Oliver Deep Blue Plan

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BLUE WATER
BALTIMORE

in partnership with
BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS
THE NEIGHBORHOOD DESIGN CENTER

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THE ANNIE E. CASEY FOUNDATION

Special Thanks to:

OLIVER COMMUNITY ASSOCIATION
YOUR BALTIMORE COMMUNITY DEVELOPMENT CORP
THE 6TH BRANCH
OLIVER RECREATION CENTER
1 Introduction
DEEP BLUE PROGRAM

Deep Blue is an exciting and innovative partnership between Blue Water Baltimore (BWB), the Neighborhood Design Center (NDC), the Baltimore City Department of Public Works (DPW), and five neighborhoods throughout Baltimore City, including Oliver.

Deep Blue is a community-based approach to stormwater planning, with the goal of identifying actionable projects that both address current neighborhood priorities and help improve the environment, and, in turn, community resiliency.

This new approach moves away from the traditional model of installing isolated projects, often with little community input, toward a comprehensive and community-based process. It seeks to reduce planning fatigue through the design and implementation of immediate and long-term projects by both public and nonprofit partners. Throughout the process, BWB will engage the community through education and greening projects, to further strengthen the communities knowledge, investment, and capacity to participate in the larger restoration effort.

The Deep Blue Master Plan is a guide for future potential projects on both public and private property, and serves as a reference document for agencies, nonprofits, and the community. Blue Water Baltimore will pursue private property projects, working with community partners to apply for grant funding for design and implementation. Baltimore City Department of Public Works will pursue projects on public land as part of its 2013-2018 federal MS4 (municipal separate storm sewer system) permit, which requires improvements within Baltimore City that reduce stormwater runoff. Improvements by DPW are part of the Capital Improvement Program (CIP) and are funded by the Stormwater Utility Fund (stormwater fee). Projects listed may be subject to additional reviews, feasibility studies, and community processes that affect whether and when they are implemented.
NEIGHBORHOOD PROFILE

Oliver is a neighborhood east of Greenmount Cemetery and south of East North Avenue, named for Oliver Street that runs through it. Its eastern border is Broadway, and the southern border is Biddle Street. Running underneath Hoffman Street is an Amtrak tunnel serving all northeastbound rail traffic out of Penn Station. Just over 4000 people live inside those borders as of the 2010 census. The neighborhood is predominantly Black.

Aside from its adjacency to the historic Greenmount Cemetery, established in 1838, Oliver is also home to the Great Blacks in Wax museum at 1601 West North Avenue. It is the first wax museum of African-American history in the country and receives hundreds of thousands of annual visitors. A multimillion dollar renovation and expansion is planned at the current site. The original Ouiji Board factory was located in the neighborhood, as well as the first African-American Catholic Community in the United States at St. Francis Xavier Catholic Church, and the Apollo Theater, now owned by the African-American Fire Fighters Historical Society.

The Oliver community faces considerable challenges. Oliver residents have, on average, lower educational attainment and a higher unemployment rate than Baltimore City as a whole. The median household income, according to the 2006-2010 American Community Survey, is $21,491, just over half the Baltimore City median household income of $39,386. 42.9% of people live in poverty in Oliver, compared to 21.3% in Baltimore City. According to Baltimore Neighborhood Indicators Alliance, the Part 1 Crime Rate (2015) for Greenmount East (a larger statistical area that includes the Oliver neighborhood) is 76 per 1,000 residents, compared to 65.1 for Baltimore City. Part 1 crime includes violent and property crimes as defined by the FBI’s Uniform Crime Report. The vacancy rate (not for sale or rent) per the 2010 U.S. Census is over 30% in Oliver, over three times higher than the Baltimore City rate of 8.7%.
NEIGHBORHOOD PROFILE

Facing these challenges are several community organizations and nonprofit developers who have activated vacant land and created new housing opportunities.

- The Oliver Community Association (OCA) is a community-based corporation that has been serving the Oliver community for more than 34 years. It includes the Oliver Economic Development Corporation (OEDC). It provides assistance to residents with various city support services and organizations. OCA offers home ownership counseling; support services for community clean ups, job placements and referrals, youth activities and assistance to elderly residents.

- Your Baltimore Community Development (YBCD) aggressively serves the needs of the Oliver community, to empower residents to become caretakers of their neighborhood and stewards of its progress.

