TREES PLANTED</b>	<b>6,043</b>	<b>5,935</b>
<small>*Source: TreeBaltimore</small>		

« While not inclusive of all tree plantings in 2010, 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 2010, such as Parks & People Foundation, which planted 2,075 trees in 2010.



## 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 (RFF)**, an urban agriculture project of Civic Works in Clifton Park had 260 volunteers help construct 2 additional agricultural hoopouses to provide agriculture education and demonstration.
- \* **Baltimore Food Policy Initiative (BFPI)** prioritized five of the ten Food Policy Taskforce Recommendations to implement in year one of the project. The five recommendations include; expand and promote farmers markets, support urban agriculture and community gardens, develop a targeted marketing campaign to encourage healthy eating, expand supermarket home delivery program, and support continued research on food deserts and collaboration with policymakers.
- \* In 2010, the **Baltimore Office of Sustainability**, in partnership with the Department of Housing and Community Development, completed a land assessment that identified up to 35 acres of vacant land which is viable for farming. Land will be leased to farmers through low cost leasing agreements with qualified farmers. A Request for Qualifications to select suitable farmers has been released. It is anticipated that lease agreements will be complete in the winter of 2011, in time for spring planting.
- \* The Food Policy Director established the **Food Policy Advisory Committee (Food PAC)**, to help implement the Food Policy Taskforce Recommendations. Food PAC consists of 55 members that represent all stakeholders in Baltimore's food production, distribution, and consumption system.
- \* As of January 31, 2011 the **Virtual Supermarket Project (VSP)** has had 70 unique customers, 235 grocery orders have been placed, and over \$13,000 dollars worth of groceries have been purchased. The program has a 51% return rate which indicates that over half the people whom use the program come back and use it again.

### FOOD DESERT MAP



\*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

« Food Deserts are defined as block groups that are more than ¼ mile from a major supermarket AND 40% or more of their population's household income is below \$25,000 (roughly 125% of the Federal Poverty Level for a family of four). Source for Poverty Measure: US 2000. Distance to a supermarket was measured from the center of each block group, following the street grid to the supermarket.



### 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.

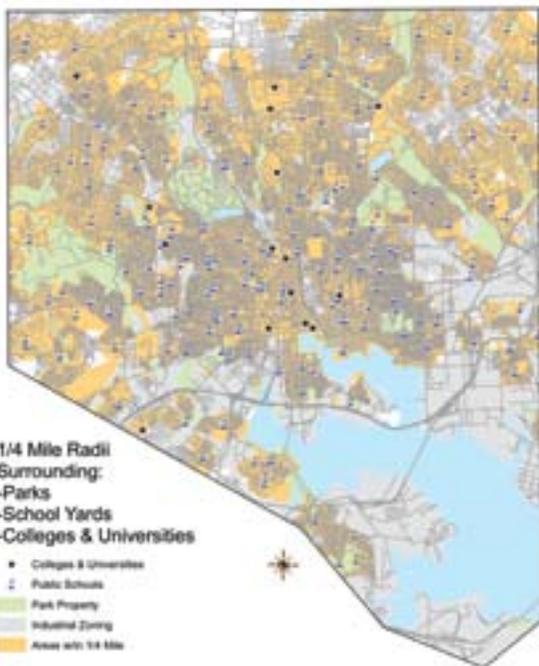
#### KEY FACTS AND RELATED EFFORTS

- \* In May of 2010, **Baltimore City Department of Recreation & Parks** joined by Honeywell, City officials, South Baltimore residents and local sporting teams celebrated the Grand Re-Opening of Swann Park.
- \* In 2010, **Cylburn Arboretum**, a nature preserve encompassing over 200 acres of woodland in Baltimore City, re-opened to the public. The \$6 million project which started in 2008 includes improvements to the grounds, additions to the greenhouse facility and construction of the Vollmer Center.
- \* **Baltimore Green Space** has identified 222 green spaces in Baltimore City. These include publicly owned parks, community gardens, and other neighborhood green and recreational spaces. In 2010, Baltimore Green Space completed a survey of green spaces in Baltimore.

Taking photographs and using GPS enabled cell phones volunteers marked the locations of hidden green spaces throughout Baltimore City, to ensure their preservation.

- \* **The City Farms Program**, operated by the **Horticulture Division of the Baltimore City Department of Recreation and Parks**, began in 1978 with gardens at Clifton Park and DeWees Park. It has grown to an organization of eight gardens. Another six gardens are located in Carroll Park, Druid Hill Park, Leakin Park, Patterson Park, Roosevelt Park and Cimiglia Park at Fort Holabird. These City Farms plots rent for \$30 per year and offer gardening opportunities for over 500 families.
- \* The **Friends of Patterson Park Stewardship program** is organized into volunteer "teams" which each meet once a month. The Tree Team's 158 volunteers planted 30 new trees and cared for over 500 existing trees, and the Beautification Detail Team's 190 volunteers completed large clean-ups, removed 1,000 pounds of invasive plant species, and edged and cleared several thousand feet of walkways.

#### MAP OF PARKS AND 1/4 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 represents the areas of the city that are not within 1/4 mile of school, park or university property which offers open space for recreation and play. The gray areas are industrial areas of Baltimore where there is no residential population. The percentage of entire city within 1/4 mile of open space, minus industrial zones is 68.59%. According to the 2010 Census, the percentage of population covered by this area is 87.79%.



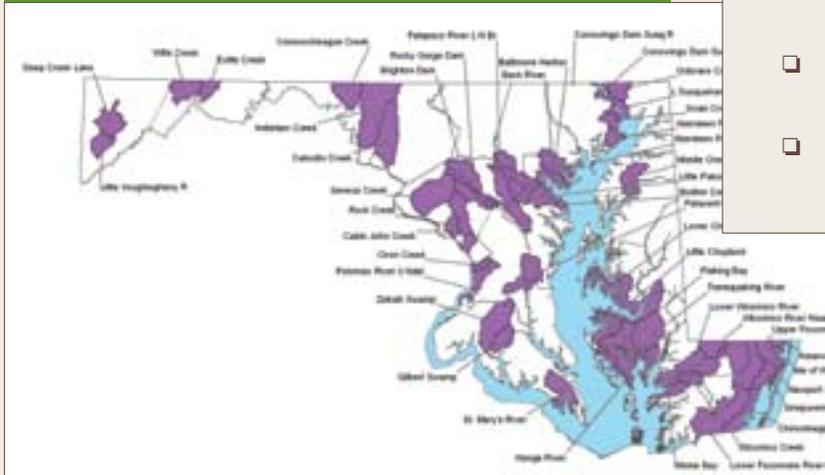
## Goal 4: Protect Baltimore’s ecology and bio-diversity

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 **Baltimore City Critical Area Management Program** holds waterfront development to higher environmental standards to protect this sensitive ecosystem. Over 800 trees, 1,600 shrubs, and many herbaceous species were planted by developers under this program in 2010.
- \* During the summer of 2010 the **National Aquarium** and the **Waterfront Partnership of Baltimore** installed approximately 400 square feet of Floating Wetland Islands (FWIs), split between locations near the Aquarium and the World Trade Center. The FWIs at the World Trade Center site were built by school children under supervision of the Living Classrooms Foundation. Floating wetland islands appear to be a promising strategy to help improve water quality and enhance habitat values in Baltimore’s Inner Harbor.
- \* **The Water Quality Monitoring and Inspection Section** of the **City’s Department of Public Works** does benthic macroinvertebrate counts at fixed and random stations each spring for use in assessing stream water quality in the Gwynns Falls, Jones Falls and Herring Run watersheds. During 2010, benthic macroinvertebrates were collected at 23 stations.
- \* **Blue Water Baltimore** installed 109 rain barrels and 12 rain gardens, planted over 2100 trees and shrubs, removed .8 acres of invasive plants, collected nearly 28,000 pounds of trash from streams and sold over \$54,000 worth of native plants, all of which increased the quality and availability of in-stream and upland fish and wildlife habitat.

