The Baltimore GROW Center is a program of

Funding kindly provided by

Support from our partners

Reported prepared by Travis Lageman.
UMBC Peacemaker Fellow, GROW Center Coordinator
Department of Public Works
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Contact Information:
Travis.lageman@baltimorecity.gov
410-396-0732
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Executive Summary

From April to May 2018, the Department of Public Works (DPW) collaborated with federal, city, non-profit and community partners to hold four pop-up GROW (Green Resources and Outreach for Watersheds) Centers across Baltimore City (see map):

Baltimore GROW Centers are intended to be greening resource hubs aimed at increasing citizen capacity for implementing community greening and stormwater management projects. These hubs would provide people with access to free/low cost materials as well as plants, training, and/or information to develop skills and connections for undertaking greening projects.

With funding from USDA/Forest Service, the four GROW Center pop-ups were visited by 206 participants, representing 86 neighborhoods in Baltimore City and a few from Baltimore County. Over the course of four consecutive Saturdays, 110 trees and 10 yd³ of mulch were given away, over $700 worth of native plants were sold, nine workshops on community greening and stormwater management were offered, and over 200 people were able to network with various greening experts.

<table>
<thead>
<tr>
<th>Pop-up #1</th>
<th>Pop-up #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easterwood/Sandtown Park &amp; Playground</td>
<td>Baltimore Community ToolBank</td>
</tr>
<tr>
<td>April 14th, 2018</td>
<td>April 21st, 2018</td>
</tr>
<tr>
<td>10am-12pm</td>
<td>10am-2pm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pop-up #3</th>
<th>Pop-up #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 Block N. Duncan St. C.A.R.E. Community</td>
<td>Langston Hughes Community Center</td>
</tr>
<tr>
<td>April 28th, 2018</td>
<td>May 5th, 2018</td>
</tr>
<tr>
<td>10am-2pm</td>
<td>10am-2pm</td>
</tr>
</tbody>
</table>

The Spring 2018 pop-ups were a continuation of a GROW Center pilot held in April/May 2016 (See The Neighborhood GROW Center 2016 Pilot Project – Final Report). The purpose of these and future pop-ups is to test different delivery models and gather insights into what a permanent GROW Program might resemble. Data collected will inform implementation of pop-ups in Fall 2018 and Spring 2019. The work will also be used to inform a GROW Center feasibility study.

A community member transports materials to nearby residences.
Background

The GROW Center concept originated with the intersection of four city-wide initiatives: Waste-To-Wealth Initiative, promoting a reuse economy to mitigate city wood, food and construction waste streams; increasing the urban tree canopy to 40%; MS4 Permit goals to encourage stormwater management on private property and to reduce polluted runoff; and the Growing Green Initiative to promote the revitalization and greening of Baltimore’s many vacant lots. In order to support these four initiatives, the GROW Center concept was conceived.

The interconnectedness of these initiatives is illustrated by the following example. By promoting the reuse of materials, residents can access affordable materials that can be used in vacant lot greening projects. These may include reclaimed lumber or mulch to create or maintain rain gardens, community gardens or plant trees. Performing these activities subsequently benefits community revitalization while also supporting stormwater management through increased greenspace, permeable surfaces, and more trees planted.

After the GROW Center idea percolated for a couple of years, the Baltimore Office of Sustainability organized a pilot project at Baltimore Community ToolBank in April 2016. This pilot consisted of workshops every Saturday and Sunday for five consecutive weekends. Reuse/greening materials were also available through purchase and giveaways. The success of this pilot showed promise for the concept’s feasibility. (Appendix Seven)

The USDA/Forest Service, one of the collaborators on the GROW Center idea, is also linking the centers with their efforts to collaboratively develop an Urban Wood and Land Restoration Economy. The goal of this effort is to turn urban wood from deconstruction and urban forestry activities into a source of revenue and social impact on a large scale – by creating jobs, improving lives and livelihoods, and promoting sustainability at local and regional scale.

GROW Center Timeline

- **Pilot GROW Center (April 2016)**
- **USFS Grant + Peaceworker Hire (July 2017)**
- **Planning & RFP: Business Plan (Dec 2017)**
- **Spring Pop-ups (April 2018)**
- **Consultant (Fall 2018)**
- **Business Plan (Fall 2018–Fall 2019)**
- **Report & Evaluation (June 2018)**
- **Pop-ups (Fall 2018 & Spring 2019)**
scales. Among other things, the effort connects residents with materials from deconstruction and urban forestry operations that can be used to green lots - thereby creating new community green space, reducing pollutant runoff, and increasing Baltimore’s urban tree canopy.

DPW, an original partner of the 2016 pilot, took up the GROW Center concept for further development. After securing grant funding from USDA/Forest Service to match already designated funds, DPW was selected to receive a University of Maryland, Baltimore County Peacemaker Fellow to act as GROW Center Coordinator in July 2017. The responsibility of the GROW Center Coordinator was to further test this GROW Center concept by organizing “pop-up” events. These pop-ups were temporary events that would test different delivery models, partners, and programs. The pop-ups held in Spring 2018 are the first of three planned series including Fall 2018 and Spring 2019.

