



The 2019 *Baltimore* *Sustainability* *Plan*

Prepared by the Baltimore
Office of Sustainability

baltimoresustainability.org

Table of Contents

iv	Mayor's Letter	76	Climate & Resilience
vi	Sustainability Commission Co-Chairs' Letter	77	Community Preparedness
viii	Planning Director's Letter	81	Energy
x	Acknowledgments	85	Greenhouse Gas Emissions
01	Sustainability Plan Framework	89	Clean Air
1	Sustainability Plan Framework	93	Food Systems
2	The Global Goals	98	Nature in the City
02	Introduction	99	People and Nature
5	A Baltimore Where Everyone Thrives	103	Nature for Nature's Sake
9	Why Equity?	107	Trees and Forests
03	Big, Audacious Commitments	111	Water in the Environment
15	Big, Audacious Commitments	115	Green Infrastructure
04	Process & Timeline	120	Economy
21	Sustainability Plan Engagement Process	121	Local Economy
05	The Sustainability Plan	125	Workforce Development
30	Community	129	Arts & Culture
31	Neighbors	06	Equitable Implementation
37	Environmental Literacy	135	Baltimore Sustainability Plan Guidance for Equitable Implementation
43	Healthy School Environments	07	At a Glance
47	Waste and Recycling	141	Strategies, Actions & Measures of Success
51	Urban Agriculture	163	Thank You
56	Human-Made Systems		
57	Neighborhoods		
61	Housing Affordability		
65	Buildings		
69	Transportation		
73	Noise		



Bernard C. "Jack" Young
Mayor

Mayor's Letter

“ I signed the 2019 Sustainability Plan on Earth Day to reinforce Baltimore’s commitment to being clean and green. ”



Dear Baltimore,

Our lives are most sustainable when we are connected to one another; when we feel seen, heard and valued. To that end, the Office of Sustainability and the Sustainability Commission led a two year process to engage thousands of Baltimore residents. We listened to their visions and commitments and the change they want for a better Baltimore. The 2019 Sustainability Plan lifts up these voices.

I signed the 2019 Sustainability Plan on Earth Day to reinforce Baltimore’s commitment to being clean and green. Using a racial equity lens, the plan provides guidance to both recognize and eliminate disparities. The plan seeks to find balance as we work to protect our environment, and advance our economy while focusing on social equity.

The plan is connected to the United Nations Sustainable Development Goals that include promoting prosperity while protecting the planet, ending poverty while building the economy and combating climate change while improving environmental protection. The livability and viability of our city depends on the forward movement of these variables.

My administration believes that connection with each other is one of our most valuable and renewable resources. Let us commit to using this plan as a guiding document to make Baltimore more sustainable, resilient and equitable for all.

Sincerely,
Bernard C. "Jack" Young
Mayor

Sustainability Commission Co-Chairs' Letter

“*This plan is a reflection of the voices of Baltimore, with parameters set for equity... We will actively see your feedback as we ask, “How are we doing?”*”



Dear Baltimore,

The Commission on Sustainability is thrilled to share with you the 2019 Sustainability Plan. Since the original Sustainability Plan was adopted in 2009, the Commission and the Office of Sustainability have been working to strengthen communities through collaborative economic, environmental and socially equitable planning and action. In the last ten years, residents, government agencies, nonprofit partners, and businesses have made tremendous strides in fulfilling the initial plan. In this new plan, you will notice an expansion of our focus areas and importantly, a focus on racial equity.

While 2009 plan had a strong focus on environment, we saw the need to uplift the social and economic aspects of sustainability. We began by asking questions – about past, current, and future policies and programs - to learn who is included or excluded from decision-making and participation.

It is the job of the Sustainability Commission to oversee the implementation of the Plan. Upon adoption by the Planning Commission, the Plan becomes part of the City's Comprehensive Master Plan, known as LIVE, EARN, PLAN, LEARN. This plan is a reflection of the voices of Baltimore, with parameters set for equity. Each year we will conduct an annual review, prepare an annual report and host an annual Open House. We will actively seek your feedback as we ask “How are we doing?”

We hope that you will see the value in subscribing to working together as we all commit to creating a more sustainable and resilient Baltimore.

Sincerely,

A handwritten signature in black ink, appearing to read "Miriam A. Avins" and "Rebecca Bakre".

Miriam Avins and Rebecca Bakre
Sustainability Commission Co-Chairs



Planning Director's Letter

“**Our City's new Sustainability Plan reflects years of engagement and conversation about our vision for Baltimore. It is an ambitious document, capturing our greatest hopes for our City's future.**”

Dear Baltimore:

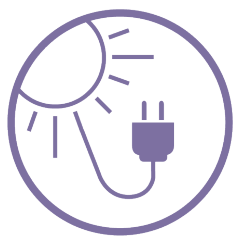
I am proud to share with you our 2019 Sustainability Plan. This Plan would not be possible without the input of community residents; the ideas and contributions of many organizational partners; and the tireless work of our staff in the Office of Sustainability. Our City's new Sustainability Plan reflects years of engagement and conversation about our vision for Baltimore. It is an ambitious document, capturing our greatest hopes for our City's future.

Baltimore's Sustainability Plan was developed to think broadly about all three legs of sustainability: people, planet and prosperity. The plan also takes great care to integrate an equity lens, a tool designed to explicitly consider racial equity when developing policy. The application of the equity lens to the Sustainability Plan is an important step towards operationalizing equity across the entire Department of Planning and transforming how we do business day-to-day. It is also an important step for the City of Baltimore.

Upon adoption by City Council and the Planning Commission, the Sustainability Plan becomes part of the fabric of Baltimore City, guiding its development for years to come. The Plan, once adopted today, will become a core part of our City's Comprehensive Plan. As we approach updating the Comprehensive Plan after the 2020 Census, the framework of the Sustainability Plan will be our guidepost and our foundation.

Laurie Feinberg
Acting Director, Department of Planning

The 2019 Baltimore Sustainability Plan



Adopted by the Baltimore Commission on Sustainability

January 16, 2019

Adopted by the Baltimore City Planning Commission

January 31, 2019

Recommended by the Judiciary & Legislative Investigations Committee

March 11, 2019

Approved by Baltimore City Council

March 18, 2019

Signed by Mayor

April 22, 2019

Acknowledgments

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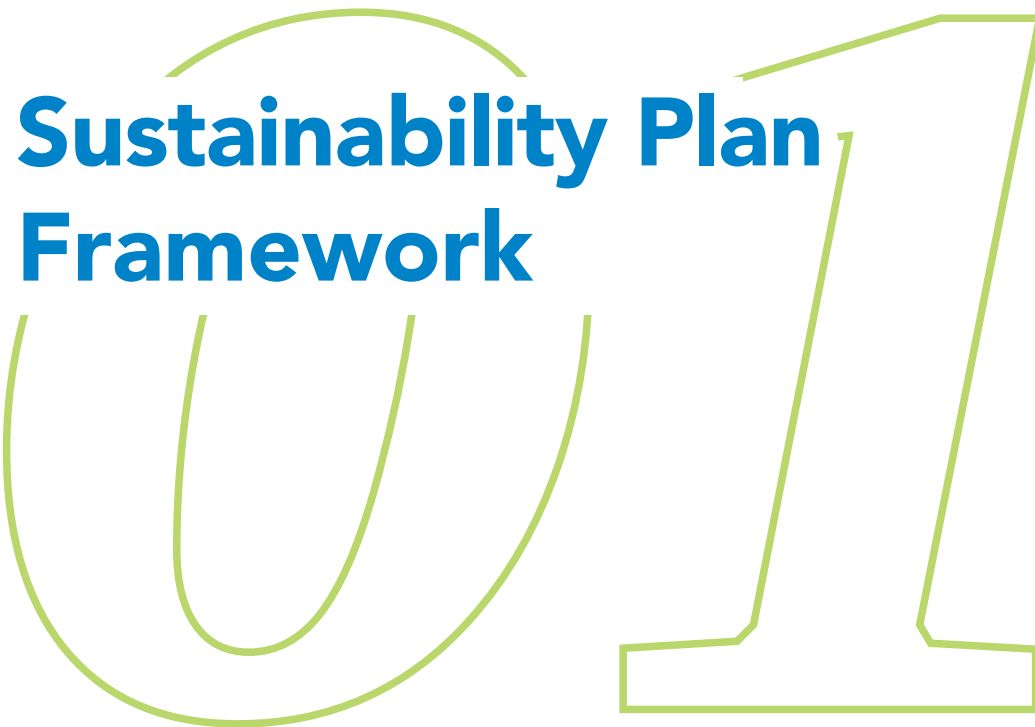
Sustainability Plan Project Manager

Anne Draddy

This plan is dedicated to a visionary Baltimore leader whose commitment, contagious energy, and sense of humor shapes our work.

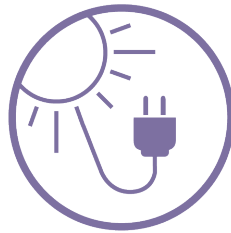


Photo Credit: Blue Water Baltimore, Pollinator Garden Install - Green Street Academy
<https://bluewaterbaltimore.smugmug.com/EVENTS/51118-PollinatorGardenInstall-GreenStreetAcademy/51118-PollinatorGardenInstall-GreenStreetAcademy-MICHEL/>

The number 101 is rendered in a light green outline style. The '0' is a simple oval shape, and the '1's are tall, narrow vertical strokes with a small rectangular base.

Sustainability Plan Framework

Sustainability Plan Framework



Community

**Human-Made
Systems**

**Climate &
Resilience**

**Nature in
the City**

Economy

Neighbors

Neighborhoods

**Community
Preparedness**

**People and
Nature**

Local Economy

**Environmental
Literacy**

**Housing
Affordability**

Energy

**Nature for
Nature's Sake**

**Workforce
Development**

**Healthy School
Environments**

Buildings

**Greenhouse
Gas Emissions**

**Trees and
Forests**

**Arts and
Culture**

**Waste and
Recycling**

Transportation

Clean Air

**Water in the
Environment**

**Urban
Agriculture**

Noise

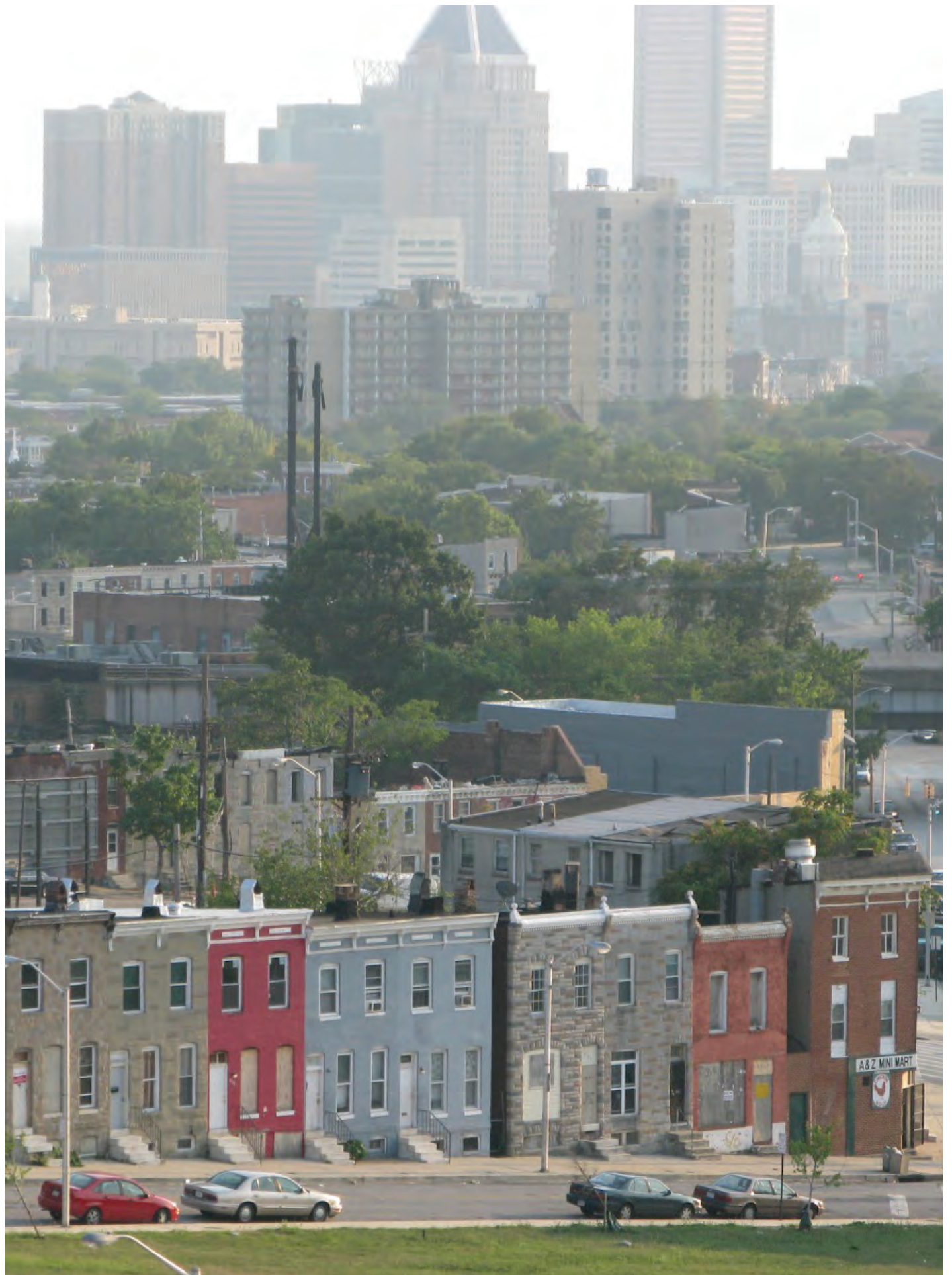
Food Systems

**Green
Infrastructure**

The Global Goals

The United Nation's 17 Sustainable Development Goals for a better world by 2030.

<p>1 NO POVERTY</p> 	<p>2 ZERO HUNGER</p> 	<p>3 GOOD HEALTH AND WELL-BEING</p> 	<p>4 QUALITY EDUCATION</p> 
<p>5 GENDER EQUALITY</p> 	<p>6 CLEAN WATER AND SANITATION</p> 	<p>7 AFFORDABLE AND CLEAN ENERGY</p> 	<p>8 DECENT WORK AND ECONOMIC GROWTH</p> 
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> 	<p>10 REDUCED INEQUALITIES</p> 	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> 	<p>12 RESPONSIBLE CONSUMPTION & PRODUCTION</p> 
<p>13 CLIMATE ACTION</p> 	<p>14 LIFE BELOW WATER</p> 	<p>15 LIFE ON LAND</p> 	<p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> 
<p>17 PARTNERSHIPS FOR THE GOALS</p> 	 <p>THE BALTIMORE GOALS For Sustainable Development</p>		



Introduction



A Baltimore Where Everyone Thrives

Let today be the day that we commit to a new vision for a sustainable Baltimore.

We are at a moment when we are poised to repair, regenerate, heal, and mend the fabric of our community.

Weaving a new fabric will lead to a different future where we can collectively create the conditions for each of us to heal ourselves, each other and the earth, and generate a healthy future for us all.

Like an organism, a city will only grow and flourish when all of its parts are fully functioning. Baltimore's history of deliberate racial segregation has positioned people in unhealthy and inequitable circumstances, deeply affecting the well-being of many of our residents—as well as the social, economic, and environmental well-being of our city. We must first acknowledge the history of race discrimination and inequity in Baltimore in order to begin to move forward. This recognition can help us understand how we have arrived at this place, while playing a powerful role in shaping where we want to go and how we want to get there, together. The Sustainability Plan is just one step in the process toward creating a more equitable city. The livability and viability of our city depends on a strong economy, a healthy environment, and an inclusive society for all.

Let's work to make sure the child born tomorrow grows up with the opportunity to nurture a connection

with family, with their community, and with nature. To live free from violence. To receive a quality education. To enjoy plenty of healthy food on the table. To have access to a good paying job. And to thrive in a city that supports all residents to reach their potential. That is a sustainable Baltimore.

This plan is the result of hundreds of conversations, comments, and drafts among Baltimore's residents, those who work at its nonprofits, businesses, and in government, and the Sustainability Commission and the Baltimore Office of Sustainability. It articulates a vision for a new communal fabric leading to a future where we all do better. Unlike most city plans, which are roadmaps for actions by city government, this plan relies on all parts of our community for its implementation.

Past Successes of the Sustainability Plan

The Baltimore Office of Sustainability was created by the City Council in 2007 to be a resource, a catalyst, and an advocate for a healthy, resilient Baltimore. The Office offers innovative, sustainable solutions to Baltimore's opportunities and challenges while engaging people throughout the city, region, and country. The Baltimore Commission on Sustainability is comprised of 20 members appointed by the Mayor and one City Council member appointed by the City Council President. It oversees the Sustainability Plan, monitoring and reporting progress annually.

The 2009 Baltimore Sustainability Plan has been a successful umbrella document providing a citywide

vision complete with strategies, actions, and metrics. Approved with widespread support, the 2009 Plan has seven chapters, 29 goals, and 132 strategies—93 percent of which have been advanced or completed by residents, faith-based institutions, nonprofits, city agencies, and businesses.

Key accomplishments include:

- Passing an Urban Agriculture Tax credit in 2015
- Adopting in 2010 the Baltimore City Green Building Standards and, in 2015, the International Green Construction Code
- Reducing residential gas use by 2.7 percent and electric use by 8.1 percent from the 2007 baseline through the Baltimore Energy Challenge
- Weatherizing more than 10,000 units inhabited by low-income families, collectively saving these families \$10 million in reduced utility bills
- Training more than 820 residents for green construction careers, maintaining an 85 percent graduation rate and 87 percent job placement rate, with average wages of \$13 to \$18 per hour.
 - The solar installation training program alone trained 55 residents, with an average wage placement of \$15 per hour
- Serving over 1 million pounds of local produce in 2015 in Baltimore City Public Schools, and using composting trays, instead of polystyrene, starting in June 2018
- Passing a ban on the use of disposable food serve ware made from polystyrene foam
- Reducing the cost of flood insurance by up to 25 percent for almost 2,000 properties
- Introducing citywide street sweeping, and citywide municipal trash cans

There is more to be done. In the ten years since the City's first Plan was adopted, climate change has become an increasing threat, and many

socioeconomic and public health challenges persist, threatening our city's residents and weakening the sustainability and resiliency of our ecosystem. It's vital that we tackle these challenges together.

2019 Sustainability Plan Structure

The 2019 Sustainability Plan represents a step forward for the City. The plan uses an equity lens, a transformative tool to improve planning, decision-making, and resource allocation leading to more racially equitable policies and programs. Using the STAR Community Rating System¹ framework as a basis, the plan incorporates feedback gathered from residents. The Sustainability Plan includes new topics, more intentionally addressing all three legs of sustainability: people, planet and prosperity.

Further, the plan is globally inspired. As part of the USA Sustainable Cities Initiative (USA-SCI), Baltimore was selected as one of three US cities to pilot implementation of 17 new United Nations (UN) Sustainable Development Goals (SDGs)¹. The SDGs, adopted by UN member countries in September 2015, form a cohesive and integrated package of global aspirations the world commits to achieving by 2030. The ambitious vision is a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. Baltimore community members worked in collaboration with city agencies, higher educational institutions and other stakeholders to identify 54 concrete measures that track Baltimore's progress towards each of these goals. Mayor Catherine Pugh endorsed the initiative when she took office in December 2016. The connections between the plan and the Sustainable Development Goals are highlighted at the beginning of each topic. To learn about additional ways Baltimore is connecting to the goals, visit Baltimore's Sustainable Future: Localizing the UN Sustainable Development Goals, Strategies and Indicators (2016)².

1. <https://www.un.org/sustainabledevelopment/>

2. <http://www.ubalt.edu/about-ub/sustainable-cities/>

Sustainability Plan Purpose

The 2019 Sustainability Plan is a vision for the future of Baltimore. Like the 2009 Plan, it serves as an umbrella document, to gather efforts together under a single, cohesive vision and identify gaps. It continues and expands the work of other plans including:

- The *Baltimore Green Network* (2018) envisions transforming vacant properties into green community assets, connecting these spaces to schools, homes, retail districts, and other activity centers.
- The *Baltimore Food Waste and Recovery Strategy* (2018).
- The *Baltimore Climate Action Plan (CAP)* (2012) has a goal of reducing emissions by 15 percent by 2020.
- The *Disaster Preparedness and Planning Project (DP3)* (2018) addresses existing hazards including flooding, coastal hazards (such as hurricanes and sea level rise), extreme wind, and extreme heat, while also preparing for the anticipated threats of climate change.
- *Homegrown Baltimore* (2013) is the city's urban agriculture plan and aims to increase production, distribution, sales, and consumption of locally grown food within our city.

Achieving the goals set forth in the Sustainability Plan will require the creativity, commitment, and participation of all of us. No single entity alone—not the government, nor any one person or community—can transform Baltimore into a more sustainable and equitable city. We can only do it together. There is a role for every resident, community organization, business, faith-based organization, and institution in making this vision for Baltimore a reality.

Accountability

Advancing the goals of this plan requires more than just a commitment to act, it requires a commitment to be held accountable. A way for us to reach our equity goals is to ensure that we are learning from our failures and our successes. Tracking our progress and monitoring our ability to advance equity and sustainability goals are essential responsibilities of the plan. This will be done in three ways:

- 1) **Annual Reporting:** Every year, the Commission on Sustainability and the Baltimore Office of Sustainability will produce an annual report, as

mandated by the City Council ordinance. The reports will evaluate what has been done and how well it has been done, as best as we are able to determine. The reports will evaluate the efforts and effectiveness of acting in a racially equitable way. We will also use thoughtful indicators that reflect residents' lived experiences — such as commute time or number of vacant buildings in a neighborhood — and we will recognize that the big, striking statistics will often require multiple measurements of interconnected factors. The annual review will be an opportunity to celebrate our successes together as a city, and to learn what is missing and where more effort is needed.

- 2) **Annual Open House:** Every year, at an annual Open House, we will check in with city residents, renew our commitment, and ask, "How are we doing?" "What can we do better?" "Who is here?" "Who is missing in the conversation?" and "Were there unintended consequences or undesired impacts and if so, how can structures be reassessed?" We will identify new strategies and actions as we become more attuned to equitable systems and as technologies and best practices change.
- 3) **Periodic Update:** At least every three years, the Commission on Sustainability and the Baltimore Office of Sustainability will use the annual reports to update strategies, set new benchmarks, and identify new or refined metrics. This allows the plan to adapt and stay relevant to the most pressing issues the City faces.

Conclusion

Sustainability is about regenerating and strengthening our city through collaborative action. It's about balancing social and racial equity, economic growth, and environmental action. It's about the need for justice and equity, in everything we do — recognizing that these are imperative to addressing the social, economic and environmental challenges we face. Most importantly, it's about all of us, contributing our voices, our experiences and joining together to create a new vision.

Let us commit to a new future today!



Photo Credit: Michel Anderson, Blue Water Baltimore, Cherry Hill Homes Tree Planting

Why Equity?

Why addressing today's challenges through an "equity lens" is essential for a sustainable future.

When talking about sustainability, we must address issues of race and place.

Where we come from, where we live, who we are, and how we identify—these factors have a disproportionate impact on our lives and opportunities, because of social disparities rooted in generations of unfair policy and discrimination. Our focus on equity forces us to look at the systems that have prevented us from achieving sustainable outcomes for all of our residents and for our city as a whole. It acknowledges that the playing field is not level, the starting lines have been incorrectly drawn, and that in order for us to give people a fair shot, the way forward is to correct what's not working.

We cannot meaningfully work for sustainability without deliberately addressing enduring social, economic, and environmental disadvantages that people experience based on their race, ethnicity, and class.

The Equity Lens

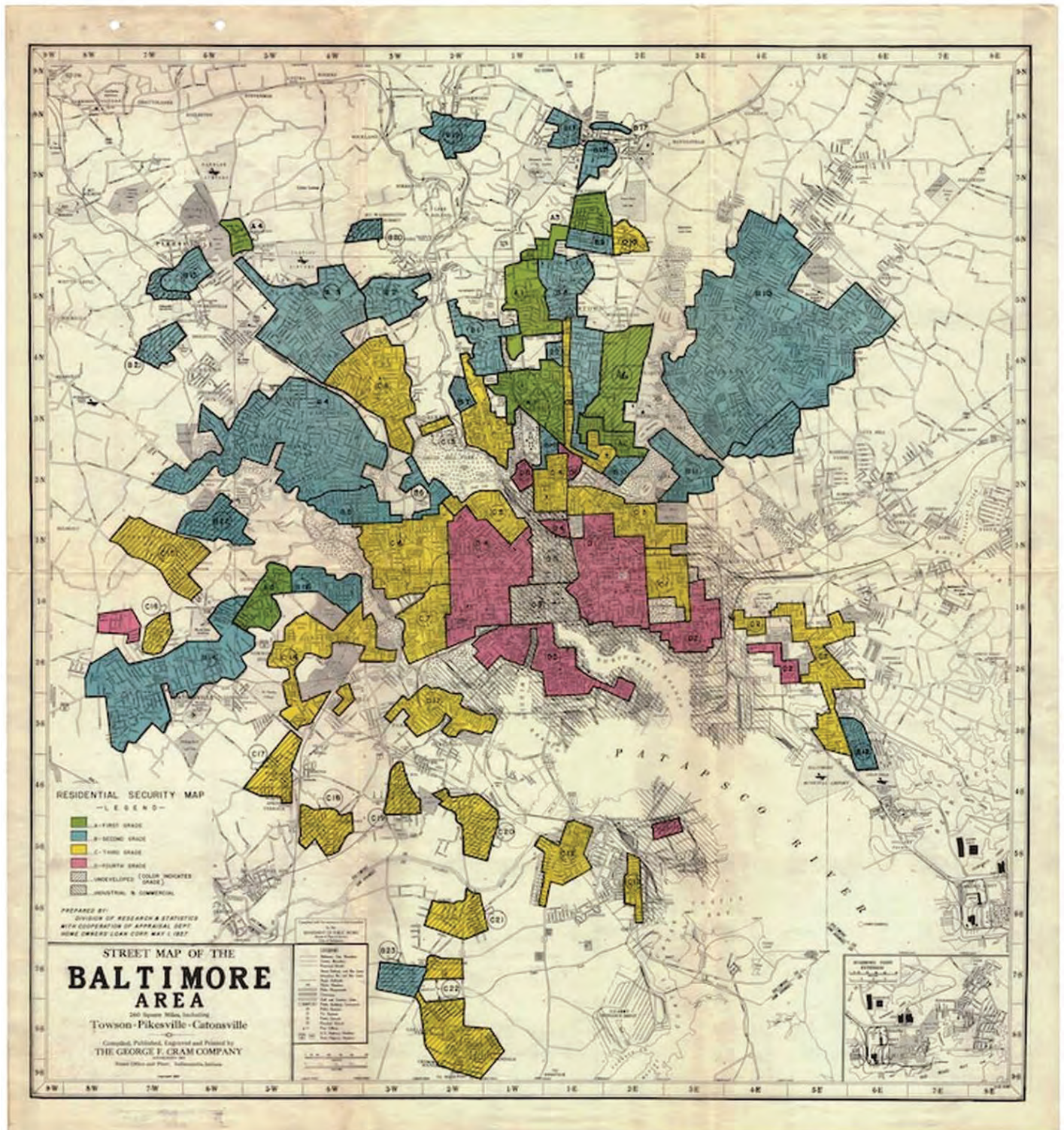
An equity lens has more intentionally been incorporated into the Sustainability Plan update. The lens is a "transformative quality improvement tool used to improve planning, decision-making, and resource allocation leading to more racially equitable policies and programs".¹ The equity lens focuses on the experiences that have been historically harmful to some of our residents, and broadens the scope of voices represented in the plan, inclusive not only of race but also gender, age, neighborhood, and employment status. It helped include those who have typically been left out of conversations in and about the American sustainability movement. The equity lens was used in framing issues and in crafting strategies, actions, and measures of success. It will also be used in evaluating impact. Most importantly, it broadened the meaning of sustainability—for a vision that is meaningful for ALL residents in the city.

Equity: "The condition that would be achieved if identities assigned to historically oppressed groups no longer acted as the most powerful predictors of how one fares."

— Baltimore Racial Justice Action

An important concept in equity work is targeted universalism. "A targeted universal strategy is one that is inclusive of the needs of both the dominant and the marginal groups but pays particular attention to the situation of the marginal group."²

1. <https://multco.us/diversity-equity/equity-and-empowerment-lens>
2. <https://blog.nationalequityproject.org/2011/06/22/targeted-universalism>



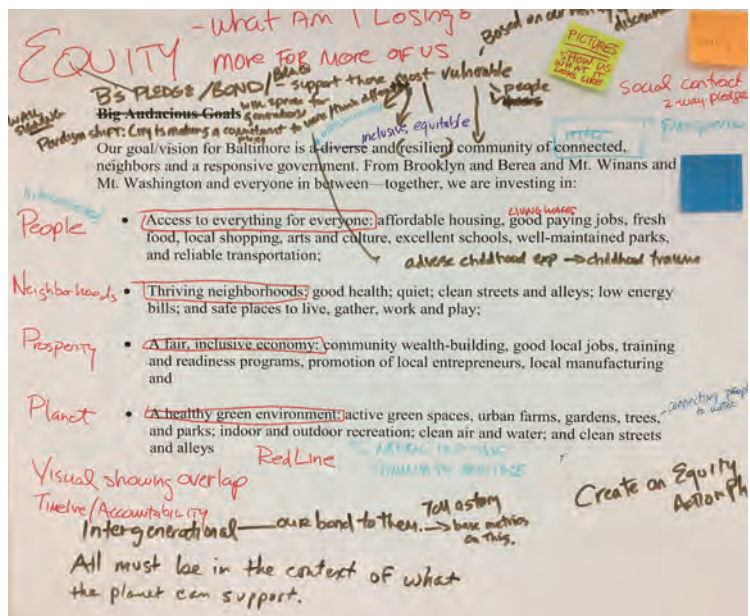
[1937 Residential Security Map](#) of Baltimore completed by the Federal Housing Authority more commonly known as the Redlining Map. The area of the map shown in red and yellow explicitly demonstrates that neighborhoods predominantly occupied by African Americans, immigrants, and composed of older housing stock were considered high risk for home loans, therefore banks would not lend in these areas.



Photo Credit: Office of Sustainability

“ **Equity: The condition that would be achieved if identities assigned to historically oppressed groups no longer acted as the most powerful predictors of how one fares.** ”

— Baltimore Racial Justice Action



Equity working group notes.

Understanding Sustainability and Equity

The Baltimore Office of Sustainability describes sustainability efforts as those which “improve the quality of human life while balancing the need for environmental protection, societal progress, and economic growth.” Its vision for a sustainable Baltimore is one that meets the needs of people today without diminishing the ecosystems on which future generations will rely.

Addressing this vision requires tackling the roots of many of Baltimore’s most persistent challenges, which are deeply connected to the quest for equity.

The term “equity” is used intentionally instead of “equality,” because that the work required must acknowledge the unequal circumstances created by generations of systemic and institutional racism. “Race-blind” and other “equal” treatment approaches have historically had a harmful effect on communities that have been shut out from economic opportunity, because those approaches have not sought to correct the root causes of the problems communities face. Those approaches presume an even starting line, and the resulting actions have only served to continue injustice and further broaden inequality.