- BUILD (Baltimoreans United In Leadership Development) is a broad-based, non-partisan, interfaith, multiracial community power organization rooted in Baltimore’s neighborhoods and congregations. For more than 35 years, BUILD has worked to improve housing, increase job opportunities, and rebuild schools and neighborhoods, among other issues.

- The 6th Branch is a local nonprofit that utilizes the leadership and organizational skills of military veterans to execute aggressive community service initiatives in Oliver and other Baltimore City neighborhoods.

- TRF Development Partners is a non-profit housing affiliate and national leader in community development with broad experience in repositioning real estate assets and markets in the mid-Atlantic region to create wealth and opportunity. They have worked extensively in Oliver renovating and building homes.

- Meraki Community Uplift is a non-profit organization that educates, cultivates, and transforms communities. They are based in the Oliver community of East Baltimore, with plans to expand to other inner-city areas, transforming entire communities through youth education and recreation, community gardening, and economic development.

Recent neighborhood development projects have included:

**Bethel Farm** is located in the 1500 block of Bethel Street. The farm was established in 2016 by Your Baltimore Community Development, Gather Baltimore, and concerned Oliver residents. The farm has produced vegetables such as tomatoes, squash, collards, etc. for local consumption by area residents.

**Oliver Farm** on Biddle Street was built in 2013 by dedicated veterans, volunteers, and Oliver community residents. Since its inception, Oliver Farm has been managed by the 6th Branch and supported by Meraki Community Uplift.
**KaBoom Playground** located at 1302 N. Bond Street, the 2500 square foot play space was designed and built by the children in the Oliver community with the help of BUILD. Target® funded the majority of the project. The remaining $10,000 dollars was raised by the community to build the KaBoom playground. BUILD is working in the Oliver community organizing residents, encouraging youth participation, and working alongside teachers and families to orchestrate collective success for the KaBoom playground.

**Bethel Street Playscape** has taken a concrete and rubble covered vacant lot that was the site of illegal dumping and worse, and transformed it into a green, growing place. 4800 square feet of impervious surfaces and invasive and poisonous plants have been removed. Trees have been stewarded, and new plantings have been established. The Playscape offers residents and youth a place to convene, socialize, be physically active, experience nature, and spend time outdoors in a safe and welcoming place. The playscape was constructed in partnership with The 6th Branch and NDC’s Briony Hynson.

![NEIGHBORHOOD MAP](image)

**Key**
- Deep Blue boundary
- parkland
- railway
- roadway
- building
- commercial building
- industrial building
- educational building

*Oliver existing conditions
Data via Open Baltimore and Google Street View*
A Community Garden is located between the Bethel Playscape and the Oliver Community Farm and is supported by The 6th Branch, Civic Works, and Meraki Community Uplift. It includes small vegetable plots used by residents.

Housing Redevelopment is an ongoing initiative supported by Your Baltimore Community Development (working primarily north of the railroad) and TRF Development Partners (working primarily south of the railroad). Hundreds of formerly vacant houses have been either rehabilitated or demolished and rebuilt for rental and ownership housing.

East North Avenue is the subject of both an ongoing $13 million improvement effort, a 2016 City LINCS planning process, and part of the North Avenue Rising initiative, which promises over $27 million in transit and roadway improvements funded by city, state, and federal sources. Per the MTA website, North Avenue Rising includes dedicated bus lanes, new bike facilities, targeted improvements at major bus stops, improved sidewalks, streetscaping, and needed roadway re-pavement along the corridor.

**Key**
- Deep Blue boundary
- parkland
- railway
- roadway
- direction of surface water flow
- 10’ interval contour line

Oliver existing conditions
Data via Open Baltimore
Proposed Project List for Oliver

published September 5, 2017
last updated September 5, 2017
The Deep Blue process in Oliver engaged with residents through multiple methodologies to solicit input from a wide variety of stakeholders. Beyond just visioning workshops and surveys, Deep Blue partners used Photovoice and Love Your Block initiatives, described in the process section of this document, to work with residents both to see the neighborhood and collaborate on initial improvements.