Guiding Questions

In the early planning stages of the Spring 2018 pop-ups, GROW Center staff developed five guiding questions that would be explored through the pop-ups:

1. What greening materials are of interest and how are they accessed?
2. What training/education is of most interest?
3. What are best practices for information dispersal?
4. What resources are needed to implement GROW Center activities?
5. Who are GROW Center partners?

Funding

DPW was awarded a $100,000 USDA/Forest Service Grant. Specifically, the funding supports: (1) preparing a feasibility study and business plan for GROW Centers, and (2) testing and refining the delivery model of GROW Centers through a second round of ‘pop-up” events in the community. In line with the second purpose, funding from the USDA/Forest Service paid for workshop facilitation and location use of all four Spring pop-ups. Other logistical items were paid with a combination of DPW and Forest Service funds.

<table>
<thead>
<tr>
<th>Final Budget (Detailed in Appendix One)</th>
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<tbody>
<tr>
<td>Workshop Facilitation</td>
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<tr>
<td>Venue Stipend</td>
</tr>
<tr>
<td>Logistics/Other Materials</td>
</tr>
<tr>
<td>Printing/Advertisements</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Residents with Greening Experts at Easterwood/Sandtown GROW Center.

Partners

In Baltimore City, many non-profits and community groups perform work related to greening, stormwater management, and
community development. Following the advice of Andy Cook, the organizer of the 2016 Pilot, GROW Center planners aimed to avoid competing with already existing groups and instead supplement their efforts. GROW Centers sought to bring partners together to showcase work already happening and resources available to residents and community leaders. In doing so, GROW Centers made use of partners’ technical expertise and knowledge. This gave residents a taste of what Baltimore has available, while also fostering new connections between residents and GROW Center partners. Therefore, DPW engaged partners in the following four ways: 1) Host Sites 2) Materials Suppliers 3) Greening Experts 4) Workshop Facilitators.

1) Host Sites
Several criteria were used for selecting pop-up locations. These included targeting different areas of Baltimore (specifically underserved areas), sites with sufficient outdoor space and/or positive indicators of community greening, previous revitalization projects and recommendations by partner organizations from their own work in a given neighborhood, and a combination of outdoor and indoor locations.

Greenspaces
Two of the pop-up events were located at community managed green spaces. The first pop-up was located at Easterwood/Sandtown Park & Playground of West Baltimore. This space was a Parks & People Foundation project in collaboration with the Matthew Henson Community Association, which turned a series of vacant lots into a new community space. The third pop-up was located in the C.A.R.E. community in East Baltimore at 400 Block N. Duncan St, a community space created in collaboration with Civic Works. Both of these sites were chosen for their geographic location, walkability, noted community greening engagement, and opportunity to showcase vacant lot revitalization projects.

Baltimore Community ToolBank
The ToolBank served as the venue for the second pop-up, and provided some tools and equipment for all pop-up events. The ToolBank was a clear fit for a GROW Center due to their experience with the 2016 Pilot. It also was an opportunity to locate a pop-up in South Baltimore with ample indoor venue space.

Langston Hughes Community, Business & Resource Center
Langston Hughes Community Center occupies the former Langston Hughes Elementary School, located along Reisterstown Road in the Park Heights neighborhood of Northwest Baltimore. The

A resident picks up a truckload of mulch from GROW Center #2.
location was selected for its experience in hosting various community programs, ample outdoor and indoor space, and a community identified as interested in greening.

2) Materials Suppliers

These partners provided GROW Centers with various materials for giveaway, purchase and/or display. Each supplying partner was responsible for transporting their materials to/from the pop-up site. Materials for sale transactions were handled exclusively by the respective supplier.

Tree Baltimore/Camp Small

Tree Baltimore, which is staffed by the Department of Recreation & Parks, is the city umbrella organization for increasing the tree canopy. They hold numerous tree giveaways and plantings, and encourage residents to become “Tree Keepers” by caring for forest patches and educating others. Camp Small, part of Tree Baltimore, is Baltimore’s wood waste processing facility. Wood waste from tree maintenance in the city is brought to Camp Small where it is sorted as logs or processed into mulch and woodchips. This material is free to community groups or at cost to individuals who can pick it up from the facility (located on Cold Springs Ave near I-83). At all four pop-ups, Tree Baltimore and Camp Small provided free trees and mulch along with information on tree types and planting suggestions.

Blue Water Baltimore/Herring Run Nursery

Blue Water Baltimore (BWB) is a local non-profit working to restore the quality of Baltimore’s waterways including removing impervious pavement, monitoring water quality, and advocating for water pollution reduction. Herring Run Nursery, a part of...
BWB, specializes in plants native to the Chesapeake Bay watershed. Herring Run offered a variety of native plants for sale at each pop-up. This provided opportunity for new markets as opposed to selling only at the nursery located near Mt. Pleasant Park in Northeast Baltimore.

Details Deconstruction

Details is a social enterprise project of the non-profit Humanim, Inc. that performs deconstruction of vacant buildings. Deconstruction allows the reclamation of materials that are then sold for reuse. Details displayed samples of various deconstruction materials including reclaimed bricks and their new brick aggregate pieces that could be used in various greening projects. Pricing sheets were also available for residents interested in purchasing from Details at a later time.