Most of the issues closely related to current inequities in Baltimore are deeply tied to sustainability. Public health, for example, is an area where Baltimore has glaring disparities. A person’s life expectancy, access to nutritious food, and other health issues are often concentrated by zip code, which reflect Baltimore’s enduring patterns of residential racial segregation. These disparities are stark: The majority-white neighborhood of Roland Park has an average life expectancy that is 20 years longer than the majority-African-American neighborhoods of Harlem Park or Sandtown-Winchester. The Health Department has committed to reducing racial health disparities that are currently rampant in overdose deaths, youth homicides, obesity, cardiovascular disease, and infant mortality. This commitment is expressed in the City’s “Healthy Baltimore 2020 Blueprint.”³

It is similarly impossible to talk about sustainability without addressing quality-of-life factors like transportation, economic mobility, education and

safety. Institutional racism undermines safety and overemphasizes the link between safety and law enforcement. Safe places are where people feel connected and healthy, where they are economically secure. Multiple, interconnected strategic interventions – like the actions in this plan – will lead to reduced violence and improved public safety, minimize arrests and incarceration, and build trust and relationships between law enforcement and the communities they serve.

These sustainability issues are not new to Baltimore. They are reminders that racial inequities are not random; they have been created and sustained over time and will not disappear on their own. The use of an “equity lens” and the political will to make changes are essential to ensuring we leave Baltimore improved for future generations.

Increasing Quality of Life for All

We all benefit from robust neighborhoods and thriving societies. The more equitable our city, the more sustainable we all are.

True sustainable economic growth does not come at the expense of certain neighborhoods, cities, groups, or natural habitats. Sustainable growth lifts us all, while protecting and preserving natural habitats. Prosperity that benefits everyone is more just and more sustainable.

The goal of the Sustainability Plan is to expand access—to breathe clean air; to drink clean water; to have varied modes of transportation; to enjoy green spaces; to live in affordable, healthy, safe, thriving neighborhoods; to walk streets free of both crime and racial profiling; to secure a job or start a business; and to enjoy all of these opportunities regardless of where we were born, where we live, what we look like, or how we identify.

With broadened opportunities, Baltimore can become a city where everyone can benefit by living, working, and playing—in a city that truly works for all.

3. *Baltimore City Department of Health White Paper: State of Health in Baltimore Summary of Key Issues, Services, and Policies (March 2017)* <https://health.baltimorecity.gov/sites/default/files/HB2020%20-%20April%202017.pdf>

4. *Baltimore Racial Justice Action, Definitions.* Available from <http://bmoreantiracist.org/resources-2/explanations/>

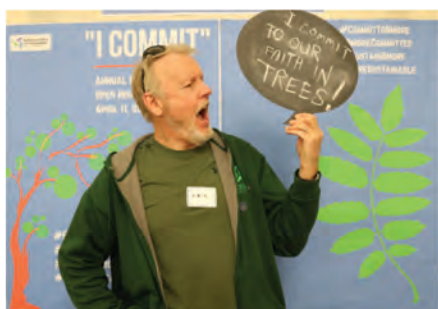
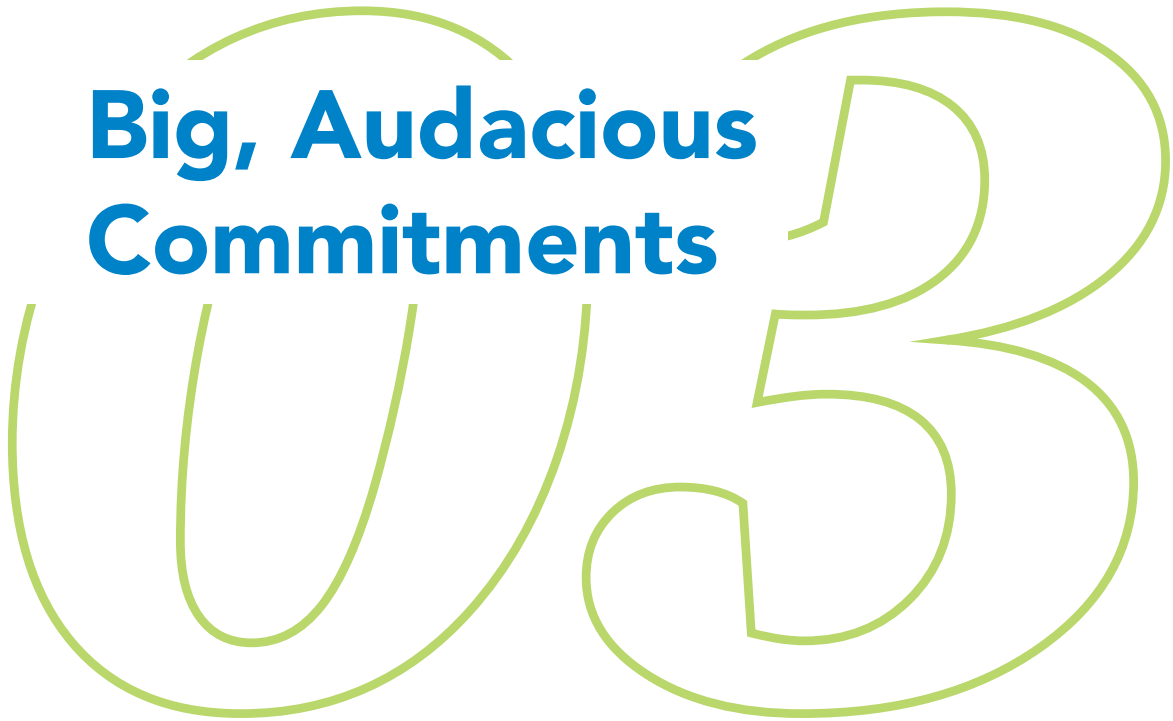


Photo Credit: Zoe Gensheimer

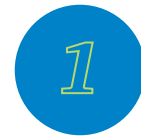
**Big, Audacious
Commitments**



Big, Audacious Commitments

These commitments are the promise for how the Commission on Sustainability and the Office of Sustainability staff will show up to work for the residents of Baltimore.

Our big, audacious commitments include big, audacious corrections in conventional thinking. These commitments constitute a practice for how we will implement the 2019 Sustainability Plan. The Plan, however, cannot be achieved by the Commission and Office of Sustainability staff alone; it is fundamentally based on effective collaborations and partnerships with individuals, residents, organizations, and agencies throughout the City. We invite you to adopt these commitments as a part of a collective community agreement for showing up in this work together.



A Commitment to Be Transparent

We will be honest about our past.

We recognize our city's complex legacy of profound problems: discriminatory laws and policies fueled by racial prejudice, profit-driven exploitation of our natural resources, and other interconnected injustices that have led to neighborhood decline as well as environmental degradation. We will be transparent about where we have failed.

We recognize our interconnectedness.

Sustainability requires us to think and act together, and to pay attention to the broader implications of our actions. We will facilitate stronger, longer-lasting social networks, and foster greater resident interaction within and between neighborhoods, businesses, governments, and nonprofits so that we may work better together.

We will share power.

Power is the ability to decide what matters. We commit to transparency and reject the old ways of decision-making that entrenched power inside closed institutions. We will move aside and make space for those who have been left out. Strategies are more better poised for success when they incorporate the wisdom and experience of those who are directly impacted.

2

A Commitment to Collaborate

We commit to thinking and working differently.

We will listen deeply, respect differing opinions, perspectives, and experiences, and prioritize the needs of those who are most marginalized. We will not be afraid to try new, innovative ideas that challenge the status quo.

We commit to working together.

We will co-create plans and programs to correct systems and move us collectively forward. This means being accountable and supportive of the people we serve and partner with. We are personally invested in the success of our city. By helping others, we also help ourselves.

We seek to solve multiple problems at once.

We acknowledge difficult problems are often tangled together and cannot be solved one at a time. We will be both ambitious and strategic.

We support change at the local level.

We are thankful for and will support those who are self-organizing, leading local initiatives, and working directly in their own neighborhoods.

3

A Commitment to Be Accountable

We actively seek feedback and engagement.

We will engage in meaningful and constructive ways. By maintaining relationships and conversations, we will hold ourselves and our city accountable to the commitments we have made.

We will ask: How are we doing?

Are we fulfilling the plans that have been set with the community, and are we following a reasonable timeline? We will examine unintended consequences, we will reassess, and we will ask, "What can we do better?"

We will humanize our data.

The people of Baltimore are not statistics. We will track success based on measures that resonate with the real world (such as shorter commute times or decreased neighborhood vacancies).

We will speak in terms that are understandable to all.

We will strive to be open and honest about both our successes and failures. We will not speak in jargon.

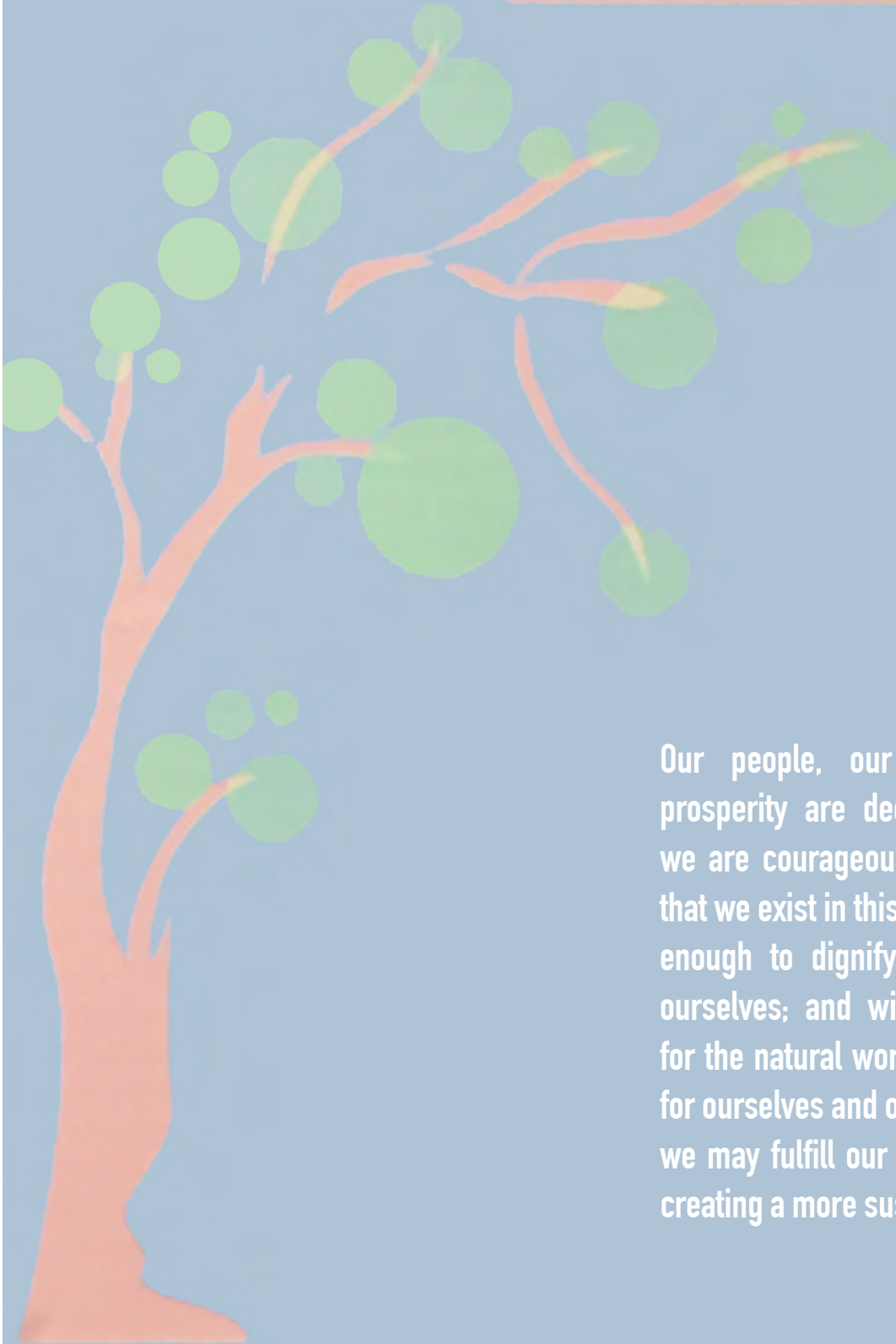
We will care for the natural world.

We will uphold our responsibility to care for our shared home. Our water, trees, air, and nonhuman beings are kin.



Photo Credit: Zoe Gensheimer

"I COMMIT"



Our people, our planet, and our prosperity are deeply intertwined. If we are courageous enough to accept that we exist in this web — committed enough to dignify our neighbors as ourselves; and wise enough to care for the natural world as part of caring for ourselves and our children — then we may fulfill our ambitious goals for creating a more sustainable city for all.



Photo Credit: Office of Sustainability



**Process &
Timeline**

4

Sustainability Plan Engagement Process

This 2019 update of the Sustainability Plan afforded an opportunity to hear a large number of personal stories and voices, and to identify steps to resolve unjust practices. It has was chance to highlight and convey the message that every story in our city—and everyone in our city—counts.

In order to include many voices in the Plan, over 125 residents signed on as Sustainability Ambassadors, 68 percent of whom are African-American. Together, we developed a survey that reached 1,200 neighbors, friends, and family. Interviews offered the opportunity for neighbors to talk with one another about their ideas, needs, and visions for the future. Ambassadors received equity training, which encouraged participants to recognize their own biases. They left the trainings excited and committed.

In designing the outreach and engagement process we asked ourselves: Could we reach enough people to gain perspectives that reflect the demographics of Baltimore? Would residents be willing to share their hopes and concerns with us? Could we document what we heard in an authentic and useful way? And would people be willing to support the implementation of sustainability projects and policies?

As the Ambassadors fanned out to conduct interviews at bus stops, markets, churches, schools, stoops,

and kitchen tables, Sustainability Commissioners and Office of Sustainability staff attended almost 25 meetings, engaging over 500 people. Industry and nonprofit leaders and professionals—from areas such as energy, racial equity, food and farming, business, transportation, waste, neighborhoods and workforce—offered visions for a more sustainable Baltimore. Demographic data was collected at every turn. Simultaneously, our “Every Story Counts” campaign surfaced stories from residents who, through their day-to-day actions, improve the sustainability of our city. The campaign shows actions Baltimoreans take to strengthen our communities, and help each other, bringing us closer to creating a just and thriving city.

Plan drafts were written and feedback was solicited at Open House meetings and working groups; the Plan was also made available for public comment through an online site where participants could click anywhere to comment, as well as review and respond to others’ comments. More than 1,000 comments were submitted during the open period.

What did we learn?

When asked how they could help improve neighborhoods with individual efforts, respondents seemed eager to connect with others to support their neighborhoods. People suggested working with neighbors to pick up trash, volunteering, helping with neighborhood improvements, attending relevant meetings, and overall, building stronger relationships with one



The survey questions—refined during the training sessions—were designed to be open-ended and accessible to all:

another. Driven by these responses, the Plan includes chapters on noise, neighbors, and neighborhoods, as well as a focus on steps to increase the quality of life in our city.

We also learned that giving residents a voice in plan development was invaluable—and that while our process was viable, it was only a starting point. The plan is meant to be implemented by anyone and everyone in the city, not only by government agencies. The strategies and actions require on-going engagement with those who will be leading projects as well as with those whose daily lives will be impacted by a more sustainable Baltimore and who will be ultimate judges of the Plan's success.

- 1. What do you like the most about your neighborhood?**
- 2. What do you like the least about your neighborhood?**
- 3. Do you have ideas on ways government, private and non-profit partners, and institutions can make it better?**
- 4. How do you think you can help make the neighborhood better?**
- 5. Do you have any idea how to make the city a better place?**



Photo Credit: Office of Sustainability



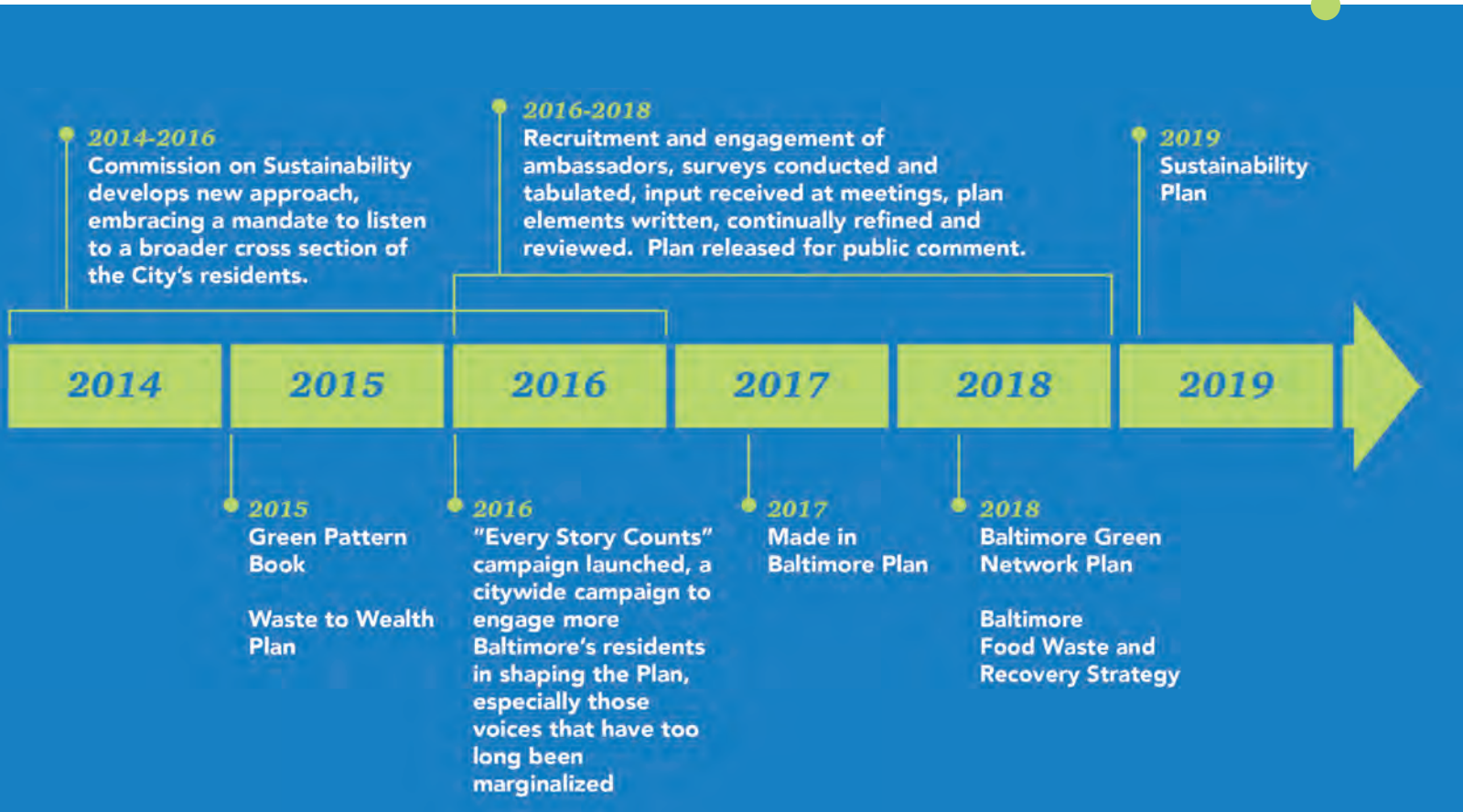


Photo Credit: Office of Sustainability

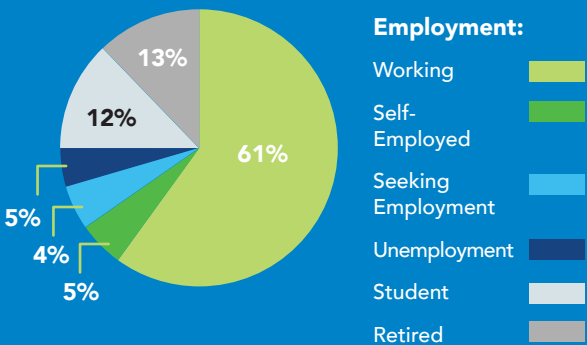
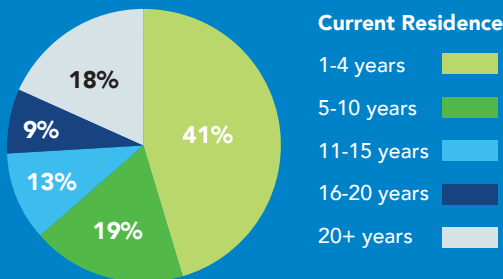
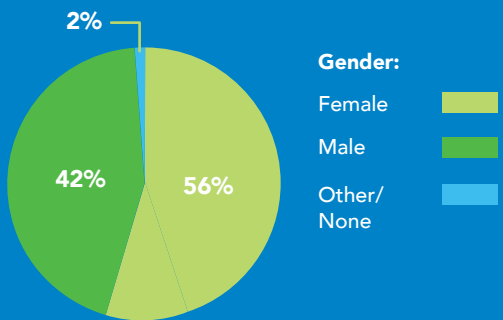
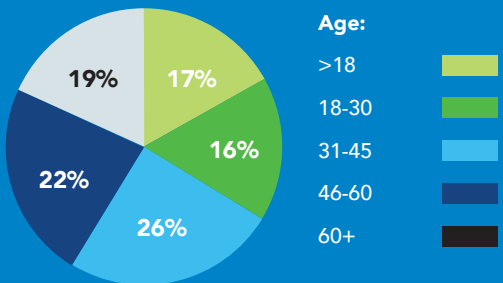
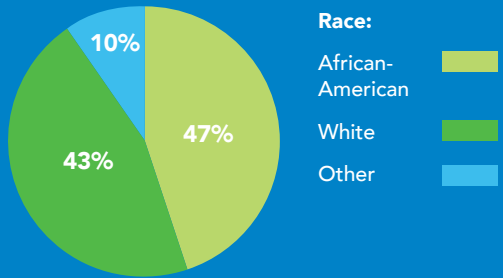


Photo Credit: Office of Sustainability

Timeline of Baltimore Office of Sustainability initiatives leading up to the release of the 2018 plan.



survey respondents:



Survey Results

Question 1:

What do you like the most about your neighborhood?

Across all races and age groups, the most frequent response featured “neighbors,” appearing in 36 percent of responses to the question. The next two most frequent answers were “proximity” (or easy access to local amenities and walkability) and “nature in the city,” (or green space), respectively. Respondents under 18, most frequently cited “quiet” as their favorite neighborhood amenity.

Question 2:

What do you like the least about your neighborhood?

The most disliked aspects of neighborhoods were overwhelmingly safety (45 percent) and litter (36 percent), although respondents also had concern about jobs.

Question 3:

Do you have ideas on ways government, private and non-profit partners, and institutions can make it better?

This question elicited a much wider range of answers than the previous two questions. Respondents wanted improved transportation and local government operations, as well as City support for community efforts. While public safety and waste were mentioned, these answers were less frequent given their primacy in Question 2. Only 12 percent and 11 percent of respondents cited those factors, respectively. These two trends only represent overall numbers; there was great variation in the answers given by people, dependent on their race. (See table below.)

Question 4:

How do you think you can help make the neighborhood better?

When asked how they could help improve neighborhoods with individual efforts, respondents seemed eager to support their neighborhoods.

Demographics of individuals who responded to the survey

People suggested doing trash pickups, volunteering, helping with neighborhood improvement, attending meetings, and overall, building stronger relationships with neighbors.

Question 5:
Do you have any idea how to make the city a better place?

As might be expected, the most frequent responses were related to improving local government services, public safety, and economic development. There was a noticeable emphasis on public safety for respondents who were in the older demographic ranges, with the importance of the role of local government decreasing slightly in the group.

Survey Question 1: What do you like most about your neighborhood?
 Positive Responses by Category and by Age

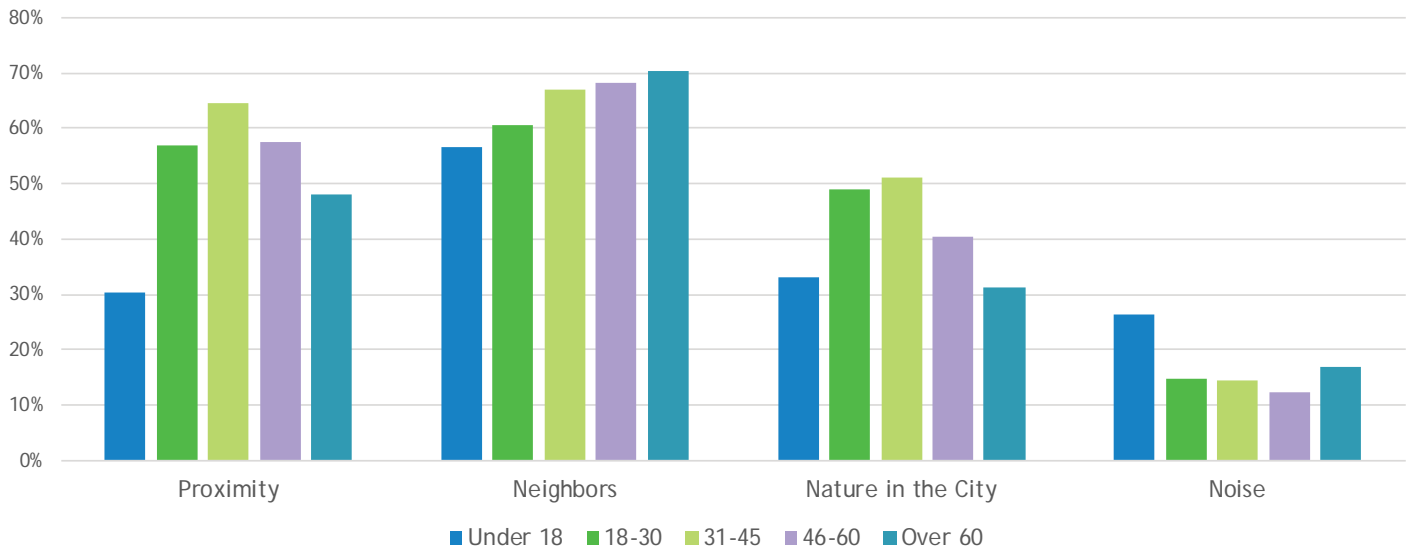




Photo Credit: Filbert Street Garden

The Sustainability Plan

05



Photo Credit: Blue Water Baltimore



Community

Neighbors

Environmental Literacy

Healthy School Environments

Waste and Recycling

Urban Agriculture



community: *Neighbors*

A city of engaged, connected residents who are seen, heard, and valued, driving the change they want to see.

THE BIG PICTURE

More connects us than separates us, as human beings. Our common connections are the bonds of friendship and a sense of belonging that nourishes us. However, when we focus on our differences and protect ourselves from discomfort and conflict, either by choosing sides or remaining silent, we are left disconnected and afraid. Our connections are being tested and are often forgotten. Recognizing this requires tremendous courage.

In order to strengthen our bonds with neighbors and our community, we must reclaim our connections and move toward a belief in our common humanity. When we do so in an inclusive and equitable way, we can be unstoppable and build something that endures. With community at the center, meaningful and genuine engagement can be the engine that produces and drives change.

It is up to each one of us to seize the opportunity to more fully realize the promise of the civil and human rights movements—to bring our city together and create strong, stable neighborhoods and a sustainable, inclusive and equitable city where we all thrive.

IN BALTIMORE

People in Baltimore value their neighbors and want to work together to improve their neighborhoods.

Our resident survey asked 1,200 respondents what they like most about their neighborhoods. Across all demographics, the one answer most consistently given was “neighbors.” Throughout all parts of the city, people are finding camaraderie and forming their own “villages” of neighbors who become friends through block parties, walking groups, cookouts, or community gardens. Some neighbors band together to do restorative projects, such as cleanups and community murals. Others show up at health fairs, join community or planning meetings, or gather as part of faith-based organizations. Activities that foster cross-cultural conversation and togetherness help strengthen the bonds neighbors share, and can provide opportunities for empathy and an increased understanding of each other.

As the city evolves, giving people a voice—and a place to have that voice heard—is a necessary step toward becoming an equitable and inclusive city.

FAST FACT:

When asked what they like most about their neighborhood, 33% of male respondents and 37% of female respondents said “my neighbors.” In Sandtown-Winchester, which represented the largest share of survey respondents, 48% answered “my neighbors.”



STRATEGIES & ACTION

1. Support the promotion of stronger connections between and among neighborhoods.

Action 1:

Build capacity and create opportunities for conversations around racial equity to breakdown biases and increase understanding, assisted by experts in cultural competency, diversity, and equity.

Action 2:

Engage, promote, and support voices who may not traditionally be heard: youth, seniors, non-English speakers, and returning citizens, among others.

Action 3:

Develop avenues for incorporating resident knowledge and voices into decision-making processes with government, nonprofits, businesses, and more. Shared language and visions for change increase participation and build connections.

Action 4:

Promote resident and neighborhood successes using media to regularly share stories in and between neighborhoods. Highlight and promote the work of residents engaged in positively shaping the lives of neighbors, with a focus on elevating those voices that have been historically underserved. Continue the “Every Story Counts” campaign.

2. Increase public participation in collective community activities.

Action 1:

Support resident dialogue and social capital building in neighborhoods by using outreach such as social media campaigns and other community-based, phone-friendly tools to share knowledge and information. Distribute electronic and paper program guides widely, and translate program marketing materials for non-English speakers. Include free wi-fi where possible.

Action 2:

Expand and elevate the network of low- and no-cost programming in neighborhoods, including supporting resident-led skill-sharing, adult education, and youth programming.

Action 3:

Establish measures for city government’s equitable community engagement with residents.

Action 4:

Create educational campaigns for local elections to increase voter participation, particularly in neighborhoods with traditionally low turnout.



Photo Credit: Auchentoroly Terrace and Friends of Druid Hill Park
<https://auchentorolyterrace.org/amenities/>

 **STRATEGIES & ACTION**

3. Increase the number and use of safe, well-maintained indoor and outdoor public gathering places.

Action 1:

Use community-driven processes and develop tools to envision, create, and activate safe, accessible community gathering spaces to connect residents with one another and with neighborhood groups; ensure the preferences of families, older adults, youth, and differently-abled adults are addressed.

Action 2:

Support resident-generated ideas for neighborhood events, including active and passive recreation, movie nights, community cleanups, cookouts, and more.

Action 3:

Create an annual permit-free day for neighbors to connect by hosting cookouts and events in public spaces. Seek sponsorships to support these community-led events.

Action 4:

Engage youth and designate spaces for youth to gather based on their interests during out-of-school time, including before and after school as well as scheduled breaks (such as school-based recreation programming during non-school hours).



Photo Credit: University of Maryland, Education News - Students cast their ballot as first time voters.

“Create more opportunities for neighbors to interact. We only talk - aka complain - on [online neighborhood forums].”

- Waltherson resident when asked for her ideas about how the City and organizations can work together to boost neighborhoods.

how we'll measure success:



Satisfaction with actions and strategies, measured by qualitative resident survey



Number and distribution of school-based recreation programs available during non-school hours



Percent of population (over the age of 18) who are registered to vote



Photo Credit: Mark L. Dennis and J. L. Baker - 17th Annual Pigtown Festival



Photo Credit: Nate Larson - Jubilee Teams

**KEEP IT
NEAT
FROM STOOP TO STREET.**



TAKE 10 WITH FRIENDS.

Taking just 10 minutes to clean 10 feet in front of your house makes a huge difference. Together, we make a trash-free Baltimore.

posters feature southwest neighborhood residents keeping their neighborhoods clean!

© Poster & content property of Full Circuit Studio/Baltimore Trash Talk/Bridget Parlato.





community:

Environmental Literacy

All school communities prepare students to make informed decisions about the environment, to participate in civic action for the well-being of nature, and to understand humans' place in the world.



THE BIG PICTURE

Understanding and appreciating nature, and our place in it, is the basis of environmental literacy. Research shows that when environmental education is well integrated into schools, it improves academic achievement—elevating students' gains in math, science, history, and literacy. For many students, exposure to environmental education can also result in increased enthusiasm for learning, as well as an increase in overall well-being. Gaining an awareness and understanding of nature in the city, along with spending time in green spaces, is associated with lower stress, better focus, and a greater capacity for emotional regulation. By making connections between students' daily activities and the natural environment—whether it's tending a garden on school grounds or engaging residents in protecting the environment from toxic exposures such as air and water pollution, schools can empower students and staff to be environmental leaders and create positive change far beyond the classroom.

