Baltimore City
Land Preservation, Parks and Recreation Plan
2017 - 2022

October 2017

BALTIMORE CITY
RECREATION & PARKS
REGINALD
MOORE
DIRECTOR

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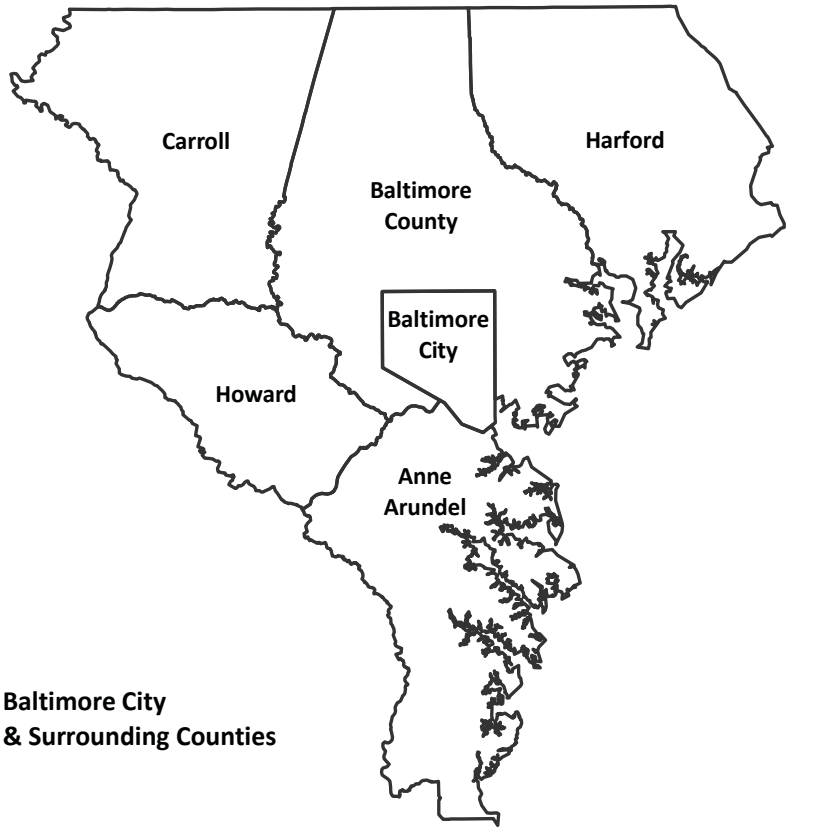
I. INTRODUCTION

Baltimore City's Physical Characteristics

Baltimore, as the largest city in Maryland, with a population of 621, 849, is both the geographic and economic hub of the State. Covering 82 square miles, the City is located on the Patapsco River, a deep-water tributary of the Chesapeake Bay.

The Baltimore-Washington Metropolitan Area constitutes the southern end of the eastern seaboard megalopolis, and it is the furthest west of any port on the entire East Coast. The Baltimore metropolitan region includes Baltimore City and the surrounding counties of Anne Arundel, Baltimore, Carroll, Harford and Howard (Map 1.0).



Map 1.0

Laid out in 1730, Baltimore is one of the oldest cities in Maryland. Situated on the fall line of the piedmont and tidewater regions, Baltimore's economy developed to support that of the north[2]. Baltimore's intricate pattern of streams, including the larger Gwynns Falls, Jones Falls and Herring Run stream systems served as the basis for much of the early development patterns, acting as a major source of water-based power for economic production for the mills built in the stream valleys. Baltimore's deep-water harbor (the western-most deep water port on the East Coast) also fueled development associated with shipping on the Chesapeake Bay and Eastern Seaboard (Figure 1.0).

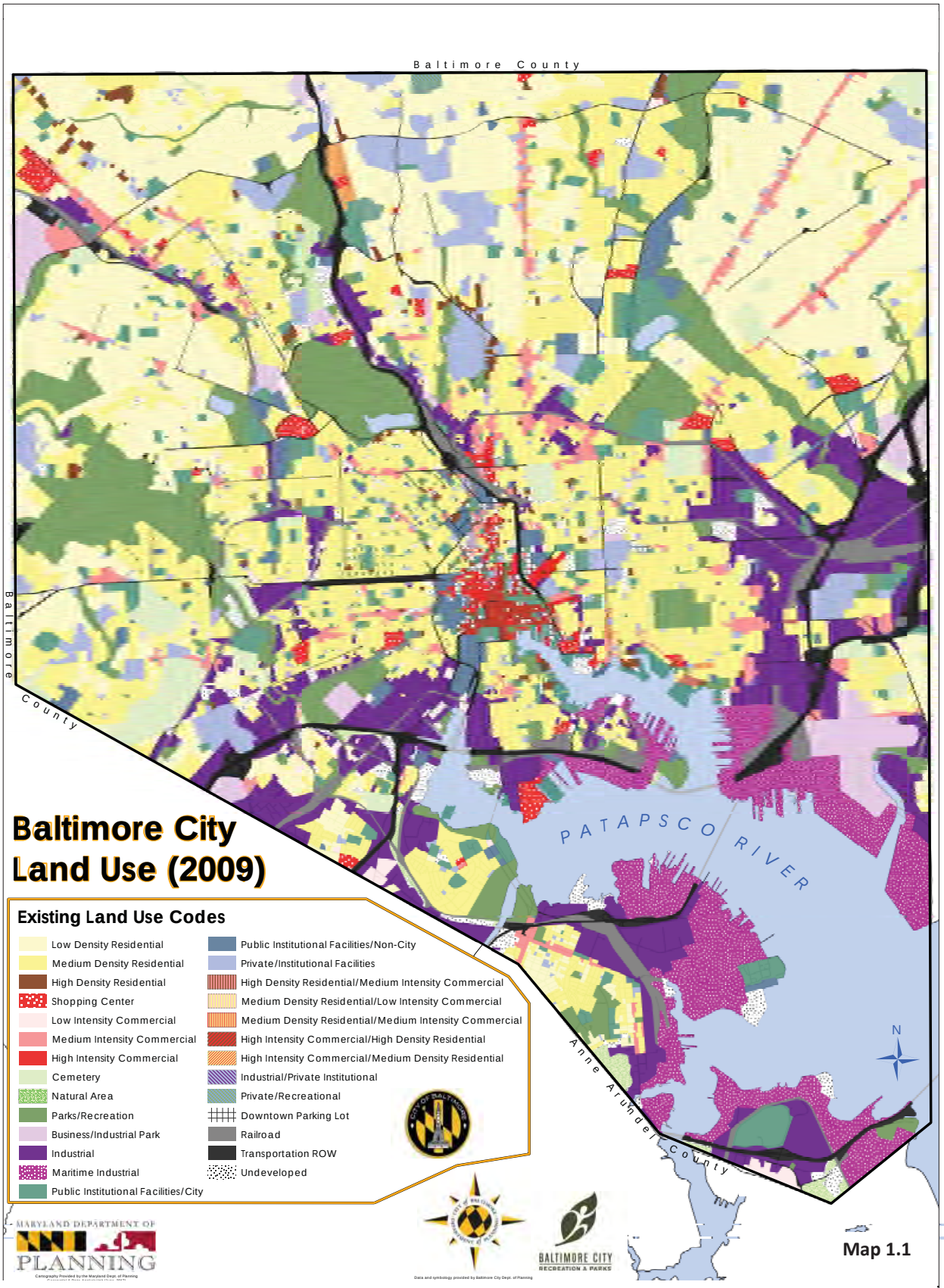
Figure 1.0. Map of Baltimore, 1781.

Source: Library of Congress

Baltimore City has a dense urban development pattern. According to the Department of State Planning's most recent available land use data (2009) approximately 14 percent of Baltimore's area is vegetated open space. The remainder has been developed into industry, commercial and residential land uses (Map 1.1). As a result, the City's natural resource areas are substantially different in scale and type from that of suburban and rural counties. Baltimore's recreation assets are described in detail in Chapter II. The City's natural resources (steep slopes, tree canopy, wetlands, streams and Chesapeake Bay shoreline) are described in detail in Chapter III.

Baltimore has no areas of agriculture to report. The level of protection of natural areas does not approach that of rural and more suburban areas because virtually the entire City was "built out" before the environmental movement began and legislation was created to protect open spaces. However, our natural resources are extremely important to maintain and enhance in Baltimore in order for the city to remain an attractive place to live, work and play.

[2] Olsen, Sherry H. Baltimore: The Building of an American City, Second Ed., 1981.

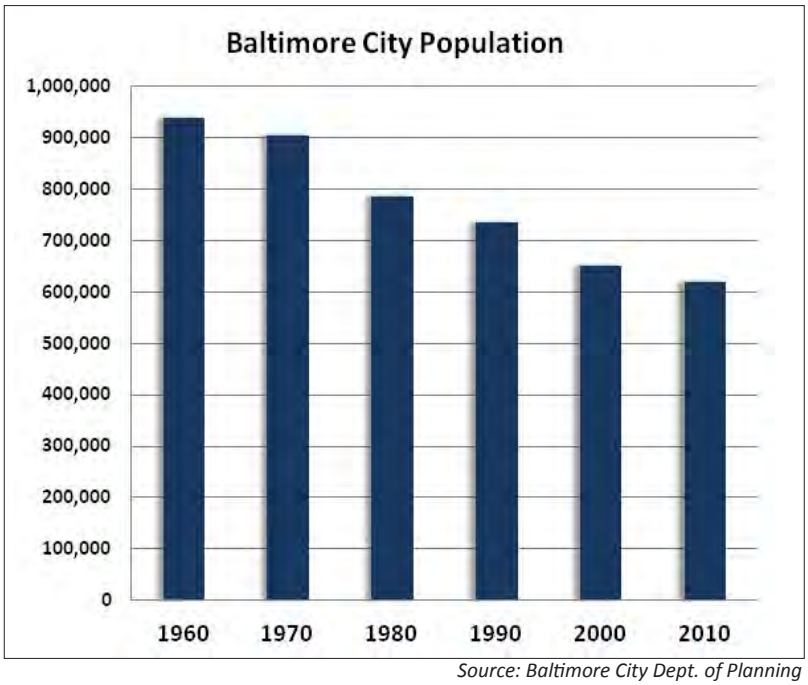

Baltimore County
Baltimore County
Anne Arundel County
PATAPSCO RIVER
N
Baltimore City
Land Use (2009)
Existing Land Use Codes
Low Density Residential
Medium Density Residential
High Density Residential
Shopping Center
Low Intensity Commercial
Medium Intensity Commercial
High Intensity Commercial
Cemetery
Natural Area
Parks/Recreation
Business/Industrial Park
Industrial
Maritime Industrial
Public Institutional Facilities/City
Public Institutional Facilities/Non-City
Private/Institutional Facilities
High Density Residential/Medium Intensity Commercial
Medium Density Residential/Low Intensity Commercial
Medium Density Residential/Medium Intensity Commercial
High Intensity Commercial/High Density Residential
High Intensity Commercial/Medium Density Residential
Industrial/Private Institutional
Private/Recreational
Downtown Parking Lot
Railroad
Transportation ROW
Undeveloped
MARYLAND DEPARTMENT OF
PLANNING
BALTIMORE CITY
RECREATION & PARKS

Map 1.1

Current and Projected Demographic and Socioeconomic Characteristics

The demographics and socioeconomic characteristics included here provide a general picture of past and expected population changes. The 2010 Census data, augmented by more recent data from the 2014 and 2015 American Community Survey, and Population Forecast for the Baltimore Metropolitan Council, round 8b, provide a demographic profile of Baltimore. Other population characteristics, such as home ownership, income, vehicle ownership, health statistics, vacant lots and buildings provide additional information that is relevant to planning for the provision, use and design of park and recreation programs and facilities in the City of Baltimore. Many of these population and socioeconomic characteristics create specific demands on Baltimore's urban parks and recreation services that differ from other jurisdictions in Maryland.

As of 2015, Baltimore was ranked as the 29th largest city in the United States. At its peak population in 1950, Baltimore ranked 6th largest with 949,708 residents; currently the City is 34.5 percent smaller, with a total of 621,849 residents. Baltimore's decline in population was not unique; it was part of a much larger pattern that took place in many major East Coast and Midwest cities after 1950, as people left the cities to buy larger houses in the suburbs, made possible by the expansion of infrastructure and roads making it easier to commute to work (Chart 1.0).



Source: Baltimore City Dept. of Planning

Chart 1.0 Historical Population of Baltimore City

Fortunately, Baltimore's population decline has showed signs of slowing and reversing. Between 2000 and 2010, Baltimore's population experienced a 4.6 percent drop, which represents the smallest decennial decline since 1970 (Jacob France Institute, April 2015)[2]. The latest population estimate of 621,849 for Baltimore in 2015 (Table 1.0) in fact represents a small growth of .1 percent over 2010 (620,961 population). Baltimore's future population is anticipated to continue to increase gradually through the year 2040, as discussed in more detail later (Table 1.5).