3) Greening Experts

Several government and non-profit organizations participated as greening experts in an “Ask an Expert” capacity. The purpose was to provide information about gardening, vacant lot adoption, and other city initiatives.

- *Bmore Beautiful*, a mayoral initiative, works on beautification efforts in communities by partnering with residents. Many participants signed up with Bmore Beautiful, making a pledge to keep their communities cleaner and greener.

- *Department of Housing and Community Development* representatives were available to address questions related to adopting vacant lots and recent changes to the process.

- *University of Maryland Extension – Master Gardeners* brought free seeds and a wealth of knowledge related to gardening. They also shared information about the Master Gardener program, and how to enroll in it.

- *Baltimore Office of Sustainability / Department of Planning* discussed the city’s new Green Network Plan to address vacancies through greenspaces. They also made use of the Green Pattern Book, discussing ways to revitalize vacant lots with residents.

4) Workshop Facilitators

In order to build community capacity for performing vacant lot greening and stormwater management, workshops were identified as an important component of the GROW Center. Workshop topics were sourced from a survey of city residents and through collaboration with partners.

The following partners facilitated workshops at GROW Center Pop-ups:

At Langston Hughes GROW Center #4, a resident learns about the Bmore Beautiful Initiative.
▪ Baltimore Orchard Project (Civic Works)
▪ Blue Water Baltimore
▪ Tree Baltimore
▪ Edible Eden Foodscapes
▪ UMD-Extension – Master Gardeners
▪ UMD-Extension – Watershed Protection and Restoration Program
▪ Department of Housing and Community Development
▪ Parks and People Foundation
▪ Your Baltimore Community Development

Programming

GROW Center pop-ups encompassed combinations of three main programmatic components: 1) Materials, 2) Greening Experts, and 3) Workshops. All pop-ups were four hours long (with the exception of the first pop-up, which was only two hours) and had Materials and Greening Experts available. Pop-ups #2 and #4 included a series of workshops in addition to the other two components.

1) Materials

Materials were provided for both free and at cost. Free items included mulch from CampSmall, empty 5-10 gallon planter buckets (provided by Tree Baltimore) to carry mulch away, and trees of 1-2 gallon size. The tree giveaway was a replication of Tree Baltimore’s many tree giveaways.

Mulch from Camp Small provided in buckets for residents to take away.

Display of different brick products by Details Deconstruction.

Herring Run Nursery offered native plants for sale at each pop-up.

Native plants were available for purchase from Blue Water Baltimore’s Herring Run Nursery. Sizes consisted mostly of quart and gallon pots, ranging from $7 to $17 per pot.

Details Deconstruction displayed different brick products (full, dinged, and crushed/aggregate) as well as some larger stone. Originally, reclaimed lumber was to be available, but it was discovered that the lower grade lumber targeted for the GROW Center was no longer being collected.
An example sheet for reclaimed materials use was provided at the Details table (See Appendix Five). Residents also collected Details contact info if they were interested in making an order at a later date. At the close of each pop-up, some residents were able to take away the small samples of materials on display for free. Recycling bins were also at the first pop-up, sold at a discounted rate (bins were to be available at the last pop-up but failed to arrive).

2) Greening Experts

Greening Experts were available at each pop-up. A raffle was introduced at the 3rd and 4th pop-ups to encourage GROW Center participants to visit all materials and experts, as well as fill out a feedback survey. Residents were given the survey at check-in and told about the raffle. If a resident visited each table and had each representative initial the back of the survey, they entered the raffle for a $20 Gift Certificate to Herring Run Nursery and a free Tree Baltimore t-shirt.

3) Workshops

As noted earlier, the workshops were organized around two themes: residential stormwater management and community greening. Most workshops were 1 hour lecture-style with demonstrations, while some were hands-on (i.e. Tree Planting, Rain Barrel). Pre-registration was encouraged through EventBrite and all workshops were offered for free.

![Participants in the Baltimore Orchard Project-led Rain Garden workshop examine rain gardens on site at Baltimore Community ToolBank.](image)

### GROW Center Workshop List

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop-up #2: Stormwater Management</td>
<td></td>
</tr>
<tr>
<td>Intro to Rain Gardens</td>
<td>Baltimore Orchard Project – Civic Works</td>
</tr>
<tr>
<td>Rain Barrels</td>
<td>Blue Water Baltimore</td>
</tr>
<tr>
<td>Downspout Disconnection</td>
<td>UMD – Extension Watershed</td>
</tr>
<tr>
<td>Pollinator Gardening</td>
<td>Edible Eden</td>
</tr>
<tr>
<td></td>
<td>Foodscapes</td>
</tr>
<tr>
<td>Pop-up #4: Community Greening</td>
<td></td>
</tr>
<tr>
<td>Intro to Urban/Community Gardening</td>
<td>Your Baltimore Community Development</td>
</tr>
<tr>
<td>Container Gardening</td>
<td>UMD – Extension Master Gardeners</td>
</tr>
<tr>
<td>Tree Planting/Care</td>
<td>Tree Baltimore</td>
</tr>
<tr>
<td>Placemaking for Greenspaces</td>
<td>Parks &amp; People Foundation</td>
</tr>
<tr>
<td>Adopt-a-Lot</td>
<td>Department of Housing and Community Development</td>
</tr>
</tbody>
</table>

### Miscellaneous

- While tables and chairs were provided to the material suppliers and experts, an additional table and tent was set up to
provide drinking water for attendees. This table also had coloring and a trash-themed corn-hole game for children.