“**Being part of a Green Team gave me the opportunity to open up to my community. It made it easier for me and also gave great challenges. I love the Green Team and am sad it's my last year.**”

- Eighth Grader at Midtown Academy



IN BALTIMORE

Student leadership through environmentalism can propel Baltimore forward.

To date, partnerships have been key to increasing environmental literacy among Baltimore students. Baltimore City Public Schools currently has a part-time, grant-funded sustainability coordinator, as well as a “Green Schools Network” of partners. It has adopted a Sustainability Policy and an associated Sustainability Plan,¹ and teachers are trained on educating students for environmental literacy in accordance with the Maryland Environmental Literacy Standards.

Further, youth environmental leadership is changing our city. For example, students in the Office of Sustainability's Youth Environmental Internship program worked for two years to phase out expanded polystyrene (aka Styrofoam) from school lunchrooms.

The Baltimore City Council later resolved to do the same for all food retail establishments in the city—citing advocacy by students as a major influence. Out of 177 city schools and programs, 70 percent have formed student “Green Teams” and have received grants for student-led environmental projects from

1. <https://www.baltimorecityschools.org/Page/29999>

FAST FACT:

19% of Baltimore City Public Schools are certified as “Maryland Green Schools,” and more than 70% have won grants for student-led environmental projects.

the Baltimore Schools Energy Challenge and/or the Green, Healthy, Smart Challenge since 2010. In Curtis Bay, students engaged with Free Your Voice, a student organization dedicated to community rights and social justice, to successfully defeat a planned trash incinerator in their neighborhood, where air quality is a major concern.

Increasing environmental literacy is improving education outcomes in Maryland. Currently, 19 percent of Baltimore City public schools are certified as “Maryland Green Schools,” through a rigorous program run by the Maryland Association for Environmental and Outdoor Education. Across the state, schools have achieved higher test scores after achieving this green certification. Investing in environmental literacy programs can be one tool to set students up for success and help close achievement gaps between black and white students, as well as differences in the City’s public and private school performance. Environmental literacy can support future generations of communities who are hardest hit by climate change and environmental injustice to be better equipped to engage in environmental policy and careers.

into the curriculum. Additionally, connect teachers to partners for on- and off-site support, as well as to each other for peer mentoring and networking.

Action 2:

Incorporate meaningful outdoor learning experiences into science classes at every grade level by developing and instituting aligned curricula. In addition, outdoor learning at every school should go beyond science to include other disciplines such as language and art.

Action 3:

Foster sustainability-minded school leaders, because these are the common denominator amongst schools that successfully prioritize environmental literacy. Invested school leaders can motivate and support teachers who pursue sustainability education and practices. To this end, increase awareness of the benefits of environmental literacy among school leaders, as well as teachers, staff, and parents. Co-create and share sustainability goals, practices, and opportunities, and integrate sustainability concepts into on-boarding for staff. Additionally, seek and support funding for these initiatives, including financial incentives for teachers who go above and beyond in this field.



STRATEGIES & ACTION

1. Engage school leadership in sustainability and environmental justice education and practices, and provide teachers with resources and professional development.

Action 1:

Expand and provide professional development in environmental literacy including environmental justice to increase the number of teachers who integrate it

2. Support students as environmental leaders and entrepreneurs, connecting green projects with economic sustainability.

Action 1:

Support student-led environmental projects by providing grants, training opportunities, mentoring, and other resources, targeting schools and communities with less resources and greater need.

Further support youth in developing advocacy, leadership, and entrepreneurship skills; connect youth to decision makers by offering programmatic opportunities to interact with elected officials and senior city staff; and involve youth in oversight and implementation of the City Schools Sustainability Policy and Plan.

Action 2:

Pursue youth-based economic sustainability programs by promoting opportunities for paid internships, service learning, summer jobs, industry certifications, and fellowships—encouraging high school students to gain work experience. These opportunities should include student learning opportunities in building design, construction, and operations. Expand technical skills programs related to green industries, and teach financial literacy.

3. Build and sustain meaningful family and community engagement in schools.

Action 1:

Make environmental literacy meaningful for families and communities, as their engagement is a critical link for student success. Strengthen school climate and structures to support family and community engagement on environmental issues, including by involving families and communities in school decision-making, as well as by developing opportunities for parent learning and involvement in sustainability issues.

Action 2:

Expand and sustain meaningful partnerships to provide culturally responsive resources, services, after-school programs, field trips, and advocacy for families, students, teachers, and schools.

Action 3:

Increase the number of Baltimore City Public Schools that are green certified by promoting certification; recognized programs include the Maryland Association of Environmental and Outdoor Education’s Maryland Green Schools Program, the National Wildlife Federation’s Eco-Schools Program, and the U.S. Department of Education’s Green Ribbon Schools Program. Support staff that are working towards certification by providing more funding for hands-on environmental projects, and make coverage available for regular duties when staff are working on completing the certification application.

how we’ll measure success:



Number of teachers and distribution of schools participating in professional development activities related to sustainability



Number of students and distribution of schools engaging in paid opportunities in the sustainability field through the City Schools and the Green Schools Network partners, with a goal of 1,000 students employed per year by 2025



Number and distribution of schools that are certified (or recertified) as green every year, with a goal of 33 percent by 2025



Photo Credit: Great Kids Farm



Photo Credit: Great Kids Farm

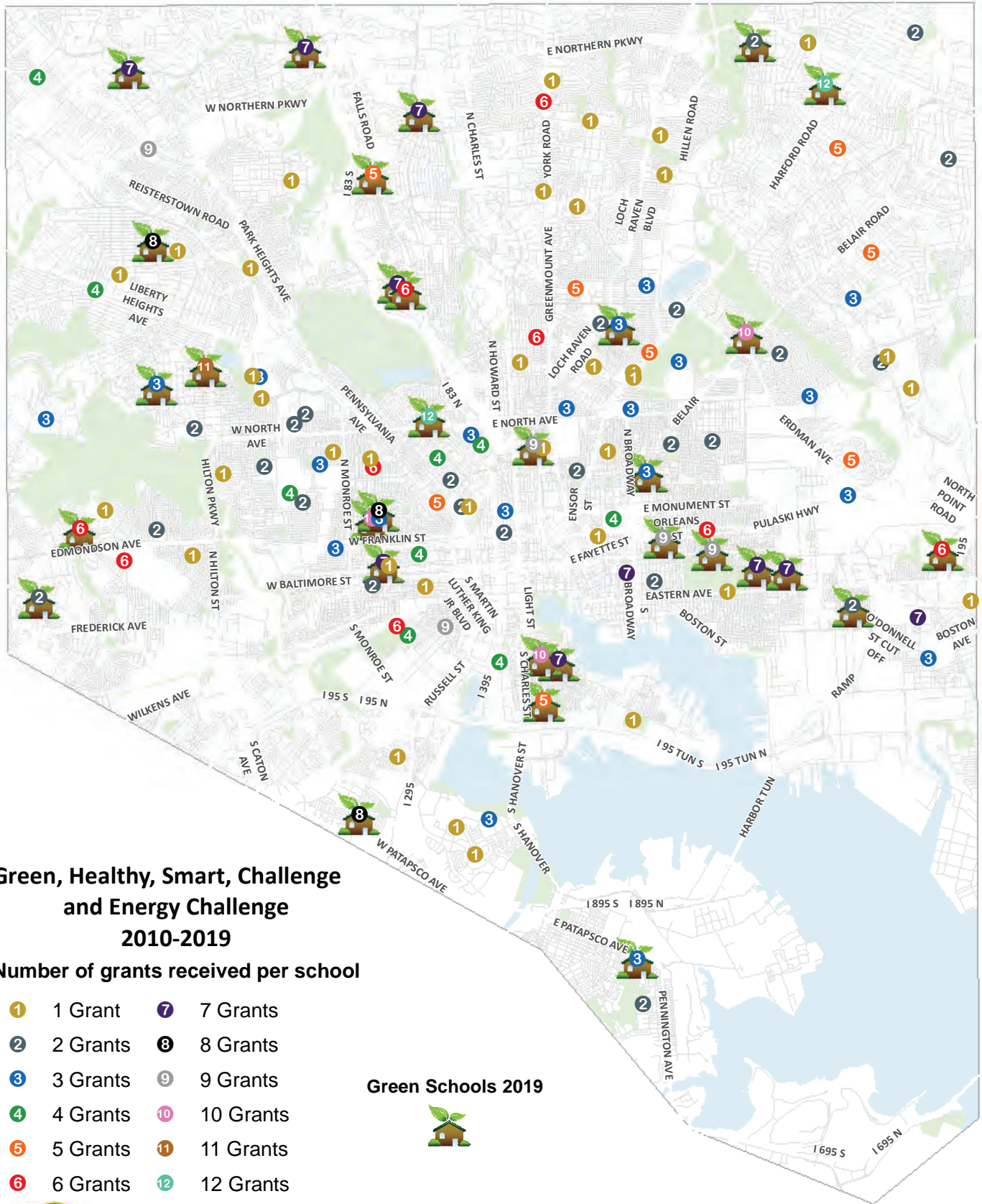




Photo Credit: Mike Nguyen of The Office of Sustainability's mascot Turtule at Greenscape with students.



Students participating in a rally to ban polystyrene.




community: **Healthy School Environments**

Provide a healthy, safe learning atmosphere for every Baltimore City student.

THE BIG PICTURE

From the air students breathe to the food they eat, a healthy school environment supports student wellness, which promotes academic achievement and lifelong success. Aside from the home, school is the place where children spend most of their time. Schools where conditions support well-being are places where students—especially those with the greatest mental, physical, or emotional needs—can learn and flourish. Schools are also a big part of any city, and so their energy consumption, recycling, and other practices can make a large impact on a city's overall sustainability.



“Invest more in the communities and the people by improving schools and [providing] training in green jobs for people who have been left behind.” 

- Youth resident of Highlandtown

IN BALTIMORE

By making schools more “green” with high air-quality standards, low energy consumption, and other sustainable practices, we can position students for success.

The Baltimore City Public Schools (City Schools) has many environmental challenges. City Schools is actively working to minimize the environmental impact of its buildings, many of which are old, while engaging students and staff in more health-promoting experiences. The City Schools 2018 Sustainability Plan¹ calls for a variety of strategies for healthier school environments, such as implementing green cleaning practices. Because Baltimore is a hotspot for asthma, steps like this can help ensure that our schools help (rather than harm) students. This plan will be implemented across all schools over the next three years.

Each year, City Schools serves millions of breakfast and lunch meals, providing better nutrition to students so they are ready to learn and engage. The City Schools Office of Food & Nutrition has been taste-testing new vegetable options with students, and also recently rolled out new compostable trays. Further, the 21st Century School Buildings Program is creating modernized, efficient, and inspiring facilities that meet LEED Silver certification and serve as community hubs. In the program's first phase, twenty-eight schools are being redesigned, rebuilt, or reconstructed, with future phases dependent on funding.

FAST FACT:

Last year, Baltimore City Public Schools served more than 5 million breakfast meals to 34 percent of enrolled students and more than 10.5 million lunches to 71 percent of enrolled students.



STRATEGIES & ACTION

1. Create a healthy physical environments in every school.

Action 1:

Improve indoor air quality in all schools by eliminating pesticide usage, increasing use of approved green cleaning products.

Action 2:

Provide clean, local potable water via water fountains in all schools.

Action 3:

Ensure acceptable temperatures, light, and acoustics in all schools.

2. Provide a welcoming environment for students, faculty, and families, and increase access to nutritious foods.

Action 1:

Fund a Community School Coordinator in every school and maintain an active School Wellness Team to improve school climate and address family and community needs. Involve families and community members in school decisions, and develop opportunities for parent learning.

Action 2:

Maintain clean and attractive buildings and grounds, including adding more student-designed art and murals, landscaping with native plants, and increasing social and emotional development activities.

Action 3:

Increase student consumption of nutritious food by prioritizing fresh and regionally-sourced products in cafeterias, implementing Farms to Schools strategies that support the local agricultural economy, and support schoolyard gardens and relationships between schools and farms.

3. Increase physical activity, outdoor play, and outdoor learning experiences.

Action 1:

Adapt school grounds into inviting outdoor areas by increasing age-appropriate nature-based play spaces and schoolyard gardens, training teachers to integrate outdoor spaces into student learning and engagement, and hosting trainings on the care of spaces.

Action 2:

Make schoolyards and indoor and outdoor spaces available for public use during non-school hours.

Action 3:

Promote physical activities, both indoors and outdoors, and promote visits to local parks, trails, farms, and gardens. Support students in walking or biking to school, implementing programs like the "walking school bus" and holding events like "Bike to School Day."

4. Conserve resources.

Action 1:

Reduce waste and increase recycling through right-size food ordering, maximizing food recovery, and composting food waste and compostable trays. Recycle at all schools, and increase electronics, light bulb, and construction waste recycling. Minimize paper waste by replacing print and mail notifications with electronic communication systems (like email or text message).

Action 2:

Green the school system's fleet of vehicles. Ensure all vehicles meet emission and fuel efficiency standards, minimize vehicle and bus idling, and explore alternative fuel sources with the goal of moving toward zero emissions.

Action 3:

Follow green design and construction practices in large renovations and new construction—as required by the City's International Green Construction Code. In facility upgrades, include life-cycle cost analysis, such as energy efficiency and sustainability practices. Promote net-zero energy buildings.



Photo Credit: Fort Worthington ES/MS; Grimm + Parker Architects

how we'll measure success:



Number of schools (by location) with clean water from drinking fountains



Number and distribution of schools with Community School Coordinators, active School Wellness Teams, or productive gardens, with a goal of 100 percent by 2025



Number of free meals at City Schools including school breakfast and lunch and after-school and summer meals





community: **Waste and Recycling**

A clean city is more sustainable — and can generate economic benefits for all.



THE BIG PICTURE

The best way to prevent waste is by buying less, reusing what you have, and then recycling and composting, a concept known as “zero waste.”¹ This concept is increasingly guiding cities and individuals to limit the amount of waste going to landfills and incinerators—which are expensive, contribute to environmental degradation, and are disproportionately located near low-income neighborhoods affecting people of color. They compound existing health risks and negatively influence property values. Above and beyond reducing landfill strain, zero waste is an approach that can help keep money in your pocket and support local, resilient economies: Composting programs, creative deconstruction of buildings and salvage, and reuse of wasted materials create jobs—and literally turn waste into community wealth.

“**I pick up garbage ... I call the city about illegal dumping.**”

- Longtime Brooklyn resident takes action for a cleaner Baltimore



IN BALTIMORE

Baltimore is working to become a cleaner city while reducing landfill and incineration waste.

In striving for zero waste, we can revitalize our neighborhoods by reducing our consumption, repurposing our purchases instead of throwing them away, and building our local, green economy. For example, the Camp Small project, part of the Waste to Wealth initiative, repurposes City wood waste (from fallen trees) by diverting it from landfills and incineration while reducing expenses and creating jobs. And, as the City removes vacant, blighted buildings, deconstruction contracts have been incorporated into the process.

Citywide mechanical street sweeping has led to more streets swept and more tons of trash collected, reducing the trash in our streets and the Harbor. Professor, Captain, and Mr. Trash Wheel have collected 1,100 tons of trash in the Harbor since 2014. Non-recyclable materials like plastic bags, polystyrene containers, and beverage containers make up as much as half of the litter polluting local streets and waterways. In 2018, the City Council passed a ban on polystyrene containers for carryout food and drinks by a unanimous vote, and the Baltimore City Public School Board voted to phase out Styrofoam trays from school cafeterias in favor of compostable trays.

As we continue to strive for less waste, our thinking is shifting from waste as a liability to waste as an asset; a way to create good paying, local jobs tied to a workforce development pipeline. Our long-term goal is a clean, zero-waste city.

FAST FACT:

After the City distributed free, rodent-resistant trash cans to all households, requests for rat extermination decreased by nearly 34 percent.



Office of Sustainability mascot, Turtle.



STRATEGIES & ACTION

1. Increase the amount of trash that is diverted from the landfill and incinerator to recycling programs.

Action 1:

Provide free recycling bins to all Baltimore residents; increase commercial recycling; conduct continuous, deep engagement on what can be recycled.

Action 2:

Launch an anti-litter, pro-recycling campaign. Use positive, actionable messages, ensuring racially and ethnically diverse materials are provided, along with additional support and infrastructure to communities most impacted by trash and litter.

Action 3:

Create and implement a plan to achieve zero waste, meaning we "are working toward or diverting over 90 percent of our discards from landfilling or incineration." Ensure extensive outreach and a plan that addresses the needs of the entire population.

2. Expand Baltimore's Waste to Wealth initiative.

Action 1:

Implement the City's Food Waste and Recovery Strategy to reduce food waste by 50% by 2030 and build community, create jobs, and increase the resilience of our city.

Action 2:

Site a local composting facility to build the city's capacity to accept food and yard waste while creating local jobs; work with communities to ensure placement does not exacerbate conditions in underinvested neighborhoods.

Action 3:

Establish businesses that reuse products.

Action 4:

Create a revolving loan fund for investment in recycling and composting infrastructure and loans for companies that address infrastructure.



1. Communities that divert 90 percent of all their discarded materials from landfills, incinerators and the environment would be considered Zero Waste communities. <http://zwia.org/standards/zero-is-zero/>

3. Pursue legislative and policy changes to reduce the waste stream.

Action 1:

Enact legislation to impose a fee for plastic bags, and support state legislation instituting beverage container deposits.

Action 2:

Create a City government procurement committee that incentivizes source reduction, efficiencies, the purchase of goods that have longer life spans, and purchases from local businesses.

Action 3:

Develop a plan for a “Save As You Throw” program to reduce waste that is landfilled or burned; incentivize reductions in the amount of household garbage placed on the curb using coupons or vouchers (recycling would remain free of charge). Ensure early and ongoing input from communities, communicate about the program with racially and ethnically diverse materials, and include provisions for neighborhoods with high litter and trash rates.

Action 4:

Investigate revising codes and/or creating ordinances to eliminate waste and maximize reuse of materials. Establish reuse businesses along with marketplaces for selling products, located strategically to ensure access for the entire population. Require these businesses to employ local unemployed or underemployed residents.



how we'll measure success:



Tons of waste per capita sent to landfill and incinerator (including ash)



Amount of trash collected by the trash wheels and supplemental sanitation service programs



Number of businesses created in recovery and re-use of waste



Achieve a residential recycling rate of 50 percent by 2025

IT'S JUST A LITTLE...

BUTT Think Twice.

BUTTS ARE THE MOST LITTERED ITEM ON THE PLANET



**BALTIMORE
TRASH
TALK**

AT LEAST **1/3** OF THE **360 BILLION** CIGARETTES SOLD YEARLY IN THE U.S. ARE **FLICKED ON THE GROUND.**

© Poster & content property of Full Circuit Studio/Baltimore Trash Talk/Bridget Parlato. The Cigarette Planet is a 30" globe covered by thousands of cigarette butts littered on the streets of Baltimore, MD.



community: *Urban Agriculture*

A city where communities that have been historically excluded from access to land and to fresh, healthy, culturally-appropriate foods are those that benefit most from urban agriculture opportunities.

THE BIG PICTURE

Urban agriculture can happen in backyards and school gardens, in hydroponic and aquaculture settings, in edible landscapes and farms. It can also include non-food activities (like flower farming) and farming with small animals, such as chickens. Through urban agriculture, people are finding ways to take charge of local food production, increase their connection to the source of their food, and to create jobs—especially for those returning from incarceration, with limited language proficiency, or otherwise facing barriers in the traditional workforce. Urban farming and gardening also create holistic benefits for the community through nutrition education, natural ecosystem enhancement, and increased neighborhood vitality. See the “Food Systems” chapter for other food-related strategies.

IN BALTIMORE

Urban agriculture can increase social capital, community well-being, and engagement in the food system.

Truly innovative urban agriculture models are thriving in Baltimore on many scales. There are more than 100 community and school gardens, as well as more than 20 urban farms; strong progressive organizations are working to support these urban producers. Baltimore’s 2013 Urban Agriculture Plan guides the continued improvement and implementation of policies, and many organizations and individuals are critical in advancing the practice of for-profit, non-profit, and subsistence agriculture activities.

African Americans and other historically oppressed groups have been systematically stripped of opportunities for land and property ownership. Baltimore is committed to prioritizing opportunities for long-term urban agriculture activities by and

in historically disinvested communities. Continuing these efforts is vital for a more equitable Baltimore. Urban agriculture continues to offer innovative solutions to our city’s interconnected food, workforce, and environmental challenges.

“I have seen my family through times of unemployment by growing beans, greens and squash. I’ve grown in my own yard, friends, family, and neighbors’ yards, and vacant lots.”

- Resident of Oliver

FAST FACT:

There are more than 20 urban farms in Baltimore, producing everything from fruit to vegetables to fresh-cut flowers to native plants for local landscaping.



STRATEGIES & ACTION

1. Create agriculture land-use policies that encourage urban farms and local food production.

Action 1:

In partnership with urban agriculture practitioners, develop site criteria for identifying City-owned land that may be suitable for farming. Encourage private and institutional landholders to similarly establish agricultural space (both indoor and outdoor).

Action 2:

Protect and support existing farms, ensuring that City-owned land and vacant lots currently being used for urban agriculture are protected in the long-term. Amend local and state policies and requirements to make existing programs and incentives more appropriate to urban agriculture operations.

Action 3:

Create better defined and supported pathways to ownership, and offer incremental opportunities to guarantee long-term land tenure and/or ownership of agricultural spaces, such as “lease to purchase” and other models. Also support the expansion of community-based land trusts intended to give low-income neighborhoods control of their own food production.



Photo Credit: Denzel Mitchell

2. Ensure farmers and gardeners can produce food, flowers, fiber, and fuel in ways that are safe, environmentally sustainable, and socially responsible—and educate residents on opportunities to support and engage with them.

Action 1:

Connect growers (both new and experienced) to educational resources and training, such as Good Agricultural Practices certification, pollinator-friendly defined integrated pest management, and organic farming. This can be achieved by supporting and developing partnerships. Also, incorporate educational opportunities into land-leasing programs, and support a new farm “incubator.”

Action 2:

Support existing social networks and non-profits of growers, and integrate partners into city-level decision-making processes. Create a centralized, searchable, public database of urban agricultural sites and projects, so that growers can connect to one another and share skills, expertise, and equipment. The database would also allow the city to collect data on food and farm production, to better understand the impacts of urban agriculture.

Action 3:

Improve strategies for engaging communities in urban agriculture projects. Develop a public awareness campaign to inform residents about existing urban agriculture and encourage residents to purchase and eat local farm products. Create guides or otherwise assist residents in understanding, participating in, and accessing opportunities and programs. Ensure opportunities and supports are delivered in a culturally competent manner and made available specifically to residents that may face high barriers to participate in urban agriculture.

3. Support growers to create financially viable urban agriculture

Action 1:

Create and expand City programs, and connect more growers to public, private, and philanthropic programs and incentives, to increase and improve their production and economic viability. Resources could include water, equipment, hoop houses, compost, and transportation, as well as infrastructure for production in non-soil environments, such as hydroponics.

Action 2:

Support aggregation among small farms. Build stronger urban-rural linkages to develop agricultural aggregation opportunities for diverse growers and markets. Aggregation helps small farms combine their products to serve the needs of larger buyers and institutional markets such as schools, hospitals, and universities.

Action 3:

Increase demand for locally grown products. Foster demand and facilitate the sale of urban-produced food and products at a variety of markets, such as farmers markets, farm stands, CSAs, public markets, and corner stores. Especially focus on markets that may provide additional social, cultural, or economic benefits, and especially in neighborhoods where food access and other equity indicators are low.

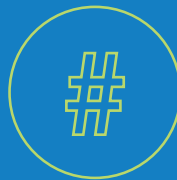


Photo Credit: Great Kids Farm

how we'll measure success:



Number and location of projects and amount of land used for urban agriculture



Number and location of growers (both new and experienced) as well as number of residents participating in educational opportunities



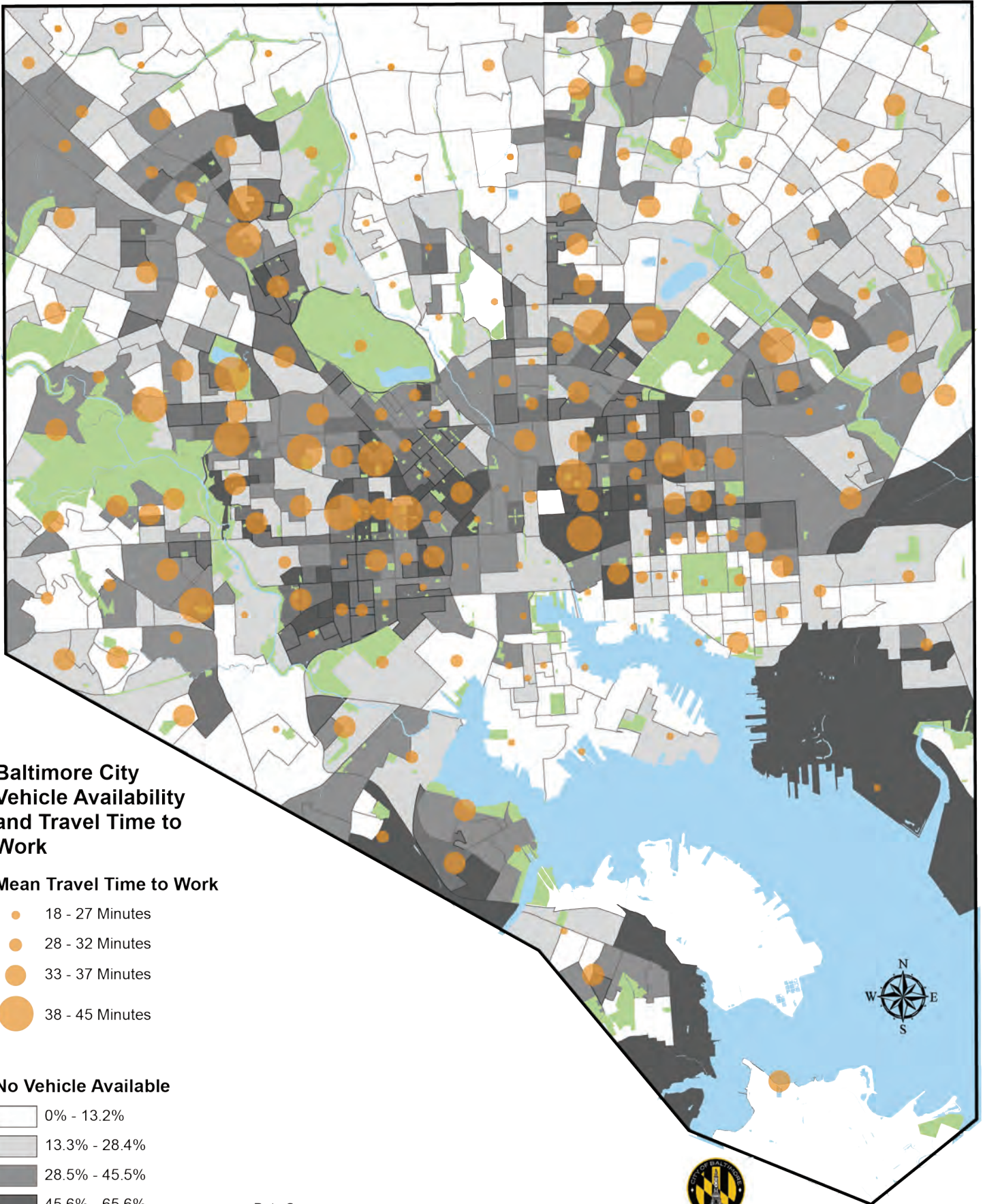
Improvements in overall agricultural infrastructure available to urban growers of historically disinvested communities



Photo Credit: Real Food Farm, a program of Civic Works



Photo Credit: Real Food Farm, a program of Civic Works



**Baltimore City
Vehicle Availability
and Travel Time to
Work**

Mean Travel Time to Work

- 18 - 27 Minutes
- 28 - 32 Minutes
- 33 - 37 Minutes
- 38 - 45 Minutes

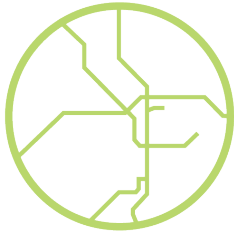
No Vehicle Available

- 0% - 13.2%
- 13.3% - 28.4%
- 28.5% - 45.5%
- 45.6% - 65.6%
- 65.7% - 100%

Data Sources:
American Community Survey
5-Year Estimates 2012-2016



Catherine E. Pugh
Mayor



Human-Made Systems

Neighborhoods

Housing Affordability

Buildings

Transportation

Noise



human-made systems: *Neighborhoods*

Places where people have what they need within a 10-minute walk.

THE BIG PICTURE

Great neighborhoods are the building blocks of great cities. And when housing is located close to businesses, friends, parks, schools, and shopping, then people are outdoors more often—and more connected to their neighbors. Neighborhoods are places where people come together to build relationships, and where a sense of identity and history is created. Great neighborhoods are places that people care about; they flow into and are connected to one another. Ultimately, a collection of places, physically connected, with committed and passionate residents, makes a vibrant city.

When planning what happens in neighborhoods, early and extensive resident input can align development strategies to better connect residents with economic, social, and educational opportunity. Neighborhood capacity to develop and foster a land-use vision varies widely and is inextricably linked to systemic racial and economic inequities. Resident input and collaboration is most meaningful and sustainable when communities have working understanding of how the land-use, zoning, and urban planning systems impact neighborhood quality of life.

IN BALTIMORE

Baltimore neighborhoods must be filled with amenities that residents need, desire, and can equitably access, and more neighborhoods must be affordable to more people.

Baltimore's strength and promise lies in its people and its neighborhoods. Some of Baltimore's neighborhoods are thriving, while others are holding steady or experiencing high levels of distress and inequity. Once-thriving communities have declined, due to inequitable policies and practices over generations that are visible today in vacant homes, overburdened public schools, and vanishing business districts. Where you live should not determine how long you live. Rebuilding our neighborhoods, in partnership with our residents, is vital to rebuilding our economy, in addition to supporting the small local businesses that best serve their own communities. Even small investments can begin to change the look and feel of a neighborhood, and can go a long way in shifting the image of a place.¹

Among the 1,200 survey responses given by Baltimore residents engaged in the creation of the Sustainability Plan, one of the things people appreciated most about their neighborhoods was living within walking distance of the places they want to go. This highly valued characteristic—easy access and proximity to goods and services—can be furthered through high-quality, mixed-use development; through mixed-income, racially integrated development; and through renovation, new construction, and infill development that consciously preserve affordable housing and diverse housing typologies.

FAST FACT:

There are more than 270 neighborhoods in Baltimore — each with its own unique identity, traditions, and civic pride.



STRATEGIES & ACTION

1. Strengthen community capacity to address neighborhood obstacles and opportunities.

Action 1:

Continue the City's Neighborhood Planning Academy to equip residents with the tools to shape the future of their neighborhoods. Establish transparent communication, and continue to build trust between the City and residents, by sharing an understanding of local urban planning and design and community engagement processes; deepen outreach to areas of the city most impacted by distress, vacancy and elevated crime rates; use community-generated ideas to build additional capacity-building initiatives for residents.

Action 2:

Support residents in developing neighborhood plans, baselines, and/or maps that include key assets and issues, along with strategies to create or enhance community venues. Ensure targeted outreach to, engagement with, and collaboration with under-represented communities. Neighborhood plans can be used to raise awareness, lift community priorities, and raise funds.

Action 3:

Continue to increase resident-led and city-supported improvements with a focus in under-served neighborhoods; these include repairing more street lights, sidewalks, and roads; planting more trees; and increasing enforcement of speeding and other traffic violations.



2. Support programs and policies to increase investments in neighborhoods.

Action 1

Seek to increase the volume of investment in small businesses in neighborhoods to keep dollars in the community, and to provide needed resources and job opportunities for residents.

Action 2:

Annually evaluate city government capital funding through an equity lens.