[2] Baltimore Neighborhood Indicators Alliance- Jacob France Institute (BNIA-JFI), "Grow Baltimore, Brief#1: Understanding Migration in Baltimore City", April 2015.

Table 1.0: Detailed Demographics of Baltimore

	2010		2015	
Population	Total	% of Total	Total	% of Total
Total Population	620,538		622,454	
White alone	186,424	30.0%	188,684	30.3%
Black or African American alone	399,121	64.3%	391,122	62.8%
American Indian and Alaska Native alone	2,210	0.4%	1,775	0.3%
Asian alone	13,991	2.3%	15,987	2.6%
Native Hawaiian and Other Pacific Islander alo	126	0.0%	366	0.1%
Some other race alone	7,016	1.1%	10,397	1.7%
Two or more races:	11,650	1.9%	14,123	2.3%
Hispanic*	22,812	3.7%	28,492	4.6%
Age				
Total	620,538		622,454	
0-4 Years	41,239	6.6%	41,547	6.7%
5 to 9 years	36,255	5.8%	36,493	5.9%
10 to 14 years	36,341	5.9%	33,879	5.4%
15 to 19 years	46,328	7.5%	38,342	6.2%
20 to 24 years	54,839	8.8%	52,037	8.4%
25 to 34 years	98,665	15.9%	112,491	18.1%
35 to 44 years	80,306	12.9%	75,023	12.1%
45 to 64 years	154,052	24.8%	157,581	25.3%
65+ years	72,513	11.7%	75,061	12.1%

Source: American Community Survey (ACS), 2010, 2015 5-year estimate

In 2011, Baltimore City's Mayor Stephanie Rawlings Blake announced her goal to grow the City's population by 10,000 families by 2020. City policies have been focused on a variety of programs, particularly homeownership, job growth and crime reduction as a means to accomplish this goal. As of 2013, there are signs that the total number of households increased from 239,251 in 2011 to 244,114 households in 2013[3].

The City experienced population growth in several neighborhoods between 2000 and 2010: Downtown and Harbor East (32.5%), Canton (15.5%), Cross Country/Cheswolde (10.5%) and South Baltimore (8.9%). Downtown and Harbor East areas saw higher increases due to the creation of new housing opportunities with the conversion of older office buildings and former maritime and industrial related parcels. Areas experiencing large population declines included several communities in the east: Greenmount East (-29.2%), Clifton-Berea (-21.0%) and Midway/Coldstream (-20.4%)[4]. Other neighborhoods on the west side also lost population, including Allendale/Irvington/S. Hilton (-15.2%), Sandtown-Winchester /Harlem Park (-14.9%), Greater Rosemont (-12%).[5] Detailed population estimates for 2015 at this granular level of geography are not available, but it is anticipated that the slight increase at the citywide level will be reflected in patterns similar to those between 2000 and 2010.

Increases and decreases in population density inform the use and need for parks and recreation services. Historically, the provision of parks and recreational services in the Downtown and Canton areas was less than other parts of the City due to the density of commercial and industrial development which made up a larger portion of the City's economy. Many people did not live in these areas and so the need for parks and recreational services was not of concern. Now that there are more residents in these areas, there is a call to provide adequate services in these areas. Some of the east side and west side communities that saw population losses, were historically dense residential neighborhoods that have always been underserved with park and recreation amenities due to underlying racial discrimination and inequitable public policies.

Different age groups have different needs and preferences in their use of parks and recreational facilities. Particular populations such as seniors, youth in poverty, and the disabled are groups with specific needs and challenges to accessing parks and recreation programs and facilities. Since 2000, the City has seen a

[3] BNIA-JFI, Brief #1, April 2015.
[4] Baltimore Neighborhood Indicators Alliance- Jacob France Institute (BNIA-JFI), "Brief #2: Migration Patterns by Community in the Baltimore Region", May 2015.
[5] Baltimore Neighborhood Indicators Alliance- Jacob France Institute (BNIA-JFI),"What Happened in Baltimore and What Can We Do? A Neighborhoods' Perspective", January 2016.

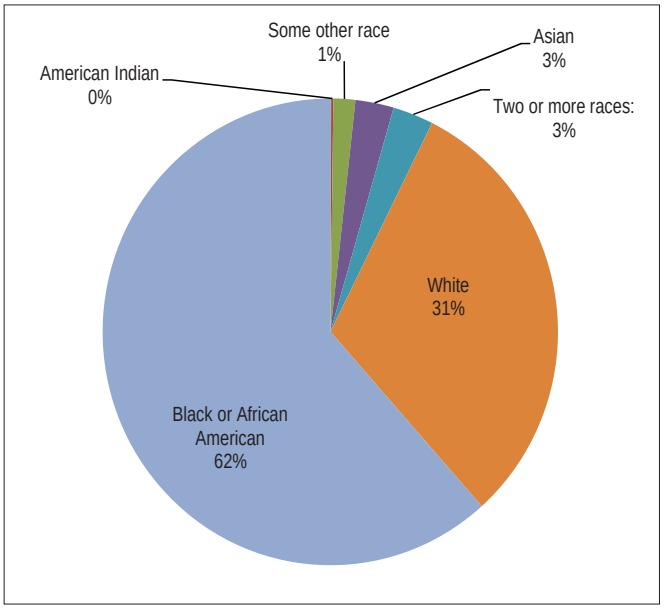
consistent increase in the number of people between the age of 45 and 64. If this population continues to age in place, the number of seniors in the population is expected to rise.

Since 2010, there has also been an increase in the 25-34 age population (Table 1.0). Single individuals within this population group have different needs than families. While the total number of youth in Baltimore City under the age of 18 has decreased since 2010, the number of youth in poverty is estimated to have increased by roughly 5 percent, from approximately 40,884 to 44,741 in 2015. The percentage of youth living in poverty (35%) has also increased as a percentage of the total youth population (Table 1.2). Other U.S. Census figures estimate that the proportion of residents with a disability has fallen by over roughly ten percentage points since 2000.

These trends have implications for Baltimore's parks and recreation facilities as they will need to fully accommodate and be accessible to seniors, middle age residents and families. Identifying how these important groups of residents are distributed in the City allows programs and services to be targeted where there is the most need.

Population Distribution

To understand the demands upon an urban recreation and park system it is necessary to look beyond population loss and gain. The following more detailed analysis of race, income, age, health, car ownership and disability provides a detailed look at the City population and how it influences the objectives of the Baltimore City Department of Recreation and Parks.

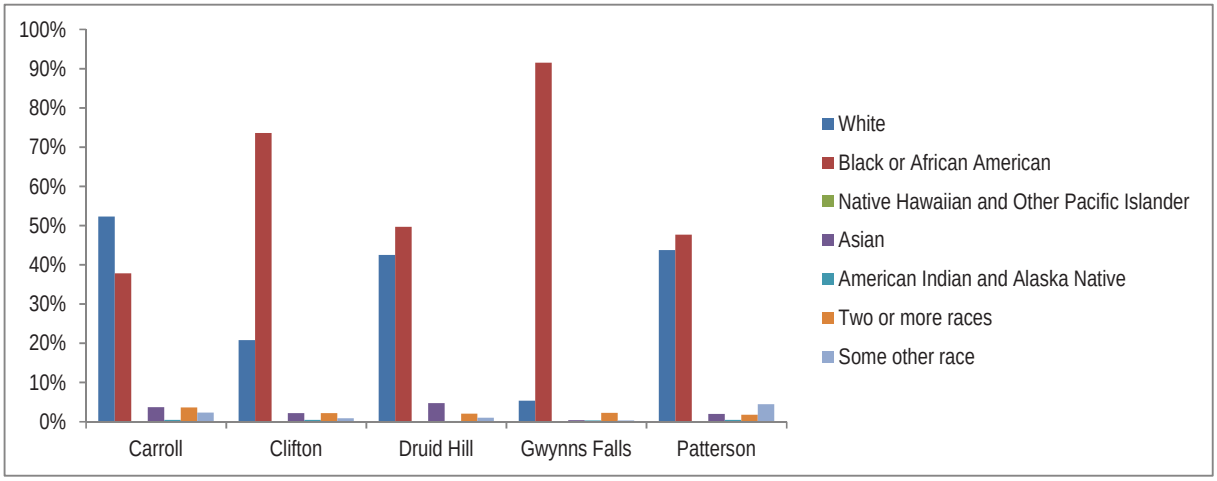


Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates.

Chart 1.1 Racial Composition

The following pie chart shows the racial composition of Baltimore City in the year 2015 (Chart 1.1). Black residents make up the largest racial group in the City at 63 percent. Whites are the second largest group at 32 percent, followed by Asians at 3 percent. Compared to 2010, the percentage of Black residents slightly decreased (.7 percent), while the percentage of White residents increased by 2.4 percent and Asian residents increased by .7 percent. Residents identified as "Two or More Races," account for 2.0 percent of the total Baltimore population compared to 2.1 percent in 2010. The population of residents who report themselves as "Other Race," declined somewhat from 1.8 percent in 2010 to 1 percent in 2015.

In addition to these racial categories, roughly 4 percent of Baltimore City's resident population identified themselves as Hispanic. While not a racial category, according to the U S Census since individuals can categorize themselves as Hispanic and another race, it conveys a picture of a segment of the population that is potentially Spanish speaking.



Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates.

Chart 1.2 Distribution by Population by Race among Baltimore Park Districts

The distribution of Baltimore's population by race among City Park Districts indicates a small and fairly consistent proportion of residents who are of a race other than Black or White (Chart 1.2). There is a high concentration of black residents (91%) in the Gwynns Falls/Leakin Park District and in the Clifton Park District (74%), while the highest concentrations of White residents are in the Carroll Park District (52%). Compared to 2010, the most marked change can be seen in the Clifton District, which saw an increase of Black residents by 4 percent. Druid Hill Park District and Patterson Park District are more evenly split between races, although there is an 8 percent difference between Blacks (50%) and Whites (42%) in the Druid Hill Park District. While the five park management districts in the city vary in size (due to distribution of industrial lands) the ratio of population to parkland is similar for each management area.

Home Ownership

In 2014, approximately 56 percent of properties in Baltimore City were owner-occupied, which was down by 1.1 percent from 2013[6]. While owner-occupancy decreased 4.1 percent overall between 2010 and 2014, the larger shifts occurred between 2010 and 2011 and between 2013 and 2014. Owner-occupied rates between 2011 and 2013 fluctuated from +2 percent and -.6 percent.

According to research on Baltimore City home ownership retention, the Baltimore Neighborhood Indicators Alliance- Jacob France Institute tracked the percentage of owner-occupied households that remained under the same ownership for five years[7]. They found that between 2008 -2013, Baltimore City retained 73.5% of its owner occupied households. They also found that certain areas saw higher

[6] BNIA-JFI, (Spring 2016) Vital Signs 14, Housing and Community Development: Housing Occupancy Table, p 26.
[7] BNIA-JFI, "Brief #2: Migration Patterns by Community in the Baltimore Region", May 2015. Of particular note is the Five-Year Homeowner Retention Index and Tables 10 and 11, pp.12-13.