Promotion

Promotion of GROW Center pop-ups was carried out through the following avenues:

- DPW Social Media Accounts: Facebook, Twitter and NextDoor
- DPW Customer Report (newsletter included in the Water Bill for every customer in Baltimore City)
- Partner Social Media Accounts & Newsletters
- Flyers in select cafes/businesses around each pop-up location
- Lawn Signs around each pop-up location
- Host Site communications with local communities
- Cold calls to Faith Organizations
- Tabling at Baltimore Office of Sustainability Annual Open House
- WBAL-TV 11 aired an interview with GROW Center Staff after Pop-up #2

Data & Analysis

Various forms of data collection were performed to assess this particular GROW Center delivery model. Data was collected through the following means:

- Feedback Surveys: Completed by Participants, Greening Experts, Facilitators, Host Sites, and Materials Suppliers
- Registration Forms at Check-in/Pre-Registration Forms from EventBrite
- Materials Purchase/Pick-up Forms from Material partners: BWB and TreeBaltimore

Surveys were given to the above groups by GROW Center staff to gather general feedback of the event. For example,
attendees were asked to use a Likert Scale of 1-5 to indicate how they enjoyed the GROW Center, or experts were asked how good of a fit they felt the GROW Center was for their organization. Surveys also probed for prevalent topics during materials and greening expert interfaces with attendees (Surveys in Appendix Four).

All other data was cleaned and organized in Microsoft Excel, and analyzed using Excel and ArcMap. Maps were produced to perform analyses and see where GROW Center attendees originated.

- 35% of Pre-registered attendees showed up to GROW Centers
- 204 total registrations for workshops with 65 (est.) actually attending
- 2,341 Individuals reached through DPW Facebook Event
- 14,392 page views of events thru DPW NextDoor Promotion
- 130 unique material users in total
- 78.5% of attendees used their own vehicle to transport materials
- 81% of attendees intended to use materials for residential purpose
- 30% of all attendees had 1 year or less of community greening experience vs. 28% with more than 1 year. (42% didn’t respond, who are likely novice greener.)

GIS Analysis

Collecting addresses allowed for analysis using Geographic Information Systems software, ArcMap. This analysis revealed neighborhoods attendees originated from, characteristics of these neighborhoods, and travel distance (Table 1). It appears that attendees traveled further to GROW Centers
with workshops (Pop-ups 2 & 4) as compared to those without (1 & 3). Map 3 shows that attendees tended to visit pop-ups that were nearby. As shown in Map 1, attendees came from 86 different neighborhoods. The five neighborhoods with the most attendees were: Frankford, Hampden, Glen, CARE, and Mt. Washington. The respective attendee count for each was 6, 5, 5, 4, 4. The remaining neighborhoods attracted 1-4 attendees each. This was also shown using community statistical areas (Appendix Six).

Table 1: *(All numbers in miles)*

<table>
<thead>
<tr>
<th>Pop-up Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Distance</strong></td>
<td>2.04</td>
<td>2.87</td>
<td>2.12</td>
<td>2.76</td>
</tr>
<tr>
<td><strong>Max Distance</strong></td>
<td>5.68</td>
<td>6.05</td>
<td>5.96</td>
<td>9.26</td>
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<tr>
<td><strong>Min Distance</strong></td>
<td>0.06</td>
<td>0.00</td>
<td>0.06</td>
<td>0.05</td>
</tr>
</tbody>
</table>

A density analysis was performed to determine areas of high attendee density, as shown in Map 2. High density areas tended to be near pop-up locations: West Baltimore, East Baltimore, and Park Heights. The ToolBank did not have as many local attendees due to the nature of the industrial area in which ToolBank is located.

Density analysis allowed further analysis by comparing areas of high to medium density of attendees to those with little or none. Indicator data from Baltimore Neighborhood Indicators Alliance was sourced to perform comparison with data related to GROW Center goals. These goals include increasing the tree canopy and promoting vacant lot revitalization/community managed green spaces. The following datasets were used:

- Tree Canopy Cover
- Number of Community Managed Open Spaces
- Median Household Income
- Percentage of Residential Properties Vacant & Abandoned.