During this process there were multiple community organizations that partnered with Blue Water Baltimore, Baltimore City Department of Public Works, and the Neighborhood Design Center. Additionally Neighborhood Design Center has ongoing partnerships and projects with Oliver organizations such as the Bethel Street Playscape. Oliver is part of the affected area for East North Avenue improvements and planned improvements, including the LINCS initiative and North Avenue Rising. The Department of Planning and its Office of Sustainability are also working in the area.
PROJECT MAP

Key
- Deep Blue boundary
- railway
- roadway
- building
- stormwater intervention ("BMP")
- new trees
- hardscape removal (pending review)

Oliver project map
Data via Open Baltimore
DEEP BLUE PROJECT LIST

Tree Planting

Trees have significant positive impacts on the quality of our air and water, whether planted along streets and sidewalks, in residential yards, or in public green spaces. Street tree planting typically starts with an inventory of the area to be planted in order to assess which trees are dying or missing, which areas lack trees, and which areas don’t have enough trees. Existing tree pits are widened to current standards where possible to give root systems room to grow without up-heaving the sidewalk. New pits may be dug as well. New trees are staked and watered during their first years to help them grow big and strong.

- East Biddle St. between Ensor St. and Broadway
- East Preston St. between Central Ave. and Broadway
- East Hoffman St. between Ensor St. and Eden St.
- East Federal St. between Ensor St. and Harford Ave.
- East Lanvale St. between Ensor St. and Broadway
- Ensor St. between Hoffman St. and Lanvale St.
- Holbrook St. between Hoffman St. and Lanvale St.
- Caroline St. between Federal St. and North Ave.
- Bond St. between Federal St. and North Ave.
- Broadway between Federal St. and North Ave.
- Aisquith Street between Federal St. and Lanvale St.
- Harford Road
- Property trees at Knox Presbyterian Church

See implementation matrix for more information.

Benefits

- Add beauty
- Shade houses, yards, and streets
- Reduce utility fees
- Reduce air pollution
- Slow and absorb stormwater runoff
- Provide oxygen!

Learn more about the value of trees: http://www.urbanreleaf.org/get-educated/benefits-of-trees
Hard surfaces like pavement, concrete, and roofs prevent rainwater from soaking into the ground instead creating huge amounts of polluted stormwater runoff that flood our streets and contaminate our waterways. Paved surfaces also create a heat island effect in Baltimore, increasing temperatures and lowering air quality.

Reducing pavement and replacing it with lawn, conservation landscaping, and/or trees allows water to more naturally filter into the ground instead of rushing to the nearest waterway carrying pollution with it.

Proposed Locations:
- City-owned property near Hoffman and Ensor Street
- City-owned property on 1500 block of Bethel Street
- City-owned property on 1600 block of Bethel Street

After hardscape removal at Academy for College and Career Exploration, Photo courtesy of Blue Water Baltimore

Benefits
- Removes cracked, broken, or unused surfaces
- Reduces stormwater runoff and flooding
- Lowers temperatures
- Improves air quality

Learn more about hardscape removal: https://water.usgs.gov/edu/impervious.html
Most stormwater BMPs are planted areas designed to collect stormwater runoff from adjacent, typically paved areas and allow it to soak into the ground. Examples of such practices include rain gardens, bioswales and bioretention facilities. Proposed locations:

Proposed Locations:

- North east corner of intersection of Harford Avenue and Preston Street
- City-owned property on 1500 block of Bethel Street
- City-owned property on 1600 block of Bethel Street

DPW projects occur in the public right of way. The Deep Blue project list does not include separate DPW efforts to improve stormwater system functionality around Oliver, although many BMP projects in that area will increase infiltration and reduce load on the system. WBW projects occur on private properties. See implementation matrix for more information.

Benefits

- Add beauty
- Slow and absorb runoff
- Less maintenance than grass
- Reduces flooding and broken underground pipes

Learn more about stormwater BMPs: [http://phillywatersheds.org/what_were_doing/green_infrastructure](http://phillywatersheds.org/what_were_doing/green_infrastructure) or [https://www.montgomerycountymd.gov/water/stormwater/practices.html](https://www.montgomerycountymd.gov/water/stormwater/practices.html)
OLIVER IMPLEMENTATION TIMELINE

2017

Tree Planting
Knox Presbyterian
Blue Water Baltimore

2018

Tree Planting
Multiple Locations
Blue Water Baltimore

Best Management Practices
Location varies, priority projects for current MS4 permit
Baltimore City Department of Public Works

Hardscape Removal
Potential projects, dependant on property owner approval
Baltimore City Department of Public Works

2019

Best Management Practices & Hardscape Removal
1500 & 1600 blocks of Bethel St, dependant on community input
Blue Water Baltimore

2020
3 Deep Blue Process
WHY STORMWATER

What is stormwater?
Generally speaking, stormwater is rain or other precipitation that washes off driveways, parking lots, roads, rooftops, yards, and other hard surfaces. Stormwater picks up pollution such as trash, chemicals, bacteria, and sediment and washes them into storm drains and waterways. This is called stormwater runoff. Stormwater runoff is the fastest growing source of pollution to the Chesapeake Bay.