Action 3:

Review historic preservation and other renovation tax credit programs and provide recommendations to make these programs more effective in incentivizing building rehabilitation and neighborhood revitalization. Support the tax credit study effort of the Commission for Historical and Architectural Preservation (CHAP).

Action 4:

Increase funding for affordable housing. Use the Affordable Housing Trust Fund, Neighborhood Impact Investment Fund grants and others to fill in gaps in distressed markets; increase high quality renovations, infill construction, mixed-use development, and affordable housing and services; couple these funds with supports to remove as many barriers as possible from the development process.

Action 5:

Continue to provide operating support for capacity-building programs such as the city-funded Community Catalyst Grant to help community-based organizations involved in community development.

Action 6:

Improve the investment landscape in under-invested communities. Connect investors to communities to ensure investment is compatible with residents’ vision. Encourage banks doing business in Baltimore to meet the investment needs of residents. Equip residents with information about local lending, investment and services, and support them in gaining an understanding how to advocate for change.

3. Encourage, support, and implement neighborhood improvements.

Action 1:

Require new developments to be accessible by all—meaning they include elements that support pedestrian activity, transit use, and public space.

Action 2:

Increase Code Enforcement to ensure that vacant buildings and blighted, occupied homes do not remain in neighborhoods for long periods.

Action 3:

Ensure commercial outlets, such as corner stores and bars, are not nuisances and are supported by the community.

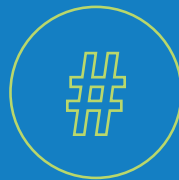
Action 4:

Implement the Complete Streets ordinance, which prioritizes the safety of all people using the street over the speed of moving cars. Complete Streets often have slower speed limits, wide and maintained sidewalks and crosswalks, pedestrian-focused lighting, protected bike lanes, bus lanes and bus shelters, and beautification such as trees and plantings. Prioritize these in high-crash areas.

how we’ll measure success:



Number and distribution of housing renovation permits granted



Number of renovation tax credits issued



Number and distribution of neighborhood improvement grants applied for and received—including both individual neighborhoods and neighborhoods working together



Photo Credit: Strong City Baltimore



Photo Credit: Friends of Druid Hill Park



human-made systems: **Housing Affordability**

Every resident has a safe, comfortable, and affordable place to live.



THE BIG PICTURE

Housing is considered “affordable” when a household spends 30 percent or less of gross income on rent or mortgage and related expenses (such as utilities). Households which pay more than 30 percent and may have difficulty affording necessities such as food, clothing, transportation and medical care are considered by the U.S. Department of Housing and Urban Development to be “cost burdened.” Severely cost burdened households are those that spend more than 50 percent of income on housing.



IN BALTIMORE

We can increase affordable housing while creating economically diverse neighborhoods.

In Baltimore, 54 percent of renters and 32 percent of homeowners are cost burdened. Since recognizing how this disproportionately affects low-income residents and people of color, Baltimore has a clear need to increase housing opportunities for low- and very low-income households. Many of the City’s low-income residents, Black, Spanish-speaking, and immigrant families have few housing choices and live in neighborhoods that are physically unsafe, environmentally hazardous, and psychologically debilitating. Housing affordability is vital to achieving equity, as it plays a major role in economic mobility and residential stability.



Create senior housing in Northeast Baltimore... When I need senior housing, I will love ALL my friends and acquaintances in my neighborhood.



- Senior and longtime Waltherson resident

The City is working with partners to implement data-driven, geographically focused initiatives that take a “whole-block approach” whenever possible, to address neighborhood disinvestment and improve housing conditions. Targeted code enforcement, weatherization, rehabilitation, demolition, and new construction are in the toolbox to prevent vacancies

FAST FACT:

About 33% of Baltimore renters spend more than half their income on rent and utilities, a situation which contributes to trapping people in poverty.

and to stabilize and rebuild neighborhoods. As renovation and new housing stock is built with a mix of new units, redevelopment efforts should strive to support existing residents and prevent housing displacement, which disproportionately impacts low-income residents. Taking steps to make it attractive for families of all races to remain safely and affordably in their homes is a priority, as is supporting older adults to “age in-place.”

Energy and water utility costs can compound the housing cost burden for low income households. Energy efficiency and water conservation efforts help residents reduce monthly bills, and can also have the effect of helping create local jobs and reduce pollution.



STRATEGIES & ACTION

1. Increase housing affordability for both renters and homeowners and create opportunities for economic mobility.

Action 1:

Use City resources to leverage funds to preserve housing and create affordable housing. Support, encourage, and fund development of programs that preserve existing housing; encourage redevelopment of existing structures. Spur production of new, affordable units, including by supporting both non- and for-profit development entities such as the Baltimore City Affordable Housing Trust Fund. Seek increased Community Reinvestment Act commitments from financial institutions operating in the city.

Action 2:

Explore tools to ensure significant new development projects support existing residents and minimize resident displacement. The highest goal is for



Photo Credit: Episcopal Housing

developments to include units that are permanently affordable and available to residents with very low, low, and moderate incomes.

2. Expedite housing renovations, demolitions, and greening efforts to increase the number of thriving, safe, neighborhoods.

Action 1:

Continue to strategically demolish vacant structures, working closely with guidance from neighborhood residents directly impacted by vacant and nuisance properties and in consideration of future use of the site for redevelopment or maintained open space. Importantly, to every extent possible, deconstruct vacant structures.

Action 2:

Facilitate the transfer of vacant, abandoned properties to owners who have capacity to rehabilitate them. Increase City receivership, an innovative legal approach to reducing nuisance properties that are privately owned but neglected. Explore means to coordinate receivership with affordable housing developers, including community land trusts and other nonprofit models. Explore development of a “land bank,” which would bundle properties, particularly whole blighted blocks, for redevelopment.

3. Enable homeowners—especially older adults, people of color, and people with low-incomes—to maintain their homes.

Action 1:

Increase awareness of financial assistance and incentives to help low-income homeowners maintain their homes and keep them healthy through programs that support weatherization, rehabilitation, ADA-compliant updates and system upgrades; address health and safety issues; reduce energy and water utility costs; and offer discounts on property taxes. Increase awareness of the Homeowners Tax Credit for older adults. Increase promotion of tax credits and energy assistance to renters. Encourage households to take advantage of opportunities for solar tax credits and community solar to increase clean energy generation.

Action 2:

Increase financial resources (and increase awareness of them) to assist low-income and older adults with ADA-compliant updates for people of all ages and abilities.

Action 3:

Increase financial resources (and increase awareness of them) to assist low-income households to become homeowners or to keep their homes through financial and homeowner counseling, coaching, credit enhancement, and down payment and closing cost assistance, as well as estate planning.



Photo Credit: Empire Homes



Before and after photos of a use of historic property tax credits.

For more information: <https://chap.baltimorecity.gov/tax-credits>

how we'll measure success:



Number of households receiving weatherization assistance and energy-reduction education and assistance through programs like the Baltimore Energy Challenge



Number of new and existing homeowners, by income level, who use City-supported homeowner programs



Number of city-supported affordable housing units (created or maintained) and number of units created with the Low Income Housing Tax Credits managed by the State of Maryland



Affordability of mortgages and rent in the city



human-made systems: **Buildings**

Baltimore becomes a national leader in energy- and water-efficient buildings that promote health and well-being.



THE BIG PICTURE

The average American spends 87 percent of their day indoors¹. The buildings in which we live, work, go to school, and worship have a direct effect on our health, especially through factors like allergens, pests, excessive heat, poor air flow, and mold². While efficient building designs promoting health may sometimes require additional upfront costs, they save money over the long-term. Improving the efficiency, comfort and indoor air quality of buildings are some of the least expensive, most abundant, and most underused ways to save money, reduce energy waste, and stimulate the clean energy economy by creating jobs. All of these can contribute to a more resilient economy.

¹ *The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants,* Neil E Klepeis, William C Nelson, Wayne R Ott, John P Robinson, Andy M Tsang, Paul Switzer, Joseph V Behar, Stephen C Hern, and William H Engelmann. *Journal of Exposure Analysis and Environmental Epidemiology* volume 11, pages 231–252 (2001)

² <https://www.un.org/sustainabledevelopment/> *The Next Nexus: Exemplary Programs That Save Energy and Improve Health*, March 2018, Ronald Denson, Jr. and Sara Hayes. Report H1802



It is of utmost importance to me to have a GREEN, healthy environment to live in.



- 20-year resident of Lauraville



IN BALTIMORE

Upgrading apartments, homes, and other buildings in Baltimore to improve air quality and energy and water efficiency will greatly improve quality of life.

In Baltimore, buildings comprise the majority of energy use and generate 70 percent of the city's greenhouse gas emissions. Our aging building stock, combined with a high number of property owners who struggle to invest in properties while keeping rents affordable, threaten the availability of quality affordable housing, an issue which is clustered in communities of color and low-income neighborhoods.

City government uses a conservation-first approach, delivering income-eligible families energy efficiency and weatherization services combined with health improvements such as lead reduction, mold remediation, and integrated pest management. When grant funding is available, the City offers energy and health upgrades to small businesses and nonprofits who serve low-income residents. But more can be done. For example, housing policy is not currently

maximized; codes, permits, and low-income housing tax credits can be restructured to help building owners and residents capture the return on investment required to improve the health of buildings, along with water and energy efficiency.

FAST FACT:

In 2017, Baltimore was one of only 11 cities nationwide to receive a high score for “equity metrics” from the American Council for an Energy Efficient Economy, for reaching both low-income and multifamily customers with energy efficient programs.



STRATEGIES & ACTION

1. Advance building energy and water efficiency, as well as education and outreach, in all sectors—residential, commercial, municipal, and institutional—to reduce long-term costs and increase the health of occupants.

Action 1:

Expand outreach about energy and water rebates to residential, commercial, municipal, and industrial occupants and owners, including information about available incentives as well as behavioral change techniques.

Action 2:

Develop a financing toolkit to assist building owners to understand available energy and water efficiency financing options.

Action 3:

Promote Property Assessed Clean Energy (P.A.C.E.) financing to large-building owners to promote energy and water upgrades and renewable energy installations.

2. Increase energy and water efficiency retrofits in affordable and low-income housing markets to reduce greenhouse gas emissions, expand local sector jobs, and improve the long-term viability of affordable housing.

Action 1:

Expand outreach to private landlords of low-income and affordable housing units to familiarize them with the benefits of conducting energy and water

efficiency upgrades to reduce maintenance costs, and encourage landlords to lower tenants’ utility burden.

Action 2:

Develop programs to retrofit affordable housing units into energy- and water-efficient units. Emphasize conservation-first, high-performance, building-enclosure-focused strategies to improve the most durable and fundamental aspects of our built environment. Research wall systems used in affordable, high-performance housing, for both new and retrofit applications that meet these objectives.

Action 3:

Analyze long-term return on investment opportunities for deep energy and water retrofits in the low-income housing market; develop a financial decision tool to help affordable housing providers assess incremental costs, benefits, and greenhouse gas emission savings for implementing energy measures.

Action 4:

Increase workforce programs in energy efficiency, renewable energy and health upgrades, emphasizing local hiring. Promote apprenticeships for local workers.

3. Create policies to promote awareness and transparency of energy and water use and reduction.

Action 1:

Create residential disclosure for energy and water use at time of sale or lease agreement requiring owners to disclose energy and water consumption levels to potential renters or buyers using a displacement risk analysis. Take into account how market information, such as energy disclosure, can influence rents in a tight rental market.

Action 2:

Develop and pass benchmarking legislation to promote commercial, municipal, and institutional energy and water efficiency and renewable energy, and a disclosure ordinance for yearly energy and water use.

Action 3:

Evaluate existing utility and city-wide energy- and water-savers programs to further advance incentives and efficiency. Explore graduated pricing structures for energy and water resources depending on time of use, peak demands, and income level.

4. Create and adopt programs and codes for promoting occupant health and comfort, as well as efficiency.

Action 1:

Review the City's existing green building code and amend to fully support occupant health and comfort in addition to water and energy efficiency.

Action 2:

Work with architects and designers to create systematic approaches to sustainable building designs that integrate and restore the natural environment; use concepts of buildings that are living, restorative and adaptive

Action 3:

Support the development of holistic, neighborhood-wide, deep energy retrofit projects that reduce energy and water use and improve comfort and economic resiliency. Emphasize the use of low toxicity and low-tech, high craftsmanship methods to build community knowledge base, yielding more local economic development.

Action 4:

Explore requiring development plans to include operational efficiency cost-benefit analyses and return on investment calculations for the whole project, including common spaces and residential aspects

Action 5:

Integrate energy- and water-savings strategies and promote gray-water harvesting and stormwater capture to serve efficiency and non-potable water needs. Storm-water reservoirs could be used to integrate site design features (irrigation of urban green infrastructure and agriculture) and serve as thermal mass for district heating and cooling.

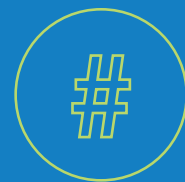
how we'll measure success:



Total water and energy usage and costs by building sector



Number of participants in Property Assessed Clean Energy (P.A.C.E.) financing



Number and geographic distribution of certified green buildings



Photo Credit: Humanim



Photo Credit: Hord Coplan Macht, Green Roof in South Baltimore



human-made systems: *Transportation*

An affordable, dynamic, reliable, and integrated transportation system serving all people.

THE BIG PICTURE

Everyone needs safe, affordable, and reliable means to travel to work, school, shopping, appointments, or to visit friends. Depending on cars as the primary mode of transport can make travel easy, but it also creates congestion, noise, air pollution, crashes, environmentally detrimental impervious surfaces, and increased household expenses. Furthermore, transportation is a major source of greenhouse gases. A sustainable and equitable transportation system offers access to affordable, integrated, and safe options in transit, biking, and walking—and is less dependent on cars. Increased connectivity and access, particularly for those living in historically under-served areas, is necessary for improving social mobility, quality of life, and economic opportunities.

Car travel is not an option for everyone, including households without access to a car or ride-sharing technology, differently-abled people and older adults (who may also lack walking ability), and youth under legal driving age. Job markets (and employees) suffer when transportation is unreliable, and when commute times exceed 45 minutes. By ensuring that everyone has many dependable transit options, “economic and social mobility can increase for those without cars while helping to recruit and retain young talent.”¹ A great transit system unlocks the additional benefits of quieter streets, fewer vehicular injuries and fatalities, cleaner air, and more active lifestyles.

IN BALTIMORE

While components of a transportation system exist, not all are affordable, convenient, dependable, and integrated.

Baltimore has public buses and trains, dockless electric scooters, a Bicycle Master Plan, car-sharing services, on-demand ride-sharing services, and manually hailed drivers commonly referred to as “hacks.” However, not all of these options are widely accessible or reliable. Our single occupancy vehicle-centric system is responsible for almost 30 percent of the greenhouse gases we release into the air. A shift away from this dependence toward reliable, accessible public transit, connected to the region, along with safer routes for pedestrians, and bicyclists can be enormously positive for Baltimore’s economic mobility, prosperity, and safety.

“*[Our neighborhood’s] major intersections prioritize vehicular throughput at the expense of pedestrian safety... Even with right-of-way, pedestrians often place themselves in harm’s way by simply crossing the street.*”

- Resident of Belvedere Square

1. Greater Washington Partnership Capital Region Blueprint for Regional Mobility, <http://www.greaterwashingtonpartnership.com/gwp/blueprint/index.html>

FAST FACT:

About one-third of Baltimore households don't have access to a car.



Baltimore's history of segregated housing policy, redlining, and disinvestment in black neighborhoods offers a direct connection between public transit systems and equity. Thirty percent of Baltimore residents have no access to a vehicle, and that rate is concentrated in segregated areas. According to the Baltimore Neighborhood Indicators Alliance, "in every historically red-lined, majority African-American community in East and West Baltimore City, the number of households with no vehicle access is greater than 50 percent."² This means that many Black residents rely solely on the City's public transit—which is often unreliable—to get to places of employment, schools, and retail. Further, these residents disproportionately bear the negative impacts of driver-oriented streets, such as safety risks and air pollution; and for many

riders without alternative transit options, it is a struggle to remain punctual. Two-thirds of public transit riders in Baltimore face commute times that are 90 minutes or longer each way, which has a negative impact on people's economic futures, according to Clean Water Action: "Commuting time is one of the strongest factors in a person's chances of escaping poverty: the longer the commute, the harder it is to maintain a job, keep stable housing, and accumulate wealth."³



STRATEGIES & ACTION

1. Prioritize local and regional transportation coordination and investments, ensuring equity.

Action 1:

Advance the Central Maryland Regional Transit Plan by working with regional partners including transit riders, city and state agencies, and nonprofits, elected officials, business leaders, and anchor institutions to consider alternative and creative models for systems.

Action 2:

Support a dedicated funding source⁴ for public transportation and safety improvements in the region, including investing in alternative vehicles (such as autonomous vehicles for use as public transit) and investigate the use of vehicle-related revenue to promote pedestrian-first policies.

Action 3:

Increase equitable investment in road resurfacing, maintenance, and reporting, ensuring resources are distributed first to historically under-served neighborhoods.

2. According to the Baltimore Neighborhood Indicators Alliance data on vehicle access, there are 8 Baltimore City community statistical areas (CSAs) where greater than 50% of households do not have access to a vehicle. With the exception of Cherry Hill, an African-American community created post-World War II, these Baltimore CSAs correspond exactly to East and West Baltimore's historically red-lined communities as established in 1937 by the Home Owners Loan Corporation. The CSAs are as: Cherry Hill, Greenmount East, Madison/East End, Oldtown/Middle East, Poppleton/Terraces/Hollins Market, Sandtown Winchester/Harlem Park, Southwest Baltimore, and Upton/Druid Heights.

3. <https://www.cleanwateraction.org/2018/01/22/transportation-air-quality-baltimorelink-and-red-line>

4. A dedicated funding source, by law, is available for use only to support a specific purpose and cannot be diverted to other uses

Action 4:

Standardize ongoing coordination between city and state agencies and the public. Formulate and jointly publish goals and performance metrics in an accessible annual report.

2. Enact policies that promote city and regional priorities for pedestrians, transit, and alternative forms of transportation.

Action 1:

Implement Baltimore's Complete Streets ordinance that creates a process for evaluating how streets and corridors serve pedestrians, transit, bicycling, freight, and single-occupancy vehicles, and enhance the use of data to guide equitable mobility and infrastructure investments. Ensure early and extensive resident input, and ensure equity considerations are built into the Complete Streets hierarchy.

Action 2:

Create and implement a Pedestrian Master Plan that includes a sidewalk and a lighting inventory to identify areas of high density with poor connectivity and walkability, with the long-term goal of providing continuous and widened sidewalks, shorter crossings, improved streetscapes, and traffic calming.

Action 3:

Fully implement the Bicycle Master Plan to improve safety and accessibility for cyclists, ensuring equitable distribution of infrastructure.

Action 4:

Alter traffic signal timing citywide, shortening cycle lengths in order to lower traffic speeds



Baltimore Office of Sustainability mascot, Turtle.

and shorten wait-times for pedestrians and cyclists.

Action 5:

Seek opportunities to implement more pedestrian-only spaces, such as public plazas, to provide a safe haven for pedestrians while also creating places for people to gather and improve health and well-being; start with pop-up events.

3. Improve reliability, accessibility, safety, and efficiency of transit while reducing the environmental impacts of vehicles.

Action 1:

Develop and maintain transit hubs between public transit routes as well as connections to bike sharing, car sharing, electric vehicle chargers, and/or ride hailing near employment centers and in areas where car ownership is low. Improve pedestrian and bicycle connections between and to transit stops and hubs; maximize safety and include better lighting, signage for wayfinding, disaster protocol, solar power, and trees.

Action 2:

Create more efficient public transit options; reinstate the plan to implement Baltimore's east-west light rail corridor and expand and enforce dedicated bus lanes and other mechanisms giving buses priority in transit areas with high ridership and congestion; build a system that improves economic opportunity for everyone and provides the mobility that young workers depend upon.

Action 3:

Eliminate parking subsidies and mandates, and offer employee incentives to encourage commuting by modes other than single-occupancy vehicles.

Action 4:

Encourage green commutes to work and school by coordinating with on-demand ride hailing services to provide affordable connections to destinations beyond the range of the transit system.



Photo Credit: Baltimore City Department of Transportation

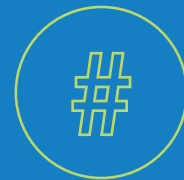
how we'll measure success:



Walk-score by neighborhood



Number of bicyclists by location using annual counts



Number and distribution of mile of bike lanes, especially for neighborhoods with the lowest rates of car access



Percent of population that uses public transportation to get to work along with mode split and travel time to work



Transit on-time performance and number of riders using the bus system, for all corridors where dedicated lanes and priority bus travel have been implemented, data to include breakdown by neighborhood



human-made systems: Noise

Quiet residential neighborhoods are good for everyone's health and comfort.



THE BIG PICTURE

Noise is a form of pollution. And noise pollution is everywhere. Excessive noise is a cause of damage to human health and ecosystems, as well as a symptom of other harmful factors. For example, the noise from cars on the road may be associated with local air pollution. The largest sources of environmental noise are transportation and industrial activity—which are “produced by those with the most power,” even though noise complaint systems generally target those with the least power.¹

Excessive noise is generally defined as noise higher than 70 decibels, which is the equivalent of standing 50 feet away from the edge of a highway. Continuous or repetitive noise (like a highway) can have a greater impact than loud but infrequent neighborhood noises (such as a barking dog). Noise can disturb sleep, cause hearing problems, increase stress, and lead to heart disease. Solutions to the problem must be systemic, requiring a large-scale, collective response across many different targets

“*I prefer areas with peace and quiet. There's no park. I'd like to have a place to go take a nice walk in every community.*”

- Young person in Homewood, connecting noise complaints with the need for green space



IN BALTIMORE

While some noise is inevitable in any city, investments in noise reduction will be highly valuable for residents.

In Baltimore, two loud sounds pervade the city: police sirens (120 decibels) and low-flying police helicopters. In low-income communities, these sounds are almost constant.² The Baltimore City Health Code calls noise “a menace to the welfare and prosperity of the people.” The Health Department is in charge of enforcing the City's noise ordinance on amplified sound, which entitles everyone to noise levels that are not detrimental to life, health, or enjoyment of property. The Code sets noise limits in residential and commercial areas; it also includes time restrictions.

The Baltimore 311 system collects and tracks noise complaints. Complaints about non-amplified noise (such as people talking loudly) are handled by the Police Department, while common sources of noise (like cars or emergency sirens) are necessarily exempt from investigation. Complaint-based systems in government are found to be inherently inequitable because they require a level of comfort and trust with the complaint process.

It's clear that noise is an issue to address in Baltimore, as residents in our survey frequently raised “noise” as an issue—it

FAST FACT:

In the Sustainability Survey of Baltimore residents, addressing noise was a significant priority among youth.

was especially a concern for youth respondents. Excessive noise is also a crucial equity issue, as research has found a relationship between exposure to noise and race. One study found that noise pollution is about 4 decibels louder at night in neighborhoods with primarily black residents. Further, racially segregated cities have been shown to have unhealthier air, due in part to traffic (which also contributes to noise pollution).³



STRATEGIES & ACTION

1. Meet the goals of Baltimore's noise ordinance by reducing overall noise levels.

Action 1:

Create new regulations to bring the noise ordinance in line with best practices. This process must be done with early and extensive input from the people impacted. Examples of best practices include working with industrial businesses to minimize noise and developing regulations for noise produced by generators or HVAC systems.

Action 2:

Strengthen enforcement of commercial and industrial noise standards.

2. Ensure all neighborhoods enjoy the benefits of quiet.

Action 1:

Engage a group (or groups) of residents representing city demographics to discuss noise and seek ways to address it.

Action 2:

Inventory noise pollution throughout the city, seeing how it varies from neighborhood to neighborhood, and target improvement efforts for greater equity.

Action 3:

Initiate outreach activities to increase community awareness of noise standards, impacts of noise, and ways to reduce noise. Focus these in neighborhoods with recurring noise issues and complaints.

Action 4:

Direct tree planting and other efforts to muffle noise in neighborhoods with less tree canopy and in communities which are at higher risk of adverse outcomes from noise pollution.

1. "City Noise Might Be Making You Sick," *The Atlantic*, Kate Wagner, February 20, 2018. <https://www.theatlantic.com/technology/archive/2018/02/city-noise-might-be-making-you-sick/553385/>
2. "City Noise Might Be Making You Sick," Wagner
3. "Noise Pollution Loudest in Black Neighborhoods, Segregated Cities." *Berkeley News*, Brett Israel, July 25, 2017. <http://news.berkeley.edu/2017/07/25/noise-pollution-loudest-in-black-neighborhoods-segregated-cities/>

how we'll measure success:



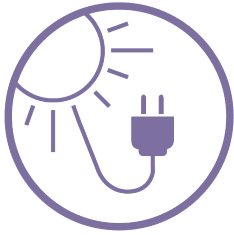
Number and distribution of noise code violations and complaints (as a starting point with an understanding that it likely is not representative of the distribution of noise)



Number and distribution of noise-reducing projects



Photo credit or description?



Climate & Resilience

Community Preparedness

Energy

Greenhouse Gas Emissions

Clean Air

Food Systems



climate & resilience: **Community Preparedness**

Neighborhoods and people prepared to withstand and recover quickly from extreme weather and other emergencies.



THE BIG PICTURE

Natural hazards and extreme weather events are unavoidable. And in the coming years, these kinds of disasters—already markedly stronger and more frequent—are projected to increase in severity because of climate change. It is critical for cities to become more resilient to these events. This means strengthening buildings, utilities, and emergency response systems, as well as by fortifying social systems and resident safety nets, so everyone is able to recover quickly.



I can help with community education on sustainability, ecology, and stormwater management.

- Resident of Cheswolde who has lived in her neighborhood for more than a decade, responding to the question “How can YOU make your neighborhood better?”



IN BALTIMORE

Ensuring government and Baltimore residents are prepared for emergencies and disasters.

Baltimore is highly vulnerable to coastal storms, flooding, extreme heat, high winds, and winter storms. Combined with a projected rise in sea level, these hazards will continue to reach more parts of our city than they have in the past. Natural hazards cause property and economic damage, and threaten Baltimore’s city-wide utilities, transportation systems, and sewage treatment plants; they also endanger public safety. These hazards have the potential to cause the most strain for low-income residents,

who have fewer resources and face greater barriers to safety, adequate medical aid, and economic recovery after a storm. Baltimore has taken steps to integrate equity into all-hazards mitigation and climate adaptation planning and implementation to support our most vulnerable residents.

The City’s Emergency Operations Plan documents how the City will respond to and recover from emergencies and disasters. Baltimore has also taken

FAST FACT:

Maryland has seen sea levels increases at the rate of about 1 inch every 7 to 8 years, according to the 2018 DP3.

steps to address existing and future impacts of climate change, and the 2018 Disaster Preparedness and Planning Project (known as the “2018 DP3”) lays out a detailed approach to adapting to climate change and preparing for natural hazards.

The City has campaigns encouraging households to stock emergency preparedness plans and kits, and it also distributes preparedness materials. Community-based resiliency hubs are being supported throughout the city, and the Mayor’s Office of Emergency Management trains resident teams in skills such as CPR, search and rescue, and using NARCAN to reverse opioid overdoses. In all of its work, the Office of Emergency Management pays particular attention to the elderly, the impoverished, those with mobility issues, and those who are differently-abled and require accessibility services.

Action 2:

Update Capital Improvement Process, integrating proactive initiatives based on climate data and social vulnerability, into the process (as well as into other City and community plans).

Action 3:

Streamline the permitting process for buildings designed to higher standards for flood, sea level rise, and/or wind hazards; provide financial assistance to disadvantaged residents for home retrofits to meet these standards.

Action 4:

Upgrade infrastructure to minimize threat to our most vulnerable communities. Identify utility, facility, and infrastructure components for priority upgrades through a community-driven process to reduce vulnerability to flooding, sea level rise, and wind damage.

2. Develop plans and systems to increase community resilience.

Action 1:

Develop a post-disaster plan to guide long-term recovery efforts following a disaster and to ensure those with the least resources are prioritized.

Action 2:

Apply an equity lens to all-hazards mitigation and climate adaptation planning and implementation. Include a new assessment of the risk of man-made hazards, including that of hazardous material releases on roads and railways.

Action 3:

Finalize flood alert system upgrade, ensuring that warnings are translated or interpreted and reach the most vulnerable communities in a timely manner.



STRATEGIES & ACTION

1. Review regulatory codes and implement collaborative programs to protect vulnerable residents, such as in neighborhoods with high percentages of seniors, low-income residents, and non-English-speaking immigrants.

Action 1:

Enhance City floodplain regulations and building codes to increase standards for buildings and safeguard against flood events projected to be higher than historic levels.

3. Increase community awareness of natural hazards and climate change.

Action 1:

1: Continue to host workshops on “community preparedness,” inviting residents to collaborate and organize preparation strategies for natural hazards. To foster inclusive and accessible engagement, host workshops at locations where people gather, such as stores, day-care centers, or pop-ups; also translate materials into safe harbor languages.

Action 2:

Continue to support the growth of “community resiliency hubs” in disinvested, high-impact areas to provide protection and resources for residents during excessive heat, hurricanes, other extreme weather events, and local emergencies.

Action 3:

Develop “community resiliency plans” in areas where risks and economic and health vulnerabilities are highest.

Action 4:

Increase the number of residents receiving community preparedness training in low-resourced neighborhoods.



how we'll measure success:



Number and distribution of community resiliency hubs



Number and distribution of residents who receive disaster preparedness training



Number and distribution of homes, businesses, and critical infrastructure in high risk areas that are at or above code standards



Number and distribution of repetitive loss properties



Frederick Avenue flooding - May 2018



climate & resilience: *Energy*

A future where clean, reliable, affordable energy fuels all of Baltimore.



THE BIG PICTURE

The energy that powers our lights, heats our homes, and fuels our transportation comes almost exclusively from fossil fuels such as coal, oil, and natural gas. When we use less energy, we burn less fossil fuels, leading to lower emissions of carbon dioxide which is the primary contributor to climate change. Investments in energy efficiency, renewable energy and alternative fuels save money long-term, catalyze local reinvestment and jobs, and protect human health and the environment. To ensure low-income residents are not left behind as technology advances, cities are working to lower the upfront cost of renewable energy and energy efficiency, expanding car-sharing options, and increasing charging stations in high-poverty areas so residents might capitalize on cost-saving benefits of electric vehicles.



I managed to save about 40 to 50 dollars on that first bill and that first bill came in the dead of winter.... I achieved that goal by making simple behavior changes on how I saved energy.



- Resident of Westport



IN BALTIMORE

Collaborative efforts can continue expanding and supporting green power options that benefit all in Baltimore.

Baltimore has the greatest needs, costs, and challenges in Maryland in terms of serving the energy needs of low-income residents. High energy costs are a burden on cash-strapped families and older adults, who are juggling tough choices between energy bills and basic necessities like food, shelter, or medicine. Additionally, older, unmaintained housing is often leaky and less energy efficient, leading to higher energy bills. Improving the energy efficiency of housing stock is not only a cost-effective intervention, but also delivers valuable benefits to support an equitable clean energy economy by making homes comfortable and healthy and boosting grid reliability.

The good news is that Baltimore has become a leader in advancing energy efficiency, conservation, and renewable energy particularly for low-income residents. The three-year, \$52 million Baltimore Energy Initiative helped lower the utility bills of low-income residents, small businesses, and nonprofits who serve the poor. The Baltimore Energy Challenge has assisted tens of thousands of mostly low-income residents to reduce energy consumption and costs using peer-to-peer engagement. The Empower Maryland program has allowed utilities to add customer surcharges to be spent on programs

FAST FACT:

During the winter of 2017, Baltimore's power utility reported a 25 percent decrease in the average customer electric bills, due in part to energy efficiency programs.

that reduce energy consumption and waste for residential and business consumers including efficient appliances, home energy checkups, rebates and bill credits for reducing electricity usage in Baltimore City and throughout the state. The city adopted the International Green Construction Code and the green building code to create stricter standards for non-residential buildings. On the transportation side, electric vehicle charging stations have been installed in public parking garages and on the street.¹



STRATEGIES & ACTION

1. Expand awareness of and funding models for energy efficiency and renewable energy.

Action 1:

Expand energy efficiency, conservation and renewable energy education programming to reach homeowners and renters with a specific focus on low-income populations; expand energy education programs in schools, businesses, local organizations, colleges and government.