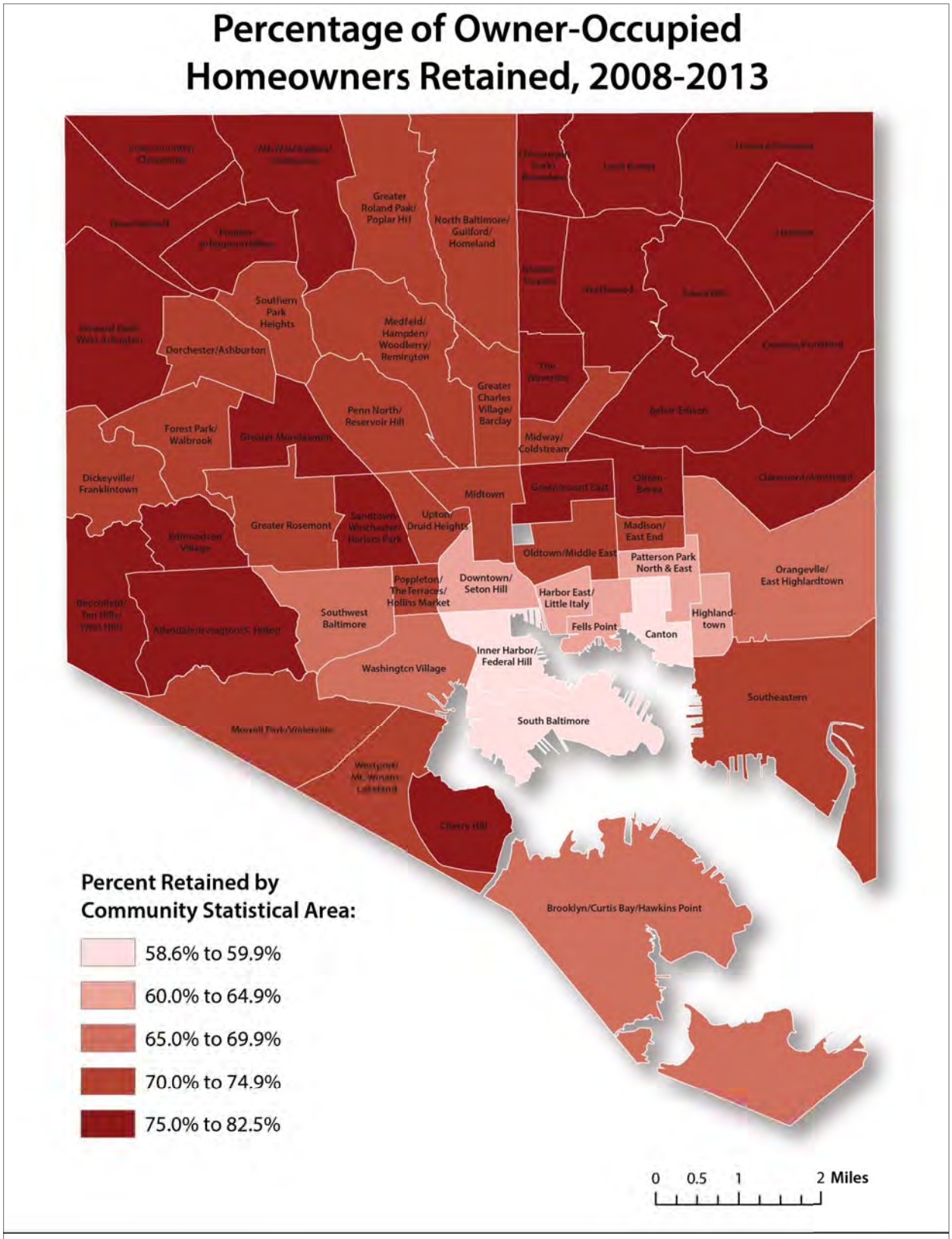


Figure 1.1

Source: BNIA-JFI, May 2015.

turnover rates than others. Highest retention levels were found to be in Loch Raven (82.5%), Northwood (81.9), Beechfield/Ten Hills/West Hills (80.2%), Cherry Hill (80.1%) and Glen Fallstaff (80%). Lowest 5 year retention rates were found in Canton (58.6%), South Baltimore (59.7%), Inner Harbor/Federal Hill (59.9%), Highlandtown (61.3%) and Patterson Park North and East (62.9%). These trends have implications for the provision of quality of life amenities such as parks and recreation facilities (Figure 1.1).

Health

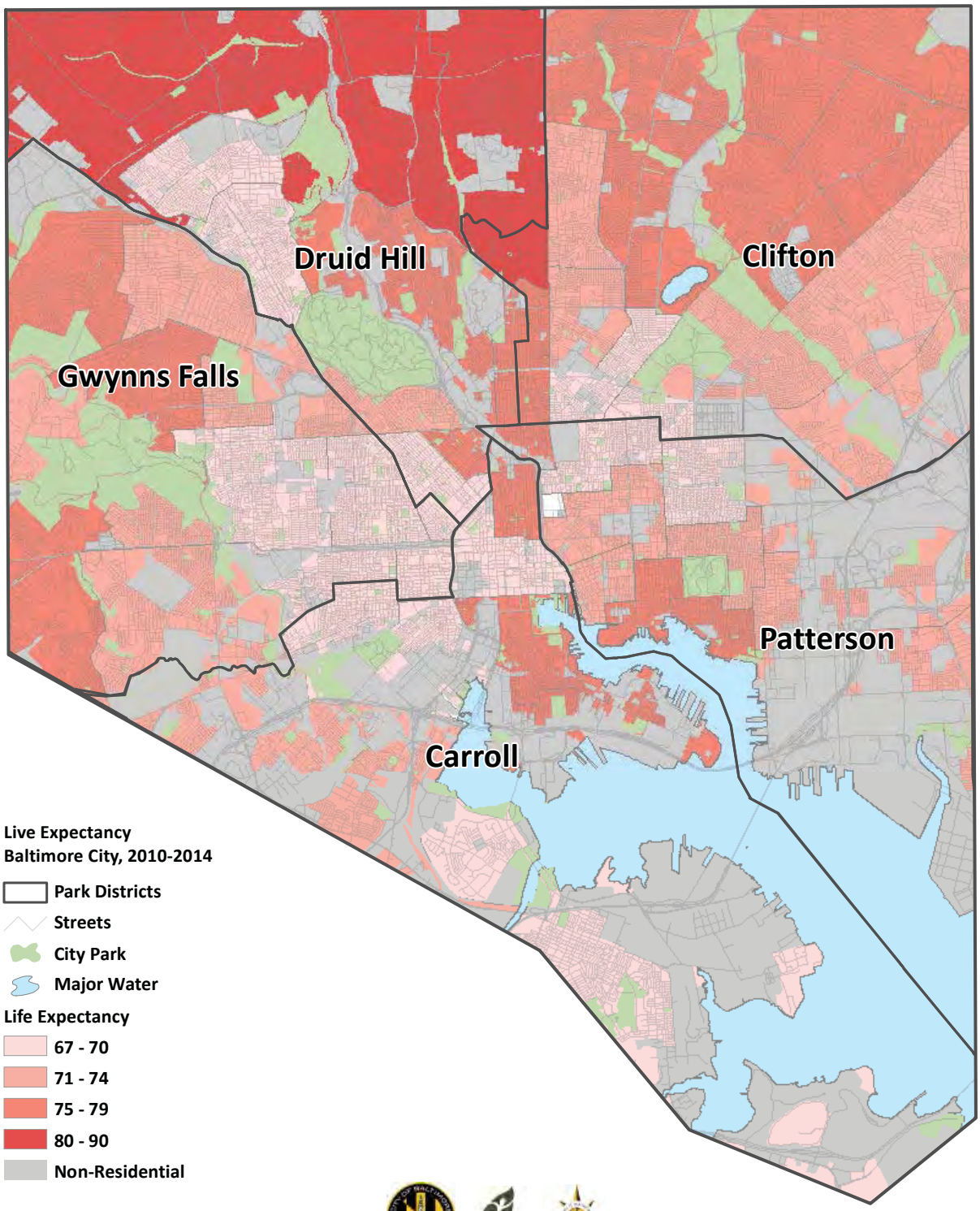
Baltimore City's population has some serious health issues, which further support the importance of provision and access to parks and recreation facilities. According to the Baltimore City Health Department's Healthy Baltimore 2015 Report, approximately one in three Baltimore City residents is obese. This level of obesity hasn't significantly changed since 2011, though there has been a slight increase in obesity in those with a lower household income (under $15,000). Furthermore, in 2013, only 16.7 percent of Baltimore City residents were getting the recommended amount of weekly physical activity[8]. In order to meet the City Health Department's goal to increase the percent of adults getting recommended levels of physical activity by 20 percent, the report recommends 2 ½ hours of moderate intensity or 75 minutes of vigorous aerobic activity per week; AND 2 + days/week of muscle strengthening activity. While the City Health Department and Recreation and Parks already work together in a number ways, more can be done to address this goal between the two agencies.

Diabetes and hypertension contribute to the heart disease which is the leading cause of death in Baltimore City. While rates of hospitalization for Diabetes Type II, hypertension and asthma, have decreased between 2010 and 2014 by more than 20 percent, the current numbers are still significant. There was also a slight increase (5%) in the rate of hospitalization for Diabetes Type I between 2010 and 2014[9].

Life expectancy for a Baltimore City resident averages 73.8 years of age, however, it varies greatly between individual neighborhoods. The life expectancy for a resident in the Clifton-Berea area is 67.2 compared to 89.9 years for a resident of the Cross-Country/ Cheswolde area (Map 1.2). This inequity of life expectancy within Baltimore City is due to a variety of factors, which may include low levels of physical activity and issues related to poverty. The good news is that life expectancy has generally risen for residents of all Baltimore City neighborhoods since 2011.

In its most recent strategic plan, Healthy Baltimore 2020[10], the Baltimore City Health Department identified four key areas of focus: Behavioral Health, Violence, Chronic Disease, and Life Course and Core Services. The overall objective of all of the plan's recommendations within each area of focus is to decrease racial health disparities by 50 percent over the next 10 years. One recommendation as part of the Health Department's strategy for chronic disease prevention is to launch a city-wide wellness campaign to promote physical fitness, nutrition and other human behaviors. This provides key partnership opportunities to be developed between Baltimore City Recreation and Parks and the Health Department.

[8] Baltimore City Health Department, Healthy Baltimore 2015, Interim Status Report, May 2016.
[9] Ibid., p. 7.
10 Baltimore City Health Department, Healthy Baltimore 2020, A Blueprint for Health, August 2016.



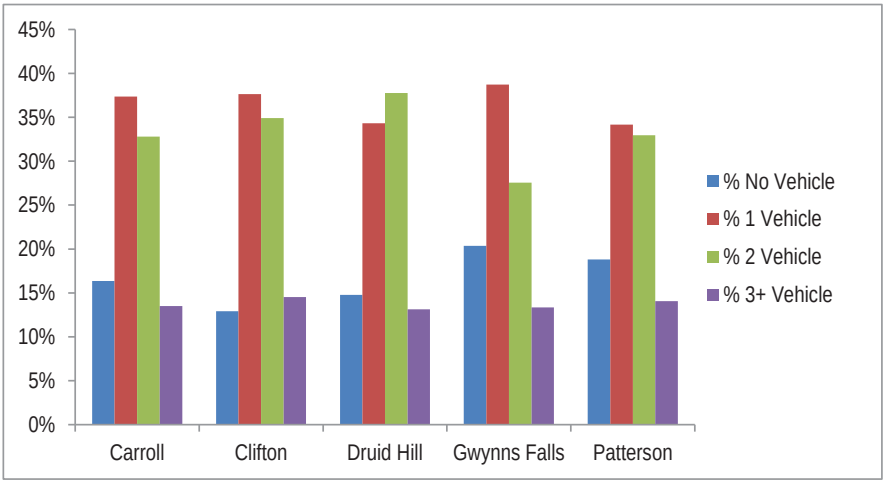
Map Published: November 2016

Map 1.2

Source: Baltimore City Health Department data.

Public Transportation and Household Car Ownership

Although the public transportation in Baltimore City comprises of a network of buses, subway, light rail and transport for the disabled operated by the Maryland Transportation Administration (MTA), it is not a robust system compared to other East Coast municipalities. The MTA is currently undergoing a full scale redesign of the area bus routes, known as BaltimoreLink. The proposed new system is designed to offer updated buses and technology, routes that strengthen connections with bus and rail and improved reliability. BaltimoreLink is scheduled to go into effect by summer of 2017. The Charm City Circulator, a free shuttle service operated by City DoT provides additional service although it focuses primarily within the downtown core of the city, between Martin Luther King Boulevard and I-83, with short spurs beyond the core to the north, south east and west. Many people must rely on private vehicles to access areas of the city and the region. This is a problem, both in terms of access to jobs as well as to city amenities, including parks and recreation programs.



Source: U.S. Census Bureau, 2014 American Community Survey 5-Year Estimates.