This data was used to determine average values of residents in each density zone as

Participants in the Tree Baltimore-led “Tree Planting/Care” workshop next to one of the newly planted trees at Langston Hughes Community Center, GROW Center #4.
Map 1

GROW Center Attendees by Neighborhood

Number of Attendees

- 0
- 1
- 2
- 3 - 4
- 5 - 6

GROW Center

0 0.5 1 2 Miles
Map 2

GROW Center Attendees: Density Analysis

Attendee Density
- Low
- Medium
- High
- GROW Center

Scale: 0 0.5 1 2 Miles
Map 3

GROW Center Attendees by Pop-up

Pop-up #1

Pop-up #2

Pop-up #3

Pop-up #4

- Pop-up Location
- Attendee Location
found in Table 2. Analysis showed areas of higher attendee density are areas characterized by less tree canopy, lower median income, higher numbers of community managed open spaces and higher percentages of vacant lots. This result gives some confidence that through targeted siting, GROW Centers can reach areas of high potential impact. This impact may be realized thru opportunities to perform vacant lot greening and increase tree canopy goals.

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Indicator</th>
<th>Attendance</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>2016</td>
<td>Median Household Income ($)</td>
<td>38,325</td>
</tr>
<tr>
<td>2015</td>
<td>% Residential Properties that are Vacant &amp; Abandoned</td>
<td>12.83</td>
</tr>
<tr>
<td>2015</td>
<td># of Community Managed Open Spaces</td>
<td>27.81</td>
</tr>
<tr>
<td>2011</td>
<td>% Tree Canopy Cover</td>
<td>21.31</td>
</tr>
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</table>

**Lessons Learned**

After data collection and analysis, it was important for GROW Center staff to reflect on the overall process and efficacy by returning to the guiding questions set beforehand.

1. **What greening materials are of most interest and how did people access/transport them?**
   - Most popular were trees, mulch and native plants that were to be for residential use.
   - This pop-up model was capable of providing resources to a large number (200+) people.
   - People prefer free items while at cost items (i.e. native plants) can be barriers to many residents. Making at cost items cheaper or free/subsidized (i.e. rain barrels) should be considered in order to increase accessibility.

2. **What training/education is of most interest?**
   - Interest exists for many types of training and education such as rain barrels, composting and tree-related programming. (See Appendix Four)
Despite pre-registration interest, the percentage of pre-registered people who attended was low. This might be contributed to busy times of the year (i.e. Spring), conflicting commitments and having no registration fee.

Future workshops might omit registration limits in order to realize more actual attendees while still being free.

Instituting a fee could add unnecessary complication and restrict some from attending, but should be considered if free workshops continue to falter.

Although workshop turnout was low, facilitators gave positive feedback about meaningful interactions with participants.

The $200 facilitation stipend copied from the 2016 pilot is difficult to justify if funding is an issue and workshop attendance is low.

3. What are best means for dispersing information about the GROW Center?

- Social Media (i.e. DPW Twitter/Facebook) and word-of-mouth proved effective while print adverts are important for reaching individuals without internet access.

- Methods of attracting residents passing by. For example, a drummer showed up at a pop-event and some residents attended after hearing the drums.

- EventBrite worked well for GROW Center pre-registration. Managing online event pages, registration processes and data collection was seamless.

- An important consideration is to ensure all partner advertising is received by GROW Center staff for consistency. This can bolster outreach.

- Promotion by partners may need to be discussed further in partner meetings to set clear expectations.

- The raffle/passport encouraged attendees to visit each partner, and proved very useful for providing opportunities for outreach by each partner.

- The prepared list of spring events (Appendix Five) also allowed for attendees to learn about other GROW Center related events.

4. What resources are needed to implement GROW Center activities?

- With partner involvement, resources required by GROW Center are mostly logistical including: tables, chairs, printouts, water, electronic equipment, print advertisements, transportation, and staff.
Working with DPW’s legal department took 2 months to prepare agreements. Getting paperwork signed by partners and the DPW Director took another 2 weeks, while checks written by the City Foundation took another 2-3 weeks. If creating new agreements, schedule ample time (~3 months) to ensure quick payment of stipends.

Depending on GROW Center funding source, different processes may need to be undergone to allow for timely payment to partners and should be considered.

Reducing the amount of paperwork would be helpful. Due to Federal funding, agreements required additional paperwork that confused many partners.

Having at least two GROW Center staff at events is absolutely necessary. One at check-in and one floating around to assist partners and workshops.

Partnering with sites that held other concurrent activities was a “double-edged sword.” Outreach potential increased, but sometimes GROW Center event operations were not given the proper attention.

Four hours for GROW Centers was too long when considering non-workshop pop-ups. Most people arrived in the first two hours, with some arriving before the scheduled start time to get materials.

5. What GROW Center partners are needed?

Every partner worked with expressed interest in being part of future GROW Center events.

When searching for partners they can be classified into four categories: workshop facilitators, material suppliers, experts and host sites.

Appropriate partners can be identified through the robust greening network in Baltimore based on goals/needs of GROW Centers.

6. Miscellaneous

Data collected at check-in was often difficult to accurately discern due to poor hand-writing/recording by attendees. Promulgating different means of collection will be beneficial (i.e. Tablet Check-in)

The use of a raffle for collecting participant surveys and ensuring attendees visited all partners was very successful. (13 surveys pre-raffle vs. 56 post-raffle)

Concluding Remarks

While this GROW Center pop-up model proved successful in many ways, it was noted that 81% of GROW Center attendees who
came for materials intended to use them at their homes. While providing residents with access to materials is a central component of the GROW Center, it is also a priority to have these resources used in community greening (i.e. vacant lot revitalization).