Action 2:

Seek increased financing for energy programs including home efficiency and improvement programs, energy assistance, and weatherization, solar, battery storage, microgrids, and alternative vehicles; explore ways for low-income residents, community groups and others to become investors and participate in revenues generated by community solar projects.

Action 3:

Expand solar job training programs and job placement opportunities to train and employ the unemployed and underemployed; require that city government renewable energy projects either use trainees in these programs or hire program graduates.

2. Speed the path to decarbonization through increased deployment of renewable energy and electric vehicles.

Action 1:

Increase the supply of clean, renewable electricity and battery storage, including community solar and rooftop solar opportunities for low-income homeowners and renters, and tie to building improvements.

Action 2:

Advocate for a higher State of Maryland renewable portfolio standard (RPS) as well as affordable pathways to electrification.

Action 3:

Increase electric vehicle adoption through awareness campaigns to promote the climate and air quality benefits of electric vehicle ownership and publicize the locations of publicly-accessible charging stations.

Action 4:

Adopt a goal for electric vehicle charging stations; provide neighborhood and business district charging stations and implement electric vehicle, car-sharing pilots in low-income neighborhoods and neighborhoods most burdened by air pollution.

1. *The Baltimore Sun*, "Electric Bills Down 25 Percent This Winter," 3/22/2017

3. Support and deploy innovative technologies and programs to reduce energy use in buildings and transportation.

Action 1:

Review current building codes and regulations, and adopt a residential green building code to increase energy efficiency in residential buildings.

Action 2:

Complete the conversion of streetlights to LEDs and pilot streetlights with solar panels, temperature monitoring and sensors that can spot parking spaces and track air pollution. Ensure equitable geographic distribution.

Action 3:

Increase installation of cool roofs and green roofs and plant more shade trees in neighborhoods where concrete and other hard surfaces trap and collect heat, creating “urban heat islands”.

Action 4:

Promote and expand installation of energy-efficient combined heat and power and district energy systems which capture and reuse waste heat.

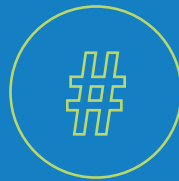
Action 4:

Set a goal to reduce petroleum consumption and increase use of alternative fuel vehicles and equipment in the city government fleet.

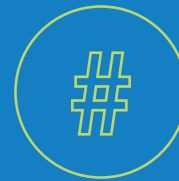
how we’ll measure success:



Number and distribution of homes retrofitted through community energy and assistance programs



Number and distribution of solar installations



Number of jobseekers that have been trained in solar installation and other ‘green’ job skills and that have been successfully hired for green or sustainable jobs



Average percentage of household income spent on energy



Total electricity and natural gas consumption per capita (city-wide as well as specific to city government)



Photo Credit: Living Classrooms, UA House



climate & resilience:

Greenhouse Gas Emissions

Reducing our city's contribution to the global drivers of climate change.



THE BIG PICTURE

When humans burn fossil fuels—such as coal, gasoline, and natural gas—we emit “greenhouse gases,” which are so-called because they change the makeup of the earth’s atmosphere to trap more heat (as a greenhouse does). These emissions are increasing the average temperature of the globe, contributing to rising sea levels, and changing our very climate. These changes are happening now, and in the future are expected to create even greater risks such as flooding, storm surges and wildfires, as well as disrupted food production and displaced populations. Importantly, these risks will fall hardest on people who are more economically insecure, and on communities of color. For the health of the planet and human population, every city and jurisdiction has a responsibility to limit its contribution to greenhouse gas emissions.



IN BALTIMORE

Reducing our emissions from all sources is vital to protecting the planet.

In the Climate Assessment recently released by the White House, scientists warn that protecting the planet from the worst threats of climate change requires bolder action.¹ While the rise of global emissions are a serious threat to all, adverse effects from a changing atmosphere can compound existing poverty in a city like Baltimore, where almost 35 percent of households earn less than \$25,000 annually.² The city’s initiative to reduce greenhouse gases can alleviate health burdens made worse by pollutants, and reduce added stressors that greatly impact residents in neighborhoods with concentrated poverty.

The greenhouse gas reduction goal in our 2012 Climate Action Plan calls for a citywide emissions



We need to collect and generate science-based information about ways to create jobs, plan for a sustainable future, prevent crime, and bring our communities together. Promote solar energy to reduce energy costs for low-income residents, create jobs, and combat climate change.

- Long-time resident of Original Northwood

FAST FACT:

With clear benefits to people and natural ecosystems, limiting global warming to 1.5°C could go hand-in-hand with ensuring a more sustainable and equitable society.¹

reduction of 15 percent by 2020 (relative to 2010). With this Sustainability Plan Update, Baltimore now commits to achieving reductions similar to goals set by the Paris agreement: 25 percent reduction by 2020 and 30 percent by 2025 (relative to 2007). Our most recent inventory showed that emissions have dropped by 15-20 percent, but more work still needs to be done to ensure that all residents are able to breathe cleaner air and face reduced risks of natural disasters.

About 70 percent of our city's greenhouse emissions come from the use of energy that powers our homes and our commercial and industrial buildings. Transportation (such as driving cars) makes up 30 percent of our emissions, while waste disposal and water make up about one percent each.



STRATEGIES & ACTION

1. Improve efforts to reduce greenhouse gas emissions.

Action 1:

Update the Climate Action Plan by 2020, using an equity lens.

Action 2:

Establish a Climate Change Advisory Committee, engaging diverse community stakeholders in identifying and implementing strategies to prevent and reduce greenhouse gas emissions, to achieve a "drawdown" of carbon dioxide, and to equitably adapt to the impacts of climate change.

2. Modify operations and policies in city government to reduce emissions.

Action 1:

Set an ambitious reduction target specifically for government operations and adopt policies and standards to achieve these reductions through less fuel use, greater energy efficiency and conservation, and the use of renewable energy.

Action 2:

Require a life-cycle evaluation of energy savings and emission reduction options during the City's capital improvement request process.

Action 3:

Update codes, requiring new development projects to consider impacts from future climate events (such as heat waves and flooding) and to be designed for resiliency against these events, including through greater energy efficiency and use of renewable energy.

Action 4:

Work with community members and organizations to develop strategies to mitigate harm to, and to also increase the benefits accrued by the communities from climate actions.

3. Create new programs to reduce greenhouse gas emissions.

Action 1:

Develop outreach campaigns focused on actions to reduce emissions, such as switching to LED lights (which are 88 percent more efficient than

1. *Volume II of the Fourth Annual Climate Assessment, U.S. Global Change Research Program, November, 2018.*

2. *Baltimore Neighborhood Indicators Alliance, "Vital Signs, 12th Edition." Based on Census Demographics. 2014*

incandescent bulbs). Work in partnership with community members, businesses, and institutions. Identify and promote actions already being done by communities to conserve energy.

Action 2:

Commit to being a “Carbon Neutral City,” meaning we would have a net zero impact on greenhouse gas emissions.

Action 3:

Reduce short-term pollutants, developing an action plan to reduce emissions of short-lived climate pollutants (such as the harmful chemicals found in some refrigerators and air conditioning units), which cause significantly greater warming than carbon dioxide and other greenhouse gases.



how we'll measure success:



Total greenhouse gas emissions (city-wide and for city government only)



Total emissions of short-lived climate pollutants

Your site for resources during weather-related and citywide emergencies:

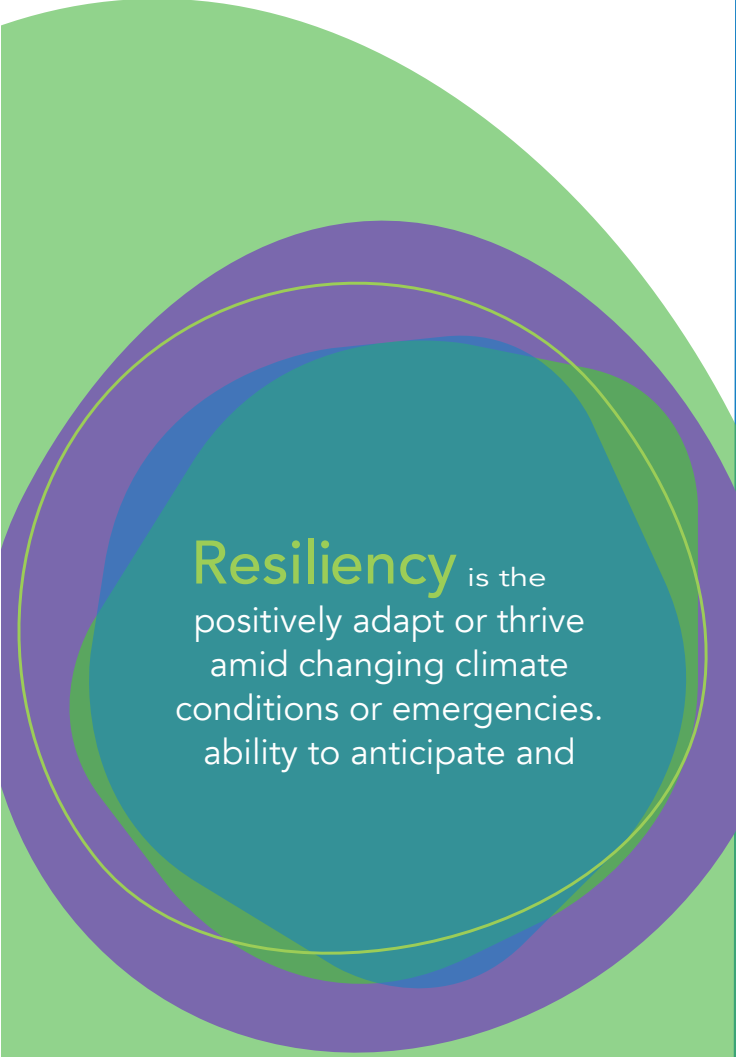
Extreme Snow or Wind, Heavy Flooding, High Heat, Extreme Cold



BALTIMORE CITY
Resiliency
HUB



For information on becoming a Community Resiliency Hub, contact the Baltimore Office of Sustainability at (410) 396-4556



Resiliency is the ability to positively adapt or thrive amid changing climate conditions or emergencies.





climate & resilience: **Clean Air**

Fresh air, both indoors and outside, supports good health for everyone.



THE BIG PICTURE

The air we breathe greatly impacts our health. Studies show poor air quality leads to negative outcomes like heart disease, stroke, chronic obstructive pulmonary disease, lung cancer, severe and frequent asthma attacks, acute respiratory infections, and learning disabilities. Increased federal air quality standards—like tighter emission controls on power generation facilities and requirements that vehicles run more cleanly—have reduced levels of many pollutants, including ozone and nitrous oxide. Also, Maryland has implemented some of the strictest state requirements for car emissions in the country. Despite these improvements, periods of poor air quality persist. Levels of ozone can increase in the summer, and in the winter increased levels of particulate matter (solid particles suspended in the air) can damage people's lungs.

Air quality is also an issue indoors, particularly for those with asthma, allergies, and other serious health problems that disproportionately affect low-income people and children. Poor indoor air quality can be caused by dampness and mold from leaky roofs, poorly functioning furnaces, certain household products and chemicals, and pests like rodents and cockroaches. Because solving these problems relies on costly renovations, low-income renters are most impacted.



IN BALTIMORE

Zones of poor air quality create serious health issues, but can be improved with targeted, equitable investments.

While all residents breathe Baltimore's air, poor air quality has a greater impact on the health of those most vulnerable to developing chronic respiratory conditions, like the elderly or young children with asthma. Overall, the city has a high rate of emergency room visits for asthma, i.e. in 2013, the asthma hospitalization rate was 2.5 times higher than the state average. Acting to improve air quality can reduce health disparities especially in neighborhoods located near industry, busy roadways, or rail terminals. In 2011, for example, four of the five zip codes with the highest asthma hospitalization rates included neighborhoods with very high relative exposure to toxic air pollution, coming primarily from roadway vehicles.



Curtis Bay has [some of] the worst air pollution in the nation. [Our] health is on the line.

- Student and longtime resident
of Curtis Bay

FAST FACT:

Baltimore consistently earns a failing grade for high concentrations of pollution in the annual State of the Air reports published by the American Lung Association. In 2018 the group gave Baltimore an “F” for the number of high ozone days. ²

By focusing interventions on air quality hot spots, the City can create improved air quality and improved health for residents. In 2009, the South Baltimore neighborhoods of Brooklyn and Curtis Bay both experienced a sharp drop in asthma hospitalization rates. Both of these neighborhoods are close to coal-fired power plants, and the 2009 drop in asthma hospitalizations may have been influenced by the adoption of steep new pollution controls. Residents can also achieve change. One example was the response to a proposed incinerator in South Baltimore, already the home to one incinerator that is a major source of toxic air pollution. Residents met with neighbors and school, state, and local government officials and succeeded in preventing the new source of harmful pollution.¹



STRATEGIES & ACTION

1. Reduce emissions from industrial operations to reduce harm to people living nearby.

Action 1:

Encourage state-of-the-art pollution controls on all “point source pollution” emitters and improve review of the effect of new permit applications for air pollution sources, particularly those in and near zip codes with high asthma hospitalization rates.

Action 2:

Work with federal, state, and regional agencies to reduce toxic air emissions from transportation, especially reducing pollution from freight vehicles.

Action 3:

Work with the Port of Baltimore and Maryland Department of the Environment to further reduce diesel emissions through retrofitting and replacing short distance trucks and cargo handling equipment, and through further electrification of operations.

Action 4:

Enact and enforce strong anti-idling regulations for commercial cars, buses, and trucks.

2. Assess and monitor how air quality varies across the city to identify neighborhoods in greatest need of improvement, and increase community awareness of how air quality impacts the health of children, the elderly, low income communities, and communities of color.

Action 1:

Partner with researchers to install air quality monitors equitably throughout the city to determine and map how air quality varies in different areas and at different times of year.

Action 2:

Integrate information about unhealthy air quality days into community preparedness workshops.

Action 3:

Adopt a policy or plan for eliminating use of pesticides and other toxic chemicals on public properties. Encourage integrated pest management and organic land care at hospitals, older adult facilities, restaurants and hotels, daycares, and other hospitality facilities.

¹ “State of the Air 2018,” American Lung Association, Report Card: Maryland. <https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/states/maryland/>, accessed 12/13/2018.

² “Point source pollution” has a single, identifiable source, such as a pipe or factory smokestack.

Action 4:

Develop an alert system for Code Red days to encourage residents to avoid using paints, aerosols, gas lawn mowers, or other things which contribute to poor air quality. Ensure alerts are translated into the City's safe harbor languages.

3. Develop and support programs that can improve indoor air quality for those most impacted.**Action 1:**

Implement an Indoor Air Quality management program for the school system to centrally monitor issues, log complaints, and address problems. Ensure that the safest products are purchased when procuring paints, building materials, carpets, and cleaning supplies.

Action 2:

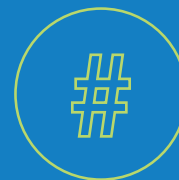
Increase inspections, enforcement, and hazard remediation in rental properties related to mold, pests, furnace maintenance and venting, and other hazards, without passing on costs to vulnerable tenants.

how we'll measure success:

Number of days that levels of criteria pollutants, including ozone and particulate matter, exceed national standards



Asthma hospitalization rates relative to state average



Number of programs that can improve indoor air quality in public schools in neighborhoods most impacted by poor air quality





climate & resilience: **Food Systems**

A city committed to building an equitable and resilient urban food system.



THE BIG PICTURE

Food systems include the food we consume, as well as how food is produced, transported, sold, recovered, and disposed of. Food systems also include the policies, goals, and values that accompany each step of the process. While urban food systems rely on food produced around the world, there are many opportunities to influence what happens within a city. Cities are playing an increasing role in supporting healthy, sustainable, and equitable food systems. Some residents seek access to land and resources to grow their own food, while others seek to influence decisions about what food retail is available to them, their ability to nourish their household members with healthy and culturally appropriate food, and to secure resources to maintain food security. Persistent disinvestment has compromised the ability for many neighborhoods to access these opportunities and achieve these goals. When community members are in the position to define what they need from the food system it builds power. And when institutions listen and respond to these needs, a more equitable system can be achieved. The food system includes how food is produced, which is addressed in the Urban Agriculture chapter of this Plan under "Community."



Currently, in my neighborhood the only choices we have for food is take out and processed foods from corner stores. I feel that food security is a basic need that should be available to everyone.



IN BALTIMORE

Residents are increasingly engaging to shape their food systems in Baltimore.

Baltimore's legacy of residential segregation, as well as poor access to jobs and educational opportunities, have created a significant inequity in resident access to affordable, healthy, and culturally appropriate food. Currently, about 146,000 residents live in areas that are more than a quarter-mile from a supermarket, have a high percentage of households without cars, have a high percentage of low-income residents, and have little healthy food at the neighborhood level. These areas are known as "Healthy Food Priority Areas," so designated in order to target policies and resources to where they are most needed to improve food access in Baltimore. Further, 85 percent of residents in Priority Areas are African-American,¹ just one example of why it is imperative to consider food system issues through an equity lens.

- Resident of Yale Heights on the idea that healthy food is a right

FAST FACT:

23.5 percent of Baltimore residents live in neighborhoods without ready access to affordable, nutritious food.¹

The Baltimore Food Policy Initiative is a collaboration among several city agencies to address food policies from sustainability, food access, and economic perspectives. The Food Policy Action Coalition, a group of more than 60 engaged organizations and individuals, along with Resident Food Equity Advisors,² participate in guiding the vision for the city's food policy work and help to shape policy and influence planning.



STRATEGIES & ACTION

1. Use Policy to create a more equitable food system.

Action 1:

Integrate food system priorities across government so that City agencies work to support implementation of the Healthy Food Environment Strategy³ and the Milan Urban Food Policy Pact,⁴ which address retail, nutrition assistance, and urban agriculture to increase access to healthy, affordable, and culturally-appropriate food through policy, technical assistance, and incentives.

Action 2:

Implement equitable food policies by conducting robust research and strategic planning to inform policy that enhances the food environment in intentional and equitable ways. Implement tools that evaluate policies for race and equity metrics. This includes mapping the food environment, engaging residents, giving residents decision-making power in policy, and sharing best-practices nationally.

Action 3:

Engage residents in policy creation and support community-led processes that seek to build greater food sovereignty⁵ along with participation in and control of the local food system.

2. Increase resilience at the household, community, and food system levels.

Action 1:

Reduce acute food insecurity by protecting federal nutrition assistance programs (SNAP and WIC), federal meal programs (such as school breakfast, school lunch, summer meals, and senior Eating Together), and programs like food pantries. Ensure these are effectively implemented and utilized so that no residents experience hunger.

Action 2:

Increase overall resilience so that the need for food assistance in emergency situations decreases. Promote all residents' familiarity with nutrition, as well as with growing, storing, preparing, consuming, and properly disposing of food. Incorporate food into the Disaster Preparedness Plan update, and seek to make households, neighborhoods, and our entire city more resilient—able to withstand disruptions to the food system.

Action 3:

Support equitable food systems by acknowledging and working to address the power imbalances that exist with respect to land, control of resources, and decision-making power. Develop better metrics to measure progress.

1. 2018 Baltimore Food Environment Report; <https://planning.baltimorecity.gov/baltimore-food-policy-initiative/food-environment>

2. Resident Food Equity Advisors are Baltimore residents who influence and advise the City's Health Food Environment Strategy

3. This strategy addresses food access, food assistance and food production as well as processes to engage stakeholders across the food system.

4. www.milanurbanfoodpolicypact.org

5. The right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods.

3. Strengthen and amplify the local food economy.

Action 1:

Leverage the purchasing power of the City and other institutions by adopting “Good Food Procurement” standards that prioritize nutritious, local, and values-based food.

Action 2:

Support and cultivate local, food-based businesses to stimulate the local economy and provide much-needed work opportunities (especially for those with less access to employment). Include models that have multiple sustainability benefits, such as cooperatively-owned or not-for-profit stores, as well as projects that incubate small businesses and/or provide job training.

Action 3:

Increase food recovery⁶ as a means to build community empowerment, resilience, and workforce skills, while decreasing food waste and food insecurity.



6. Collecting surplus food that would otherwise be wasted and donating it to neighbors in need.

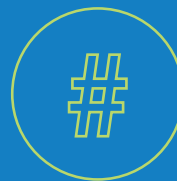
how we'll measure success:



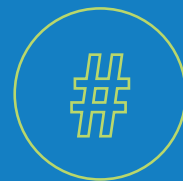
Number of food system policies developed using race and equity frameworks



Prevalence of Healthy Food Priority Areas (measured by number of people)



Number of city procurement contracts that include “Good Food Procurement” standards



Number and distribution of children who are “food insecure”





Photo Credit: Zoe Gensheimer, Bluewater Baltimore.



Nature in the City

People and Nature

Nature for Nature's Sake

Trees and Forests

Water in the Environment

Green Infrastructure



nature in the city: **People and Nature**

Baltimore's green and "wild" spaces enrich the health and well-being of all.



THE BIG PICTURE

Connecting to nature can stimulate our imaginations, rejuvenate us, and refresh our spirits. Nature activates our senses—we can see, hear, smell, and touch the natural world. In cities, contact with nature can range from the view of a few trees through a window to a stroll through a large, wooded park. People may not consciously hear or see nature, but it is everywhere. As Carolyn Finney explains, if you “get down and put your ear to the ground... you can hear the soil, the water, the roots of trees, the insects, the plants, the energy bursting forth, connecting us to ourselves and the places in which we live.”¹ Raising awareness about the important role of nature, and fostering the connection between people and nature, requires us to value ourselves and one another. Love for every human, plant, animal, and insect, along with an understanding of the history that has shaped access and orientation to these assets, will lead us to protect our natural systems and ensure they can be enjoyed by all.



IN BALTIMORE

Connecting people to nature in our neighborhoods, parks, and open spaces can lead toward increased quality of life for all.

In Baltimore, we have nearly 6,000 acres of parkland with 260 public parks and 11 city farms. The landscape is defined by three stream valleys, augmented by a growing number of green schoolyards and lots where vacant buildings are coming down. Over the years, our natural systems of streams, forests, and wildlife have been altered as the city has developed. They have also been improved through stream restorations, riparian buffer plantings, living shoreline projects, habitat creation, and care of forests. We also are actively creating and linking green spaces to each other, for both people and wildlife. When open spaces are designed and maintained in partnership with neighbors, ensuring equitable access and avoiding resident displacement, they offer opportunities for relaxation, recreation, and emotional rejuvenation—and can help to build a more resilient city.

Many of Baltimore's residents are confronted with daily trauma and stress. Our children are facing a rise in childhood chronic diseases such as obesity. In this

1. “Ode to New York: A Performance Piece,” Carolyn Finney, published in *Humans and Nature*. <https://www.humansandnature.org/urban-land-ethic-carolyn-finney>

FAST FACT:

With almost 1,200 acres, Gwynns Falls Leakin Park is the third-largest urban wilderness park in the U.S. — it's a “wild” place for exploring nature and relieving stress and trauma.

context, green and open spaces can be vital assets for health. Nature has powerful therapeutic aspects. Developing an awareness of nature, becoming attuned to plants and wildlife, and spending time in parks, gardens, forests, and waterfronts are all experiences that foster wonder, creativity, compassion and gratitude—and get people out of doors and moving their bodies. The emotional, physical, intellectual, and psychological benefits are significant.² As we plant more trees and transform vacant land into nurtured gardens, quiet natural places, and inviting play spaces, we will improve our connections to nature while strengthening our communities.

and forests. These programs will have the added benefit of providing places of calm and relaxation. For example, increase youth-centered nature programming at Carrie Murray Nature Center.

Action 3:

Connect with residents on ways to take action to support a diversity of species while healing ourselves and the nature around us. Examples include installing bat houses, removing grass and planting native gardens in yards, eliminating herbicide and pesticide use, preventing window strikes by birds, and safely disposing of home garden products containing neonicotinoids (a class of insecticide which is highly toxic to bees, and which is now illegal).



STRATEGIES & ACTION

1. Increase community connections to nature. Ensure it is done in culturally competent ways with early and frequent engagement.³

Action 1:

Provide opportunities for residents to define and shape concepts of nature and incorporate them into plans and programs.

Action 2:

Reconnect youth and families to the concepts and places of nature by co-creating programs to expose people to gardens, farms, green school yards, parks,

2. Build stronger neighborhoods and stronger social connections.

Action 1:

Develop high quality nature immersion programs for young children as a coping tool for trauma and stress.

Action 2:

Expand the Docs in the Parks program by increasing the number of participating local medical professionals and developing a park locator map to show what features and amenities are accessible to patients.

Action 3:

Expand nature programming and support organizations that provide experiences to promote biodiversity, such as increased programming at the Carrie Murray Nature Center and the annual Bioblitz.⁴

2. https://naturalearning.org/wp-content/uploads/2017/09/Benefits-of-Connecting-Children-with-Nature_InfoSheet.pdf

3. Cultural competence is the ability of individuals and systems to respond respectfully and effectively to people of all cultures, classes, races, ethnic backgrounds, sexual orientations, and faiths or religions in a manner that recognizes, affirms, and values the worth of individuals, families, tribes, and communities, and protects and preserves the dignity of each.

4. A BioBlitz is an all-day event during which scientists, naturalists, students, teachers, families, and other volunteers work together to identify and record as many living organisms as they can find.



Photo Credit: Filbert Street Gardens

3. Improve and grow our natural systems and support increased management of them by residents, communities, organizations, and city government.

Action 1:

Develop a clear process for those seeking to enhance, transform and maintain city owned open space for short and long term greening. This should prioritize funding for projects led by people of color and located in neighborhoods with an abundance of vacant lots to help stabilize neighborhoods rather than displace residents.

Action 2:

Identify creative methods for increasing conservation easements, such as incentives for new easements, partnerships, or land swaps. Also continue to support land trusts in protecting Community Managed Open Spaces⁵ and natural areas on private land.

Action 3:

Implement the Baltimore Green Network, continuing to create a collective vision with communities to link green corridors and connections between green spaces for people and wildlife.



Photo Credit: Mary Hardcastle.

5. Community Managed Open Spaces include community gardens, pocket parks and other open spaces managed by residents.

how we'll measure success:



Number of residents reached annually through organized programs; specifically track youth exposure and engagement



Number and distribution of natural areas, lots, and acres of land that are transformed into well-maintained gathering spaces, gardens, parks, quiet places, and play spaces



Number of acres and distribution of land conserved (including easements, land trusts, parks, and Community Managed Open Spaces) and maintained both publicly and privately



nature in the city

Nature for Nature's Sake

Biological diversity makes our ecosystems more resilient.



THE BIG PICTURE

A natural system is a collection of interdependent organisms existing together. A forest, for example, is a natural system, as all of the trees, plants, animals, and other organisms live and interact together. What affects one, can affect all. A diversity of trees, shrubs, and flowers are necessary for birds, butterflies, and other wildlife for food, shelter, and breeding.

In cities, natural environments are fragmented into many small patches or mosaics. Human activity creates more patches of habitat that are smaller in size; the length of the “edge” of each patch is also greater than in undisturbed areas, which benefits species that thrive at edges, like white-tailed deer and invasive vines, but harms certain birds, native plants, and other species that require larger interior habitats. As human activities create a more fragmented environment, it becomes increasingly important to create linkages between natural areas. Preserving forests and creating gardens can help. Even small green spaces, when planted with native species, can support biodiversity.

This work of creating green space can, however, be a gentrifying force. An equity lens calls for connections and interactions between people and nature to be made with the intentional integration of sustainability and social justice.¹ When visions and plans for greening are done in partnership with local communities—and better yet, employing or transferring some local economic benefit to residents—robust buy-in and long lasting outcomes can improve quality of life for everyone, including our natural systems.



IN BALTIMORE

Protecting the plant and animal species in Baltimore is necessary for the health of our ecosystems.

Baltimore is teeming with wildlife. Nearly 100 species of birds have been spotted in and near our waterways, as well as in our forested areas. The city is part of a unique collection of ecosystems that includes four watersheds (Gwynns Falls, Jones Falls, Herring Run, and Back River) and the Chesapeake Bay. These ecosystems support wildlife and pollination, and provide flood control and air filtration. It is critical that we protect and enhance the entirety of species that keeps these systems healthy, as represented by our beloved black-eyed susans, orioles, and blue crabs. A vital part of protecting these systems is creating, managing, and protecting habitat, with an emphasis on managing the invasive species² that threaten local plants and animals.

Urban farms and native gardens are springing up across the city, which can be a positive step toward habitat protection. But as the number of healthy, quality green spaces grows, potentially regenerating neighborhoods, we must actively avoid physical and cultural displacement, particularly around large-scale projects. A regional partnership of public, private, and nonprofit organizations connects people to green spaces and promotes equity, discovery, biodiversity, and resilience. Continuing to open the dialogue

FAST FACT:

Masonville Cove Environmental Education Center is a restored saltwater tidal wetland and environmental education center in South Baltimore. It contains 70 acres of water, 54 acres of wetlands, and a protected bird sanctuary. It was designated as the first Urban Wildlife Refuge Partnership in the country.

by bringing in more voices who have different perspectives will provide significant opportunities to shape our concepts of nature.



STRATEGIES & ACTION

1. Increase restoration, creation, and maintenance of habitat for native species on public and private land; ensure it is done in culturally competent ways with early and frequent engagement.

Action 1:

Expand habitat for pollinators and other wildlife such as aquatic wildlife, soil invertebrates and more, by creating, restoring, and maintaining natural areas, recognizing that one third of our food supply relies on pollinators. For example, create meadows with large plantings that support pollinators³ and create a policy to permit intentionally growing grass.

Action 2:

Explore the development of a management plan that would identify existing and future threats to our natural resources to increase the resilience, adaptability, and biological integrity of our natural areas. Assess vulnerabilities by considering current and potential impacts of climate change and delineate strategic actions to protect and enhance natural resource resilience.

Action 3:

Link natural systems within the city, and to the regional network, in order to improve the overall capacity of these systems to support flood control, air filtration, and other services.

2. Encourage and increase sustainable land management policies and practices on public and private land, taking into account the context of surrounding neighborhoods and the impacts to residents.

Action 1:

Complete Forest Management Plans for the largest forested parks, with an emphasis on choosing a diversity of trees, plants, and shrubs that feed pollinators and wildlife through the seasons. Also identify additional natural systems areas for future management plans. Ensure early and frequent engagement from local communities.

Action 2:

Implement invasive species management for both plants and animals in and outside of parks. Consider adopting an ordinance requiring control of listed priority invasive species, and/or enact a preferred plant ordinance for public and private landscaping. Species of concern include English ivy and white tailed deer.

1. <https://theecologist.org/2017/jul/11/special-report-growing-importance-urban-biodiversity>
 2. Invasive species can be any kind of living organism—plant, insect, fish, fungus, bacteria, or even an organism's seeds or eggs—that is not native to an ecosystem, and that causes harm. They can harm the environment, the economy, and human health.
 3. Honeybees and many wild bees are "bloom specific," and so need large areas of the same species of plant for food. Pollinator-friendly gardens are pesticide-free and provide food, cover, and habitat for honeybees, native bees, and monarch butterflies. More than 85 percent of flowering plants require an insect for pollination (and, accordingly, for the survival of the species).
 4. The Precautionary Principle states that policies and actions should protect people and nature from harm by requiring the safety of any product to be proven before it is used or handled (rather than removing a product after it is proven).

Action 3:

Develop and implement organic land care policies and/or plans, requiring the use of safer, non-chemical alternatives to chemical fertilizers, pesticides, and herbicides, and increasing use of organic land care. Adopt and follow the Precautionary Principle.⁴

3. Increase the acreage of maintained and protected land.

Action 1:

Develop workforce training programs for residents to restore and protect natural resources that lead to resident employment while actively avoiding community displacement.