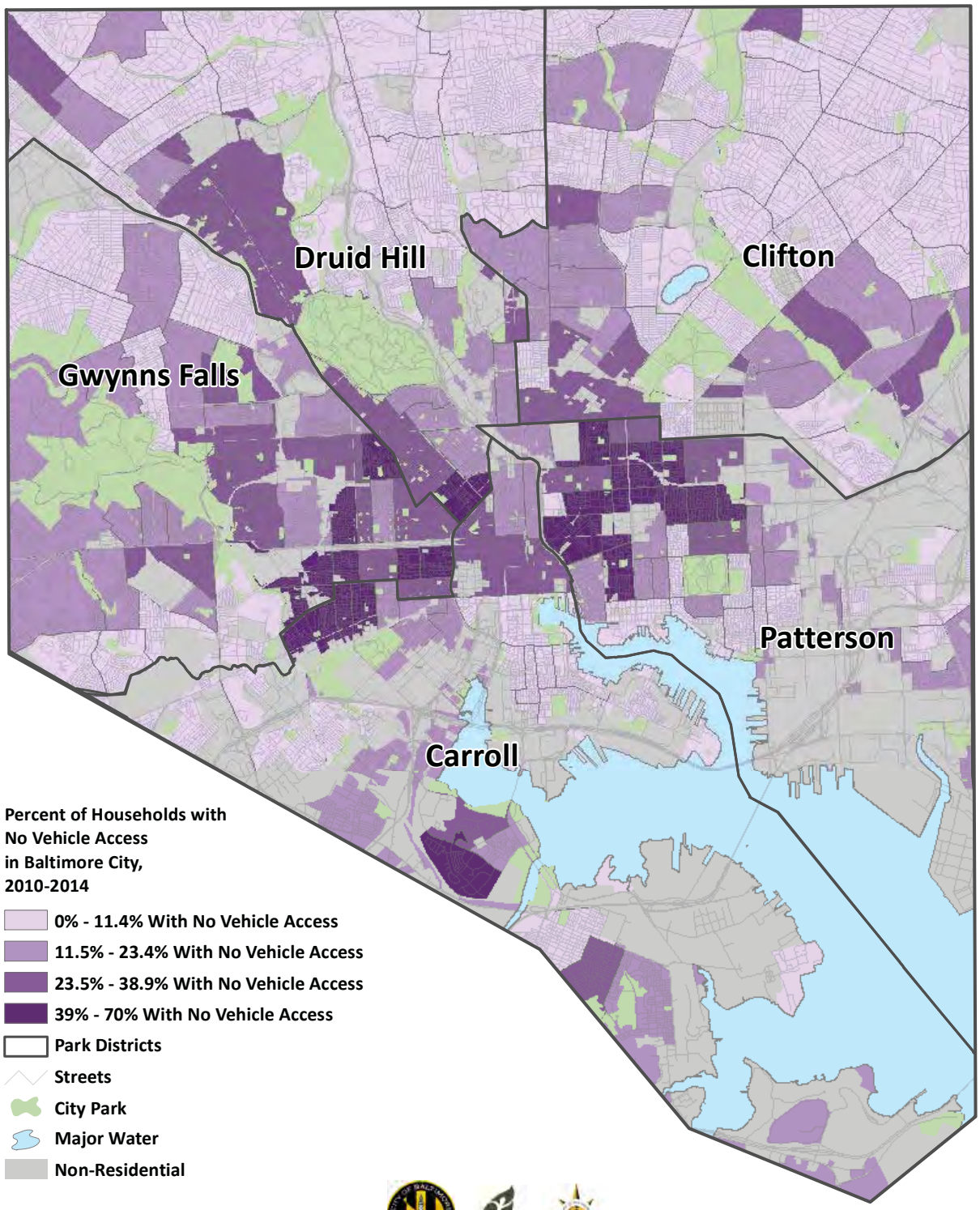
Chart 1.3 Distribution of Population by Household Car Ownership and Baltimore Park Districts

Examination of household car ownership by City Park District, shows that households within certain neighborhoods in the Gwynns Falls District have low car ownership (20%), followed by households in areas within the Patterson Park District (19%) (Chart 1.3). Many of the neighborhoods with higher percentages of households that lack access to a vehicle (see darker purples on Map 1.3) are located on the west and east sides of the city with fewer park and recreational facilities (Map 1.3). These are the same areas that have seen losses in population and higher numbers of vacant properties (buildings and land)[11].

Vacant Properties

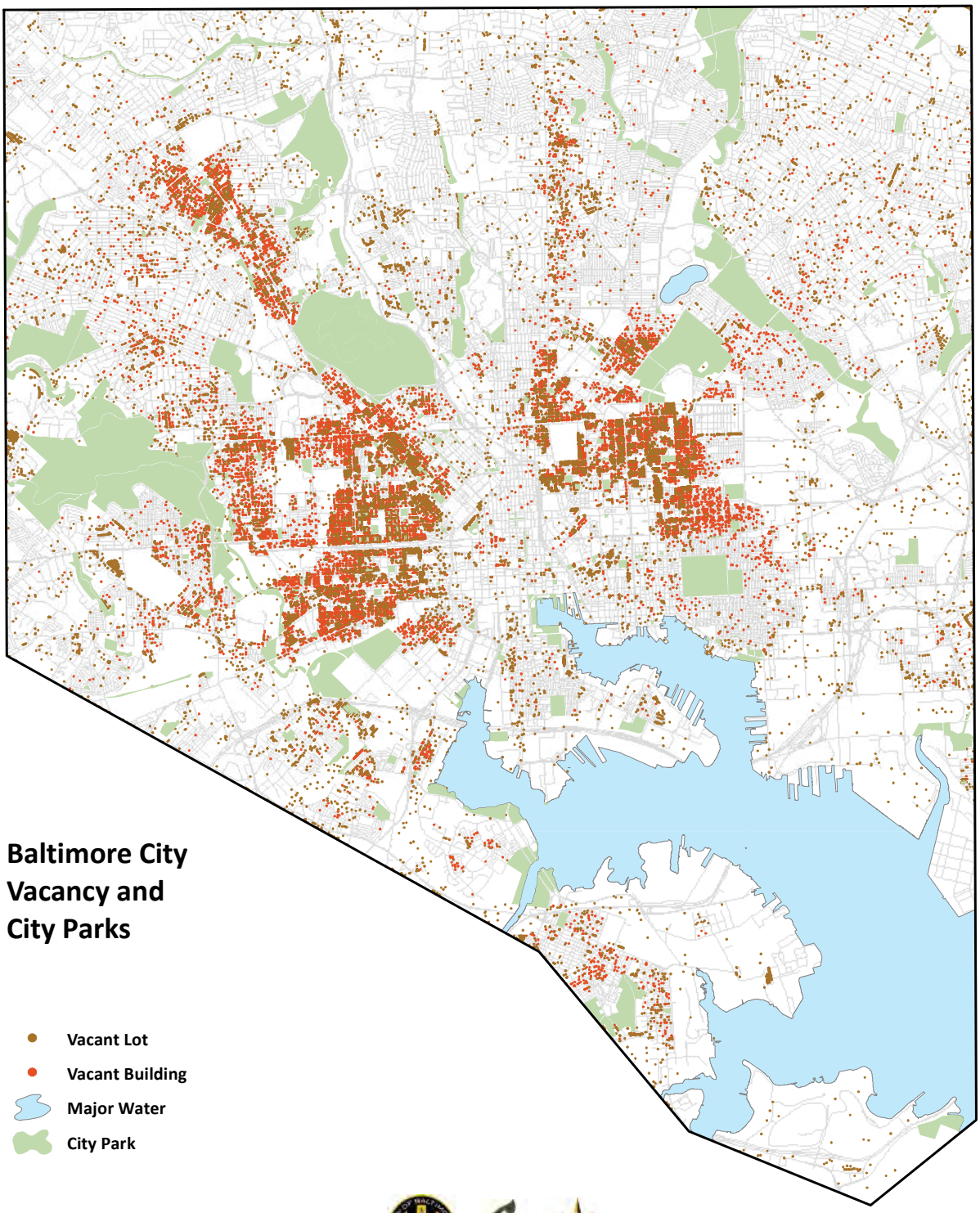
Baltimore City currently has 30,000 vacant lots and buildings that are heavily concentrated in areas with severely distressed real estate markets (Map 1.4). Many of these areas also have poor access to public transportation, low car ownership, and few recreation programs and safe, parks to play. These spaces

11 Research conducted by the Baltimore Neighborhood Indicators Alliance- Jacob France Institute, found that Baltimore neighborhoods with residents that had commute times longer than 45 minutes saw higher losses in population over time. See BNIA-JFI, "What Happened in Baltimore and What Can We Do? A Neighborhoods' Perspective", January 2016.



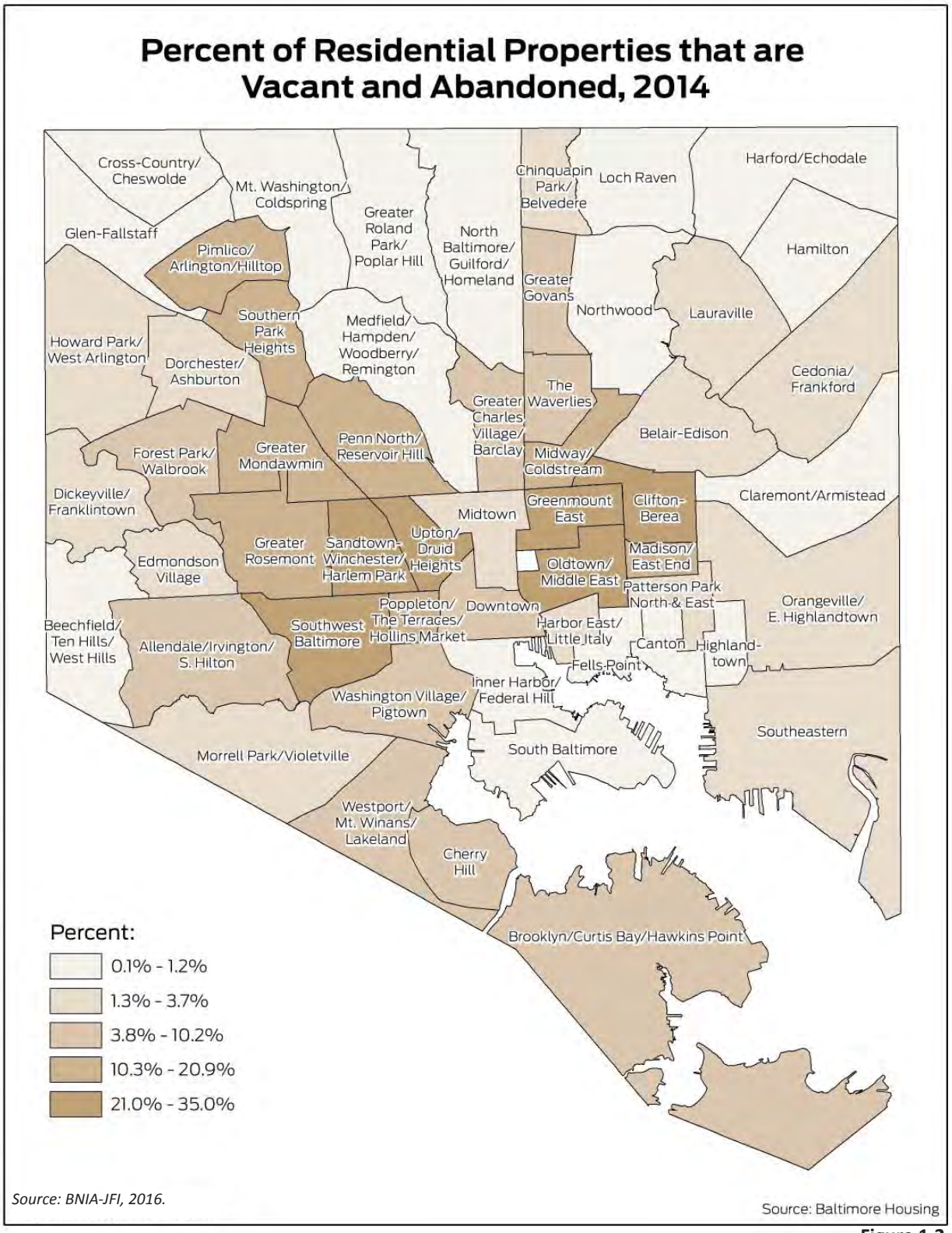
Map Published: November 2016

Map 1.3



Map Published: November 2016

Map 1.4



Source: BNIA-JFI, 2016.

Figure 1.2

Table 1.2 Baltimore City Residents Living in Poverty by Baltimore Park District

provide challenges and opportunities for both redevelopment and envisioning a future 21st century parks and recreation system. Research undertaken by Baltimore Neighborhood Indicators Alliance – Jacob France Institute analyzed the neighborhoods with the highest and lowest percentage of residential properties between 2010 and 2014 were classified as being vacant and abandoned by the Baltimore City Department of Housing.[12] Neighborhoods with the highest percentage of vacant and abandoned properties were: Sandtown-Winchester/Harlem Park, Upton/Druid Heights, Greenmount East, Southwest Baltimore and Clifton-Berea. Neighborhoods with the lowest percentage of vacant and abandoned properties were: Mt. Washington/Coldspring, Greater Roland Park/Poplar Hill, Cross-Country/Cheswolde, Claremont/Armistead and North Baltimore/Guilford/Homeland (Figure 1.3). The highest number of vacancy is in the Gwynns Falls Park District (Table 1.1).