### 2009 MARYLAND BIOLOGICAL STREAM SURVEY WATERSHED



\* Source: Maryland Biological Stream Survey

### BACK RIVER WATERSHED

## 3

### 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

« The Maryland Department of Natural Resources (DNR) has committed to long-term monitoring of streams under the Maryland Biological Stream Survey (MBSS) and works to assess the status and trends in biological integrity for streams in Maryland. The most recent data is from 2009, when 3 MBSS sites were within the City of Baltimore. The fish IBI is a quantitative rating of the health of the fish assemblage found at each site.

» The *Benthic Index of Biotic Integrity (BIBI)* measures the condition of the freshwater benthic macroinvertebrates such as crayfish, clams, and aquatic worms. *Instream Habitat* is based on the perceived value of habitat to the fish community.

	Fish IBI	Benthic IBI	Instream Habitat
BACK-205-R-2009 ut herring run	2.67 (Poor)	2.00 (Poor)	6.00 (Marginal)
BACK-301-R-2009 herring run	2.67 (Poor)	1.67 (Poor)	7.00 (Marginal)
BACK-206-R-2009 herring run	3.00 (Fair)	1.67 (Poor)	8.00 (Marginal)



Photo: Mark Dennis

## Success Story

# Zipcar

**IMAGINE NOT HAVING TO BE FINANCIALLY RESPONSIBLE** for a car payment, insurance, gas and vehicle maintenance costs. Imagine always having a reliable vehicle available when you need one. Imagine living or working in the City of Baltimore and not having to worry about finding a parking space or paying a monthly garage fee. Imagine knowing that your choice in transportation modes makes a positive difference for the environment. Now you can stop imagining because thanks to a new partnership between the City and Zipcar – car sharing has come to Baltimore!

Car sharing is a type of car rental service where customers can rent typically by the hour or other short time periods. It is member based and members have access to a network of vehicles that are available 24 hours a day, 7 days a week on a self service basis. Car sharing is popular in urban environments where

public transit, walking and bicycling are primary modes of transportation for residents, workers and visitors. Members of Zipcar and other car sharing programs report a 47% increase in public transit trips, a 10% increase in bicycling trips and a 26% increase in walking trips. Car sharing provides an easy, low cost

## SUCCESS STORY

alternative to owning a car and is a reliable option when other modes of transportation won't suffice – such as when one moves, goes out-of-town, or has short distance business travel.

Proving not only to be a cost-effective mode of transportation for people, car sharing can also help reduce road congestion, pollution and the demand for street, surface or garage parking. All of these are direct goals and strategies of Baltimore's Sustainability Plan. Carbon emission reduction is not just a concern for Baltimore, it is a global concern. Fewer cars on the road help reduce greenhouse gas emissions, particulate matter and traffic congestion. Every Zipcar takes at least 15 personally owned vehicles off of the road and Zipcar members, on average, drive fewer miles per year, saving roughly 219 gallons of fuel per year per Zipcar member. Reducing the number of parking spaces needed in a city can increase the area available for green space – which provides green recreation space and assists with stormwater runoff and management.

*"I would like to put in a loud, "YES!" vote for the ZipCars! I have been a member of ZipCar since Hopkins first got them and they are FABULOUS! It would be lovely to have a couple cars actually in the Village."*

Noting all of these benefits to residents, workers, visitors and the City's environmental goals, the Baltimore City Department of Transportation and Zipcar officially launched Zipcar's car sharing service in Baltimore in June of 2010. At the time of the launch, there were 20 Zipcars at various locations around Baltimore, including eleven in the Central Baltimore Business District. Within ten months, Zipcar had doubled the number of cars in the Baltimore street service fleet to over 40. This is not including the additional vehicles at various locations on the Johns Hopkins Homewood campus. 60% of the Baltimore fleet of vehicles is rated at 25 mpg or better, and includes several hybrid vehicles such as the Toyota Prius.

Since Zipcar has arrived in Baltimore, not only has the number of Zipcars available for use increased but

so has the number of Zipcar locations. The number of business account users has increased as well. Businesses can offer discounted Zipcar membership accounts to their employees as an added benefit and to assist in fulfilling corporate sustainability measures and practices.

*For more information on Zipcar in Baltimore or to become a Zipcar member visit: [www.zipcar.com/baltimore/find-cars](http://www.zipcar.com/baltimore/find-cars). For more information on business accounts or if you would like to explore having a Zipcar location in your community, contact Tiffany James with the Baltimore City Department of Transportation: [tiffany.james@baltimorecity.gov](mailto:tiffany.james@baltimorecity.gov).*



### SUSTAINABILITY PLAN GOALS ADDRESSED

- Reduce Baltimore's greenhouse gas emissions by 15% by 2015
- Facilitate shared-vehicle usage
- Increase transportation funding for sustainable modes of travel
- Raise the environmental awareness of the Baltimore community
- Improve Baltimore's air quality and eliminate Code Red days
- 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. Use of public transit also promotes walking and a healthier lifestyle.

### KEY FACTS AND RELATED EFFORTS

- \* The **Charm City Circulator** with the city's first hybrid buses gave free rides throughout the city to more than 1.1 million riders in 2010. The DesignLine system utilizes a "clean burning" turbine, and the smallest combustion engine on the market. The body design reduces vehicle weight by up to 3 tons over other systems, resulting in approximately 2.25 tons less greenhouse gases a year. In early 2010, the circulator opened up the purple route to go north and south between Penn Station through Federal Hill, while the orange route travels east to west.
- \* **The Circulator** created a new mobile application for the iPhone and Android, to help people stay up-to-date on route status and news. With these apps, riders will have the information they need to make riding easy at their fingertips.
- \* In 2010, the **RedLine transit project** launched a Community Liaison program in which individuals work closely with neighborhoods in the project area and serve as liaisons between the Maryland Transit Administration (MTA) and communities.
- \* Created in 2010, the **CharmCard®** can be used on MTA Metro Subway, Light Rail and Local Bus and anywhere the CharmCard® and SmarTrip®

names are displayed. Instead of using a paper ticket, riders simply touch their CharmCard® to the targets located on Local Bus fare boxes, Metro Subway fare gates and Light Rail ticket vending machines.

- \* **Commuter Choice Maryland** is an incentive program that encourages Maryland employees to use vanpools or ride Maryland Transit Administration (MTA) Local Bus, Commuter Bus, Light Rail, Metro Subway, and MARC Train for less than full fare. Employers are also rewarded with special federal and state tax deductions, state tax credits, and savings on certain payroll taxes. Employees get their MTA monthly pass at work, conveniently saving time.
- \* **The Central Maryland Transportation Alliance (CMTA)** launched the "Rate My Ride" campaign in 2010. This innovative campaign allows riders to comment on their public transportation experience via text message. Riders can text the word "ride" to 30802 and then they will receive a survey that they can be filled out on the spot. Survey results can be found on the CMTA website and the most frequently cited complaints are listed below.