Action 2:

Identify mechanisms to ensure protection and maintenance of habitat areas on public and private lands, in perpetuity.

Action 3:

Acquire and maintain permanent green spaces. Assess the potential for requiring natural spaces and onsite quality-of-life amenities in development plans. Requirements may include the creation of parks, trails, and open spaces, as well as payments into an account used to create and maintain open spaces.



how we'll measure success:



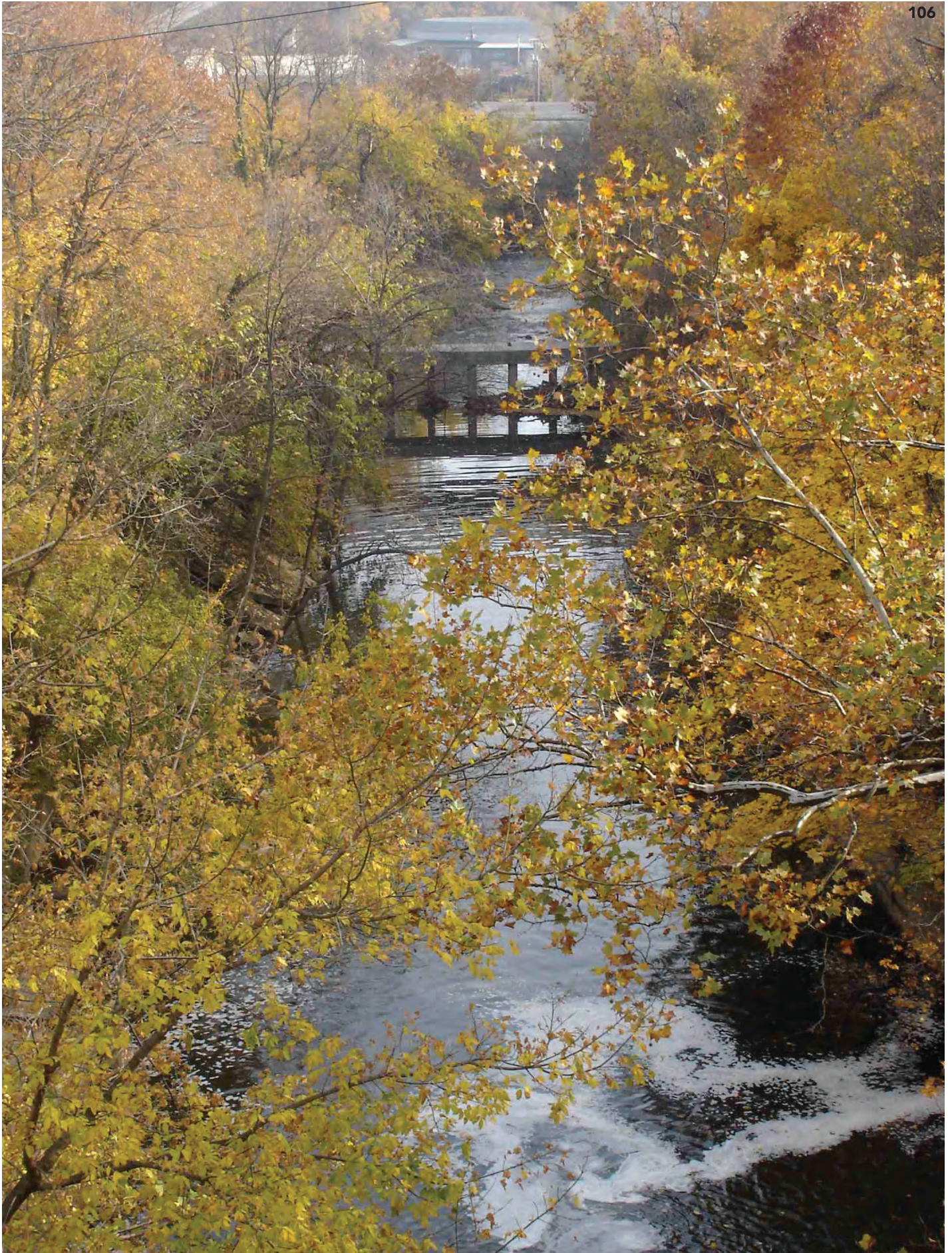
Acres of habitat restored, created, and maintained



New policies and/or plans to require use of safer, non-chemical alternatives to chemical fertilizers, pesticides, and herbicides and to increase use of organic land care



Number of natural areas that are a) located in areas with demand for redevelopment and b) protected through the development review process





nature in the city: **Trees and Forests**

A city filled with tree-lined streets throughout all neighborhoods.



THE BIG PICTURE

Trees are essential to healthy, vibrant communities. Trees heal: simply looking at trees reduces stress levels, even in the middle of a bustling city. Trees buffer noise, soften hard edges, provide shade in the summer and a buffer against wind in the winter, and even reduce incidences of crime. They can also provide food, in the form of fruits and nuts. A leafy, green canopy acts as an air conditioner for the city, as their shade counteracts the “heat island” effect of concrete surfaces absorbing sunlight. Trees help clean the air by absorbing odors and pollutant gases, and their root systems play a crucial role in slowing and absorbing stormwater. Trees contribute toward strengthening neighborhoods and the economy. For all of these reasons, an abundance of well-maintained trees contributes to improving our quality of life—while importantly, providing habitat for wildlife that might not otherwise be in our urban environment.



Please plant trees if possible — the block looks so bad without trees, and I am doing everything to help the block and Baltimore look better.

- Resident of Southwest Baltimore



IN BALTIMORE

We need to protect Baltimore’s existing trees and greatly increase their number to make our neighborhoods more comfortable, livable, and sustainable.

Baltimore’s tree canopy—a measure of the proportion of the city shaded by trees—recently increased from 27 percent to 28 percent. That’s an increase of 2,000 acres, although it remains well below Baltimore’s citywide goal of 40 percent tree canopy coverage. In many low-income neighborhoods densely populated by African-American and Spanish-speaking residents, the tree canopy is closer to six percent, while it reaches nearly 50 percent in more affluent neighborhoods. This disparity in tree canopy impacts quality of life: areas with fewer trees have more surface area covered by concrete and other hard surfaces, which contribute to higher summer temperatures associated with adverse health impacts.

TreeBaltimore, a city-led, public-private partnership, calls everyone to plant and care for trees and supports efforts to expand our canopy. With the help of engaged volunteers and committed research partners, nonprofits, and businesses, TreeBaltimore is beautifying all of Baltimore while focusing on neighborhoods with the fewest trees, and addressing vital public health issues in the process¹.

¹ <https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/washington/outside-our-doors-report.pdf>

FAST FACT:

An average-sized tree produces enough oxygen for a family of four.



STRATEGIES & ACTION

1. Plant and establish more trees ensuring equitable planting distribution.

Action 1:

Continue prioritizing, planting, and caring for trees. Create more tree wells. Ensure that existing and new tree wells are as large as the sidewalk allows while meeting the current four-foot-by-eight-foot size standard, and expand the standard.

Action 2:

Expand the call-to-action to plant and care for trees. Under the umbrella of TreeBaltimore, engage more residents and local organizations into a unified advocacy platform that reaches residents, politicians, and funders. Deepen and expand partnerships with residents and organizations in neighborhoods with the fewest trees to gain support and guide the process.

Action 3:

Insure a diversity of tree species. Emphasize the use of native plants and planting “the Right Tree, in the Right Place.” Consider future climate conditions in plantings.

Action 4:

Create a workforce development program employing residents to plant and care for trees and forests. Train and hire neighborhood residents and engage employers in hiring graduates of these programs for jobs that pay a living wage and provide a career ladder for advancement.

2. Assess and manage the city’s tree canopy for long-term health.

Action 1:

Assess forests in all large parks and utilize the street tree inventory and tree canopy change data as a management tool to proactively plan, prioritize, and track plantings and tree care.

Action 2:

Create and implement plans to reduce harm to trees from invasive plant and animal threats, like the emerald ash borer and white tail deer, as well as from climate change.

Action 3:

Develop unified, long-term strategies to increase support and funding for managing forests and forest patches, and for planting and caring for trees.

Action 4:

Develop and implement policy to manage parks to ensure tree-protective language is placed in all contracts and plans, and include best management practices and standards for invasive management, reforestation, and restoration.

3. Preserve the city’s existing tree canopy.

Action 1:

Classify trees and forests as public infrastructure, similar to (and as valued as) sidewalks and street lights.

Action 2:

Adopt a tree ordinance to preserve trees and forests on public and private property.

Action 3:

Investigate the creation of a forest land-banking credit program and other methods for supporting and promoting forest preservation, such as land trusts and permanent easements.

Action 4:

Investigate a mechanism for monitoring long-term forest protection on public and private property to preserve and improve the health of forests.

Action 5:

Prioritize the Proactive Neighborhood Pruning Program, utilizing the tree inventory and basing rank on maintenance need. The goal is that every neighborhood receives tree maintenance on a five-to-seven-year rotation, and every tree above five inches circumference is pruned or removed to ensure trees remain healthy.



how we'll measure success:



Active management of 75 percent of forests and trees by 2030



Number of acres of controlled invasive species management and subsequent reforestation

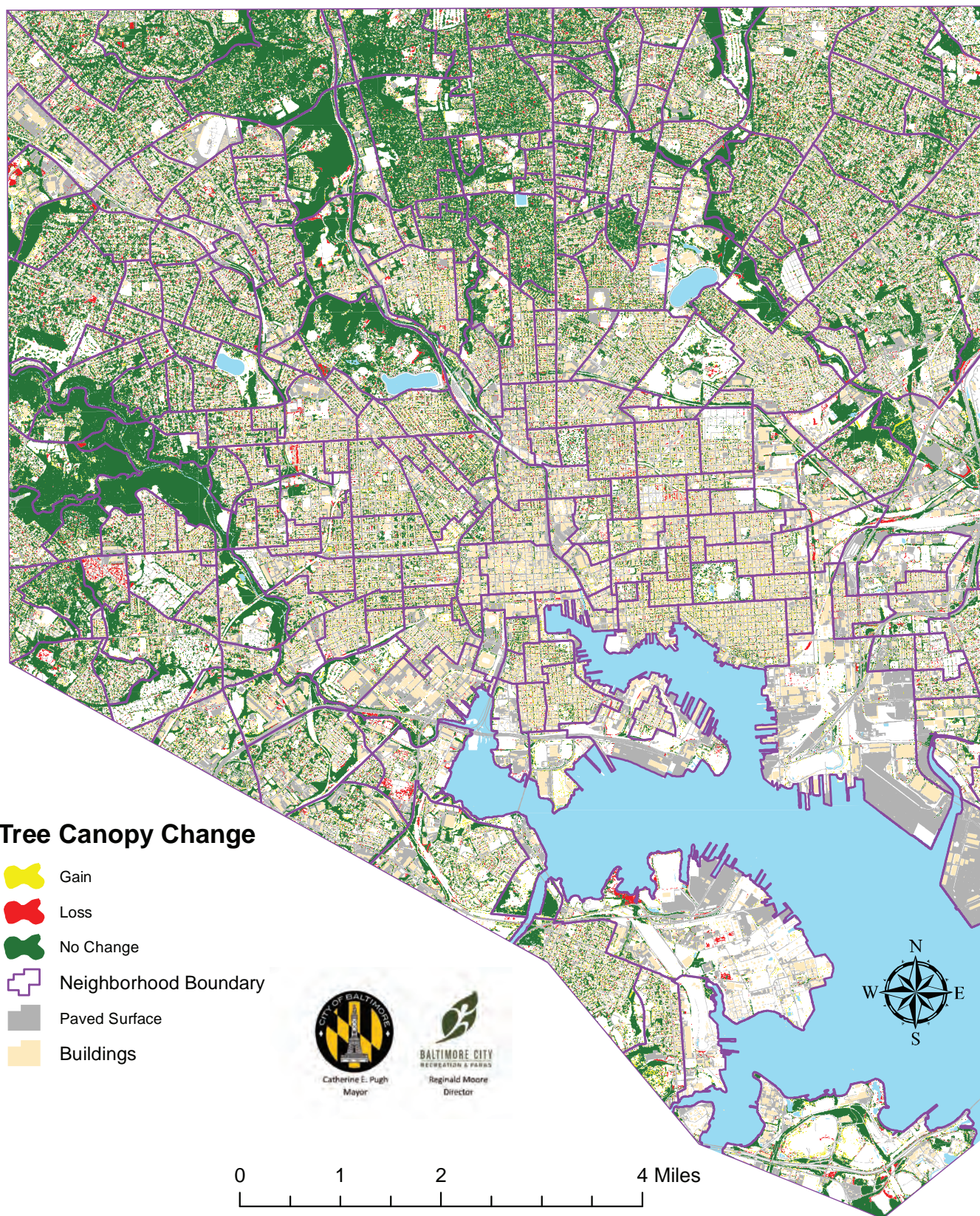


Number of trees planted by neighborhood and percent of trees maintained for two years



Percent of area covered by trees

Tree Canopy Change 2007 - 2015





nature in the city: **Water in the Environment**

Clean water is a foundation for a flourishing, prosperous city.



THE BIG PICTURE

Our cities were founded along navigable waterways that served as highways for commerce and connection. Today, clean water is still critical to local economies as well as to public health. Contaminated water can cause illness, and polluted water results in a loss of access and enjoyment of our waterways and lost revenue opportunities. Ultimately, improving water quality contributes to economic, environmental, and public health, and overall happiness. Feeling connected to water is a vital factor in how we interact with and care for our waterways.



IN BALTIMORE

Pollution in Baltimore's streams hurts our ecosystem and prevents us from enjoying these natural, historic parts of our city.

Historically, Baltimore was crisscrossed with an abundance of streams. Today, many of them are piped underground. Where they do flow above ground, public contact restrictions, pollution, and fish consumption advisories prevent residents and visitors from enjoying and interacting with them. Three main streams remain, each running through one of our big parks: the Herring Run, the Jones Falls, and the Gwynns Falls, but many of us are not even aware that these waterways exist.

Leaking pipes discharge untreated sewage into storm drains and streams. In addition, rainfall carries sediment, litter, and contaminants from roads, alleys, and parking lots into the City's storm drain system. These pollutants are not filtered out or treated—they discharge directly into Baltimore's streams and harbor.

There is good news. The City modified an agreement with regulators to prioritize repairs to old sewage infrastructure and eliminate releases of sewage into our waterways. Baltimore has more than 1,500 miles of sewage pipes to inspect, repair, improve or replace. Every bit of progress will help improve our streams and the harbor.

FAST FACT:

Baltimore’s solar-powered “Trash Wheel” innovations (including Mr. Trash Wheel, Professor Trash Wheel, and Captain Trash Wheel) have collected 1.5 million pounds of litter and debris in the Jones Falls—including almost 10 million cigarette butts. .

Our streams and rivers literally cross boundaries as they travel through the city. To protect and enhance these assets, we must cross boundaries, too—as representatives of neighborhoods, business, government, and nonprofits—to improve waterways for the benefit of our economic, social, environmental, and collective health.



STRATEGIES & ACTION

1. Increase positive and safe connections to public waterways, along with awareness of how litter and other pollutants enter them.

Action 1:

Connect more people to water in safe ways via fishing, boating, and activities at the water’s edge so they can relax, reduce stress, and enjoy nature. Identify and address concerns and barriers to achieving meaningful engagement with water bodies. These may include geographic, economic, historical, linguistic, cultural, institutional, or other barriers.

Action 2:

Increase education and pursue progressive actions to reduce pollutants entering our waterways. For example, consider an awareness campaign to reduce litter and pet waste and encourage proper disposal of fats, oils, and grease. Also expand efforts to train volunteers on reporting suspected sewage leaks.

Action 3:

Develop a combination of incentives and deterrents aimed at industrial, commercial, and institutional

property owners to reduce pollution impacts, such as promoting innovative financing mechanisms for investment in water quality, developing a recognition program, and proactively pursuing enforcement against “bad actors.”

Action 4:

Foster cross-jurisdictional partnerships to address water quality, water access, and increased healthy habitat for fish and other aquatic life, and to coordinate meaningful engagement with residents.

2. Improve aquatic habitats by increasing riparian restoration and water quality monitoring, and creating policies to eliminate sources of pollution.

Action 1:

Increase restoration of riparian corridors, and pursue other innovative habitat restoration such as floating wetlands, living shorelines, and oyster gardens. Consider small-scale and block-level greening projects in tandem with educational, stewardship, and social fabric building activities.

Action 2:

Remove invasive species along waterway buffers, replant with native species, and increase resources for management and maintenance. Promote awareness in neighborhoods surrounding projects.

Action 3:

Identify, prioritize, and remediate sources of human fecal bacteria in waterways using the best available technology, including microbial source tracking techniques.

Action 4:

Develop and promote legislation and policy at the City and State level to reduce pollution of our waterways, including restricting the use of pesticides and herbicides and reducing the use of single-use plastics (such as plastic bags and beverage bottles).

3. Ensure access to safe and affordable drinking water.

Action 1:

Improve watershed management for the City's three raw water reservoirs, by developing and implementing a forest management plan for each. Work with surrounding jurisdictions to improve land-use controls and watershed management in the three watersheds.

Action 2:

Evaluate the potential for water re-use. Secure grant funding to identify potential incentives, and work with partners to implement a pilot incentive program to promote water re-use.

Action 3:

Promote assistance programs for low-income residents and seniors by connecting those needing assistance to programs providing water bill assistance.



Photo credit: Waterfront Partnership of Baltimore

how we'll measure success:



Number and demographic makeup of participants at programs on the water's edge



Total area of invasive species removal and native species plantings along waterways and shorelines



Amount of nutrients and sediment in waterways (using State-approved protocols)



Photo credit: Mary Hardcastle

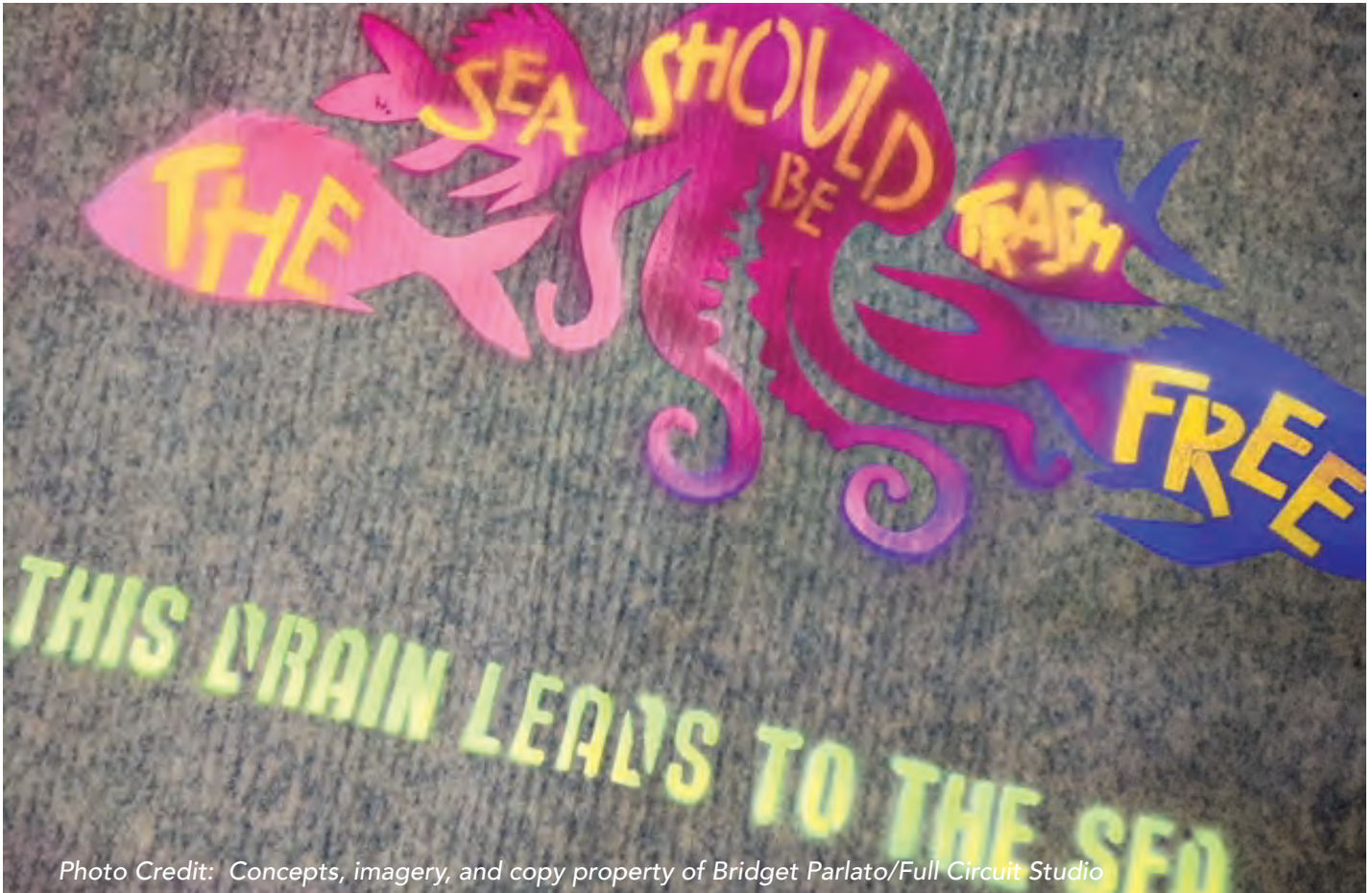


Photo Credit: Concepts, imagery, and copy property of Bridget Parlato/Full Circuit Studio



nature in the city: **Green Infrastructure**

Open spaces that beautify neighborhoods, increase resident comfort, and contribute to healthy water ecosystems.



THE BIG PICTURE

Green infrastructure practices decrease noise and air pollution, cool down cities, and create opportunities for safe recreation and the corresponding jobs. And, seeing green actually makes people happier, improves their quality of life, and contributes to a greater sense of community.¹ Further, green infrastructure can contribute to stormwater management. When rain runs off impervious surfaces such as sidewalks, streets, and roofs, it collects a wide range of toxic pollutants, sediments and trash, which it carries, untreated, into local waterways. Green infrastructure is a way of cleaning and slowing down rainwater by planting trees and rain gardens, which also creates a diverse habitat for native birds, butterflies, and insects as well as humans. Green infrastructure also involves removing impervious surfaces like asphalt, concrete, and greening rooftops to reduce flooding and allow rain runoff to soak back into the soil. This approach to managing rain water protects, restores, or mimics the natural water cycle.



***Further investment in West Baltimore...
Demolish vacant buildings and put in
more green spaces.***



- Resident of Hollins Market



IN BALTIMORE

Baltimore can transform vacant lots into community green spaces that also help clean and protect our waterways.

As Baltimore has developed, our forests and fields have been replaced with hard surfaces like concrete and asphalt. This is typically more problematic in neighborhoods plagued by litter and dumping, and results in frequent reports of clogged storm drains.² Problems stemming from trash-filled storm drains, pollution, and flooding also compound in neighborhoods with fewer street trees and more infrastructure in need of repair. The installation of green infrastructure that is well-maintained can address economic, social, and environmental challenges by increasing both green space and job opportunities.

By law, Baltimore is required to remove pollutants and contaminants that stormwater picks up in our neighborhoods before it enters our waterways. To this end, the City adopted a revised Stormwater Management ordinance³ with the goal of using Environmental Site Design⁴ to the maximum extent practicable. The City also developed plans⁵ which outline

FAST FACT:

The Baltimore Green Network Vision Map, available online, shows where neighborhood residents, the City, and public and private partnerships plan to create and maintain new green infrastructure projects.

Visit BaltimoreGreenNetwork.com to learn more.

steps to restore 20 percent of the City's impervious surface area to natural landscaping, by removing pavement or implementing treatments that absorb stormwater. Meeting this goal requires treating 4,291 acres of impervious surface—the equivalent of 2,000 row house blocks. In addition, the Baltimore Green Network ⁶ supports the implementation of green infrastructure on vacant lots created by the demolition of vacant buildings.



STRATEGIES & ACTION

1. Increase green infrastructure throughout the city, targeting neighborhoods with limited access to large parks and green spaces and high disparities in health outcomes.

Action 1:

Evaluate an Offsite Stormwater Mitigation Credit or Pay for Performance program,⁷ determining interest, demand, and feasibility, and then establish programs as appropriate.

Action 2:

Create standard design specifications and a streamlined permitting process to implement green infrastructure practices particularly for projects under 5,000 square feet.

Action 3:

Support and expand programs to establish and maintain green infrastructure on private property, including incentives as well as free and/or reduced-cost materials.

Action 4:

Create a coordinating committee to evaluate and improve policies, processes, roles, and site evaluation for green infrastructure on public property. Ensure engagement from those who will be most impacted, and follow best practices in transparency for all processes of the committee.

2. Ensure green infrastructure is functional, proactively maintained, and an asset to neighborhoods.

Action 1:

Create a green infrastructure workforce development program based on a study of best practices. Recruit neighborhood residents to participate, providing jobs and encouraging neighborhood pride; engage employers to hire program graduates to living wage jobs.

Action 2:

Seek funding to develop stewardship models and recruit neighborhood residents to maintain and monitor projects using these models.

1. <http://water.bnajfi.org/>

2. <https://publicworks.baltimorecity.gov/pw-bureaus/water-wastewater/stormwater>

3. "Environmental site design" means using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. https://definedterm.com/environmental_site_design

4. <http://publicworks.baltimorecity.gov/sites/default/files/Baltimore-City-MS4-and-TMDL-WIP-Rev-August-2015.pdf>

5. <https://planning.baltimorecity.gov/green-network-plan>

6. <https://www.nrdc.org/sites/default/files/stormwater-credit-trading-programs-ib.pdf>

7. <https://www.enviroaccounting.com/payforperformance/Program/Home>

Action 3:

Create a database of green infrastructure sites identifying all parties who are responsible for their funding and maintenance.

Action 4:

Create a standard agreement for green infrastructure to be sited on public property but maintained by non-City entities; create standards that those outside entities need to meet, to ensure all green infrastructure continues to function per its design.

Action 5:

Analyze displacement pressures that new green investments may have on low-income communities and include strategies to mitigate impacts.

Action 2:

Create demonstration projects on public land, along with educational signage. Ensure that they are all continually maintained.

Action 3:

Create, maintain, and promote the use of educational mapping tools such as printed maps and brochures, mobile apps, presentations, and tours. These can provide locations and explain benefits of green infrastructure.

3. Increase awareness of stormwater runoff and the benefits of green infrastructure.

Action 1:

Ensure design and location of green infrastructure practices are appropriate within the neighborhood context by engaging community members early in planning processes.

how we'll measure success:



Acres of impervious surface removed



Number and square feet of green infrastructure projects implemented



Amount and geographic distribution of funding provided for environmental stewardship and maintenance to public-private partnerships



Photo credit: National Wildlife Federation



Photo credit: Blue Water Baltimore





Economy

Local Economy

Workforce Development

Arts & Culture



economy: **Local Economy**

More for more of us.



THE BIG PICTURE

A local economy is a catalyst for attracting new residents and retaining longtime residents, for fostering job creation and entrepreneurship, and for stimulating new investment. Producing and selling local goods and services strengthens local employment and builds community wealth by ensuring that money spent in a city stays in the city. By pooling capital and human resources and expanding new models of economic development and wealth creation that leverage local assets and spending power, opportunities can be created for local residents and businesses. Growing local economic opportunities that embrace the triple bottom line—people, planet, and prosperity—contributes to economic growth, social equity, and resilience.



The Made In Baltimore pop-up store was an amazing opportunity for my company to reach into the retail market. Before this year I was running [my business] part time and only taking small print jobs here and there. From everything I've learned, I'm now confident taking on larger print runs and seeking out more brick-and-mortar stores to sell in.

- One of Baltimore's many small business owners and minority entrepreneurs



IN BALTIMORE

Our city is filled with entrepreneurs and small businesses who are poised to create more jobs and community-based wealth.

Baltimore's unemployment rate has steadily declined from its 2010 high. At the end of 2017, unemployment was at a low of 5.8 percent. Yet even with these significant gains, the rate for black residents remains three times higher, at 15.9 percent. The median income for black households in Baltimore is about half that of white households, and 70 percent of black residents who are older than age 25 do not have a college degree. This is a barrier to many of the mid-to-high-paying job opportunities in growing sectors like healthcare and financial services. In Baltimore today, more than 50,000 firms employ 314,000 individuals. Of these businesses, 23,600 are held by black owners, who employ just over 6,247 individuals - a small share, but a growth opportunity for Baltimore. Minority-owned businesses are an important economic strength for Baltimore.

FAST FACT:

More than half — 55 percent — of the businesses that have received “Made In Baltimore” certification are owned by women.

They are growing in number, but they need support in growing to scale—a step which leads to even more local jobs and economic resilience.

Inclusion strategies by both the public and private sectors provide access to financing for small businesses. They can spur investments in early-stage companies, increase programs to develop small-business opportunities, and help minority- and women-owned firms obtain needed funding. More needs to be done. Working together, Baltimore’s business community can grow living-wage job opportunities for unemployed and underemployed residents and specifically for black candidates. The light manufacturing, transportation, and logistics sectors are fields that are economic strengths and hold promise to connect good paying jobs to those without college degrees. Sustaining a strong, growing, local economy lifts the entire city.



STRATEGIES & ACTION

1. Proactively support local businesses to advance the triple-bottom-line approach: people, planet, and prosperity.

Action 1:

Set purchasing preferences and supplier diversity goals with businesses, anchor institutions, government, and others to invest and buy locally.

Action 2:

Grow cooperative business models run and operated by the people who work in them, as an innovative and inclusive vehicle to overcoming economic and social inequity.

Action 3:

Expand the adoption of environmentally-friendly business practices, such as the use of green technologies, policies, and programs—reduced packaging, reuse and recycling of materials, energy reduction and renewable energy. Also promote the Maryland Green Registry.¹

2. Build the capacity of local manufacturers and entrepreneurs through access to resources, technical, and financial assistance, and a supportive policy and investment environment.

Action 1:

Provide support services to grow businesses, help develop new market channels, improve access to affordable and safe production spaces, and enhance retail and sales opportunities. Support and encourage minority business ownership in sectors with economic strength.

Action 2:

Build the capacity of Made in Baltimore and other entrepreneurial support organizations to create supportive networks and prosperous business environments for emerging entrepreneurs while increasing neighborhood-based small manufacturing businesses.

Action 3:

Advocate for state and local policies such as tax exemption programs that support manufacturers and owner-operated business. Review regulations related to home-based businesses, and regulations related to reinvesting in older manufacturing facilities. These include, but are not limited to, preserving light-industrial zoning.

1. The Maryland Green Registry is a free, voluntary program offering tips and resources to help businesses and other organizations set and meet their own goals on the path to sustainability. <https://mde.maryland.gov/MarylandGreen/Pages/Home.aspx>

3. Ensure historically underrepresented groups share in the city's economic prosperity by strengthening the capacity of and purchasing from small, local, minority-owned, women-owned, and cooperatively owned businesses.

Action 1:

Continue to address needs unique to minority- and women-owned businesses by supporting existing programs and developing new programs and strategies. These include access to capital and equity investments, technical assistance, and program marketing.

Action 2:

Continue to align Baltimore City's MBE/WBE certification with the State of Maryland's, assist more companies in attaining certification, and prepare more

companies for opportunities at both levels. Improve tracking and transparency of city agency spending and encourage large businesses and anchor institutions to set minority-owned business goals and to track spending.

Action 3:

Promote increased access to alternative sources of financing and technical assistance to support social enterprises and community wealth-building strategies.

Action 4:

Create and adopt an economic plan that supports local production, purchasing, and exporting strategies; addresses training on inclusion and bias and increases access to job training and living-wage jobs. Promote hiring practices to equitably include more women; more people from racial, ethnic, and religious minorities; and more LGBTQIA, differently-abled, and formerly incarcerated people.