Table 1.1: Baltimore City Vacant Lots and Buildings by Park District

Park District	Vacant Lots	Vacant Buildings
Carroll	2609	2138
Clifton	3046	2418
Druid Hill	3142	2520
Gwynns Falls	5521	6175
Patterson	4080	3266
Total	18398	16517

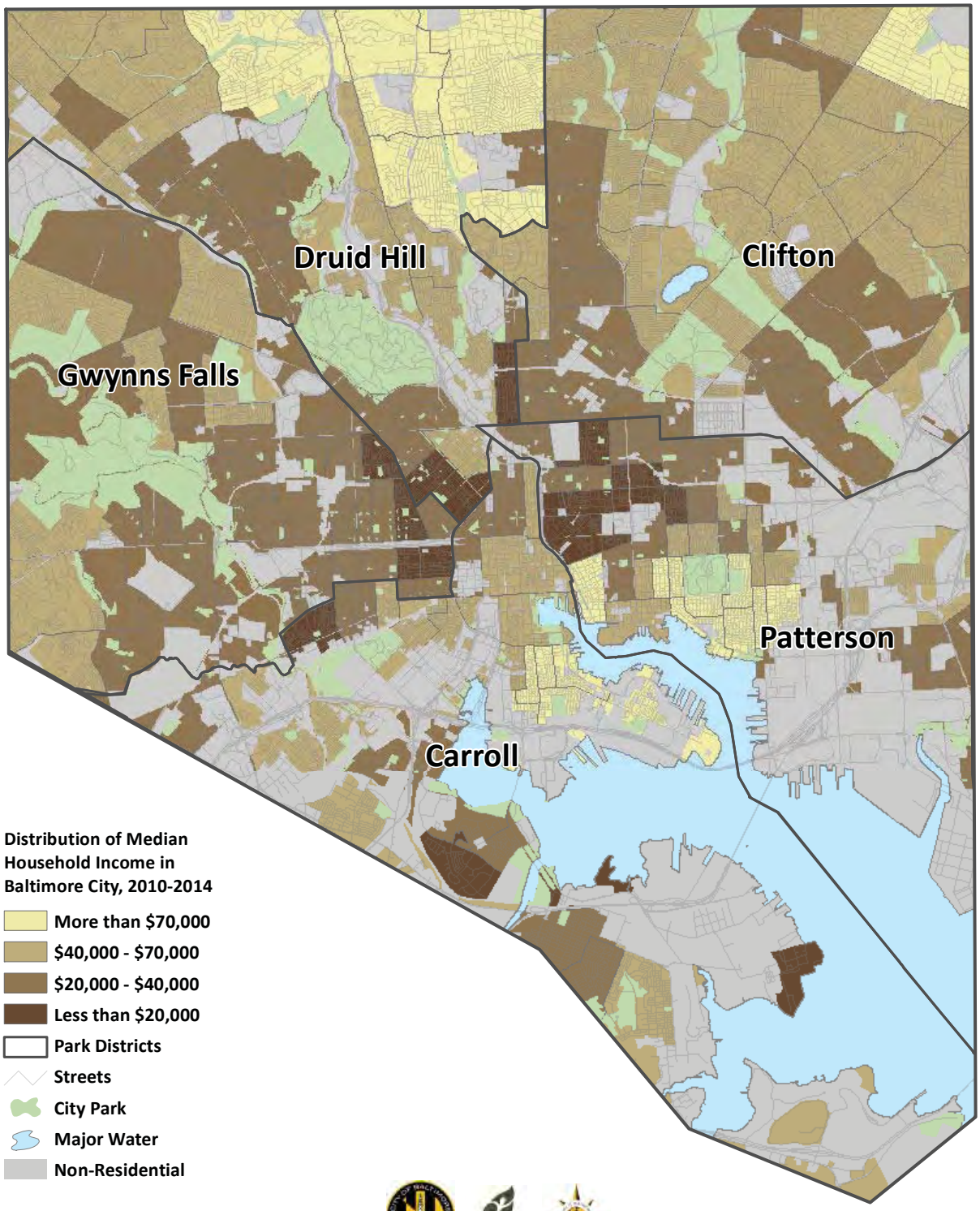
Source: Baltimore City Dept. of Planning

Baltimore City's Department of Planning is currently undertaking a *Green Network Plan* to identify and repurpose some of the City's vacant parcels into new, multi-purpose green amenities to provide a host of benefits to residents and the City's ecosystem. Data collection efforts and recommendations from this study will directly feed into and support the Baltimore City Recreation and Parks' vision and strategic plan for the City's parks, open spaces, and recreation system.

Household Income and Poverty

Map 1.5 shows the distribution of household income in Baltimore. Households with higher incomes are concentrated in the north and in the neighborhoods around the Harbor. The City of Baltimore has a large population of residents living in poverty. As Table 1.2 indicates, 24 percent of City residents live in poverty and they are distributed across all five park districts. This shows a 3 percent increase from 2010. All five park districts show at least 26 percent of the youth population living in poverty. Youth poverty is especially high in Gwynns Falls and Patterson (42%), followed by Carroll (39%). The high levels of youth poverty are seen in Map 1.6, where youth poverty is concentrated in the oldest neighborhoods of east and west Baltimore.

12 BNIA-JFI, (Spring 2016) Vital Signs 14, Housing and Community Development: Indicator Definitions and Rankings, p.17.



Map Published: November 2016

Map 1.5

Table 1.2 Baltimore City Residents Living in Poverty by Baltimore Park District

	2010		2014	
Park District	Percent in Poverty	Percent in Poverty; Under 18 years	Percent in Poverty	Percent in Poverty; Under 18 years
Carroll	25%	30%	27%	39%
Clifton	15%	18%	19%	26%
Druid Hill	22%	24%	24%	30%
Gwynns Falls	23%	29%	28%	42%
Patterson	26%	36%	27%	42%
Total	21%	26%	24%	35%

Source: U.S. Census Bureau, 2014, 2010 American Community Survey 5-Year Estimates

Youth, Recreation Facilities and Poverty

Baltimore's population of youth under 18 years is highest in the Clifton Park District, followed by Gywnns Falls, Druid Hill, as Chart 1.4 indicates. The parks, schoolyard parks, recreation centers, and pools are distributed fairly evenly among park districts (See Chapter II, Map 2.2). However, as Map 1.6 illustrates, it is important to consider how the youth population is distributed within these boundaries. Significantly, there are concentrations of youth living in poverty, especially in the older neighborhoods just east and west of downtown. The numbers of schools and recreation centers is greater in these high-density, low-income neighborhoods to meet the needs of "at risk" youth for a variety of problems, including violent crime and teen pregnancy.

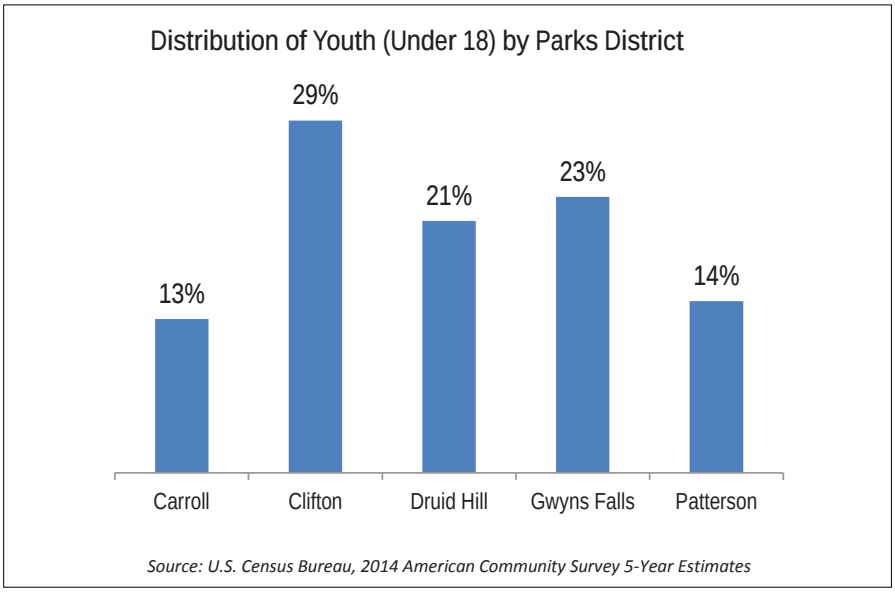
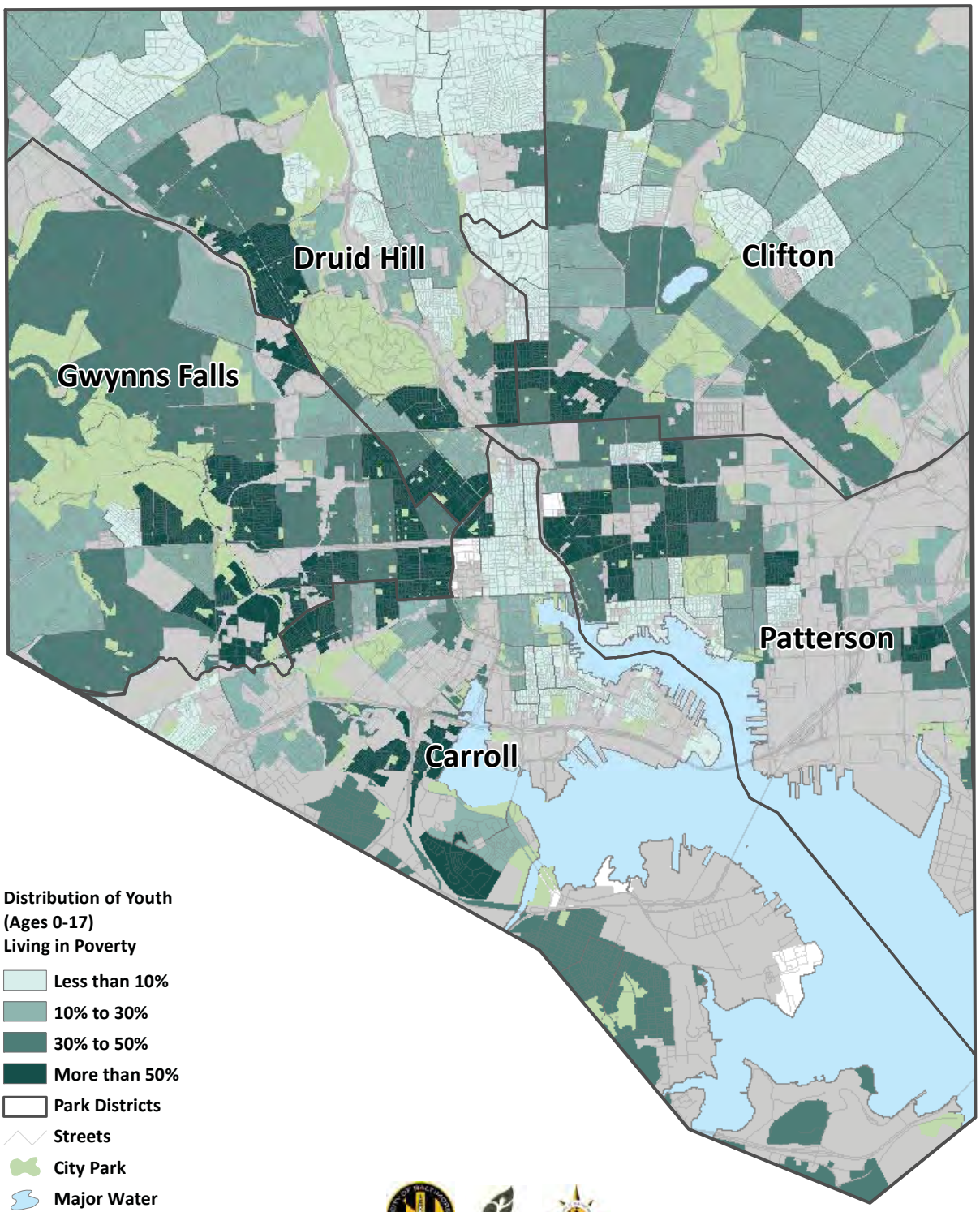
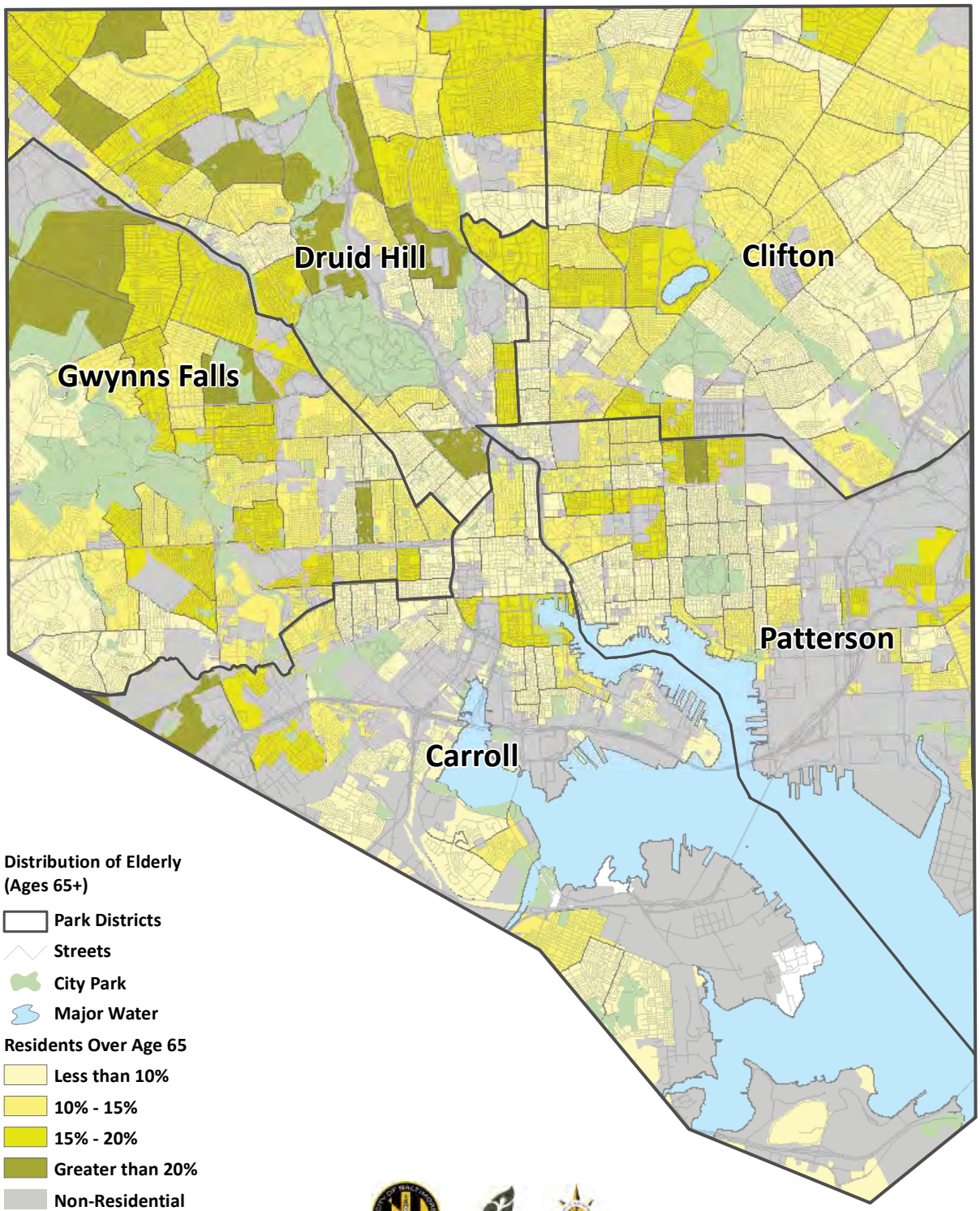