TRANSPORTATION

MTA RIDERSHIP 2008-2010



\*Source: Maryland Transit Administration

### TOP 6 'RATE MY RIDE' ISSUES

- 1 BUS ARRIVED LATE
- 2 BUS SKIPPED STOP
- 3 OTHER
- 4 RUDE DRIVER
- 5 UNCOMFORTABLE
- 6 SAFETY CONCERN

\*Source: CMT alliance - Rate my Ride for 2010

« This chart represents the number of trips taken on MTA's various forms of public transit state-wide between 2008 and 2010. While there is some monthly variation, annual totals for the three 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

- \* In the past two years, Baltimore city passed 9 bike-related bills including using only bike-safe storm grates, posting a \$75 fine for parking in bike lanes, mandating bike parking on new and improved structures, bike parking for employees and passing a **“Complete Streets Resolution”**.
- \* The **“Cyclists’ Bill of Rights”** passed in 2010, clearly defines 12 tenets including: a cyclists’ right to travel safely and free of fear; right to equal access to public streets; right to full support of law enforcement; and right to end-of-trip amenities that include safe and secure opportunities to park their bikes.
- \* In 2010, Baltimore City received a bronze level **“Bicycle Friendly Community”** award from the League of American Bicyclists.
- \* In 2010 the **Baltimore City Department of Transportation** promoted their bicycle commuter guide to aid both workers and their employers in their transition to cycle commuting.
- \* On May 21, 2010 the Baltimore Metropolitan Council hosted its largest **Bike to Work Day** in 13 years. About 1440 people registered to bike to work all over the Baltimore Metropolitan Region.
- \* In 2010, the **Baltimore City Bicycle Master Plan** continued its expansion in the Park Heights and Southeast Baltimore communities.
- \* Baltimore ranked 12th in the nation for most walkable cities according to **Walk Score** which calculates the walkability of cities and neighborhoods based on 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.

- \* **“Tour dem Parks”** is an annual bike ride held the second Sunday of June, sponsored by the Mayor’s bicycle advisory Committee, the Department of Recreation & Parks and the Department of Planning / Office of Sustainability. This was the 8th year for the event, which takes bike riders through Baltimore’s parks and neighborhoods. Riders get an up-close view of regional parks like Carroll, Patterson, Clifton and Druid Hill, and other Baltimore treasures. The ride included 4 routes: 14 miles--the family ride on the Gwynn’s Falls Trail, 25 miles, 35 miles, or a metric century (64 miles). Proceeds are donated to groups and non-profit organizations affiliated with parks, greening, and bicycling. The 2010 tour raised funds to help support One Less Car!

### 4 STEPS YOU CAN TAKE

- Talk to a “Bike2Work” mentor about how to get ready to commute by bike
- Take a Test Ride - Ride the route on your bike on a weekend prior to riding the route on weekday
- Drive respectfully of cyclists
- Encourage your workplace and businesses you frequent to add parking for bikes

### BICYCLE INFRASTRUCTURE IMPROVEMENTS

	2008	2009	2010
MILES OF BIKE LANES ADDED	14.5	5.5	43
<i>Currently there are a total of 113 miles of bike lanes in Baltimore city.</i>			
# OF BIKE RACKS INSTALLED	33	135	99
<i>*Source: Nate Evans, 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. 38% of the total bike lanes in Baltimore City were added in 2010.



### 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

- \* **Baltimore's City Commute Program's** (Rideshare Program) mission is to promote commuter alternatives by educating people on the benefits of using alternative transportation rather than driving alone in single-occupancy vehicles.
- \* The **City Commute Program** can find you a ride! With the ridematching database, they can match you with other commuters who live and work near you and who are interested in sharing a ride. For more information, contact Traci McPhail at 410-396-7665 or email [traci.mcphail@baltimorecity.gov](mailto:traci.mcphail@baltimorecity.gov) for additional information.
- \* The **ZipCar** program at **Johns Hopkins University** grew from 16 shared vehicles to 18 in one year. Based on demand, Johns Hopkins just signed a contract to add more zip cars on their other campuses in 2011.
- \* On March 1, 2010, Baltimore City signed a contract with **Zipcar**. One year later, there are more than 2000 members. A survey was completed late in 2010 to obtain information about users, utilization and behavior changes. The result of this survey will be posted on the Baltimore City Department of Transportation website in 2011. [www.baltimorecity.gov](http://www.baltimorecity.gov)
- \* Programs such as **ZipCar** mean fewer unnecessary vehicles on the road, personal savings, and convenience. When the City's Zipcar program was pursuing additional vehicles for the 33rd Street and St. Paul area, the Community Association President was thrilled and put the word out. She got a lot of comments from residents, including one from someone who is a regular user and said: "I've already saved \$6000 in one year." Another new user said that he had friends promoting Zipcar use for several years and finally got to try it. After one time, he became a convert and regular Zipcar participant.

### 3

#### STEPS YOU CAN TAKE

- Team up with your neighbors and co-workers to start a rideshare program for commuting
- Sign up for Zipcar
- Encourage your employer to create a Zipcar account

#### RIDE SHARE PROGRAMS IN BALTIMORE CITY

	2009	2010
Johns Hopkins RideShare members	40	55
Johns Hopkins Zipcars	16	18
Baltimore City RideShare members	0	2000
Baltimore City Zipcars	20	30

*« The Ride Share programs in the City and at Johns Hopkins University have grown significantly in just the past two years.»*



## 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.

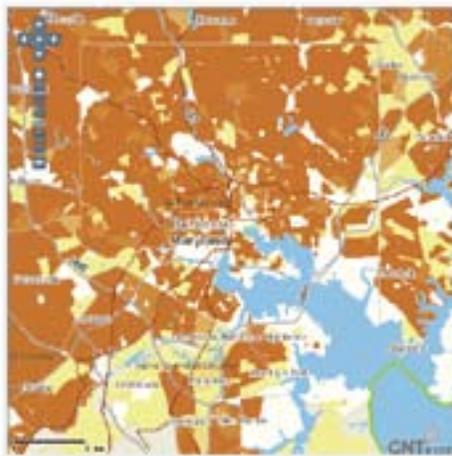
### KEY FACTS AND RELATED EFFORTS

- \* Transportation equity seeks to ensure that the needs of all communities, particularly low-income communities, are addressed in transportation policy and the transportation planning process. Additionally, transportation investments should work to ensure that both the benefits and impacts are distributed equally.
- \* In the Baltimore region, households spend more on transportation than on any other expense (education, health care, food, and insurance) except shelter.
- \* The **Baltimore Region Transportation Improvement Program (TIP)**, developed by the Baltimore Metropolitan Planning Organization, is a comprehensive plan outlining the use of federal funds to improve transportation options throughout the

region. The plan includes a chapter on Environmental Justice, which considers whether low-income and minority populations bear disproportionate impacts resulting from governmental decisions across all programs, policies and activities. In the report, there are three fundamental DOT environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

### TRAVEL TIME TO WORK



TRAVEL TIME TO WORK - Transit Commuters

- Data Not Available
- Less than 22 minutes
- 22 to 25 minutes
- 25 to 29 minutes
- 29 to 33 minutes
- 33 minutes or greater



TRAVEL TIME TO WORK - Non-Transit Commuters

- Data Not Available
- Less than 22 minutes
- 22 to 25 minutes
- 25 to 29 minutes
- 29 to 33 minutes
- 33 minutes or greater

\* Source: The Housing and Transportation Affordability Index

« These two maps show travel time to work comparing those who are transit commuters, and those who are not. The travel time to work is measured in minutes, as the amount of time it takes each group of commuters to get to their destination (work). As can be seen in these images, Baltimore area transit commuters require more time to get to their destination than non transit commuters – often 10 or more minutes longer. This may be due in part to the schedule for available transit options in Baltimore, or service issues. This correlates to the rider satisfaction surveys which indicate that the number one complaint for bus riders is the tardiness of the buses.