Photo Credit: Made in Baltimore

how we'll measure success:



Number of businesses and institutions that have set or expanded buying preferences for locally owned or minority- and women-owned businesses (and/or have provided additional support and funds to these priority business groups)

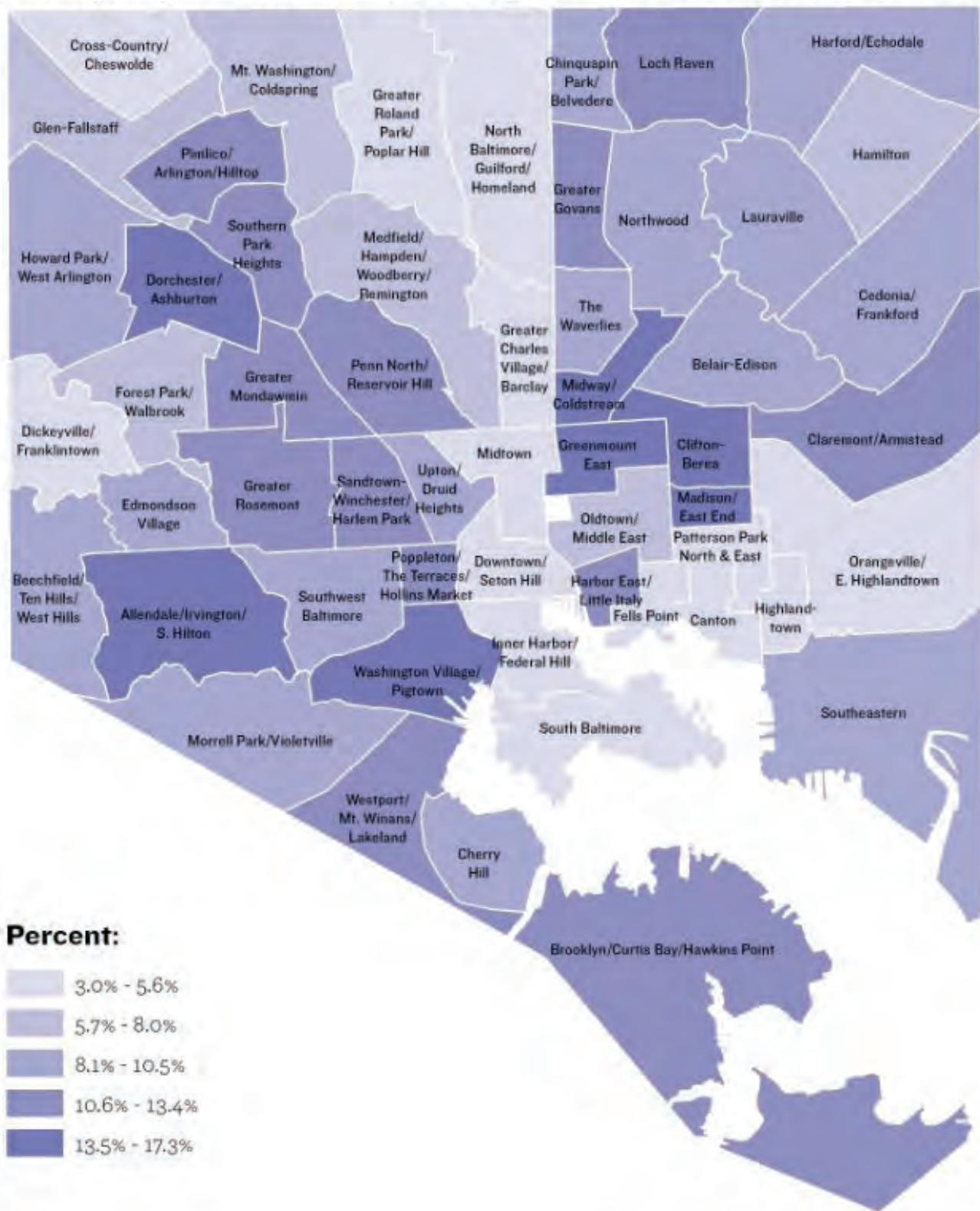


Total amount of City contract dollars awarded to minority- and women-owned and local firms (as a percentage of total contract dollars)



Total number of minority-owned businesses registered in the City

Percent Population 16-64 that is Unemployed and Looking for Work, 2012-2016





economy: **Workforce Development**

Career potential is maximized by every resident, and every employer has the human resources needed to prosper

THE BIG PICTURE

The biggest barrier to household stability is not having a job. Quality, living-wage jobs are an important piece of the puzzle so that everyone can provide for their household. A city's workforce must also be well-trained, prepared, and connected to job opportunities. Employers, residents, governments, and other stakeholders all have a role to play by collaborating transparently to eliminate barriers to employment.

People with a history of incarceration, those who lack adequate education, language skills, or training, and those who are underemployed rarely benefit from positive employment trends. Investments in the workforce can make a city more sustainable by bolstering residents' financial stability and resilience and by driving the local economy. Those investments must meet people "where they are," providing services directly tailored to those who are often excluded from the traditional job market.

“Job training for youth. [And] give community people jobs to feel better about themselves.”

- Long-term resident of Sandtown-Winchester shares her perspective on making the city better

IN BALTIMORE

By looking beyond the unemployment rate, Baltimore can create the economic change it needs.

While Baltimore currently has a low overall unemployment rate, the rate among African Americans is more than double. People of color are disproportionately impacted by the criminal justice system, and criminal records can lead to employment discrimination. Baltimore is home to a large number of formerly-incarcerated people, almost 9 out of 10 of whom are African American. Education is a further factor, as 75 percent of adults in the city lack a college degree and 25 percent lack a high school diploma. This statistic is even more urgent because research by the Opportunity Collaborative suggests that more than half of the jobs expected to be created by 2020 will require a high school diploma—and virtually all of

those that don't require a college education pay less than a living wage.

Baltimore is making strides. Baltimore has customized and on-the-job training programs, apprenticeships, digital learning labs, and GED classes. The

FAST FACT:

The unemployment rate is especially high for young people in Baltimore, where 16% of people age 20–22 and 15% of people age 22–24 are unemployed.

Mayor's Office of Employment Development and the Baltimore Workforce Development Board are working together, in partnership with other agencies and a myriad of nonprofits, to build a citywide workforce system. The City has growing fields in sustainability and the green economy: solar and clean energy, weatherization and energy efficiency, environmental remediation, home improvement, deconstruction and recycling, and green construction and infrastructure. This type of site-based localized work is done almost entirely by local businesses and nonprofits who run workforce development programs, annually training and placing underemployed residents in solar, weatherization, and environmental remediation jobs. Green jobs support the sustainability goals of supporting people, the planet, and our prosperity all at one time.



STRATEGIES & ACTION

1. Collectively integrate and streamline the delivery of green workforce services to increase employment and self-employment, and help close the equity and opportunity gaps for Baltimore's low-income, African-American, and minority residents.

Action 1:

Expand green job training programs for the unemployed, underemployed, and those facing barriers to unemployment in areas such as clean energy, energy efficiency, energy auditing, green infrastructure, and waste. Build people's skills, qualifications, and credentials to succeed.

Action 2:

Ensure green jobs are part of a larger, centralized case management system to help jobseekers find support services, while also tracking their progress. Establish clear points of entry for in-person, call-in, and digital jobseekers, so that they can easily find the support services and providers they need.

Action 3:

Ensure wrap-around services and support are built into green training programs. These services include developing basic interview and resume skills, providing test preparation and GED completion services, providing legal services and expungements, and offering support obtaining a driver's license and addressing transportation barriers. Help trainees establish a timeline of milestones to build financial security, including financial services education, credit building, tax preparation, and savings.

Action 4:

Ensure green jobs are part of a job-matching tool that will identify highly qualified and newly trained workers from all existing training programs. Develop a screening process and use this tool to fill job orders.

Action 5:

Increase the number of nonprofits and industry partners involved in green and sustainable jobs who are connected to the network of providers organized by the Mayor's Office of Employment Development, to integrate service delivery programs and share best practices.

2. Connect youth, young adults, returning citizens, and others who have limited work experience to green, work-based learning opportunities.

Action 1:

Fuse a relationship between Baltimore City Public Schools and green industries to promote experience, apprenticeships, paid jobs, and workforce industry relationships. Include a pilot program with high school seniors utilizing YouthWorks.

Action 2:

Promote city government workforce training programs that lead to jobs. Continue the Department of Public Work's Youth Water Mentoring Program and promote additional programs that provide on-the-job-training and support to equip youth with the skills needed to fill entry-level City positions, and to increase potential for advancement to meet the City's future workforce needs.

Action 3:

Collect common data points on green job seekers using the Mayor's Office of Employment Development's standard assessment tool. This data should be collected at every touchpoint, and then interpreted to identify program improvements.

Action 4:

Institute the use of common performance metrics by workforce providers and funders to start building lessons learned. Produce an annual report to track and share progress on these measures citywide. .

3. Increase emphasis on post-placement services, setting up newly employed residents for greater success in the long run.

Action 1:

Work with employers to find pathways, interventions, and service gaps in supporting workers in green and sustainability fields including career pathway programs, incumbent worker training, apprenticeships, and mentoring. Ensure feedback loops are intact so that training programs are responsive to employer needs and linked to living wage jobs.

Action 2:

Develop funding opportunities to support long-term engagement with people who come through job placement services, find a job, but are not supported beyond that milestone.

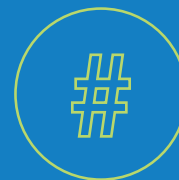
how we'll measure success:



Number and distribution of jobseekers in green industries that have been trained



Number and distribution of jobseekers successfully hired for green or sustainable jobs



Number of City agency and private partner programs that support, train, and place jobseekers in green and sustainable jobs



Photo Credit: Andy Cook



economy: **Arts & Culture**

An abundance of inspirational and engaging arts and cultural programs that reflect the diversity of Baltimore.



THE BIG PICTURE

Creativity is a key to sustainability. Within each of us lies a creative self. Through art we connect with one another and with new ideas. Art can act as a catalyst to stimulate discourse and foster change. When making big decisions—such as weighing the benefits of preserving biodiversity versus those of creating jobs—art can help us examine our values and enable us to discuss issues broader than just scientific facts. When residents are able to see and express their desires and values through local arts, they have a stronger voice in guiding their city's future. A strong city arts and cultural scene is one that is accessible to residents of all ethnicities, ages, and abilities. Art can provide a cultural shift to achieve a more sustainable city, and can encourage tourism, attract new residents, and serve as a positive driver of the local economy.



Art crosses all boundaries. Can we improve through art? Transformative art projects in our neighborhoods have had very positive impacts.



- 5-10 year resident of Hamilton



IN BALTIMORE

Baltimore focuses on equity and representation in its thriving art scene to build on its diverse past.

Baltimore has a long tradition of integrating art into civic life. Nicknamed the “Monumental City” because of its high number of public sculpture and monuments, the city is home to a wide variety of arts and cultural institutions—performance organizations and venues, an eclectic music and art scene, museums, colleges and universities, faith-based organizations, and cultural societies. Continuing in the rich history of jazz and other cultural phenomena made popular by black artists in the 20th Century,

and the diverse artistry of hometown talents such as Amy Sberald, John Waters, and countless others, the City maintains its commitment to invest in local arts through the Baltimore Office of Promotion & the Arts (BOPA). BOPA produces free citywide festivals, allocates grants to increase public access to

the arts, facilitates the creation and installation of public art, and hosts a youth-focused job training program. More recently, the City has focused on

FAST FACT:

From jazz composer Eubie Blake to painter Amy Sherald — whose portrait of Michelle Obama now hangs in the Smithsonian National Portrait Gallery — Baltimore has a rich history of performing and visual artists who have influenced art and culture around the world.

increasing equity in its investments in arts and culture, seeking to ensure that all communities contribute their voices and values to the art scene. There is a need to increase the funding available to artists and particularly those from diverse racial and socioeconomic backgrounds. One way this can be done, in part, is through the City's "1% for Art" ordinance, which requires that one percent of all capital construction costs be spent on creating and maintaining public art and art facilities—a requirement which is currently not being fully met.



STRATEGIES & ACTION

1. Create processes that ensure Baltimore's art institutions and organizations represent and engage audiences reflective of the demographics of the city.

Action 1:

Require publicly funded arts organizations to track audience engagement with the goal of engaging audiences representative of the demographics of Baltimore. Future funding should be contingent on meeting this goal, which may include increasing outreach to local artists of color, and to art organizations that serve younger and emerging artists across disciplines.

Action 2:

Increase artist-led decision making such as increasing representation on review committees, commissions, selection panels, festival planning committees, and more. The goal should be representation based on the racial demographics of the city.

Action 3:

Support and expand youth arts programs in areas of the city underserved by cultural institutions and programs. Provide resources to existing and emerging programs, such as marketing and communications support, additional staffing, funding, and free space for programming.

2. Invest in the economic and neighborhood development potential of artists and arts organizations.

Action 1:

Implement the recommendations of the Mayor's Task Force on Safe Arts Space, giving top priority to providing funding and free technical assistance to artist-run spaces so they may become code-compliant. Also make suitable, City-owned properties available at low- or no-cost for community-led arts programming, or for acquisition by arts organizations.^{1,2}

Action 2:

Host free or low-cost professional development and entrepreneurial workshops for artists and art-based organizations.

Action 3:

Fully implement the City's "1% for Art" program. Evaluate how the City could establish an "artist-in-residence" program, bringing artists to work within City agencies in order to share creative perspectives and propose innovative solutions. Also create new funding streams for arts programs.

3. Increase arts funding and ensure equitable distribution of publicly-supported arts funding opportunities.

1. <http://www.promotionandarts.org/arts-council/public-art>

2. https://www.baltimorecity.gov/sites/default/files/Final_Report_SASTF_12.18.2017.pdf

Action 1:

Equitably distribute funding to artists ensuring broader cultural representations. Increase dedicated funding for art, such as The Creative Baltimore Grant. Create and support social enterprises that would serve as platforms for artists of color to highlight, promote, share, and celebrate their work.

Action 2:

Require that publicly-supported arts grants be awarded to recipients who reflect the racial demographics of the City, and create new artist grant programs designed for non-Western artistic traditions.

Action 3:

Support spaces to encourage discourse by fostering nomadic and mobile pop ups and onsite art spaces.

Action 4:

Provide funding and support for local leaders from underserved neighborhoods to bring artists, arts organizations, and residents. Seek funding to support the exchange of ideas and experiences among local artists and those from out of town.



Photo Credit: Teaching Artist: S. Rasheem and 2018 Art@Work Park Heights team

how we'll measure success:



Amount of publicly-supported arts funding awarded to people of color, with the goal of award recipients reflecting Baltimore's racial demographics

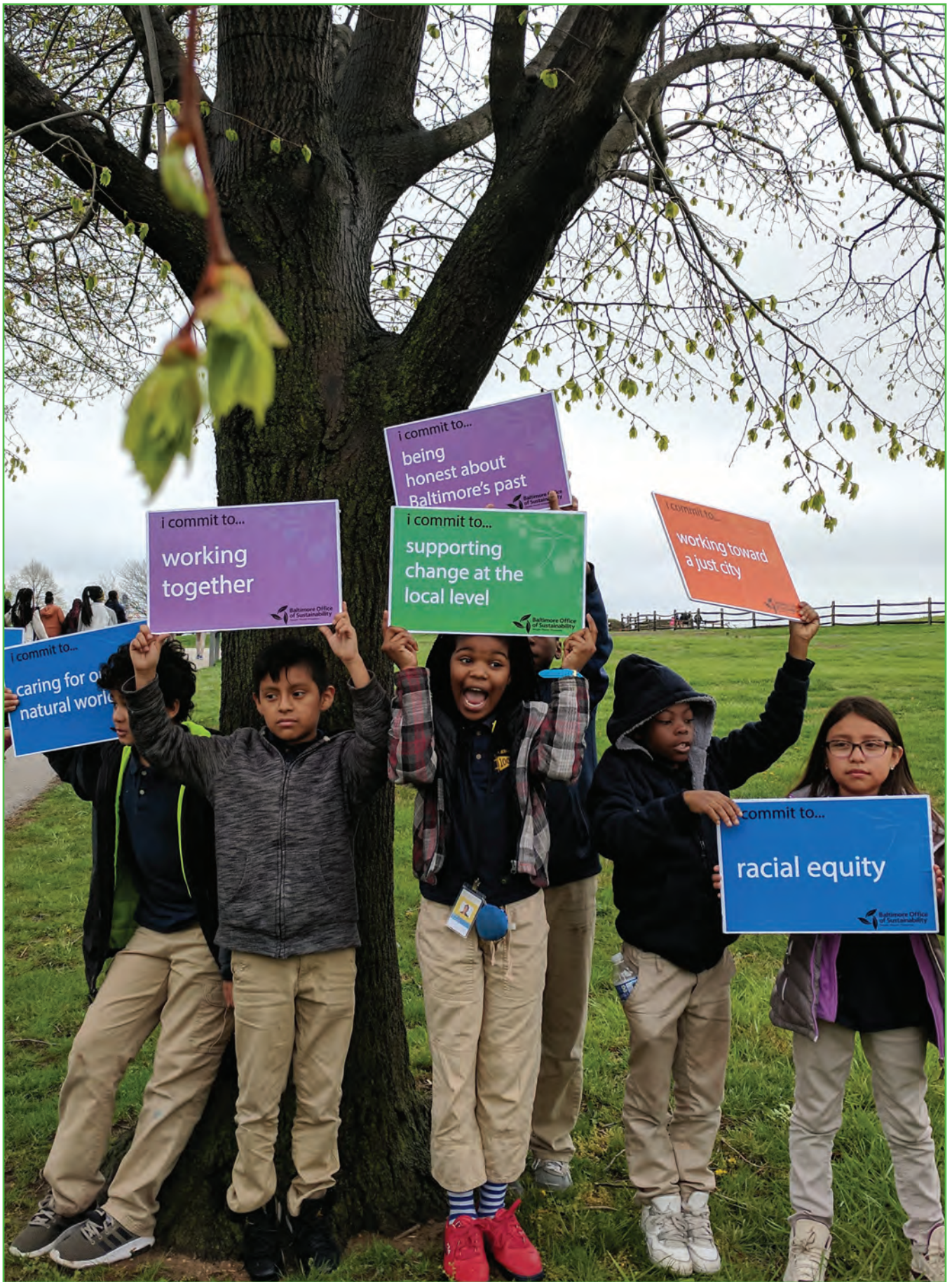


Number of artists of color participating in publicly supported arts programming, with a goal of representation that reflects Baltimore's racial demographics



Number of employees in the Creative Economy





i commit to...
working together

i commit to...
being honest about
Baltimore's past

i commit to...
supporting
change at the
local level

i commit to...
working toward
a just city

i commit to...
caring for our
natural world

i commit to...
racial equity

Equitable Implementation



Baltimore Sustainability Plan Guidance for Equitable Implementation

The Commission on Sustainability and the Office of Sustainability commit to more intentionally addressing implicit bias and removing barriers for racial and other marginalized groups. Our goal is to help eliminate the forces that create and sustain institutional¹ and structural racism² and other entrenched inequities in Baltimore. When discussing, creating, and implementing policy, projects, and programs, we commit to using our power to achieve racial equity.

Baltimore remains one of the most segregated cities in the United States, according to 2010 Census data. It is undeniable that historic policy and planning decisions created and exacerbated inequity and inequality in Baltimore. Policies to deliberately segregate white and black residents—such as restrictive covenants, the Federal Housing Administration’s openly racist system for mortgage loan approval, urban renewal, redlining, and other policies—directly contributed to many of the economic and social challenges Baltimore faces today.

The 2019 Sustainability Plan uses an equity lens to approach integrating social equity, the environment, the economy, resiliency, and regeneration. To continue this integration, this Guidance Document is a companion to the Sustainability Plan. Its purpose is to assist those who are implementing the Plan to do the work more equitably. It will carry forward the intention set through this Plan and provide a framework to incorporate equity considerations during design, planning, decision-making, and implementation processes, and to encourage accountability.

What is an Equity Lens?

An equity lens “leads” with a racial equity analysis to ensure that the impacts of institutional racism are considered. This analysis does not exclude other historically under-represented and under-served communities, but rather serves as a starting point; an analysis of inequities begins with racial equity because race is a predominant, but under-acknowledged, determinant of outcomes. Still, decisions regarding the development of policies, procedures, regulations, and plans, or issuance of permits, must consider the impact on all under-represented communities.

An equity lens is not intended to be a checklist. Rather, it’s a guide to inform project management decision-making, and a facilitation tool to support iterative learning and process improvement throughout the development and implementation of an initiative.

Equity Considerations³

The following equity considerations were identified as critical opportunities to advance equity through the Sustainability Plan. These considerations will be used as an initial framework to inform the Guidance Manual for any new project, and will help to uphold the Big Audacious Commitments.

A. Defining Project Purpose and Intent:

- a. What problem does this project aim to address? Define the benefits of the proposed action and how they can reduce historic or

current disparities.

- b. Did the interests of those who are under-served or under-represented help define the problem statement for this project?

B. Budget and Work Planning:

- a. How has the project budget been structured to support meaningful engagement?
- b. How has the project work plan been structured to support effective relationship building with under-served and under-represented communities?
- c. How will members of the community that have traditionally been involved in this work be engaged to advance equitable outcomes?

C. Relevant Data and Information Gathering

- a. What information exists from the community to help us understand existing conditions?
- b. Can the data available be disaggregated by race, income, geography, and other factors to understand how experiences differ between communities?

D. Inclusive Community Engagement:

- a. How have communities of color and other historically under-represented communities been engaged in the design of the process?
- b. Does the engagement promote an understanding of the audience in a meaningful, authentic, and culturally appropriate manner?
- c. How does the process help foster the building of effective, long-term collaborative relationships and trust?

E. Equitable Impacts Analysis

- a. **Accessibility:** In what ways are the benefits of the proposed action accessible to

households, organizations, and businesses throughout the community—particularly those organizations run by and for historically under-represented communities?

- b. **Capacity Building:** How does the proposed action help build community capacity through an expanded knowledge base, funding, or other resources?

- c. **Alignment:** How does the proposed action align with and support existing priorities of historically under-represented communities?

- d. **Disproportionate Impacts:** How does the proposed action generate burdens, either directly or indirectly, to groups whose life outcomes are disproportionately affected by structures in society? Are there opportunities to mitigate these impacts?

- e. **Economic Opportunity:** How does the proposed action support historically under-represented communities through workforce development, living wage jobs, small business, and/or contracting opportunities?

- f. **Displacement:** Can this action create destabilizing forces that could result in the displacement of a community? What actions would need to be taken to eliminate this threat?

F. Accountability

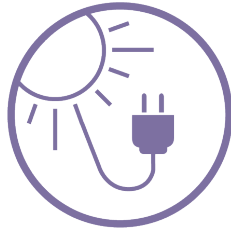
- a. How will impacts on under-served and under-represented communities be tracked and monitored?
- b. Throughout the work, what was the quality of the community's experience in being engaged?
- c. Are we measuring what matters?

¹ Institutional racism is the existence within institutions of policies or practices that result in different access to goods, services, and opportunities for different racial groups, specifically creating advantages for whites while disadvantaging people of color. Institutional racism affects where people live, the quality of the education they receive, their income, the types of food they have access to, their exposure to pollutants, and whether they have access to clean air and clean water. While many laws were passed in the mid-20th century to make discrimination illegal, major inequalities continue to exist in part because of institutional racism.

² Structural racism is when multiple institutions interact to both create and compound inequities experienced by communities of color.

³ These considerations have been adapted from the Government Alliance for Race and Equity's "Equity Toolkit" and the City of Portland's Bureau of Planning and Sustainability's "Equity Decision-Making Tool" and "Climate Equity Considerations."

What can residents do?



Community

Human-Made Systems

Climate & Resilience

Nature in the City

Economy

Neighbors
Offer to take a person experiencing homelessness to lunch

Neighborhoods
Talk (often) to your neighbors

Community Preparedness
Have a flashlight, water and a can opener on hand

People and Nature
Take a walk

Local Economy
Buy or sell locally produced goods and services

Environmental Literacy
Bring a child to a park

Housing Affordability
Support a low-income senior in reducing housing costs

Energy
Get a free energy audit

Nature for Nature's Sake
Stop using pesticides

Workforce Development
Hire, train or mentor a returning citizen

Healthy School Environments
Pick up litter around your local school

Buildings
Install energy efficient light bulbs and other equipment

Greenhouse Gas Emissions
Drive less, fly less

Trees and Forests
Plant and care for a tree

Arts and Culture
Visit a museum with a neighbor

Waste and Recycling
Buy less and recycle what you don't use

Transportation
Walk, bike or ride the bus instead of driving

Clean Air
Nurture a house-plant

Water in the Environment
Clear a storm drain of debris

Urban Agriculture
Support an urban farm

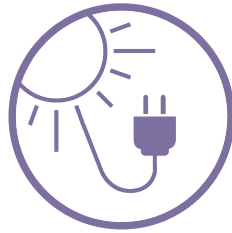
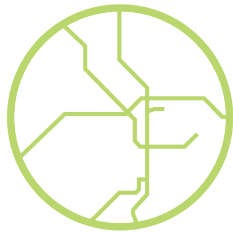
Noise
Silence your phone

Food Systems
Buy and eat local food

Green Infrastructure
Don't Pave. Plant

What can YOU do?

Write your own responses in the blank boxes below.



Community

Human-Made Systems

Climate & Resilience

Nature in the City

Economy

Neighbors

Neighborhoods

Community Preparedness

People and Nature

Local Economy

Environmental Literacy

Housing Affordability

Energy

Nature for Nature's Sake

Workforce Development

Healthy School Environments

Buildings

Greenhouse Gas Emissions

Trees and Forests

Arts and Culture

Waste and Recycling

Transportation

Clean Air

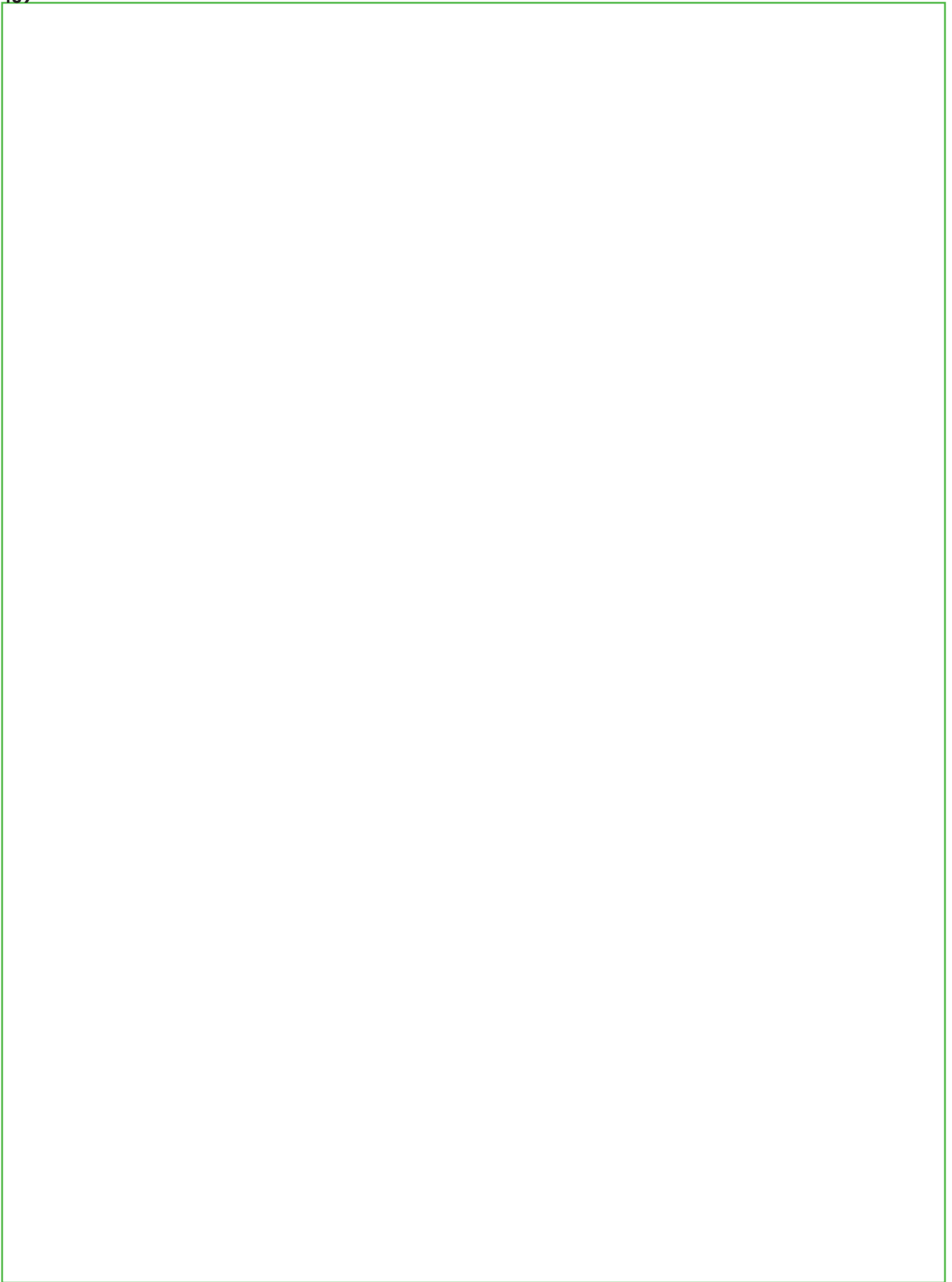
Water in the Environment

Urban Agriculture

Noise

Food Systems
Eat more vegetables

Green Infrastructure



At a Glance



Strategies, Actions & Measures of Success

Summary of all strategies, actions and measures of success

Community:

NEIGHBORS

Strategy #1: Support the promotion of stronger connections between neighbors and among neighborhoods.

Action 1: Build capacity and create opportunities for conversations around racial equity to breakdown biases and increase understanding.

Action 2: Engage, promote, and support voices who may not traditionally be heard.

Action 3: Develop avenues for incorporating resident knowledge and voices into decision-making processes.

Action 4: Promote resident and neighborhood successes.

Strategy #2: Increase public participation in collective community activities.

Action 1: Support resident dialogue and social capital building in neighborhoods.

Action 2: Expand and elevate the network of low- and no-cost programming in neighborhoods.

Action 3: Establish measures for the City government's equitable community engagement with residents.

Action 4: Create educational campaigns for local elections to increase voter participation, particularly in neighborhoods with traditionally low turnout.

Strategy #3: Increase the number and use of safe, well-maintained indoor and outdoor public gathering places.

Action 1: Use community-driven processes to envision, create, and activate safe, accessible community spaces.

Action 2: Support resident-generated ideas for neighborhood events.

Action 3: Develop tools to support residents' creation and maintenance of new and existing neighborhood gathering spots.

Action 4: Engage youth and designate spaces for youth to gather.

NEIGHBORS (CONT.)

How we'll measure success:

- *Satisfaction with actions and strategies, measured by qualitative resident survey*
- *Number and distribution of school-based recreation programs available during non-school hours*
- *Percent of population (over the age of 18) who are registered to vote*

ENVIRONMENTAL LITERACY

Strategy #1: Engage school leadership in sustainability and environmental justice education and practices and provide teachers with resources and professional development.

Action 1: Expand and provide professional development in environmental literacy including environmental justice.

Action 2: Incorporate meaningful outdoor learning experiences into science classes at every grade level.

Action 3: Foster sustainability-minded school leaders.

Strategy #2: Support students as environmental leaders and entrepreneurs, connecting green projects with economic sustainability.

Action 1: Support student-led environmental projects.

Action 2: Pursue youth-based economic sustainability programs.

Strategy #3: Build and sustain meaningful family and community engagement in schools.

Action 1: Make environmental literacy meaningful for families and communities.

Action 2: Expand and sustain meaningful partnerships.

Action 3: Increase the number of Baltimore City Public Schools that are green certified.