In this regard, GROW Center programming could be targeted towards new community groups who have recently adopted vacant lots or are applying for grant funding from Parks & People Foundation. Targeting community groups could also foster potential for larger usage of materials and more robust workshop turnout.

GROW Center users were more likely to attend the pop-up location closest to them. Targeted areas included lower median income, less tree canopy, higher vacant lot percentages and higher numbers of community managed open spaces. These areas are desirable for GROW Center programming goals and should be considered in future planning of GROW Center pop-ups.

Dispersing GROW Center pop-ups across Baltimore City afforded access to a large number of people (200+) and neighborhoods (86). Part of this success is likely due to the effectiveness of partner and DPW city-wide promotions. Developing a GROW Center network based on this outreach is potentially invaluable, considering the abundance of “new greeners” the pop-ups attracted.

Finally, the main hurdles encountered by GROW Center staff during planning were cumbersome bureaucratic procedures. While some may have been slow due to first-time growing pains, finding ways to avoid this altogether in permanent GROW Center programming is worth considering.

Partners from the first pop-up GROW Center at Easterwood/Sandtown Park & Playground.
Appendices

A1 – Final Budget
A2 – Flyers
A3 – Data Collected
A4 – Survey Results
A5 – Handouts
A6 – Additional Maps
# A1 – Final Budget

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<thead>
<tr>
<th>Item</th>
<th>Item Description</th>
<th>QTY</th>
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<th>USFS/City Fdn</th>
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<td>1000</td>
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<td>Event space rental.</td>
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<td>200</td>
<td>800</td>
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<td>1 Banner, 6 Lawn Signs, 2 Large Welcome Posters</td>
<td>1</td>
<td>656</td>
<td>656</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rain Barrel Subsidy</td>
<td>Subsidized cost of rain barrels for workshop participants</td>
<td>15</td>
<td>45</td>
<td>675</td>
<td></td>
<td></td>
<td></td>
<td>675</td>
</tr>
<tr>
<td>Pollinator Plant Giveaway</td>
<td>Gave away free pollinator plant to workshop participants</td>
<td>8</td>
<td>7</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>Raffle Gift Certificates</td>
<td>Two Herring Run Nursery Gift Certificates for raffle winners</td>
<td>2</td>
<td>20</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Compost/Garden Mix</td>
<td>3 bags of mix from Baltimore Community ToolBank for workshop</td>
<td>3</td>
<td>5</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Porta-John</td>
<td>1 porta-john for GROW Center pop-up #3</td>
<td>1</td>
<td>40</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Chairs Rental</td>
<td>20 Chairs rented from Baltimore Community ToolBank for 4 weeks</td>
<td>4</td>
<td>15</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>Snacks</td>
<td>Light snacks for partners at 3 GROW Center pop-ups</td>
<td>4</td>
<td>8</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Mileage</td>
<td>Personal vehicle usage for GROW Center pop-up preparations</td>
<td>139.9</td>
<td>0.535</td>
<td>74.846</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>DPW Truck (Mileage)</td>
<td>Transport of pop-up materials at 4 pop-up events + 1 pre-pop-up materials transport to ToolBank</td>
<td>41</td>
<td>0.535</td>
<td>21.935</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tents</td>
<td>Tents for pop-up events from DOT Special Events</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tables</td>
<td>Tables for pop-up events from Prettyboy Reservoir Facility</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Facilitators (free)</td>
<td>4 free workshop facilitators at 4 pop-up events</td>
<td>1</td>
<td>8 Hrs</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Experts</td>
<td>4 Experts Organizations at 4 pop-up events</td>
<td>1</td>
<td>44 Hrs</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>DPW</td>
<td>2 OCAL Staff and 1 Peacemaker Staff for 4 pop-up events</td>
<td>1</td>
<td>66 Hrs</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Materials</td>
<td>4 Materials Suppliers at 4 pop-up events</td>
<td>1</td>
<td>56 Hrs</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

X = in-kind

Total $3470.78

Blue = Workshop; Purple = Location; Red = Printing; Orange = Logistics; Green = Staff
*City Fdn = Baltimore City Foundation
A2 – Flyers

Flyer 1 (Also translated to Spanish)

GROW Center

April 14, 2018
10am – 12pm
Easterwood/ Sandtown
Park n’ Playground
1515-1557 McKean Avenue,
21217
Featuring: Garden & Vacant Lot experts, mulch, trees, and more.

April 21, 2018
10am – 2 pm
Baltimore Community Tool Bank
1224 Wicomico Street, 21230
Featuring: Workshops on rain & pollinator gardens. Materials include native plants, trees, mulch and more.

April 28, 2018
10am – 2pm
CARE Community
400 Block of
N. Duncan Street, 21231
Featuring: Garden & Vacant Lot experts, mulch, trees, and more.

May 5, 2018
10am – 2pm
Langston Hughes
Community Center
5011 Arbutus Avenue, 21215
Featuring: Community gardening, placemaking workshops. Materials include reclaimed lumber, mulch, trees, and more.