## 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

- \* The **Baltimore City Department of Transportation** operating budget for “Cleaner Greener Forms of Transportation” in FY10 was \$6,819,320. This includes the Charm City Circulator, Water Taxi Harbor Connector, Red Line and Bicycle/Pedestrian programming.
- \* There are many resources for individuals to use to understand how transportation projects are planned, funded and executed. The **Baltimore Metropolitan Council** provides a list of items that will help those interested understand and become involved.
  - Context for Metropolitan Transportation Planning - Understand the framework and process for regional planning.
  - Developing a vision - Vision 2030 is the result of a collaborative effort among residents, businesses, and government agencies to create a clear vision for the future of the region over the next thirty years.
- Looking to the future - How will our transportation system serve the region in 10, 20, even 30 years from now? The long-range plan looks out 20+ years and identifies projects that will be needed to support future population and employment growth.
- Improving the System - The Transportation Improvement Program is a list of transportation priorities and projects that are requesting funding over the next 4 years. Learn more about short-range programming.
- \* Managing the work - The **Unified Planning Work Program** summarizes the transportation planning activities of the Baltimore Metropolitan Council staff for each year.
- \* Thinking Locally - Each jurisdiction in the region develops long-range plans for their community. These plans focus on things like zoning, land use, and transportation. Learn more about local planning and how it relates to regional planning.

TRANSPORTATION

### FEDERALLY FUNDED STATE AND LOCAL PROGRAMS

STATE PROJECTS	LOCAL PROJECTS
Howard Street Revitalization	Central Avenue Reconstruction
Baltimore Red Line	Charles St. Gateway Rehabilitation
	Edmondson Avenue Bridge
	New Vail Street
	North Ave. Streetscape
	Southeast Infrastructure
	Howard Street Revitalization
	West Baltimore MARC Neighborhood Improvements

## 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

« Through the Transportation Improvement Programs for the City of Baltimore (2011 - 2014), Baltimore obtained funding in 2010 from both the State and Federal Governments. The projects range from safety and aesthetic improvements (new sidewalks, lighting, crosswalks, ADA ramps) to expansions to enable more public transportation (e.g. the red line). The list of federal and state funded projects is in the table on this page: For details on this study, go to [www.baltometro.org/publications/transportation-publications](http://www.baltometro.org/publications/transportation-publications).

\* Source: Baltimore Metropolitan Council



Photos: above, Andrea Calderon; below: Abby Cocke

### Success Story

# Growing the Tree Canopy of our City Schools

**TREES ARE VITAL TO OUR CITIES.** They clean and cool our air and water. A growing body of research supports the notion that green spaces and trees are especially important for our children. TreeBaltimore, a mayoral initiative spearheaded by the Baltimore City Department of Recreation and Parks, aims to increase the number of trees in Baltimore, also known as the "tree canopy." Baltimore's existing tree canopy is 27.4%. American Forests, the nation's oldest nonprofit citizens' conservation organization, recommends a 40% tree canopy for healthy cities.



Mayor Stephanie Rawlings-Blake

The Baltimore City Public School system has a current tree canopy of 13%. In the fall of 2010, Baltimore City Public Schools announced a commitment to plant 1,000 trees a year. To kick off the commitment, BCPSS, Mayor Stephanie Rawlings-Blake and TreeBaltimore partnered with local non-profits the Alliance for the Chesapeake Bay, Blue Water Baltimore and the Parks & People Foundation and carried out the single largest tree planting event ever to take place at a Baltimore City Public School. Constellation Energy provided critical financial support and in-kind contributions were from local businesses, P. Flanagan & Sons, Lorenz, Inc. and

## SUCCESS STORY

East Coast Organics. Over the course of one intense week, from October 18th-23rd, the partner groups worked with volunteers, students, teachers, and community members to plant 677 trees at fourteen City schools.

The largest event took place at Gwynns Falls Elementary School, where 417 trees were planted over the course of two days. For the major tree planting day, on Saturday, October 23rd, all of the partners were in attendance, along with a team from the AmeriCorps and more than 100 volunteers, including neighborhood residents, boy scouts, and employees of Constellation Energy and BGE. Mayor Stephanie Rawlings-Blake and Mr. Michael Sarbanes, Executive Director of the Office of Partnerships, Communications and Community Engagement at Baltimore City Public Schools, greeted volunteers and helped plant trees by the school's playground. That same day, Mayor Rawlings-Blake also visited a shoreline cleanup at Middle Branch Park and a garden cleanup at Thomas Johnson Elementary School – other greening projects at schools and parks which involved students and volunteers.

The schools that took part in the Fall 2010 tree planting campaign, included: Robert W. Coleman Elementary School, Fallstaff Elementary School, Mergenthaler Vocational Technical High School, Western High School, Northwood Elementary School, CIVITAS High School, Gilmore Elementary School, John Eager Howard Elementary School, Curtis Bay Elementary/Middle School, Windsor Hills Elementary/Middle School, Collington Elementary School, City College High School and Northwestern High School. Schools were chosen based on requests from teachers, principals and school administrators.

For some schools, the fall tree planting was part of a new push towards being green and teaching students the value of nature in the city. For others, it was one of many green efforts that have taken place in recent years, including schoolyard gardening and the incorporation of environmental education into curriculum. Of the participating schools, three planted trees in areas of their schoolyards that had been covered in asphalt just a few years before. Removing unneeded asphalt and replacing it with gardens, fields and tree groves at City schools is an important

strategy for creating healthier natural environments for our students and for our city. Since 2006, almost 20 acres of asphalt have been removed from schools with the help of the Maryland Port Administration, the Department of Transportation, Parks & People Foundation and other partners. The planting of new gardens and trees in schoolyards that were covered in asphalt has been funded by offset fees from the City's Critical Area Management Program and also by the Chesapeake Bay Trust.

Planting trees at city Schools is an important action in the education of the next generation and all our citizens. Involving youth in the planting and caring of the trees in their schoolyards is a crucial part of this new campaign. By combining classroom and service learning with hands-on experiences, the week-long tree planting effort represented best practices in 21st-century education; reflected City Schools commitment to helping students become environmental stewards in their home communities; gave students opportunities to develop horticulture skills and to learn about the function and importance of trees - and their role in making Baltimore a healthier and cleaner place to live.

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Increase Baltimore's tree canopy by 2037
- Raise the environmental awareness of the Baltimore community
- Ensure all youth have access to environmental stewardship programs and information
- Turn every school in Baltimore into a green school
- Provide safe, well-maintained recreational space within ¼ mile of all residents
- Improve Baltimore's air quality and eliminate Code Red days



## 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

- \* The **Parks & People Foundation** supported 11 city public school partners, assisted 8 “green teams”, hosted 7 professional development workshops, coordinated the removal of more than 6 acres of asphalt, and installed 8 schoolyard habitats or vegetable gardens.
- \* **Baltimore City Public Schools Cleaner, Greener, Sustainability Challenge** provided sixteen school teams \$1,000 each to develop and implement green projects at their schools.
- \* Launched in the spring of 2010, the **Baltimore Green Schools Network** is a diverse group of stakeholders dedicated to advancing sustainability in the Baltimore City Public School System.
- \* In 2010, **Parks and People Foundation** partnered with Baltimore City Public Schools System to provide a Schoolyard Greening Coordinator AmeriCorps VISTA to assist with managing schoolyard greening projects and the Baltimore Green Schools Network.
- \* A number of **Baltimore City Charter Schools** such as The Green School, Green Street Academy and Baltimore Montessori Public Charter School have incorporated greening and sustainability as a key part of their mission.
- \* A group of Baltimore City Public School System teachers created the **Council of Teachers for the Environment**. The council provides advice, support and information to teachers engaged in greening at their schools as well as a pipeline of information from and between system administrators and community organizations, teachers and schools.