How is stormwater “managed?”
Historically, stormwater management diverted rainwater into pipes or open channels to keep it away from streets and properties, and to prevent flooding. As paved areas in cities increased, the amount of water that needed to be managed rather than be absorbed into the ground increased. The historic practices of stormwater management focused on the quantity of water rather than improving its quality before discharging into a body of water.

Today’s stormwater management efforts utilize new best management practices (BMPs) that remove pollutants from the water entering our storm drain systems, in addition to reducing the amount of runoff. These practices include neighborhood-level infrastructure and actions taken on individual properties by homeowners and renters. Projects proposed in this report would treat stormwater by reintroducing natural filters such as trees and plants, and proposed programming would engage communities in activities that would reduce flooding, provide shade, and clean neighborhoods, while keeping elements of city life intact.

Many projects that address stormwater also provide other important benefits, including safety, public health, and social equity and environmental justice. Although such greening efforts are by no means a “silver bullet,” they can serve as a strong foundation for making our communities stronger and more resilient.

Diagrams by Thomas Chakley
Courtesy of Blue Water Baltimore
PROCESS SUMMARY

Concept
The Deep Blue Initiative is a community-based planning approach which uses green infrastructure as a tool for both community revitalization and environmental restoration. Rather than installing individual practices with the support of one or two community leaders who are particularly interested in greening practices, Deep Blue focuses on building relationships with community members, including individuals, organizations, businesses, and institutions such as churches and schools, in order to better understand overall community priorities. Through this process, the stakeholders can work together to develop a comprehensive plan that identifies and prioritizes projects that will best address community priorities and reduce stormwater runoff.

Partners
Deep Blue is a two year program funded by the National Fish and Wildlife Foundation. Partners include Blue Water Baltimore, Neighborhood Design Center, Baltimore City Department of Public Works and Department of Planning, as well as five Baltimore City neighborhoods: Greater Highlandtown, Belair-Edison, Oliver, Greater Mondawmin, and Cherry Hill. Neighborhoods were chosen based on need, working relationships with other partners, community capacity, designation as target neighborhoods in the Baltimore City MS4 WIP, and location within the four major watersheds throughout Baltimore City.

Strong partnerships are essential to the success of Deep Blue. Previously, organizations and agencies often approached community members separately, tackling one project at a time, and working across the entire city. Deep Blue aims to understand each community’s core challenges and increase collaboration between all partners in order to identify solutions and generate a comprehensive plan of action that addresses both stormwater management and community revitalization.
Process

The Deep Blue process has three major phases: Outreach, Visioning, and Assessment and Design. Three months of outreach in each community allows for relationship building and helps us to understand the strengths and opportunities for each neighborhood. Visioning workshops and pop-up surveys over the course of 3-6 months formally identify and prioritize needs that are then assessed for feasibility. Additional outreach in Oliver included Photovoice and Love Your Block initiatives.

Through the community visioning sessions, it became clear that that part of the community was underrepresented in the process, and that they needed investment in safety and beautification before directly addressing stormwater needs. Blue Water Baltimore the Oliver Community wrote a grant funded by the Baltimore Community Foundation and partnered with the Healthy Harbor Initiative to focus on beautification and community engagement in the area west of Harford Avenue. The Love Your Block initiative was community-led and residents were trained as block ambassadors. They made decorative wreaths, distributed recycling bins, painted boarded-up vacant homes, and installed dusk-til-dawn exterior lights.

Photovoice is an internationally utilized, grassroots research method that enables a community to identify, represent, and enhance their surroundings through an artistic process. It uses the immediacy of photography and storytelling to furnish evidence and promote an effective, participatory means of sharing expertise to influence public policy.