Chart 1.4 Distribution of Youth by Baltimore Park District


Druid Hill
Clifton
Gwynns Falls
Patterson
Carroll
Distribution of Youth
(Ages 0-17)
Living in Poverty
Less than 10%
10% to 30%
30% to 50%
More than 50%
Park Districts
Streets
City Park
Major Water
Non-Residential
Map Published: November 2016
N

Map 1.6

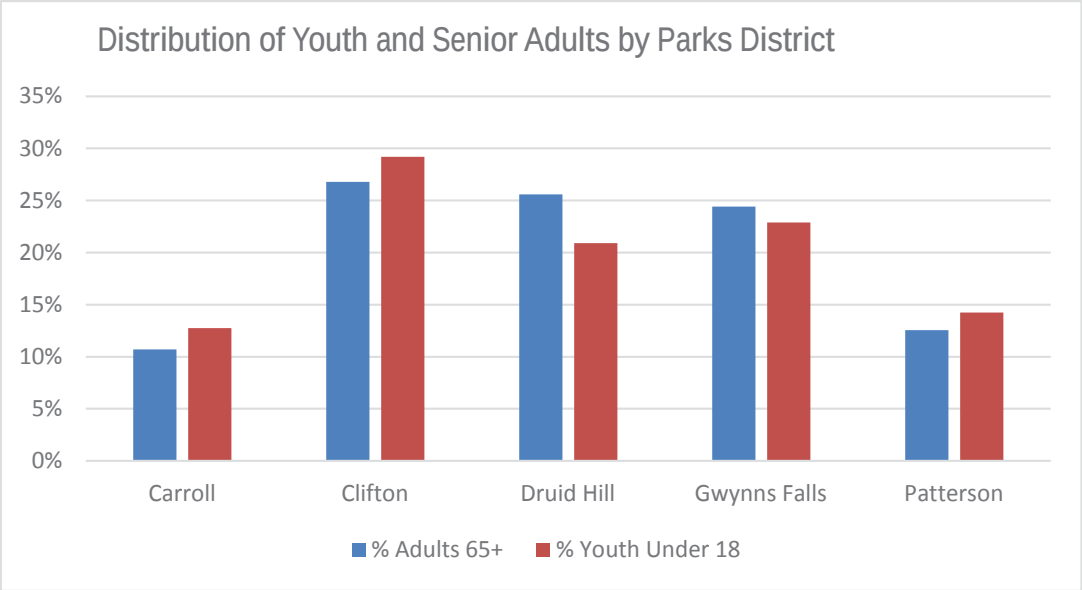

Druid Hill
Clifton
Gwynns Falls
Patterson
Carroll
Distribution of Elderly
(Ages 65+)
Park Districts
Streets
City Park
Major Water
Residents Over Age 65
Less than 10%
10% - 15%
15% - 20%
Greater than 20%
Non-Residential
Map Published: November 2016
N

Map 1.7

Senior Population

The number and percentage of older residents in the City of Baltimore is expected to increase in the next two decades as baby boomers age, resulting in an increased demand for park services by this group. This group represents one of the greatest investment opportunities in Baltimore's history, as the baby boom generation begins to seek the cultural and recreational amenities available only in our urban areas. Adults aged 65 and over make up a quarter (roughly 25%) of the population in the Clifton, Druid Hill and Gwynns Falls Districts compared to 13 and 11 percent, respectively, in the Patterson Park and Carroll Districts. This indicates a higher need for programs targeted to older adults in these areas.

Interestingly, Chart 1.5 indicates that the same three park districts (Clifton, Gwynns Falls and Druid Hill) have higher percentages of youth and adults aged 65 and older. Map 1.7 indicates that the current population of residents ages 65 years and older are distributed among the City's neighborhoods. However, there are generally more senior residents in the neighborhoods surrounding downtown and in the east and west portions of the City. The highest densities are in the north and northwestern sections of the City. There is a lower density of older residents in the neighborhoods in the extreme south and southeastern portions of the City.



Source: U.S. Census Bureau. 2015 American Community Survey 1-Year Estimates

Chart 1.5 Distribution of Youth and Seniors by Baltimore Park District

Disabled Population

The City of Baltimore has a large population of disabled individuals, although it is important to note that disability is self-reported and includes a wide range of conditions. In 2010, 15.1 percent of the City population reports being disabled and this group is fairly evenly distributed among the City's neighborhoods. This population has risen slightly in 2015, where estimates are 15.5 percent of the City population. In addition to at risk youth and seniors, disabled residents are a population targeted for park and recreation services (Table 1.3).

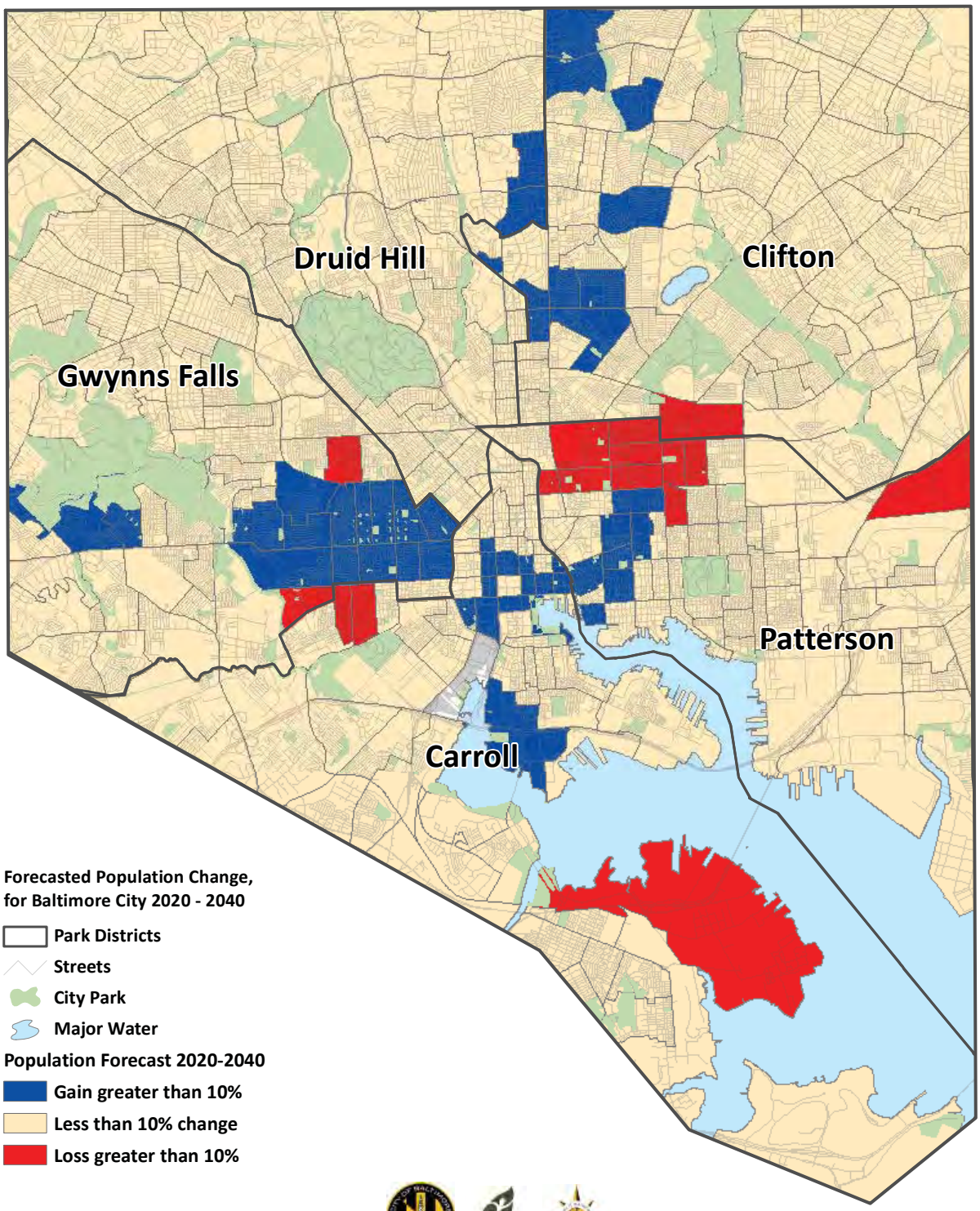
Table 1.3 Percent of Population with Disability in Baltimore City

Year	% of Population with Disability
2010	15.10%
2011	15.60%
2012	15.50%
2013	16.10%
2014	14.60%
2015	15.50%

Source: 2010 to 2015 American Community Survey 1-year estimates for Baltimore City

Population Projections

Population projections for the City of Baltimore indicate a reversal of the past trend of a steadily declining population. The City conducted a round of population forecasting and updated the results in 2016 showing a projected increase of 11.6% between 2010 and 2040. This forecast was conducted using American Survey Estimates, housing starts, use permit data, vacancy data, known planned major redevelopment initiatives and projected market condition changes. It is noted, however, that the Department of Planning will conduct a new forecast in the year 2017. Many factors are evolving and need to be taken into account. Most notably, the forecast projected a 2015 citywide population of 636,727 which is well above the latest ACS estimate of 621,961. Other factors include: the termination of the proposed Red Line investment and incumbent nearby residential development; the approvals of financing for the large-scale Port Covington project; rapid increase in infill new construction, adaptive reuse and small-scale rehabilitation since 2010 in Central Baltimore communities including Hampden, Remington, Greenmount West, Charles North and Barclay; and continued progress of the East Baltimore Development Initiative. Nonetheless, the larger trend of a reversal of decades of population loss is projected to hold in the coming decades (Table 1.4).