18 CERTIFIED GREEN SCHOOL IN BALTIMORE CITY
Barclay School
Bryn Mawr School (I)
Catholic High School of Baltimore
Catonsville Educational Center at RICA
Cross Country Elementary/Middle School
Father Kolbe (I)
Franklin Square Elementary/Middle School
Gilman Lower School (I)
Medfield Heights Elementary School
Mount Washington Elementary School
Roland Park Country School
Roland Park Elementary School
Rosemont Elementary School
The Green School
Thomas Jefferson Elementary/Middle School
Thomas Johnson Elementary/Middle School
Waldorf School of Baltimore
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 within Baltimore which received “Green School” certification by the Maryland Association for Environmental and Outdoor Education. Baltimore City has 18 certified green schools, or 4.7% of the total schools in Baltimore. 10 are public elementary, 5 public middle, 2 high schools and 1 charter school. Five schools submitted applications in 2010 to be certified green schools - they should get their certification in 2011!



## 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, summer employment and an opportunity to explore careers in Baltimore. In the summer of 2010, 360 YouthWorks students worked with environmental and greening programs throughout the City.
- \* In 2010, Civic Works opened the **Baltimore Center for Green Careers**, home to the expanded B'More Green occupational skills training program. B'More Green enrolled 19 people in a new six week certification program to learn brownfield remediation.
- \* Ten schools benefited from the **KidsGrow** and **Schoolyard Habitat and Education** programs, operated by Parks & People.
- \* The **Masonville Cove Environmental Education Center (MCEEC)** provides environmental programs for community and school groups. MCEEC served over 1100 students during the 2009-2010 school year, and will reach over 1,500 students during the 2010-2011 school year.
- \* **Civic Works' Real Food Farms** engages youth through three educational programs. Farm Lab which is an extended, curriculum-based program; Farm Club which is an after school program for middle school students and Farm Internship which provides paid internships for 3 high school students.
- \* In the spring of 2010, students at Baltimore City College co-founded a city-wide club to tackle environmental issues, The "**Baltimore Youth Environmental Response.**" One of their projects for 2011 is to fight for carpooling, public transportation, and biking - to encourage people to be more responsible about how they get from one place to another.
- \* In October 2010, the **Great Kids Farm** hosted a Harvest Festival. There was a vast range of educational activities for children and adults, including an "edible tour" of the 33-acre campus, crafts, planting and harvesting.
- \* In 2010, **Friends of Patterson Park Stewardship Program** hosted two Youth Volunteer Days, where 57 local children can participate in park stewardship projects such as tree planting, gardening and mulching.

## 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

### BALTIMORE CITY YOUTH PARTICIPATION IN ENVIRONMENTAL PROGRAMS

PROGRAMS	2009	2010
Baltimore Conservation and Leadership Corps	32	30
Masonville Cove	1,143	1,500
Living Classrooms BUGS Program	75	75
Civic Justice Corps	240	250
Baltimore City Schools Sustainability Challenge	N/A	150
Parks and People	1,900	1,275
Holistic Life Foundation	350	425

« This is a sampling of community service projects, after-school groups, summer camps, and summer youth job training programs that have an environmental focus.



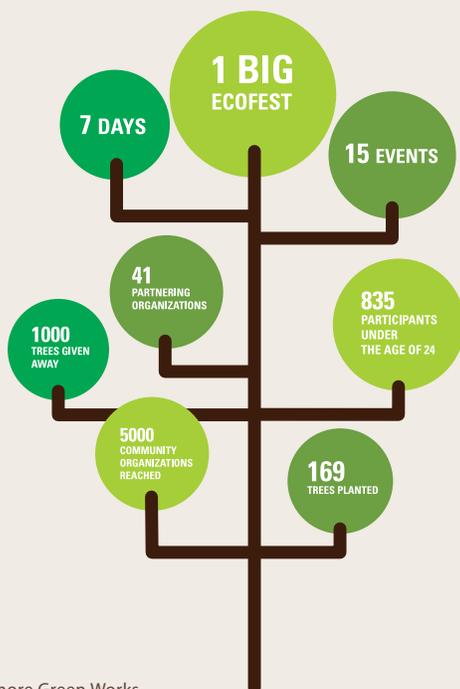
### Goal 3: Raise the environmental awareness of the Baltimore community

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 has trained nearly 200 volunteers, distributed over 2,000 energy saving kits, and participated in over 75 community events.
- \* In 2010, five local watershed associations merged to become **Blue Water Baltimore**. BWB's programming continues to include educational opportunities for youth, rain barrel workshops, native plant sales, community trash cleanups, downspout disconnects, residential water audits and policy work.
- \* **Baltimore Green Week** reached more than 5,000 people this year, with nearly 1,000 under the age of 24. Forty-one partner organizations were involved, and with TreeBaltimore, 169 trees were planted. The subjects covered in the seminars ranged from healthy and sustainable food options to weatherization to chemical reform.
- \* **Growing, Restoring, Organizing Workshops (GROW)** is a partnership with Baltimore City Recreation and Parks, the Parks & People Foundation and Baltimore Green Works, to coordinate a series of workshops to help small neighborhoods and non-profit groups with their greening projects. These free workshops are held throughout the city, and reached over 100 people.
- \* The **Maryland Chapter of the USGBC** offers programs and workshops to professionals in architecture, engineering, design, construction and other building-related professions, to encourage greater understanding and use of sustainable techniques to make the built environment healthier as well as energy and water efficient.
- \* In partnership with the **Housing Authority of Baltimore City**, the **Parks & People Foundation** provides education, engagement and hands-on projects to help residents of Baltimore's public housing developments incorporate trees, gardens and other environmental improvements into their communities. Parks & People has invested significant efforts towards helping individuals green their communities, schools, and housing.

#### BALTIMORE GREENWEEK 2010



\*Source: Baltimore Green Works

### 3

#### 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 at the end of this report
- Consider hosting a sustainability house party to exchange tips and information with your friends and neighbors

« *Baltimore Green Week (BGWeek), is the annual capstone event of Baltimore Green Work's (BGW) programming. Each April, BGW hosts this weeklong series of educational workshops, lectures and events that offer the public an opportunity to voice their concerns, be educated and take action on issues such as climate change, sustainable food and agriculture, water conservation and efficiency within the home.*



## 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** uses the Green Map® System's online global mapmaking tool, Open Green Map, to show community residents where green resources can be found across the city - from a green school to a park. The Baltimore project has grown to nearly 400 sites.
- \* In 2010, the **Baltimore Office of Sustainability** launched its new website. The interactive website provides visitors with information on all of the 7 chapters and 29 goals in the City's Sustainability Plan, as well as a "Resource Center", "Media Center" and "Youth Zone". Another feature of the site is the "Success Stories" page, where we encourage citizens to submit their personal stories on how they are working to further Baltimore's sustainability goals.
- \* The **Community Greening Resource Network (CGRN)** provided resources to over 75 Community Gardens and 25 School Gardens in Baltimore City during 6 Give-Away Days.
  - Participants picked up almost 4,000 seed packets and over 5,000 vegetable and herb seedlings.
- \* **CGRN** also offers or promotes a variety of workshops and educational events, and in 2010, over 200 events were featured on the CGRN Shared Calendar which includes workdays, workshops, trainings, tree sales, celebrations, volunteer days, films, short courses, conferences, and Give-Away Days. More than 150 gardeners attended over 20 workshops and trainings designed specifically for CGRN members.
- \* In 2010, **Baltimore Green Works** launched its online Green Resource Guide. The guide includes links to Maryland's local farmers, neighborhood greening groups, local government, and information and tips on how citizens can make a difference.