Baltimore City Department of Public Works brings you GROW Centers!! Baltimore GROW Centers are your neighborhood greening resource hubs. Over four weekends this Spring, GROW Centers will pop-up in Baltimore City with green products for free/sale and free workshops on topics including rain barrels; tree plantings; container, community, & pollinator gardening; and green space placemaking. Visit a GROW Center to transform that vacant lot, spruce up a community garden or make your block greener!

Sign-up to see all materials and workshops available!!!

baltimoregrowcenter.eventbrite.com

Our Participating Partners:
USDA/ Forest Service, Tree Baltimore, Bmore Beautiful, Baltimore Office of Sustainability, Baltimore Housing and Community Development, Baltimore Community Tool Bank, Blue Water Baltimore, Civic Works/Baltimore Orchard Project, Details Deconstruction, Parks & People Foundation, UMD Extension

For more information visit the website, call 410-396-0732, or email travis.lageman@baltimorecity.gov. Funding for GROW Centers was provided through a USDA Forest Service Grant.
# A3 – Data Collected

<table>
<thead>
<tr>
<th>Collection Method</th>
<th>Data Collected</th>
</tr>
</thead>
</table>
| Event Check-in/EventBrite Registration  | - Name  
- Address  
- Phone Number  
- E-mail Address  
- How did you find out about GROW Center?  
- What materials are you here to get?  
- Are you here as a resident or part of a Community, Faith or Business group?  
- Years of community greening experience? |
| Materials Purchase/Pick-up Sheet        | - Name  
- Amount of Material  
- Transport Method (Car, Walking, Public Transport)  
- Intended Use of Material (Residential, community, business, school, faith, other)  
- Intended Use Address |
| Feedback Survey – Participants          | - How would you rate the GROW Center? (Likert Scale: 1-5)  
- What other workshops and/or materials would you like to see at GROW Centers?  
- Any other comments or suggestions? |
| Feedback Survey – Materials Suppliers   | - How did the space work for giving out your materials? Anything lacking or needing improvement?  
- What were prevalent topics/conversations had with individuals regarding material use?  
- Any other comments? |
| Feedback Survey – Host Sites            | - How did you feel about hosting the GROW Center?  
- Are there any recommendations you would make for future GROW Centers?  
- How did you feel about the overall planning process?  
- Any other comments? |
| Feedback Survey - Facilitators          | - How did the space work for facilitating your workshop?  
- Is there anything the GROW Center could have provided to improve facilitation?  
- Any other comments? |
| Feedback Survey – Greening Experts      | - Please estimate the number of people who asked questions  
- Were there any prevalent topics asked?  
- Was the GROW Center a good fit for your organization?  
- Any other comments? |

*All methods carried out by DPW/GROW Center staff with the exception of the Materials, collected by each Material Supplier on behalf of DPW/GROW Center staff. All data provided voluntarily.*
### A4 – Survey Results

<table>
<thead>
<tr>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rankings: 5 out of 5 (x47); 4 out of 5 (x17); 1 out of 5 (x2) * both had positive remarks, may have chosen wrong number</td>
</tr>
<tr>
<td>• Overall: Great event with lots of knowledgeable people. Very informative</td>
</tr>
<tr>
<td>• Plants were pricy.</td>
</tr>
<tr>
<td>• Recommendation for a series of classes on basics of gardens around town for a month or two.</td>
</tr>
<tr>
<td>• Other Materials/Topics: Tools, Recycling, Bonsai, Rain Barrels, Trees (x6), Green Roofs, More Plants for Sale (x3), Kid Activities, How to start a garden (x2), Centrally located, brick &amp; mortar year round GROW Center, Composting (x3), Container Gardening (x3), Planting Schedule Creation, Planting Incentives, “How to” demos, Soil Education (x3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall: Space worked very well</td>
</tr>
<tr>
<td>• Having tools on site made workshop very easy.</td>
</tr>
<tr>
<td>• It is important to meet people halfway. Get resources in their hands even if they arrive late to a workshop.</td>
</tr>
<tr>
<td>• Ensure facilitator is best suited for particular workshop topic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall: Great event with lots of people.</td>
</tr>
<tr>
<td>• Prevalent Topics: Adopt-a-lot (x2), Water Access (x2), Side Yard Program, Purchasing Property (x2), [Vacant lot] Gardening (x5), Baltimore Green Network, Container Planting (x2), Soil Testing (x3), Seeds/Planting (x4), Pest Management, Connecting youth to clean-ups/green-ups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall: Space worked well for materials giveaway/selling.</td>
</tr>
<tr>
<td>• Selling plants out of back of pick-up truck is ideal.</td>
</tr>
<tr>
<td>• Prevalent Topics: Perennial vs. Annual, Soil Quality, Competing Plants, Tree Height, Tree ID, Tree Care, Who is this organization?, Benefits of Natives, Tree Planting Locations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Host Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overall: Happy with event and being included. Good for the community</td>
</tr>
<tr>
<td>• Wished it was a little bigger with more vendors</td>
</tr>
<tr>
<td>• Ensure that partners clean-up well</td>
</tr>
<tr>
<td>• Print flyers for community distribution (by host site)</td>
</tr>
<tr>
<td>• Planning process was easy and worked well. (x3)</td>
</tr>
</tbody>
</table>