The results are then put in a Deep Blue Master Plan that is shared with the community and amended as needed. The results in the master plan serve as the guiding document for the community, DPW, and BWB over the next several years, guiding next steps for applying for funding and implementing projects on public and private property throughout the community.
NEIGHBORHOOD VISION SUMMARY

The neighborhood vision conveyed here is based on the visioning workshops, Photovoice, and other engagement conducted as part of the Deep Blue process. Oliver is home to multiple community organizations including the Oliver Community Association, Your Baltimore Community Development, and Meraki Community Uplift, which continuously advocate for neighborhood improvements. They are the primary resources for ongoing neighborhood planning.

Current Strengths
As mentioned in the neighborhood profile, hundreds of houses have been renovated or rebuilt to create new rental and ownership housing opportunities. Additionally, several groupings of vacant lots, from previous demolition, have been activated as community agriculture and/or recreational sites.

Concerns
Visioning workshop participants were concerned about the high vacancy rate in the neighborhood, corner liquor stores, and crime. Trash was frequently mentioned during facilitated conversations, including littering, dumping, and concerns about Baltimore City pickup schedules and practices. At the visioning workshops, participants were given maps and asked to document where positive and negative attributes of their neighborhoods were located. Residents noted dumping as a specific issue in the back corner of the community garden site in the 1400 block of Bethel Street, and that drug activity was significant along East Lanvale Street.

Photovoice participants highlighted concerns with vacancy and drug use in their photography. Photographer Earl Johnson, also leader of YBCD, captioned his work “Color Wheel” thus:

“This photo was taken through the windshield of my car as two known drug addicts who are also in a relationship take their morning trip to purchase drugs. As it rained the water made it impossible to see who they were or what they were doing. This picture represents the blind eye towards the growing drug problem in Oliver.”
Photographer Celena Owens, a 10-year Oliver resident who works in Information Technology, photographed a series of boarded-up vacant buildings, only to discover a photo of the same buildings, also boarded-up, taken over 11 years before. While some buildings have been redeveloped, others are waiting years for their turn.

Goals
The goals expressed in the visioning workshop aligned with the strengths and concerns listed above. The highest priority goals identified were:

- Supporting wifi access in green spaces to promote positive uses
- Improving neighborhood cleanliness and accountability
- Naming the assets already existing
- Support a close-knit community with more activities
- Organization of a Block Party where local birthdays can be recognized
- More use of the rec center

At a project identification meeting, Harford Road was discussed as being a barrier between east and west Oliver, and that high traffic speeds on that arterial street reduce pedestrian access within the neighborhood. While stormwater infrastructure is not feasible along much of Harford Road in Oliver, other traditional traffic calming measures might do much to make the area more walkable.

While street trees were generally seen positively, and substantial street tree planting is proposed in this plan, residents wish to ensure that replanted and new tree pits do not become catchments for litter and trash. One Photovoice photographer, Yvonne Hardy Phillips, also cautioned against removing the history of former large trees when replanting the neighborhood in her work “Rock Scissors Paper:”
“Cement makes a tree pit
The tree grows in Oliver
Until one day the saw cuts the tree down
To make paper.

It’s impossible to tell from looking why this tree was cut down. The circumference of the stump is quite large suggesting that it was a very mature tree that has been lost to the neighborhood. What remains is an abstract image that can visually suggest many things to the viewer... I know that I did; hoping that one day a new tree would be planted somewhere in the neighborhood to replace it. But please, just not in this space where a tree stump can be a work of art.”

The other major project component of the Deep Blue Project List is hardscape removal. This is largely adjacent to areas of current investment, including the KaBoom playground, the community garden, Bethel Street Playscape, and Bethel Farm Lab.

There are neighborhood goals not addressed by the Deep Blue Plan - traffic calming as mentioned above, crime, and drug use may benefit from greening in the long term in small amounts (studies do show that greening efforts are correlated with crime reduction), but these issues should continue to be directly and immediately addressed through other initiatives and projects.
Resources
HOW TO BE INVOLVED

Earn Stormwater Credits
Participants in approved environmental volunteer events such as tree plantings and trash cleanups can earn credits on their stormwater fee, or give these credits to others. According to anticipated regulations (by fall 2017), by participating in a 4 hour event, participants can earn a $10 credit toward their stormwater fee (appears on water bill). They can also give these credits to neighbors, such as an elderly resident. A maximum of $30 can be applied in one year. Residents may also qualify for a hardship exemption.

Go to publicworks.baltimorecity.gov/stormwater or call 410-396-5398 for more information.