### BALTIMORE GREEN MAP: JONES FALLS



## 4 STEPS YOU CAN TAKE

- Explore the Baltimore Office of Sustainability website, [www.baltimoresustainability.org](http://www.baltimoresustainability.org)
- 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 interactive maps officially launched in June of 2009. The information in the green map grows every day, and the most comprehensive map, Baltimore Regional Green Map features over 330 sites thus far.

The icons on the map are for: Sustainable Living (map green living, business, technology, design, and mobility - may also include the hazards and challenges our community must address); Nature (map places and opportunities to engage with the natural environment - plants, animals, habitat and landscapes - in a sustainable way); and Culture & Society (map cultural and historical sites, other unique elements of place, and the resources that promote equity and involvement in strengthening the sustainability of our world).



Photo: Lowell Larsson

## Success Story

# Barclay Deconstruction Project

*The Barclay Deconstruction Project is a pilot project to train residents of the Barclay/Greater Greenmount communities in the green job category of building deconstruction while also participating in the restoration of their neighborhoods.*

**IN 2004 THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT** sponsored a plan to remove existing vacant housing in the Barclay community and replace it with up to 350 units of low income rental housing, affordable housing for purchase, and market rate housing. The project was planned using the LEED® for Neighborhood Design program. Telesis Corporation was awarded the contract for redevelopment in 2006.

Residents of the Barclay Community, in partnership with the Safe and Sound Campaign, approached City government in 2008 with the idea that they could deconstruct the vacant housing in the community slated for demolition by training unemployed residents of Barclay returning from prison and using the vacant housing as training sites. While learning to deconstruct the vacant housing stock, individuals would also receive safety training, basic lead abatement training, and carpentry skills necessary to safely identify, remove, catalogue and store materials of value from vacant homes. Materials harvested from deconstruction would be salvaged and reclaimed for other Baltimore development projects.

Deconstruction carefully dismantles a building in order to salvage components for reuse and recycling. It is labor intensive and low-tech. In comparison, traditional demolition is capital-intensive and highly mechanized. Because deconstruction requires some level of manual labor, it provides job training and employment opportunities that would otherwise not be available. In addition deconstruction has other benefits including:

- Reduced pollution
- Reduced greenhouse gas emissions
- Reduced landfill demand
- Conserving energy and natural resources
- Providing materials to used building materials stores and value-adding manufacturing enterprises

## SUCCESS STORY

The Baltimore Office of Sustainability attained an agreement from the Baltimore Housing Authority and Telesis Corporation that the Barclay partnership would have the ability to pilot a deconstruction program using two abandoned houses in the 2100 block of Calvert Street, provided the deconstruction was completed and the empty lots turned over to Telesis Corporation in time for redevelopment to begin. Lowell Larsson acted as the community based project manager, and coordinated with Re-Use Consulting, the deconstruction expert, and L&J Construction, a Barclay community based hauling company, who acted as the general contractor, site manager, and provided the bond and licensing to satisfy Baltimore City requirements. The community also partnered with Jericho Re-Entry for assistance selecting applicants and provision of wrap-around health services for the trainees. The project was funded through a Community Service Block Grant, and the Annie E. Casey Foundation.

*An astounding 95% (by weight) of the building material was diverted from the landfill and that material was either reused or recycled, a level that meets LEED® Platinum requirements.*

The two row houses selected were typical of the vacant housing stock in the community. In June 2010, work began, and the first 3-story brick row house at 2104 N. Calvert Street was razed. The nine men who were trained in deconstruction techniques all received certification as EPA Certified Renovators as well as successfully completing the OSHA 10 Hour Construction Safety Training Course. An astounding 95% (by weight) of the building material was diverted from the landfill and that material was either reused or recycled, a level that meets LEED® Platinum requirements.

Mr. Lenzie Johnson was highly impressed with the work ethic and the attitude of the men he trained and had this comment. "This project shows that local businesses hiring local people can make Baltimore City stronger by following the dictum: reduce, reuse, recycle - we can add to that, and support re-entry."

We hope that this project will be replicated in the future, and that deconstruction becomes the model used in blighted neighborhoods as a way to demolish vacant housing stock in a manner which is environmentally and socially responsible. We also hope that the deconstruction on a broader scale will keep resources within communities while building the talents and skills of residents within those communities.



Photo: Lowell Larsson

### SUSTAINABILITY PLAN GOALS ADDRESSED

- Create green jobs and prepare City residents for these jobs
- Make Baltimore a center for green business
- Raise the environmental awareness of the Baltimore community
- Raise Baltimore's profile as a forward thinking, green city
- Minimize the production of waste
- Support local Baltimore businesses
- Maximize reuse and recycling of materials



## 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

- \* In 2009, Baltimore City created a **Green Jobs Coalition** to examine the current and projected green labor market, identify the needs of businesses, develop training programs, and work to move the City’s unemployed and under-employed into the workforce. The coalition has been having quarterly meetings throughout 2010, and has offered several sessions on various green job related topics.
- \* The **Coalition to End Childhood Lead Poisoning** offered a variety of green job training and workforce development programs between 2008 and 2010. In 2008 and 2009, more than 130 people were trained in the Healthy Homes program, lead hazard control, weatherization and energy efficiency. In 2010, the Coalition trained an additional 62 individuals in Healthy Homes, 19 in lead hazard control and 3 in weatherization.
- \* In 2010, Civic Works opened the **Baltimore Center for Green Careers**. The center is home to the expanded B’More Green occupational skills training program focused on young people searching for trade related training. The Civic Works program includes EnergyReady for Home Improvement and Weatherization, and the Baltimore Energy Entrepreneur (BEE) project, in collaboration with the Baltimore Trades Guild. In its first year, B’More Green enrolled 19 people in a new six week certification program to learn brownfield remediation. Over the past few years, more than 2,500 young adults have participated in one of the Civic Works programs, gaining knowledge of environmental issues, as well as skills and experience to qualify for a variety of newly available jobs.
- \* With the creation of **EnergyReady**, a full service home 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.
- \* A new \$1.3 million dollar grant awarded to the **Sustainability, Education and Economic Development (SEED)** initiative at the American Association of Community Colleges (AACC) by The Kresge Foundation will expand green job training opportunities and innovations at community colleges. This will support the goal of preparing young people, or those seeking re-entry into the work force, to have targeted training that will give them the necessary skills.
- \* The **Baltimore Workforce Investment Board (BWIB)** selected eight targeted industries for workforce development. To choose the most promising industries, the BWIB analyzed current need, wage growth, past employment growth, projected employment growth, potential for career ladders and availability of entry-level jobs. The categories include health care and social assistance, bio sciences, Business Services, computer, Internet and Software Related Data Services, Construction, Hospitality and Tourism, Port and Port-Related Services, and Sustainable Energy and Environmentally-driven Services.