*Survey results sorted and aggregated.*
Handout 1

Reclaimed Materials Uses

1. Container Gardens/Planters

2. Tables, Chairs, Benches, furniture

3. Garden Edging

4. Brick Paths

5. Bird Baths

6. Tree ring

7. Crushed Brick/Stone Paths & Mulching
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAY 6</td>
<td>Herring Run Nursery Sale</td>
</tr>
<tr>
<td>MAY 6</td>
<td>Plants &amp; People (Parks &amp; Recreation – Every Sunday until October)</td>
</tr>
<tr>
<td>MAY 8</td>
<td>Solar Workshop</td>
</tr>
<tr>
<td>MAY 9</td>
<td>Pollinator Gardens</td>
</tr>
<tr>
<td>MAY 9</td>
<td>Herring Run Nursery Workday Wednesday</td>
</tr>
<tr>
<td>MAY 10/11</td>
<td>Outfall Screening Blitz</td>
</tr>
<tr>
<td>MAY 12</td>
<td>TreeGiveaway @ Waverly Farm Market</td>
</tr>
<tr>
<td>MAY 12</td>
<td>TreeGiveaway @ Cyburn Arboretum “Market Day”</td>
</tr>
<tr>
<td>MAY 12</td>
<td>Edible, Medicinal, &amp; Useful Plant and Mushroom Walk $§</td>
</tr>
<tr>
<td>MAY 12</td>
<td>Paint &amp; Plant a Pot for Mom @ Herring Run Nursery $§</td>
</tr>
<tr>
<td>MAY 17</td>
<td>Getting Grounded: Forest Bathing Walk (Cyburn Arboretum) $§</td>
</tr>
<tr>
<td>MAY 19</td>
<td>Notable Tree Bus Tour</td>
</tr>
<tr>
<td>MAY 19</td>
<td>Tree Giveaway @ Herring Run Nursery</td>
</tr>
<tr>
<td>MAY 22</td>
<td>Storm Drain Art Workshop $§</td>
</tr>
<tr>
<td>MAY 23</td>
<td>Carroll Park Stewardship</td>
</tr>
<tr>
<td>MAY 24</td>
<td>Getting Grounded: Forest Bathing Walk (Cyburn Arboretum) $§</td>
</tr>
<tr>
<td>MAY 26</td>
<td>Low Tech Mushroom Growing $§</td>
</tr>
<tr>
<td>MAY 26</td>
<td>Forestry Board TreeGiveaway @ Herb Fest</td>
</tr>
<tr>
<td>JUNE 1</td>
<td>Tree Giveaway @ Summer Sounds, Belvedere Square</td>
</tr>
<tr>
<td>JUNE 2</td>
<td>Pollution 101 &amp; Outfall Screening Blitz Training</td>
</tr>
<tr>
<td>JUNE 3</td>
<td>TreeGiveaway @ “Under the JFX”</td>
</tr>
<tr>
<td>JUNE 5</td>
<td>Tree Giveaway @ Farmers Market in Lauraville</td>
</tr>
<tr>
<td>JUNE 6</td>
<td>Soil &amp; Water Management Workshop</td>
</tr>
<tr>
<td>JUNE 9</td>
<td>Edible, Medicinal, &amp; Useful Plant and Mushroom Walk $§</td>
</tr>
<tr>
<td>JUNE 9</td>
<td>3rd Annual Baltimore Floatilla $§</td>
</tr>
<tr>
<td>JUNE 16</td>
<td>Mushroom Growing 101: Beyond Low-Tech $§</td>
</tr>
<tr>
<td>JULY 18</td>
<td>Event Management 101</td>
</tr>
</tbody>
</table>

***For more info on a particular workshop/event, visit the organizer’s website.***
Map 1:

GROW Center Attendees by Community Statistical Area

*Map displayed using natural Jenks classification to show natural trends in data*
Map 2

Attendee Location vs. CMOS by Community Statistical Area

Data from BNIA-JFI Vital Signs (Sustainability 2015 Dataset): https://bniajfli.org/vital_signs/data_downloads/

*CMOS = Community Managed Open Space

*Data from BNIA-JFI Vital Signs (Sustainability 2015 Dataset): https://bniajfli.org/vital_signs/data_downloads/
Map 3

Map 4

Attendee Location vs. Percentage Vacant Properties by Community Statistical Area

Vacant Properties (%)
- 0.03 - 1.88
- 1.89 - 4.39
- 4.40 - 7.38
- 7.39 - 20.55
- 20.56 - 33.47

*Data from BNIA-JFI Vital Signs (Housing 2015 Dataset): https://bniajfi.org/vital_signs/data_downloads/
Map 5

Attendee Location vs. Tree Canopy by Community Statistical Area

Tree Canopy (%)
- 3.2 - 9.8
- 9.9 - 15.4
- 15.5 - 28.0
- 28.1 - 42.9
- 43.0 - 72.1

GROW Center
Attendee Location

*Data from BNIA-JFI Vital Signs (Sustainability 2011 Dataset): https://bniajfi.org/vital_signs/data_downloads/*