Get Involved with Blue Water Baltimore
Blue Water Baltimore has many ways that community members can actively participate in this important effort in their own and other city neighborhoods. Volunteer activities include the following:

- Tree planting
- Trash cleanups
- Storm drain stenciling / painting (great for kids!)
- Vacant lot cleanups and restoration

Youth can earn service learning hours by participating in these and other volunteer events. Blue Water Baltimore organizes a paid YouthWorks team that maintains trees throughout the city during the summer.

Interested in learning more? Go to www.bluewaterbaltimore.org or call 410-254-1577 and ask for the Community Organizer for more information.

Help On Your Own
It takes all of us to restore our communities and environment. Even small changes at your home can make a difference. These include:

- Plant a new tree in your yard
- Replace part of your lawn with native plants
- Disconnect your downspout so rainwater empties onto your yard rather than going down the drain; better yet,
- Connect your downspout to a rain barrel and use it to water plants between rains; or,
- Add a rain garden to filter stormwater runoff from your roof, driveway, patio, or yard

Blue Water Baltimore can teach you how to install these helpful practices. They offer rain barrel workshops, tree giveaways, and operate the Herring Run Nursery which specializes in native plants.
OTHER AREA PLANS

East North Avenue LINCS (2017)

North Avenue Rising (2016)
https://mta.maryland.gov/tiger-viii

CONTACTS

Baltimore City Council
District 12 Elected Representative: Robert Stokes, Sr.
100 Holliday Street, Suite 500, Baltimore, MD 21202
410-396-4811 | Robert.Stokes@baltimorecity.gov

Community Organizations
Oliver Community Association
Meets 3rd Thursdays, 7pm at Oliver Rec Center
Your Baltimore Community Development
Earl Johnson
443-415-5274 | earl.johnson@ybcd.org
Meraki Community Uplift
www.merakicomunityuplift.org

Non-profit Organizations
Blue Water Baltimore
2631 Sisson Street, Baltimore, MD 21211
410-254-1577 | www.bluewaterbaltimore.org

Neighborhood Design Center
120 West North Avenue, Baltimore, MD 21201
410-233-9686 | www.ndc-md.org

BUILD
2439 Maryland Ave, Baltimore, MD 21218
410-528-0305 | www.buildiaf.org

The 6th Branch
410-513-9654 | www.the6thbranch.org

Baltimore City Agencies
Department of Public Works (DPW)
http://publicworks.baltimorecity.gov

Department of Recreation & Parks
http://bcrp.baltimorecity.gov

Department of Planning
District Planner: Marshella Wallace
http://planning.baltimorecity.gov

Department of Transportation
http://transportation.baltimorecity.gov

Department of Housing
www.baltimorehousing.org

Office of Sustainability
www.baltimoresustainability.org

Tree Baltimore
www.treebaltimore.org
GLOSSARY OF TERMS

Absorption – The act or process in which one thing gradually takes in or soaks up a liquid or another substance.

Biodiversity – The variation of life in the world or in a specific habitat or ecosystem.

Cistern – A tank used for storing rainwater. It can be placed above or below ground.

Compact Soil – Dense soil; usually caused by pressure that displaces air and liquids from the pores between soil grains.

Downspout Disconnect - Downspouts are designed to convey water away from buildings to prevent water damage. Many downspouts are connected to a standpipe, which directs rainwater into stormdrains and streams. When a downspout is disconnected from the standpipe, the downspout is cut and an additional piece of pipe is attached to carry the water a safe distance from the house where it can seep into the ground. The downspout and gutters remain in place. The only difference is at the base.

Green Infrastructure – Practices designed and constructed to manage stormwater runoff; controls stormwater by absorbing it before it enters sewer systems or local water bodies.

Green Roof – A vegetative layer on a roof that grows in specially designed soil to capture stormwater that falls on the roof.

Impermeable Surface – A surface, or an area, into which stormwater cannot be absorbed.

Impervious – Not capable of being penetrated by stormwater.

Infiltration – The process by which stormwater gradually passes into soil or other porous media.

Outreach – The activity of providing service or information to people who might otherwise not receive or have access to the service or information.

Permeable Pavement – Paving materials and techniques that allow stormwater to seep into spaces in or between the paving materials and be absorbed into the ground. They allow the movement of water and air around the paving material.