### WORK FORCE DEVELOPMENT IN BALTIMORE

PROGRAMS	2009	2010
Baltimore City Public Schools Graduation Rate	62.7 %	66%
Baltimore City YouthWorks-Green Jobs Youth Corps	360	360
Baltimore City Community College (BCCC) Degrees and Certificates Awarded	497	466
Civic Works Bmore Green Job Training	36	27

« The preparation for employment begins with elementary and secondary education and continues through higher education and certificate programs. Some students may enter the green jobs sector right out of high school, while others may go on to obtain advanced training and degrees. A broad educational background with varied skills can be utilized across many sectors, including green jobs.



## 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

- \* The **Maryland Green Registry** promotes efforts by all businesses to operate more sustainably, and encourages businesses to sign up on the database so that organizations within and outside of Baltimore can see how progressive our businesses are. The registry was created two years ago, and in that time, more than 50 Baltimore city businesses have been listed.
- \* The **Chesapeake Sustainable Business Alliance (CSBA)** hosts educational and networking events every month in conjunction with a wide variety of locally owned and operated businesses. Many of CSBA's members have implemented a variety of sustainable features into their business operations, and often the programs take place at an organization or business that highlights innovation and sustainability.
- \* In 2010, Governor Martin O'Malley signed into law the recognition of **Benefit Corporations** or "B Corps" in Maryland. Benefit Corporations are required to have a positive impact on society, consider how decisions affect employees, community and the environment and publicly report their social and environmental performance. Maryland was the first State in the country to recognize the "B Corp" designation.
- \* The **Maryland Technology Enterprise Institute (Mtech)** at the University of Maryland launched the Chesapeake Bay Seed Capital Fund. The fund, supported by the Maryland Department of Natural Resources and administered by Mtech, has invested \$250,000 annually for a three-year period for Maryland-based startup companies with innovative technologies that may help improve air and water quality in the Chesapeake Bay area. Several companies have received the awards and are working on a variety

of projects related to the bay's health - including breakthrough and enabling enzyme technology for the biofuels industry; software that can reduce vehicle emissions through better traffic data that allows for route diversion during congestion; concrete retaining wall modules designed to be planted creating fully vegetated walls helping to diminish heat island effects, as well as reduce stormwater, sediment and nutrient runoff; a proposed wind turbine technology that produces zero emissions will reduce greenhouse gases by decreasing household electrical demand on coal-fired power plants.

- \* City businesses are eligible for a number of grants and incentives through the state's energy programs. The **Maryland Energy Administration (MEA)** provides small business with the help they need to make energy efficiency improvements and to create renewable energy sources. Eco-conscious consumers represent a growing part of Maryland's economy. In addition to saving money on energy costs, businesses that go "green" are able to attract a loyal, conscientious customer base. Using MEA funds, the American Visionary Art Museum installed a new HVAC system and will save thousands of dollars.

GREEN ECONOMY

### 3 STEPS YOU CAN TAKE

- Register your business with 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

### CITY BUSINESSES PROMOTING SUSTAINABILITY

PROGRAMS	2009	2010
Chesapeake Sustainable Business Alliance	35	41
Maryland Green Registry	30	50

« 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. The Chesapeake Sustainable Business Alliance supports local businesses and educates the public on the economic benefits of buying local.



### 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

- \* The **Chesapeake Sustainable Business Alliance (CSBA)** sponsors the BuyLocal program to encourage support of locally owned and operated businesses. It is important to use local businesses because it keeps money in the community, creates jobs, protects the environment, and celebrates Baltimore's diversity and unique character.
- \* In 2010, **Baltimore Green Works** launched its online Green Resource Guide. The guide includes links to Maryland's local farmers, businesses, neighborhood greening groups, local government, and information and tips on how citizens can make a difference within their community.
- \* **Hospitals for a Healthy Environment (H2E)** has an initiative with hospitals across the state to buy local foods – both for their health value as well as for the local economy. Hospitals have long wanted to provide more nutritious, local sustainable foods, and now the Healthy Food in Health Care Pledge assists in that effort. Over the past two years, over 122 hospitals across

the country have signed the Pledge; four in Baltimore have done so, and more are expected next year. Hospitals have established farmers' markets, and are buying fresh, local, sustainably grown produce to serve to their patients, staff and visitors.

- \* In 2010, the **Department of General Services** in partnership with the Office of Sustainability awarded energy efficiency grants to nearly 50 local non-profit organizations which are significant contributors to Baltimore's economy. The grants will assist the organizations in finding ways to reduce their energy usage and support their operations.
- \* The **Urbanite Magazine's** April issue in 2010 featured a wide variety of articles dedicated to sustainability and the greening of the city's workforce and businesses.
- \* **The Daily Record** and the **Baltimore Business Journal** have green business award programs each year in which they recognize Baltimore businesses that have demonstrated innovation or excellence in sustainable practices or initiatives.
- \* In an effort to keep local money in Baltimore, **Baltimore Green Currency Association** launched in the spring of 2010. They are working to help strengthen local business, create jobs, and encourage the formation of local supply chains. The BNote, Baltimore's local currency will begin circulating in Hampden in 2011.

#### 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**

#### 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



## 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 City of Baltimore passed regulations adopting the **Baltimore City Green Building Standards (BCGBS)** which require new buildings over 10,000 square feet to meet LEED® requirements or the BCGBS standards. These standards will ensure that buildings are energy efficient, conserve water, use non-toxic materials, emphasize good indoor air quality, and incorporate appropriate waste management and recycling programs. The City won an award from the Maryland Chapter of the US Green Building Council for this innovative program.
- \* The **U.S. Environmental Protection Agency** awarded its 2010 Trailblazer Award to LifeBridge Health and the University of Maryland Medical System. LifeBridge won for leadership in advancing sustainability practices in their daily operations. LifeBridge Health obtained grant funding from BGE to

replace fluorescent lights with LED lamps and since implementing the program, LifeBridge Health staff members have served as mentors, providing assistance to staff at several other Maryland hospitals in an effort to duplicate their energy successes. LifeBridge is the only health system in the region that is composting at all of its facilities. They use the "final compost product" for landscaping needs at system facilities.

- \* In 2010, The City of Baltimore installed a new green roof at the **Baltimore Convention Center**. It is the largest green roof in the City totaling 32,000 square feet, which is larger than the Ravens' football field.
- \* **Under Armour**, the Baltimore based performance wear company, has made sustainability one of its core corporate priorities and objectives. In 2009 and 2010, Under Armour sponsored the Baltimore Running Festival and implemented many effective strategies, from posting recycling and composting systems at the start and finish lines, to purchasing carbon offsets to match the greenhouse gas emissions from other race day activities. For both years, nearly 80% of the waste was recycled or composted and nearly 18,000 pounds (each year) of materials were recovered for recycling along the course.