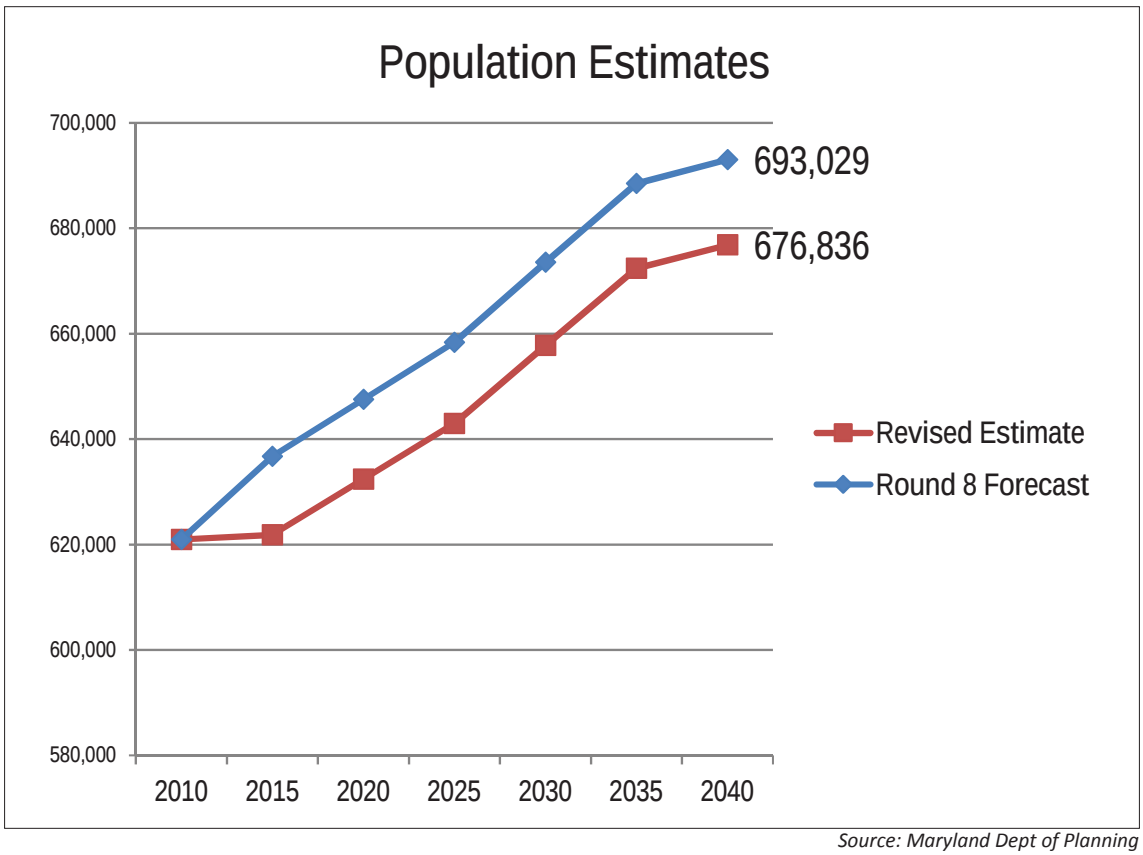
Map Published: September 2016

Map 1.8

Table 1.4 Projected Future Population

Population Forecast	2010	2015	2020	2025	2030	2035	2040	Change 2010-2040
Revised Estimate	620,961	621,849	632,378	642,941	657,784	672,392	676,836	55,875
Revised Percent Change From Previous Period		0.1%	1.7%	1.7%	2.3%	2.2%	0.7%	
Percent Change from 2010		0.1%	1.8%	3.5%	5.9%	8.3%	9.0%	

As Map 1.8 indicates, growth greater than 10 percent will occur most notably in the west, but also in the central downtown, east and northwest portions of the City. Population losses greater than 10 percent will occur in the eastern section just south of Clifton Park, while the population in the remainder of the City is expected to be stable or show slight losses. This pattern is also reflected in the distribution of expected population among Baltimore park districts (Chart 1.6). Both Patterson Park District (8.6%) and Carroll Park District (10.5%), in the southern portions of the City, expect increases in population. Clifton and Gwynns Falls/Leakin Park Districts expect slight decreases, while the population of the Druid Hill Park District is expected to decrease by 4.5 percent by the year 2025. These figures are subject to updating in upcoming population forecasts.



Source: Maryland Dept of Planning

Chart 1.6 Distribution of Projected Population by Baltimore Park District

Economic Trends

Labor Force

As of November 2016, Maryland's civilian labor force totaled 3,065,713. Of that labor force, 298,409 or just under 10 percent were located in Baltimore City. The City's percentage of the State labor force has remained roughly the same since 2010.

Baltimore City employment is growing, a slow, but positive trend. From 2010 to 2015, total Baltimore City employment increased by 2 percent, with 338,647 people employed in 2015. Employment projections by the Maryland Department of Planning show Baltimore City–based jobs increasing from 388,532 in 2015 to 469,224 in 2040 with a projected 5 percent growth between 2015 and 2020, and another 14 percent increase in the number of jobs between 2020 and 2040 (Table 1.5).

Table 1.5 Jobs Forecast 2015-2040

Job Numbers	2010	2015	2020	2025	2030	2035	2040
Forecast - Baltimore City	381,782	388,647	407,196	425,238	443,034	455,864	469,224
Forecast - Baltimore Region	1,516,318	1,587,211	1,674,955	1,746,681	1,811,804	1,864,054	1,918,789
Percent Change		2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040
Forecast - Baltimore City		2%	5%	4%	4%	3%	3%
Forecast - Baltimore Region		5%	6%	4%	4%	3%	3%

In 2010, the Maryland Department of Labor reported Baltimore City had 274,033 residents age 16 or older that were in the civilian labor force. Of those, 243,208 were employed, resulting in an unemployment rate of 11.9 percent for working City residents. This high rate of unemployment was the result of the economic recession. In 2008, before the recession hit, the unemployment rate was as low as 5.0 percent for the year. The City has seen an uneven recovery from the recession. In 2015, 269,078 residents were age 16 or older in the labor force. As of November 2016, unemployment is at 5.9 percent citywide with many communities struggling with higher levels of unemployment or non-participation in labor force.

The Job Market

Baltimore and the Baltimore MSA are experiencing continued economic diversification and an overall growth of employment that are expected to continue through 2020 and beyond. The Comprehensive Economic Development Strategy for the City of Baltimore identifies sectors in which the City has existing assets and a competitive advantage for future growth. Critical sectors are education and health. Home to world class institutions such as Johns Hopkins University and Johns Hopkins Hospital, Baltimore is a leader in these areas. The City has developed an "eds and meds" strategy to build on these strengths. Other important industries include port-related and maritime industries. The Port of Baltimore is maintaining high levels of volume and revenue. The City is also home to a burgeoning technology sector. The City has seen a rise in technology centers and "maker-spaces", with ten new common work spaces opening since 2010.

Industry trends between 2010 and 2015 showed increases in retail trade, professional services, and educational services jobs. Industries with decreased jobs include finance and insurance, transportation and warehousing, manufacturing and construction (Table 1.6).

Table 1.6 Number of Residents by Industry

	2010		2015	
Industry	# of Persons	% of Workforce	# of Persons	% of Workforce
Civilian employed population 16 years and over	274,033		269,078	
Agriculture, forestry, fishing and hunting, and mining	335	0.1%	402	0.1%
Construction	15,848	5.8%	13,595	5.1%
Manufacturing	14,921	5.4%	13,213	4.9%
Wholesale trade	5,441	2.0%	5,007	1.9%
Retail trade	24,455	8.9%	24,680	9.2%
Transportation and warehousing, and utilities	15,903	5.8%	13,575	5.0%
Information	5,991	2.2%	5,599	2.1%
Finance and insurance, and real estate and rental and leasing	17,573	6.4%	14,952	5.6%
Professional, scientific, and management, and administrative and waste management services	29,957	10.9%	31,906	11.9%
Educational services, and health care and social assistance	81,167	29.6%	84,607	31.4%
Arts, entertainment, and recreation, and accommodation and food services	24,210	8.8%	23,677	8.8%
Other services, except public administration	13,102	4.8%	13,132	4.9%
Public administration	25,130	9.2%	24,733	9.2%

Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates

In recent years, the City has seen several large scale key investments that are bringing jobs and are projected to increase economic vitality for years into the future.

- The Harbor East Development, including the new Exelon building, has expanded the high-end office, retail and hotel sector from downtown East to Harbor Point.
- The location of a major Amazon facility into the site formerly occupied by General Motors in East Baltimore, is not only a convenient quality of life feature for residents and a job engine itself, but is expected to attract a range of new logistics and supply businesses.
- The continued growth of the University of Maryland BioPark in West Baltimore brings construction and bio-technology jobs to the community and region.
- The $1B plus development in the Port Covington area of the City by Under Armour Inc. and related Sagamore Development represents possibly the largest private investment in the City since World War II. The financing for the transaction has received approval for public subsidy (primarily in the form of TIF bonds) and the team is now putting together details of first phases. Development will occur over several decades and yield thousands of new residents and possibly tens of thousands of jobs.

While the trend is positive, the City also continues to struggle with persistent issues of high rates of poverty and incumbent crime and social issues, lingering effects of the April 2015 unrest, a low performing K-12 elementary system and aging infrastructure. Baltimore is still the business heart of the MSA and at the same time the location of the greatest concentration of regional amenities, such as parks and publicly accessible waterfront. These are factors which attract mobile professionals and which contribute to the higher quality of life enjoyed by all workers in the City of Baltimore. It is realistic to believe that Baltimore will see a continued and steepening upward trend in growth and economic vitality, joining the family of East Coast cities that have reversed late-20th Century declines.
The trajectory for Baltimore is later to begin and likely to be less dramatic than is being witnessed currently in Washington DC, New York and Boston, but overall the City is expected to be headed to a more stable future.

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II. PARKS AND RECREATION

System Overview

Park Land, Open Space and Recreation Facilities

Much of the Baltimore City park system was developed based on the 1904 Olmsted Brothers report *Development of Public Grounds for Greater Baltimore*. The report studied development patterns and the natural features of the city and identified key parcels for large park development, stream valley parks, boulevards, small parks, and water supply reservoirs (see Figure 2.0). The Olmsted Report was updated in 1926 and again in 1941. Because the recommendations of the Olmsted firm were based upon an appreciation for natural landscapes, Baltimore's early park system preserved much of the environmentally sensitive land of the City. In the urban renewal era of the 1960's, the park system went through a second phase of expansion (Simonds and Simonds, 1964) adding active recreation sites to neighborhoods across the city (recreation centers, playgrounds, fields and courts).

Today, the Baltimore City Department of Recreation and Parks (BCRP) manages and maintains the City's park, playground and playing field system consisting of approximately 4,874 acres of open space. The City also owns another 965 acres of parks just across the city line in Baltimore and Anne Arundel Counties, but has agreements with those counties to manage and maintain these properties. The Department is responsible for managing special facilities such as swimming pools, senior centers, soccer arenas, ice rinks and therapeutic recreation facilities. BCRP provides indoor and outdoor recreation programs at 43 neighborhood recreation centers and, in conjunction with private sector non-profit partners, provides recreation and heritage facilities in support of complementary missions. The Department also incorporates urban horticultural and forestry management and operations, which include an arboretum and conservatory, planting and maintenance of street trees, and maintaining the urban forest.

While Baltimore City Recreation and Parks is the primary land holder, there are some properties under the jurisdiction of other city agencies, such as Baltimore Housing, the Department of Transportation and the Department of Public Works. Baltimore City Public Schools maintains their own athletic fields and playgrounds. While there are no State parks inside Baltimore City limits, there is one federally owned property, Fort McHenry, which serves as a public park. There are also some recreational facilities that are managed by private institutions and community organizations. All of these are discussed in more detail later in the inventory section of this chapter.

Source: 1904 Olmsted Brothers, Development of Public Grounds for Greater Baltimore

Figure 2.0. 1904 Olmsted Brothers Map of Baltimore and Vicinity.

Accomplishments and Challenges

Accomplishments

In 2015, the Department of Recreation and Parks revised its plan for a new Community Center network to incorporate recreation and aquatic facilities, based on an analysis of existing recreation service coverage, to determine areas of the city that were underserved. This plan is the culmination of a number of initiatives that began in 2010 with the establishment of a Mayoral Recreation Center Task Force. The Task Force was charged to analyze the current inventory of recreation centers and provide a vision for future centers in the city.

The Department's Recreation and Aquatic Facilities Plan (July 2015) calls for a higher quality, greater variety of programs for all ages and the facilities necessary to deliver these programs in the 21st century. The plan features: 1) substantial capital investment, 2) improved programming for more diverse audiences and increased operating hours per week, and 3) improved facility maintenance. The plan was informed by 10 stakeholder meetings, a review of national trends, a geographic gap analysis of recreation facilities coverage and an assessment of services currently offered by Recreation and Parks and other providers.

The facilities necessary to deliver these programs will be, where possible, clustered to minimize operating costs; exploit program synergies; and maximize use with good access and extended hours of operation. All of the centers will be located in or near parks and other Department recreation facilities. Many of the new models (Citywide Fitness and Wellness Centers) will include an indoor pool to promote year round use. Other more local recreation centers (Community Centers) will typically be accessible to some type of outdoor pool, spray ground or interactive fountain feature. Athletic Centers will focus around outdoor activities and athletic fields. While accessibility to facilities and program affordability remains a key objective, BCRP will add fees for some programs to help recover a portion of the operating costs. Once new facilities are opened, older facilities serving those areas will be reevaluated and repurposed to allow for other recreational uses to be provided as determined in consultation with local communities.

The Department's 2016 master plan for Patterson Park, adopted by the Planning Commission and by CHAP in March, was the result of an intensive community-based 18 month planning process. Patterson Park is not only the oldest public park in Baltimore City, dating from 1827, but is also among the earliest examples of land dedicated for a public park nationwide. Planning actively involved six surrounding neighborhoods in addition to representatives from other nearby communities, City agencies, local organizations, and non-profits. The Plan attempts to balance active and passive recreational uses, ecological restoration and historic preservation.

Recreation and Parks was awarded $5.2 million from the Maryland Department of Natural Resources in FY 15 to expand facilities and outdoor recreation programming as well as nature education at the Cahill Fitness and Wellness Center. The center is currently in design. The new Center will fully support the goals of the Maryland Partnership for Children in Nature, which is a public and private partnership that works collaboratively to provide opportunities for children to play and learn outdoors and promote environmental literacy.