How we'll measure success:

- *Number of teachers and distribution of schools participating in professional development activities related to sustainability*
- *Number of students and distribution of schools engaging in paid opportunities in the sustainability field through the City Schools and the Green Schools Network partners, with a goal of 1,000 students employed per year by 2025*
- *Number and distribution of schools that are certified (or recertified) as green every year; with a goal of 33 percent by 2025*

HEALTHY SCHOOL ENVIRONMENTS

Strategy #1: Create healthy physical environments in every school.

Action 1: Improve indoor air quality in all schools.

Action 2: Provide clean, local potable water via water fountains in all schools.

Action 3: Ensure acceptable temperatures, light, and acoustics in all schools.

Strategy #2: Provide a welcoming environment for students, faculty, and families, and increase access to nutritious foods.

Action 1: Fund a Community School Coordinator in every school.

Action 2: Maintain clean and attractive buildings and grounds.

Action 3: Increase student consumption of nutritious food.

Strategy #3: Increase physical activity, outdoor play, and outdoor learning experiences.

Action 1: Adapt school grounds into inviting outdoor areas.

Action 2: Make schoolyards and indoor and outdoor spaces available for public use during non-school hours.

Action 3: Promote physical activities.

Strategy #4: Conserve resources.

Action 1: Reduce waste and increase recycling.

Action 2: Green the school system's fleet of vehicles.

Action 3: Follow green design and construction practices.

How we'll measure success:

- *Number of schools (by location) with clean water from drinking fountains*
- *Number and distribution of schools with Community School Coordinators, active School Wellness Teams, or productive gardens, with a goal of 100 percent by 2025*
- *Number of free meals at City Schools including school breakfast and lunch and after-school and summer meals*

WASTE AND RECYCLING

Strategy #1: Increase the amount of trash that is diverted from the landfill and incinerator to recycling programs.

Action 1: Provide free recycling bins.

Action 2: Launch an anti-litter, pro-recycling campaign.

Action 3: Create and implement a plan to achieve zero waste.

Strategy #2: Expand Baltimore's Waste to Wealth initiative.

Action 1: Implement the City's Food Waste and Recovery Strategy.

Action 2: Site a local composting facility.

Action 4: Create a revolving loan fund for investment in recycling and composting infrastructure.

Strategy #3: Pursue legislative and policy changes to reduce the waste stream.

Strategy #3: Pursue legislative and policy changes to reduce the waste stream.

Action 1: Enact legislation to impose a fee for plastic bags; and support State legislation instituting beverage container deposits.

Action 2: Create a City government procurement committee.

Action 3: Develop a plan for a "Save As You Throw" program to reduce waste that is landfilled or burned.

Action 4: Investigate changes to regulations to eliminate waste and maximize reuse of materials; Establish businesses that reuse products and marketplaces for selling them.

How we'll measure success:

- *Tons of waste per capita sent to landfill and incinerator (including ash)*
- *Amount of trash collected by the trash wheels and supplemental sanitation service programs*
- *Number of businesses created in recovery and re-use of waste*
- *Achieve a residential recycling rate of 50 percent by 2025*

URBAN AGRICULTURE

Strategy #1: Create agriculture land-use policies that encourage urban farms and local food production.

Action 1: In partnership with urban agriculture practitioners, develop site criteria for identifying City-owned land that may be suitable for farming.

Action 2: Protect and support existing farms.

Action 3: Create better defined and supported pathways to ownership.

Strategy #2: Ensure farmers and gardeners can produce food, flowers, fiber, and fuel in ways that are safe, environmentally sustainable, and socially responsible—and educate residents on opportunities to support and engage with them.

Action 1: Connect growers (both new and experienced) to educational resources and training.

Action 2: Support existing social networks and non-profits of growers.

Action 3: Improve strategies for engaging communities in urban agriculture projects.

Strategy #3: Pursue legislative and policy changes to reduce the waste stream.

Action 1: Adapt school grounds into inviting outdoor areas.

Action 2: Make schoolyards and indoor and outdoor spaces available for public use during non-school hours.

Action 3: Promote physical activities.

Strategy #4: Support growers to create financially viable urban agriculture.

Action 1: Create and expand City programs, and connect more growers to public, private, and philanthropic programs and incentives.

Action 2: Support aggregation among small farms.

Action 3: Increase demand for locally grown products.

How we'll measure success:

- *Number and location of projects and amount of land used for urban agriculture*
- *Number and location of growers (both new and experienced) as well as number of residents participating in educational opportunities*
- *Improvements in overall agricultural infrastructure available to urban growers of historically disinvested communities*

Human-Made Systems:

NEIGHBORHOODS

Strategy #1: Strengthen community capacity to address neighborhood obstacles and opportunities.

Action 1: Continue the City's Neighborhood Planning Academy.

Action 2: Support residents in developing neighborhood plans, baselines, and/or maps.

Action 3: Continue to increase resident-led and city-supported improvements with a focus in under-served neighborhoods.

Strategy #2: Support programs and policies to increase investments in neighborhoods.

Action 1: Seek to increase the volume of investment in small businesses in neighborhoods.

Action 2: Annually evaluate city government capital funding through an equity lens.

Action 3: Review historic preservation and other renovation tax credit.

Action 4: Increase funding for affordable housing.

Action 5: Continue to provide operating support for capacity-building programs such as the city-funded Community Catalyst Grant.

Action 6: Improve the investment landscape in under-invested communities.

Strategy #3: Encourage, support, and implement neighborhood improvements.

Action 1: Require new developments to be accessible by all.

Action 2: Increase Code Enforcement to ensure that vacant buildings and blighted, occupied homes do not re-main in neighborhoods for long periods.

Action 3: Ensure commercial outlets, such as corner stores and bars, are not nuisances and are supported by the community.

Action 4: Implement the Complete Streets Ordinance which prioritizes the safety of all people.

How we'll measure success:

- **Number and distribution of housing renovation permits granted**
- **Number of renovation tax credits issued**
- **Number and distribution of neighborhood improvement grants applied for and received—including both individual neighborhoods and neighborhoods working together**

HOUSING AFFORDABILITY

Strategy #1: Increase housing affordability for both renters and homeowners and create opportunities for economic mobility.

Action 1: Use City resources to leverage funds to preserve and create affordable housing.

Action 2: Explore tools to ensure significant new development projects support existing residents and minimize resident displacement.

Strategy #2: Expedite housing renovations, demolitions, and greening efforts to increase the number of thriving, safe, neighborhoods.

Action 1: Continue to strategically demolish vacant structures.

Action 2: Facilitate the transfer of vacant, abandoned properties to owners who have capacity to rehabilitate them.

Strategy #3: Enable homeowners—especially older adults, people of color, and people with low-incomes—to maintain their homes.

Action 1: Increase awareness of financial assistance and incentives to help low-income homeowners maintain their homes.

Action 2: Increase financial resources (and increase awareness of them) to assist low-income and older adults.

Action 3: Increase financial resources (and increase awareness of them) to assist low-income households to become homeowners.

How we'll measure success:

- *Number of households receiving weatherization assistance and energy-reduction education and assistance through programs like the Baltimore Energy Challenge*
- *Number of new and existing homeowners, by income level, who use City-supported homeowner pro-grams*
- *Number of city-supported affordable housing units (created or maintained) and number of units created with the Low Income Housing Tax Credits managed by the State of Maryland*
- *Affordability of mortgages and rent in the city*

BUILDINGS

Strategy #1: Advance building energy and water efficiency, as well as education and outreach, in all sectors—residential, commercial, municipal, and institutional—to reduce long-term costs and increase the health of occupants.

Action 1: Expand outreach about energy and water rebates.

BUILDINGS (CONT.)

Action 2: Develop a financing toolkit to assist building owners to understand available energy and water efficiency financing options.

Action 3: Promote Property Assessed Clean Energy (P.A.C.E.) financing.

Strategy #2: Increase energy and water efficiency retrofits in affordable and low-income housing markets to reduce greenhouse gas emissions, expand local sector jobs, and improve the long-term viability of affordable housing.

Action 1: Expand outreach to private landlords of low-income and affordable housing.

Action 2: Develop programs to retrofit affordable housing units into energy- and water-efficient units.

Action 3: Analyze long-term return on investment opportunities for deep energy and water retrofits in the low-income housing market.

Action 4: Increase workforce programs in energy efficiency, renewable energy and healthy upgrades, emphasizing local hiring.

Strategy #3: Create policies to promote awareness and transparency of energy and water use and reduction.

Action 1: Create residential disclosure for energy and water use at time of sale or lease agreement.

Action 2: Develop and pass benchmarking legislation.

Action 3: Evaluate existing utility and city-wide energy- and water-savers programs to further advance incentives and efficiency.

Strategy #4: Create and adopt programs and codes for promoting occupant health and comfort as well as efficiency.

Action 1: Review the City's existing green building code and amend.

Action 2: Create systematic approaches to building designs that integrate and restore the natural environment.

Action 3: Support the development of holistic, neighborhood-wide, deep energy retrofit projects.

Action 4: Explore requiring development plans to include operational efficiency cost-benefit analyses.

Action 5: Integrate energy- and water-savings strategies and promote gray-water harvesting and stormwater capture.

How we'll measure success:

- Total water and energy usage and costs by building sector
- Number of participants in Property Assessed Clean Energy (P.A.C.E.) financing
- Number and geographic distribution of certified green buildings

TRANSPORTATION

Strategy #1: Prioritize local and regional transportation coordination and investments, ensuring equity .

Action 1: Advance the Central Maryland Regional Transit Plan.

Action 2: Support a dedicated funding source for public transportation and safety improvements.

Action 3: Increase equitable investment.

Action 4: Standardize ongoing coordination between city and state agencies and the public.

Strategy #2: Enact policies that promote city and regional priorities for pedestrians, transit, and alternative forms of transportation.

Action 1: Implement Baltimore's Complete Streets Ordinance.

Action 2: Create and implement a Pedestrian Master Plan.

Action 3: Fully implement the Bicycle Master Plan.

Action 4: Alter traffic signal timing citywide.

Action 5: Seek opportunities to implement more pedestrian-only spaces.

Strategy #3: Improve reliability, accessibility, safety, and efficiency of transit while reducing the environmental impacts of vehicles.

Action 1: Develop and maintain transit hubs.

Action 2: Create more efficient public transit options.

Action 3: Eliminate parking subsidies and mandates, and offer employee incentives.

Action 4: Encourage green commutes to work and school.

How we'll measure success:

- **Walk-score by neighborhood**
- **Number of bicyclists by location using annual counts**
- **Number and distribution of mile of bike lanes, especially for neighborhoods with the lowest rates of car access**
- **Percent of population that uses public transportation to get to work along with mode split and travel time to work**
- **Transit on-time performance and number of riders using the bus system, for all corridors where dedicated lanes and priority bus travel have been implemented; data to include breakdown by neighborhood**

NOISE

Strategy #1: Meet the goals of Baltimore's noise ordinance by reducing overall noise levels.

Action 1: *Create new regulations to bring the noise ordinance in line with best practices.*

Action 2: *Strengthen enforcement of commercial and industrial noise standards.*

Strategy #2: Ensure all neighborhoods enjoy the benefits of quiet.

Action 1: *Engage a group (or groups) of residents representing city demographics to discuss noise and seek ways to address it.*

Action 2: *Inventory noise pollution throughout the city.*

Action 3: *Initiate outreach activities to increase community awareness of noise standards.*

Action 4: *Direct tree planting and other efforts to muffle noise.*

How we'll measure success:

- *Number and distribution of noise code violations and complaints (as a starting point with an understanding that it likely is not representative of the distribution of noise)*
- *Number and distribution of noise-reducing projects*

Climate & Resilience:

COMMUNITY PREPAREDNESS

Strategy #1: Review regulatory codes and implement collaborative programs to protect vulnerable residents, such as in neighborhoods with high percentages of seniors, low-income residents, and non-English-speaking immigrants.

Action 1: *Enhance City floodplain regulations and building codes.*

Action 2: *Update Capital Improvement Process.*

Action 3: *Streamline the permitting process.*

Action 4: *Upgrade infrastructure to minimize threat to most vulnerable communities.*

Strategy #2: Develop plans and systems to increase community resilience.

COMMUNITY PREPAREDNESS (CONT.)

Action 1: Develop a post-disaster plan.

Action 2: Apply an equity lens to all-hazards mitigation and climate adaptation planning.

Action 3: Finalize flood alert system upgrade.

Strategy #3: Increase community awareness of natural hazards and climate change.

Action 1: Continue to host workshops on “community preparedness.”

Action 2: Continue to support the growth of “community resiliency hubs” in disinvested, high-impact areas.

Action 3: Develop “community resiliency plans.”

Action 4: Increase the number of residents receiving community preparedness training in low-resourced neighborhoods.

How we'll measure success:

- **Number and distribution of community resiliency hubs**
- **Number and distribution of homes, businesses, and critical infrastructure in high risk areas that are at or above code standards**
- **Number and distribution of repetitive loss properties**
- **Number and distribution of residents who receive disaster preparedness training**

ENERGY

Strategy #1: Expand awareness of and funding models for energy efficiency and renewable energy.

Action 1: Expand energy efficiency, conservation, and renewable energy education programming.

Action 2: Seek increased financing for energy programs.

Action 3: Expand solar job training programs and job placement opportunities.

Strategy #2: Speed the path to decarbonization through increased deployment of renewable energy and electric vehicles.

Action 1: Increase the supply of clean, renewable electricity.

Action 2: Advocate for a higher State of Maryland renewable portfolio standard.

Action 3: Increase electric vehicle adoption.

Action 4: Adopt a goal for electric vehicle charging stations.

ENERGY (CONT.)

Strategy #3: Support and deploy innovative technologies and programs to reduce energy use in buildings and transportation.

Action 1: Review current building codes and regulations, and adopt a residential green building code.

Action 2: Complete the conversion of streetlights to LEDs.

Action 3: Increase installation of cool roofs and green roofs and plant more shade trees.

Action 4: Promote and expand installation of energy-efficient combined heat and power and district energy systems which capture and reuse waste heat.

Action 5: Set a goal to reduce petroleum consumption and increase use of alternative fuel vehicles and equipment in the city government fleet.

How we'll measure success:

- **Number and distribution of homes retrofitted through community energy and assistance programs**
- **Number and distribution of solar installations**
- **Number of jobseekers that have been trained in solar installation and other green job skills and that have been successfully hired for green or sustainable jobs**
- **Average percentage of household income spent on energy**
- **Total electricity and natural gas consumption per capita (city-wide as well as specific to city government)**

GREENHOUSE GAS EMISSIONS

Strategy #1: Improve efforts to reduce greenhouse gas emissions.

Action 1: Update the Climate Action Plan.

Action 2: Establish a Climate Change Advisory Committee.

Strategy #2: Modify operations and policies in City government to reduce emissions.

Action 1: Set an ambitious reduction target.

Action 2: Require a life-cycle evaluation of energy savings and emission reduction options.

Action 3: Update codes.

Action 4: Work with community members and organizations to develop strategies to mitigate harm to, and to also increase the benefits accrued by the communities from climate actions.

GREENHOUSE GAS EMISSIONS (CONT.)

Strategy #3: Create new programs to reduce greenhouse gas emissions.

Action 1: Develop outreach campaigns focused on actions to reduce emissions.

Action 2: Commit to being a “Carbon Neutral City”.

Action 3: Reduce short-term pollutants.

How we'll measure success:

- Total greenhouse gas emissions (City-wide and for City government only)
- Total emissions of short-lived climate pollutants

CLEAN AIR

Strategy #1: Reduce emissions from industrial operations to reduce harm to people living nearby.

Action 1: Encourage state-of-the-art pollution controls.

Action 2: Work with federal, state, and regional agencies to reduce toxic air emissions from transportation.

Action 3: Work with the Port of Baltimore.

Action 4: Enact and enforce strong anti-idling regulations for commercial cars, buses, and trucks.

Strategy #2: Assess and monitor how air quality varies across the city to identify neighborhoods in greatest need of improvement, and increase community awareness of how air quality impacts the health of children, the elderly, low income communities, and communities of color.

Action 1: Partner with researchers.

Action 2: Integrate information about unhealthy air quality days into community preparedness workshops.

Action 3: Adopt a policy or plan for eliminating use of pesticides and other toxic chemicals.

Action 4: : Develop an alert system.

Strategy #3: Develop and support programs that can improve indoor air quality for those most impacted.

Action 1: Implement an Indoor Air Quality management program for the school system.

Action 2: Increase inspections, enforcement, and hazard remediation in rental properties.

CLEAN AIR (CONT.)

How we'll measure success:

- *Number of days that levels of criteria pollutants, including ozone and particulate matter, exceed national standards*
- *Asthma hospitalization rates relative to state average*
- *Number of programs that can improve indoor air quality in public schools in neighborhoods most impacted by poor air quality*

FOOD SYSTEMS

Strategy #1: Use policy to create a more equitable food system.

Action 1: Integrate food system priorities across government.

Action 2: Implement equitable food policies.

Action 3: Engage residents in policy creation and support community-led processes.

Strategy #2: Increase resilience at the household, community, and food system levels.

Action 1: Reduce acute food insecurity.

Action 2: Increase overall resilience.

Action 3: Support equitable food systems.

Strategy #3: Strengthen and amplify the local food economy.

Action 1: Leverage the purchasing power of the City.

Action 2: Support and cultivate local, food-based businesses.

Action 3: Increase food recovery.

How we'll measure success:

- *Number of food system policies developed using race and equity frameworks*
- *New documenting and tracking activities related to food resilience, which assist in the development of meaningful metrics and indicators of a resilient food system*
- *Number of City procurement contracts that include "Good Food Procurement" standards*

Nature in the City

PEOPLE AND NATURE

Strategy #1: Increase community connections to nature; ensure it is done in culturally competent ways with early and frequent engagement.

Action 1: Provide opportunities for residents to define and shape concepts of nature and incorporate them into plans and programs.

Action 2: Reconnect youth and families to the concepts and places of nature by co-creating programs.

Action 3: Connect with residents on ways to take action to support a diversity of species while healing ourselves and the nature around us.

Strategy #2: Build stronger neighborhoods and stronger social connections.

Action 1: Develop high quality nature-immersion programs for young children as a coping tool for trauma and stress.

Action 2: Expand the Docs in the Parks program.

Action 3: Expand nature programming and support organizations.

Strategy #3: Improve and grow our natural systems and support increased management of them by residents, communities, organizations, and city government.

Action 1: Develop a clear process for those seeking to enhance, transform and maintain city owned open space for short and long term greening.

Action 2: Identify creative methods for increasing conservation easements.

Action 3: Implement the Baltimore Green Network, continuing to create a collective vision with communities.

How we'll measure success:

- Number of residents reached annually through organized programs; specifically track youth exposure and engagement
- Number and distribution of natural areas, lots, and acres of land that are transformed into well-maintained gathering spaces, gardens, parks, quiet places, and play spaces
- Number of acres and distribution of land conserved (including easements, land trusts, parks, and Community Managed Open Spaces) and maintained both publicly and privately

NATURE FOR NATURE'S SAKE

Strategy #1: Increase restoration, creation, and maintenance of habitat for native species on public and private land; ensure it is done in culturally competent ways with early and frequent engagement.

Action 1: Expand habitat for pollinators and other wildlife.

Action 2: Explore the development of a management plan that would identify existing and future threats to our natural resources.

Action 3: Link natural systems within the city and to the regional network.

Strategy #2: Encourage and increase sustainable land management policies and practices on public and private land, taking into account the context of surrounding neighborhoods and the impacts to residents.

Action 1: Complete Forest Management Plans for the largest forested parks.

Action 2: Implement invasive species management for both plants and animals in and outside of parks.

Action 3: Develop and implement organic land care policies.

Strategy #3: Increase the acreage of maintained and protected land.

Action 1: Develop workforce training programs for residents to restore and protect natural resources that lead to resident employment while actively avoiding community displacement.

Action 2: Identify mechanisms to ensure protection and maintenance of habitat areas on public and private lands, in perpetuity.

Action 3: Acquire and maintain permanent green spaces. Assess the potential for requiring natural spaces and onsite quality-of-life amenities in development plans.

How we'll measure success:

- *Acres of habitat restored, created, and maintained*
- *New policies and/or plans to require use of safer, non-chemical alternatives to chemical fertilizers, pesticides, and herbicides and to increase use of organic land care*
- *Number of natural areas that are a) located in areas with demand for redevelopment and b) protected through the development review process*

TREES AND FORESTS

Strategy #1: Plant and establish more trees ensuring equitable planting distribution.

TREES AND FORESTS (CONT.)

Action 1: Continue prioritizing, planting, and caring for trees.

Action 2: Expand the call-to-action to plant and care for trees.

Action 3: Insure a diversity of tree species.

Action 4: Create a workforce development program employing residents to plant and care for trees and forests.

Strategy #2: Assess and manage the city's tree canopy for long-term health.

Action 1: Assess forests in all large parks and utilize the street tree inventory and tree canopy change data as a management tool.

Action 2: Create and implement plans to reduce harm to trees.

Action 3: Develop unified, long-term strategies to increase support and funding for managing forests.

Action 4: Develop and implement policy to manage parks after construction projects.

Strategy #3: Preserve the city's existing tree canopy.

Action 1: Classify trees and forests as public infrastructure.

Action 2: Adopt a Tree Ordinance.

Action 3: Investigate the creation of a forest land-banking credit program.

Action 4: Investigate a mechanism for monitoring long-term forest protection.

Action 5: Prioritize the Proactive Neighborhood Pruning Program.

How we'll measure success:

- *Active management of 75 percent of forests and trees by 2030*
- *Number of acres of controlled invasive management and subsequent reforestation*
- *Number of trees planted by neighborhood and percentage of trees maintained for 2 years*
- *Percent of area covered by trees*

WATER IN THE ENVIRONMENT

Strategy #1: Increase positive and safe connections to public waterways, along with awareness of how litter and other pollutants enter them.

WATER IN THE ENVIRONMENT (CONT.)

Action 1: Connect more people to water in safe ways.

Action 2: Increase education and pursue progressive actions to reduce pollutants entering our waterways.

Action 3: Develop a combination of incentives and deterrents.

Action 4: Foster cross-jurisdictional partnerships.

Strategy #2: Improve aquatic habitats by increasing riparian restoration and water quality monitoring, and creating policies to eliminate sources of pollution.

Action 1: Increase restoration of riparian corridors, and pursue other innovative habitat restoration.

Action 2: Remove invasive species along waterway buffers.

Action 3: Identify, prioritize, and remediate sources of human fecal bacteria.

Action 4: Develop and promote legislation and policy.

Strategy #3: Ensure access to safe and affordable drinking water.

Action 1: Improve watershed management for the City's three raw water reservoirs.

Action 2: Evaluate the potential for water re-use.

Action 3: Promote assistance programs for low-income residents and seniors.

How we'll measure success:

- *Number and demographic makeup of participants at programs on the water's edge*
- *Total area of invasive species removal and native species plantings along waterways and shorelines*
- *Amount of nutrients and sediment in waterways (using State-approved protocols)*

GREEN INFRASTRUCTURE

Strategy #1: . Increase green infrastructure throughout the city, targeting neighborhoods with limited access to large parks and green spaces and high disparities in health outcomes.

Action 1: Evaluate an Offsite Stormwater Mitigation Credit or Pay for Performance program.

Action 2: Create standard design specifications.

Action 3: Support and expand programs to establish and maintain green infrastructure.

Action 4: Create a coordinating committee.

GREEN INFRASTRUCTURE (CONT.)

Strategy #2: Ensure green infrastructure is functional, proactively maintained, and an asset to neighborhoods.

Action 1: Create a green infrastructure workforce development program.

Action 2: Seek funding to develop stewardship models and recruit neighborhood residents.

Action 3: Create a database of green infrastructure sites.

Action 4: Create a standard agreement.

Action 5: Analyze displacement pressures that new investments may have on low-income communities.

Strategy #3: Increase awareness of stormwater runoff and the benefits of green infrastructure.

Action 1: Ensure design and location of green infrastructure practices are appropriate within the neighborhood context.

Action 2: Create demonstration projects on public land.

Action 3: Create, maintain, and promote the use of educational mapping tools.

How we'll measure success:

- Acres of impervious surface removed
- Number and square feet of green infrastructure projects implemented
- Amount and geographic distribution of funding provided for environmental stewardship and maintenance to public-private partnerships

Economy

LOCAL ECONOMY

Strategy #1: Proactively support local businesses to advance the triple-bottom-line approach: people, planet, and prosperity.

Action 1: Set purchasing preferences and supplier diversity goals.

Action 2: Grow cooperative business models.

Action 3: Expand the adoption of environmentally-friendly business practices

Strategy #2: Build the capacity of local manufacturers and entrepreneurs through access to resources, technical, and financial assistance, and a supportive policy and investment environment.

LOCAL ECONOMY (CONT.)

Action 1: Provide support services to grow businesses.

Action 2: Build the capacity of Made in Baltimore.

Action 3: Advocate for state and local policies that support manufacturers and owner-operated business.

Strategy #3: Ensure historically underrepresented groups' share in the City's economic prosperity by strengthening the capacity of and purchasing from small, local, minority-owned, women-owned, and cooperatively owned businesses.

Action 1: Continue to address needs unique to minority- and women-owned businesses.

Action 2: Continue to align Baltimore City's MBE/WBE certification with the State of Maryland's.

Action 3: Promote increased access.

Action 4: Create and adopt an economic plan.

How we'll measure success:

- *Number of businesses and institutions that have set or expanded buying preferences for locally owned or minority- and women-owned businesses (and/or have provided additional support and funds to these priority business groups)*
- *Total amount of City contract dollars awarded to minority- and women-owned and local firms (as a percentage of total contract dollars)*
- *Number of total jobs and number filled by people of color*
- *Total number of minority-owned businesses registered in the City, and number of employees at each*

WORKFORCE DEVELOPMENT

Strategy #1: Collectively integrate and streamline the delivery of green workforce services to increase employment and self-employment, and help close the equity and opportunity gaps for Baltimore's low-income, African-American, and minority residents.

Action 1: Expand green job training programs for the unemployed, underemployed, and those facing barriers to unemployment.

Action 2: Ensure green jobs are part of a larger, centralized case management system.

Action 3: Ensure wrap-around services and support are built into green training programs.

Action 4: Ensure green jobs are part of a job-matching tool.

Action 5: Increase the number of nonprofits and industry partners involved in green and sustainable jobs.

WORKFORCE DEVELOPMENT (CONT.)

Strategy #2: Connect youth, young adults, returning citizens, and others who have limited work experience to green, work-based learning opportunities.

Action 1: Fuse a relationship between Baltimore City Public Schools and green industries.

Action 2: Promote city government workforce training programs that lead to jobs.

Action 3: Collect common data points on green job seekers using the Mayor's Office of Employment Development's standard assessment tool.

Action 4: Institute the use of common performance metrics.

Strategy #3: Increase emphasis on post-placement services, setting up newly employed residents for greater success in the long run.

Action 1: Work with employers to find pathways, interventions, and services gaps in supporting workers in green and sustainability fields.

Action 2: Develop funding opportunities to support long-term engagement.

How we'll measure success:

- Number and distribution of jobseekers in green industries that have been trained
- Number and distribution of jobseekers successfully hired for green or sustainable jobs
- Number of City agency and private partner programs that support, train, and place jobseekers in green and sustainable jobs

ARTS AND CULTURE

Strategy #1: Create processes that ensure Baltimore's art institutions and organizations represent and engage audiences reflective of the demographics of the city.

Action 1: Require publicly funded arts organizations to track audience engagement.

Action 2: Increase artist-led decision making.

Action 3: Support and expand youth arts programs.

Strategy #2: Invest in the economic and neighborhood development potential of artists and art organizations.

Action 1: Implement the recommendations of the Mayor's Task Force on Safe Arts Space.

Action 2: Host free or low-cost professional development and entrepreneurial workshops for artists and art-based organizations.

ARTS AND CULTURE (CONT.)

Strategy #2: Increase arts funding and ensure equitable distribution of publicly-supported arts funding opportunities.

Action 1: Equitably distribute funding to artists ensuring broader cultural representations..

Action 2: Require that publicly-supported arts grants be awarded to recipients who reflect the racial demographics of the City, and create new artist grant programs designed for non-Western artistic traditions.

Action 3: Support spaces to encourage discourse by fostering nomadic and mobile pop ups and onsite art spaces.

Action 4: Provide funding and support for local leaders from underserved neighborhoods to bring artists, arts organizations, and residents.


How we'll measure success:

- *Number of artists of color participating in publicly supported arts programming, with a goal of representation that reflects Baltimore's racial demographics*
- *Amount of publicly-supported arts funding awarded to people of color, with the goal of award recipients reflecting Baltimore's racial demographics*
- *Number of employees in the Creative Economy*

Sustainability Ambassadors and More

The following list represents small fraction of the Baltimore residents who dedicated time and effort to this plan.

Adenike Akintilo	Raven Davis	Earl Johnson	Maggie Robbins
Frank Alex Jr.	Tradina DeMary	Justing Johnson	Kathy Robertson
Mary Alexander	Caleb DeMario	Roscoe Johnson	Angela Robinson
Jennifer Amann	Matthew DeSantis	Mable Jones	Anna Robinson
NeAnna Ammerman-McLean	Meldon Dickens	Rodette Jones	Gary Rodwell
Miguel Anderson	Peter Doo	Michael King	Michael Rosenband
Geselle Archie	Winette Downer	Danielle Laurenceau	Monique Sampson
Melissa Bagley	Meaca Downing	Reni Lawal	William Fun Scipio
Libby Baker	Danielle Dunlap	Frank Lee	Anne Sherrill
Farhan Bandedali	Kate Edwards	Kyle Leggs	Wynoina Simms
Aisha Banks	Virginia Edwards	Jennifer Leonard	Judieth Singleton
Jasmine Bazinet-Phillips	Phyliss Finch	Nick Lindow	Sandy Sparks
Cortnie Belser	Brent Flickinger	Joseph Linsalata	Renata Southard
Harold Bennett	Michael Furbish	Jana Long	Riley Sullivan
Mia Blom	Michael Galdi	Eli Lopatin	Lynn Supp
China Boak Terrell	Nayeli Garcia Mowbray	Bob Matha	JaLessa Tate
Sharon Bradford	Alex Gebhart	Cailin McGough	Myeasha Taylor
Julia Branco	Ella Gensheimer	Millie McMillan	Cynthia Tensley
Jim Brown	Zoe Gensheimer	Regina Minniss	Twanneshia Thomas
Kelly Brown	Dianne Graham	Sadie Molock	Christina Thompson
Camille Burke	Megan Griffith	Christina Moore	Raven Thompson
Mary Colleen Buttner	Benjamin Groff	Pam Moore	JoAnn Trach Tongson
Sarah Buzogany	Cynthia Gross	Carmen Morosan	Kalem Umrani
Nick Caminti	Jenny Guillaume	Shanie Morton	Melinda Walker
Romina Campbell	Zane Hadzick	Odessa Neale	Robers Walshe
Marly Cardona Moz	Chad Hayes	Aleeza Oshry	Lemmella Walston
Tiffany Carey	Walter Horton	Sara Paraniham	Claire Wayner
Alexandra Carroll	Benjamin Howard	Beth Perry	Matthew Weaver
Jeavonna Chapman	Alice Huang	Christine Peterson	Dianne Webb
Mary Chesley	Thelma Huff	Kristi Posival	Michael Wells
Zachary Chissell	Mark Hughes	Bridget Powers	Leanna Wetmore
Abby Cocke	Tamm Hunt	Roxane Prettyman	Megan Wiessner
Vivian Comer	Lanae Jackson	Wayne Reed III	Pam Williams
Andy Cook	Veronica Jefferson	Sonce Reece	Floria Zobear
Michael Cruse	Melissa Jencks	Beth Renwick	
	Janie Johns	Inez Robb	



Thank you to the Sustainability Ambassadors, the 1200 residents who answered surveys, the 501 people who attended stakeholder meetings, the 12 working groups, those who attended open houses, and the 1000+ people who took the time to comment on the CivicComment website.