GREEN ECONOMY

### BALTIMORE RANKS 29TH OUT OF 75 IN SMARTER CITIES RANKING



## 2 STEPS YOU CAN TAKE

- ❑ Consider Baltimore's green amenities when planning your association's upcoming event or convention
- ❑ Recognize green businesses in Baltimore by submitting their information as a success story on the Office of Sustainability website, [www.baltimoresustainability.org](http://www.baltimoresustainability.org)

« Smarter Cities, a project of the Natural Resources Defense Council (NRDC), identifies cities that are leaders in sustainability and demonstrating innovation, best practices and implementation. Baltimore City ranks 29th overall out of 75 cities. [www.smartercities.nrdc.org](http://www.smartercities.nrdc.org)

## Partnerships

### CLEANLINESS

Art Blocks

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

Baltimore City Department of Public Works

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

Baltimore City Department of Housing and Community Development

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

Baltimore Green Space

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

Blue Water Baltimore

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

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

Friends of Patterson Park

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

Healthy Harbor Initiative

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

National Vacant Properties Campaign

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

Parks and People Foundation

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

Waterfront Partnership of Baltimore

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

### POLLUTION PREVENTION

Baltimore Biodiesel Coop

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

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 Fire Department

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

Baltimore City Department of Health

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

Baltimore City Department of Planning

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

Baltimore City Department of Public Works Bureau of Water and Wastewater

[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 County Environmental Protection

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

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)

Blue Water Baltimore

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

Civic Works

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

Coalition to End Childhood Lead Poisoning

[www.lead-safe.org](http://www.lead-safe.org)

Green & Healthy Homes Initiative

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

Healthy Harbor Initiative

[www.healthyharborbaltimore.org](http://www.healthyharborbaltimore.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.e-commons.org/mdh2e](http://www.e-commons.org/mdh2e)

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 Transit Authority

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

Waterfront Partnership of Baltimore

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

### RESOURCE CONSERVATION

Baltimore Biodiesel Coop

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

Baltimore City Commission for Historical & Architectural Preservation

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

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 City Department of Public Works

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

Baltimore Free Store

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

Baltimore Gas & Electric

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

Baltimore Gas & Electric

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

Baltimore Neighborhood Energy Challenge

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

Blue Water Baltimore

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

Green & Healthy Homes Initiative

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

Johns Hopkins Sustainability Office

[www.sustainability.jhu.edu](http://www.sustainability.jhu.edu)

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

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

Terracycle

[www.terracycle.net](http://www.terracycle.net)

Terracycle

[www.terracycle.net](http://www.terracycle.net)

The Loading Dock

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

Waste Neutral Group

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

### GREENING

Baltimore City Department of Planning

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

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 City Department of Recreation and Parks

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

Baltimore City Food Policy Task Force

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

Baltimore Green Space

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

Baltimore City Health Department

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

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)

Biohabitats

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

**Partnerships, continued.**

Civic Works 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)

Baltimore Watershed Association  
[www.bluewaterbaltimore.org](http://www.bluewaterbaltimore.org)

Johns Hopkins Center for a  
Livable Future  
[www.jhsph.edu](http://www.jhsph.edu)

Maryland Department of Agriculture  
[www.mda.state.md.us](http://www.mda.state.md.us)

Maryland Department of  
Natural Resources  
[www.dnr.state.md.us](http://www.dnr.state.md.us)

Maryland Hospitals for a  
Healthy Environment  
[www.e-commons.org](http://www.e-commons.org)

Maryland Hunger Solutions  
[www.mdhungersolutions.org](http://www.mdhungersolutions.org)

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

Maryland Native Plant Society  
[www.mdflora.org](http://www.mdflora.org)

Maryland Sierra Club  
[www.maryland.sierraclub.org](http://www.maryland.sierraclub.org)

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

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

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

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

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

**TRANSPORTATION**

1000 Friends of Maryland  
[www.friendsofmd.org](http://www.friendsofmd.org)

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

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

B-more Mobile  
[www.bmoremobile.org](http://www.bmoremobile.org)

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

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

Bike Baltimore  
[www.bikebaltimore.org](http://www.bikebaltimore.org)

Bike Maryland  
[www.bikemd.org](http://www.bikemd.org)

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

Housing and Transportation  
Affordability Index  
[www.htaindex.cnt.org](http://www.htaindex.cnt.org)

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

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

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

Mayors Bicycle Advisory Council  
[www.baltimorecity.gov](http://www.baltimorecity.gov)

Transit Riders Action Council  
[www.getontrack.org](http://www.getontrack.org)

Walkscore  
[www.walkscore.com](http://www.walkscore.com)

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

**EDUCATION & AWARENESS**

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

Baltimore City Community College  
[www.bccc.edu](http://www.bccc.edu)

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)

College of Notre Dame  
[www.ndm.edu](http://www.ndm.edu)

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

Construction and Energy Technologies  
Education Consortium  
[www.mdworkforce.com](http://www.mdworkforce.com)

Coppin State College  
[www.coppin.edu](http://www.coppin.edu)

EnviroEducation  
[www.enviroeducation.com](http://www.enviroeducation.com)

Green Building Institute  
[www.gbi.com](http://www.gbi.com)

Healthy Harbor Initiative  
[www.healthyharborbaltimore.org](http://www.healthyharborbaltimore.org)

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

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

Johns Hopkins University  
[www.jhu.edu](http://www.jhu.edu)

Johns Hopkins Sustainability Office  
[www.sustainability.jhu.edu](http://www.sustainability.jhu.edu)

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)

Morgan State University  
[www.morgan.edu](http://www.morgan.edu)

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

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

Sojourner-Douglass College  
[www.sdc.edu](http://www.sdc.edu)

The Council of Teachers for  
the Environment Group  
[www.greatkidsupclose.org](http://www.greatkidsupclose.org)

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

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

US Green Building Council - Maryland  
[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 Community College  
[www.bccc.edu](http://www.bccc.edu)

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

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

Baltimore Green Currency Association  
[www.baltimoregreencurrency.org](http://www.baltimoregreencurrency.org)

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)

Chesapeake Sustainable  
Business Alliance  
[www.buylocalbaltimore.com](http://www.buylocalbaltimore.com)

City Bizlist  
[www.citybizlist.com](http://www.citybizlist.com)

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

Green Jobs Network  
[www.maryland.greenjobs.net](http://www.maryland.greenjobs.net)

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

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

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

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

Maryland Energy Administration  
[www.energy.maryland.gov](http://www.energy.maryland.gov)

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

SustainLane  
[www.sustainlane.com](http://www.sustainlane.com)

Under Armour  
[www.underarmour.com](http://www.underarmour.com)

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

US Green Building Council – Maryland  
[www.usgbcmd.org](http://www.usgbcmd.org)

Youthworks  
[www.oedworks.com](http://www.oedworks.com)

*Thank you to the scores of partners  
working to improve the social, economic,  
and environmental sustainability  
of Baltimore!*

## Acknowledgements

### BALTIMORE COMMISSION ON SUSTAINABILITY

Ted Atwood

Davis Bookhart

Cheryl Casciani, Chair

John Ciekot

Peter Doo

Raymond Ehrlich

Lynn Heller

Brian Knight

Keith Losoya

Patrick McMahon

Sharon Middleton

Ruth Ann Norton

John Quinn

Jake Ruppert

Ali Smith

Scot Spencer

Tom Stosur

Alyson Taylor

Mary Washington

Edward Whalen

### PROJECT MANAGER

Alice Kennedy

### DESIGN

Davina Grunstein

*Matter, Design and Marketing*

### RESEARCH AND MEASUREMENT ASSISTANCE

Lorraine Doo

*Doo Consulting*

### BALTIMORE OFFICE OF SUSTAINABILITY STAFF

Beth Strommen

*Director*

Susan Carroll

*Baltimore Neighborhood Energy  
Challenge Coordinator*

Abby Cocke

*Environmental Planner*

Holly Freishtat

*Baltimore City Food Policy Director*

Amy Gilder-Busatti

*Landscape Architect*

Katie Igrac Lima

*Community Grants Coordinator*

Alice Kennedy

*Sustainability Coordinator*

Gary Letteron

*Critical Area Coordinator*



Baltimore City Office of Sustainability  
417 East Fayette Street  
8th floor  
Baltimore, Maryland 21202

tel 410.396.4556

fax 410.244.7358

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