Pollutants – Harmful substances such as oils, chemicals, sediments, and trash that can contaminate or dirty water, air, and land.

Precipitation – Water that is released from the atmosphere, such as rain, sleet, or snow.

Public Health – The methods and sciences of preventing disease, prolonging life, and promoting health and well-being in society.

Rain Barrel – A rainwater harvesting tool that catches rooftop runoff via a downspout.

Rain Garden – Vegetated or landscaped depressions designed with an engineered soil layer that promotes infiltration of stormwater runoff into the underlying soil.

Storm Drain Art - Storm drains are an entryway to our waters. Painting the outside of storm drains reminds people that when it rains, trash and pollutants on our streets are carried into the storm drains and directly to our streams.

Stormwater – Any water that originates from a precipitation event.

Stormwater Detention – The act of holding back stormwater for a period of time before it is released into the sewer system.

Stormwater Management – Techniques aimed to mitigate the negative consequences caused by stormwater.

Stormwater Retention – Continued holding of stormwater without releasing it into the sewer system.

Stormwater Runoff – Water from precipitation that lands on rooftops, parking lots, streets, sidewalks, and other impervious surfaces, and runs into sewer systems or local water bodies such as flooding, erosion, and pollution.

Urban Heat Island Effect – The phenomenon in which urban areas are warmer than other areas due to the presence of dark surfaces and asphalt pavement in cities that absorb light and radiation.

Wastewater – The used water and solids from a community that flow to a treatment plant.

Water Quality – The biological, chemical, and physical conditions of a body of water; a measure of a waterway's ability to support beneficial uses.

Watershed – The land that drains, or sheds, water to a particular stream, river, lake, or reservoir. It is a land feature that can be identified by tracing a line along the highest elevations between two areas, often a ridge.

Terminology and definitions adapted from the New York City Department of Environmental Protection: www.nyc.gov/dep
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<th>Location</th>
<th>Site Ownership</th>
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<td>Public Right of Way</td>
<td>BWB</td>
<td>DOT</td>
<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
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<td>BWB</td>
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<td>Attend OCA meetings for updates.</td>
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<td>BWB</td>
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<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
</tr>
<tr>
<td>Tree Planting</td>
<td>Broadway between Federal St and North Ave</td>
<td>Public Right of Way</td>
<td>BWB</td>
<td>DOT</td>
<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
</tr>
<tr>
<td>Tree Planting</td>
<td>Harford Road</td>
<td>Public Right of Way</td>
<td>BWB</td>
<td>DOT</td>
<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
</tr>
<tr>
<td>Tree Planting</td>
<td>Knox Presbyterian Church Property</td>
<td>Private Property</td>
<td>BWB</td>
<td>Knox Presbyterian Church</td>
<td>2016-2017</td>
<td>n/a complete</td>
</tr>
<tr>
<td>Project</td>
<td>Location</td>
<td>Site Ownership</td>
<td>Implementing Organization</td>
<td>Partnering Organization</td>
<td>Timeline</td>
<td>How to Stay Involved</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------</td>
<td>---------------------------</td>
<td>--------------------------</td>
<td>-----------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Stormwater BMP</td>
<td>City-owned property near 1500 Bethel St</td>
<td>City-owned</td>
<td>BWB</td>
<td>The 6th Branch, OCA</td>
<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
</tr>
<tr>
<td>Hardscape Removal</td>
<td>City-owned property near Hoffman St and Ensor St</td>
<td>City-owned</td>
<td>DPW</td>
<td>City agencies</td>
<td>2018-2019</td>
<td>Attend OCA meetings for updates.</td>
</tr>
<tr>
<td>Hardscape Removal / Stormwater BMP</td>
<td>City-owned property near 1500 Bethel St</td>
<td>City-owned</td>
<td>BWB</td>
<td>The 6th Branch, OCA</td>
<td>2017-2018</td>
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</tr>
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<td>City-owned property near 1500 Bethel St</td>
<td>City-owned</td>
<td>BWB</td>
<td>The 6th Branch, OCA</td>
<td>2017-2018</td>
<td>Attend OCA meetings for updates.</td>
</tr>
</tbody>
</table>

Organization Key: DPW - Baltimore City Department of Public Works | DOT - Baltimore City Department of Transportation | BWB - Blue Water Baltimore | OCA - Oliver Community Association | BMP - Best Management Practice (stormwater infrastruc-