In FY17, the Department received a $437,000 grant in partnership with Parks & People Foundations from the National Recreation and Parks Association (NRPA), to renovate park space at Ambrose Kennedy Park. The site of a community driven cleanup in 2014 which included volunteers tearing up and removing excessive asphalt pavement with their bare hands, this investment in Ambrose Kennedy Park has already drawn additional interest in improvements and expansion from other agencies, a local developer and the Parks and People Foundation.

The Department also received a federal planning grant of $75,000 through the National Park Service to identify citywide issues to equitable park access. An outreach, data gathering and surveying effort will be undertaken in 2017 to identify these issues and lay the foundation for future community engagement and planning efforts.

Through our Capital Improvement Program, the Department of Recreation and Parks has made significant progress in implementing individual park master plans (Patterson Park, Carroll, Druid Hill, Cylburn, Clifton, Gwynns Falls/Leakin, and Herring Run), as well as city-wide park improvement strategies (pool renovations, playground renovation, court resurfacing and upgrading athletic fields). Significant highlights of the past year include the completion of Clifton Park (Rita Church) Recreation Center Gymnasium Addition, CC Jackson Recreation Center Expansion, Howards Park Dog Park, Cylburn Arboretum Formal Garden improvements, Northwest Park Playground, Lakeland / Wegworth Park Renovation, Herring Run Greenway Trail Phase I, Chinquapin Playlot, and Thames St. Playlot.

Challenges

The Department's 2015 Recreation and Aquatic Facilities Plan, while widely heralded, has received only a small portion of the capital funds required to implement. Rising construction costs are likely to push implementation from the $136 million estimated in the Plan to over $178 million dollars.

The majority of the Department's recreation buildings are over 40 years old. Many are in need of basic building renovations (electric, mechanical, doors, windows, floors, ceilings, interior paint, ADA compliant restroom & entrance remodeling and roof replacement). Many of them do not have the space or configuration to address current and future recreation programming needs.

The demand for capital improvements in both parks and recreation facilities continues to be far in excess of the available capital funds. Significant assets are at risk of being lost or incurring severe damage creating health and safety risks to visitors and staff. Historic structures continue to exhibit structural issues and at many sites, basic infrastructure such as lighting, water, drainage structures and pathways are not functional or approaching the end of their life cycle. Many sites do not have basic identification signs. The Department, using Druid Hill Park as the site for prototype development and field testing, has developed a sign graphic standardization package which will form the basis for a system wide initiative to brand; re-sign, parks and recreational facilities. Implementation will take several years, but is critical to City branding of accessible public parks and facilities.

The Department spends $975,000 annually on over 200 system maintenance and repair projects including roof repair/replacement, building painting, door replacement, heating and air conditioning preventative maintenance, floor replacement, and plumbing and electrical maintenance. This is probably about half of what would be required to address outstanding work orders in an older, rapidly deteriorating building inventory. It is estimated that a minimum of $8M per year is required to address life cycle replacement.

In the past three fiscal years (FY15, 16 and 17), new major capital additions and renovations have been completed at three recreation centers (Clifton Park (Rita Church), Morrell Park, and CC Jackson). It is anticipated that the new Cherry Hill Fitness and Wellness center will be deferred to Spring/Summer 2019 due to the construction of the adjacent school and additional funding needs. The Cahill Fitness and Wellness Center will start construction by Spring 2018.

While the proposed recreation centers will increase the Department's annual operating budget starting in FY 2020, the associated costs will be offset by the savings realized from the relieved costs of running the school wing recreation center buildings, the use of part time staff and the reassignment of full time staff to serve the larger center locations. In addition, the opportunity to incorporate "green" technology and building techniques should yield ongoing savings in utility costs.

The Department has already appropriated over $49 million to build new or extensively renovate five (5) fitness and wellness/community centers and one park pool in support of the new 2015 Recreation Center and Aquatic Facilities capital plan. Implementation of the full plan requires $84 - $112 million dollars to build or transform seven (7) recreation centers into citywide "fitness and wellness" facilities with new indoor pools; $20-$25 million dollars to upgrade five (5) existing recreation centers; $20- $25 million dollars to upgrade four (4) existing outdoor athletic centers focused around team sports fields playgrounds and fitness facilities in parks; $13 -$16 million to transform 4 existing outdoor park pools to provide water park features and add three (3) new spray pads.

Another 22 School-based recreation spaces will offer local recreation programs and activities operated in multi-purpose spaces housed within Baltimore City Public Schools' (BCPS) new 21st Century school buildings. Implementation of the school-based spaces will follow the schedule and funding for the Baltimore City Public Schools 21st Century Building Plan. The City, the Department and BCPS have developed an operating structure that is formalized in a Memorandum of Understanding. There is also a separate agreement between the Department and BCPS. More specific agreements will need to be worked out with the individual schools and community associations. BCRP continues to work with the Department of Planning and BCPS to ensure that recreation programming is provided in agreed upon schools as they are funded for renovation or reconstruction.

The Department continues to plan and work with communities to address current and future park and recreation needs. The Department's 2016 master plan for Patterson Park, for example, proposed capital, programming, organizational and management recommendations for the park. Work has already begun to address some of the management and organizational recommendations; since the plan's approval,

the park has been designated landmark status by the City Council and the Department is working with the Friends of Patterson Park to explore new ways to improve management, maintenance and programming of the park. Capital funding, however, will be needed to support these programmatic and organizational improvements.

Other large park planning efforts include Canton Waterfront Park and the Middle Branch Waterfront. Development pressures and new opportunities from changing existing uses, demand that the Department, in conjunction with its City agency and private sector partners, undertake fresh examinations of both of these significant waterfront parks.

While there continues to be a gap between the public's needs and desires and the ability of the Department to provide the expected services, the Department is working to increase the program provision and quality in different ways. Many adults in Baltimore have fond memories of spending their youth at one of 130 supervised playgrounds or recreation centers during the 1960's. Many residents expect the Department to continue providing an extensive system of neighborhood-based facilities in spite of a reduced urban population, changes in user demographics and a reduced tax base. The Department has been and will continue to educate, engage and promote its new approach to recreation to the public and elected officials to address these legacy expectations, and to outreach and serve a broader audience of residents. With the matching support of a federal planning grant from the National Park Service, the Department will be seeking new ways to engage with the public and build new partnerships across the city. Such outreach will be critical to understanding barriers to equitable access as well as ways parks and recreation can better address broader issues across Baltimore, such as public and individual health, crime reduction, youth development, socio-economic segregation and economic revitalization.

Park and Recreation Benefits

During 2014-2015, BRCP undertook an assessment of the range of programs and services[2] the agency provides to the public in order to ensure that its services were aligned with its mission and vision. In order to determine a collective set of values and vision for the agency, a number of community engagement meetings were held with different groups during the services assessment process. These meetings included agency staff, Baltimore City Council members, residents at two public forums, leaders from 28 non-profit, school, city and business organizations, youth and youth leaders. A summary of the discussion on community values and vision through the community engagement process yielded the following collective views on the value of parks and recreation services to the Baltimore community:

- Creates a sense of community
- Promotes cultural understanding and sensitivity
- Positively impacts physical, social and emotional health, "soul soothing"
- Increases property values

2 Baltimore City Recreation and Parks Department Services Assessment Report, July 2015. Undertaken with the consultant GreenPlay, LLC.

- Provides equitable access to green space
- Protects the environmental health of the city
- Essential to repurposing communities and rebuilding the City.

International research on the value of parks and other public spaces has found that green space provides a multitude of benefits for individual mental and physical health, city economies and the environment. Parks generate economic value and contribute to urban revitalization through increased property values and tourism. Green spaces have a positive impact on one's physical and mental health as well as improve opportunities for child play, exercise and learning. Parks and public spaces also promote neighborliness and community cohesion by creating settings for social interaction, and bring environmental benefits to urban areas such as increased wildlife habitats, cooler temperatures and stormwater reduction.[3] Further research specifies that the design of the green space matters along with the provision of well-maintained parks that have activities that bring people together and reduce social isolation.[4]

Trust for Public Land's 2006 report, *The Benefits of Parks: Why America Needs More City Parks and Open Space,* lays out the need for city parks, especially in inner city neighborhoods, and the social, environmental, economic and health benefits of parks for people. Of particular emphasis is the inequitable distribution of parks in low income communities populated by minorities and recent immigrants. The inadequate provision of park spaces results in less physical activity and higher health costs for these area residents. Access to public parks and recreational facilities has also been linked to reductions in crime and juvenile delinquency.[5]

Goals and Objectives for Parks and Recreation

Baltimore City Mission, Vision and Goals

To better meet the needs of the 21st century, Baltimore City Recreation and Parks redefined its mission and vision in 2014 to focus on community and individual health and wellness, universal access to parks and conserving natural resources. The shift in focus acknowledges the relationship between participation in recreation activities and improved health as well as the growing national role that parks and recreation are playing, not only in promoting active and healthy lifestyles, but in conserving critical environmental resources and recognizing the need for access to these resources for all. The mission and vision guides the Department's approach to recreation programming, park land and facility maintenance, capital development and planning.

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[3] CABE Space (2004, rev.2015) *The Value of Public Space: How high quality parks and public spaces create economic, social and environmental value*.

4 Delamont, Kiernan (11-21-2016) Why Park Designers Need to Think More About Mental Health*. Atlantic CityLab, The Atlantic Monthly Group.*

5 Sherer, Paul M. (2006) *The Benefits of Parks: Why America Needs More City Parks and Open Space.* Trust for Public Land.

BCRP's redefined mission and vision has been part of the agency's work to align itself with the National Recreation and Parks Association's Commission for Accreditation of Park and Recreation Agencies (CAPRA) standards. CAPRA accredits park and recreation agencies for excellence in operation and service providing assurance to the public that the agency meets national standards of best practice. Baltimore City received CAPRA accreditation in October 2016.

BCRP Mission

Baltimore City Recreation & Parks' (BCRP) mission articulates its reason for existence and encompasses selected values identified by the community:

> *"To improve the health and wellness of Baltimore through quality recreational programs, preserving our parks and natural resources, and promoting fun, active lifestyles for all ages."*

BCRP Vision

BCRP's vision is to build a stronger Baltimore one community at a time through conservation, health and wellness and social equity.

Conservation: Parks are critical in the role of preserving natural resources that have real economic benefits for communities. The Department is the leader, often the only voice in the community, for protecting open space, connecting children to nature, and providing education and programming that helps communities engage in conservation practices.

Health and Wellness: BCRP leads Baltimore in improving the overall health and wellness in communities. The Department is an essential partner in combating some of the most complicated and expensive challenges faced by Baltimore City- poor nutrition, hunger, obesity, and physical inactivity.

Social Equity: Universal access to public parks is a right, not just a privilege and is core to community building and the expression of its democratic franchise. Access to recreational and cultural activities is also as universal as education and health care. The Department works hard to ensure that all members of our community have access to quality places, resources and programming BCRP offers.

The mission and vision are fundamental to building a city of choice and supporting the goals of health, safety, economic vitality and to attract 10,000 families to Baltimore within the next decade.

BCRP Goals

Baltimore City Recreation & Parks' goals incorporate programming and facility needs, environmental resource conservation, community partnerships and citywide goals. BCRP's goals are:

- To improve the quality and expand recreation programming for all age groups and socio-economic levels to better meet community recreation needs.
- To focus on quality over quantity of facilities to maximize the use and improvement of existing recreation facilities for future programming and use.
- To implement the recommended capital program of the Recreation and Aquatics Plan 2015, including, where feasible, co-location of recreation and aquatic facilities in or next to existing parks, athletic fields and schools to integrate multi-activity programming and operations and to maximize facility use.
- To protect and enhance Baltimore's natural resources such as wildlife habitat and waterways; to support the goals of Tree Baltimore; and to consider the ecological health of the City, region and Chesapeake Bay in the planning and design of capital improvements.
- To preserve and enhance the natural, recreational, cultural and historic features which define Baltimore's park system.
- To strengthen partnerships with individuals, communities, business and other government agencies to support and advocate for increased funding for Baltimore's park and recreation system.
- To reach out to and engage diverse populations, whenever possible, to participate in capital project planning, programming, management and fund raising activities.
- To support the Mayor's city-wide goals of healthy communities, thriving youth and families, sustainable infrastructure, safe neighborhoods, a vibrant economy and a high performing government.

Implementing BCRP's 2012-2017 LPPRP: Progress to Date

Baltimore City has focused its capital efforts on seven (7) areas[6] and will continue to do so as part of its 2017-2022 LPPRP Plan:

1. Recreation and Aquatic Facility Expansion/ Modernization - the renovation and new construction of recreation, aquatic and special recreational use facilities.
2. Park Rehabilitation and Development – the renovation and new construction of park features, greenways, ADA upgrades, etc.
3. Baltimore Playground Program – playground renovation and new construction for park and recreation sites.
4. Athletic Field and Court Rehabilitation and Development (including lighting).
5. Park Building Modernization – the renovation and upgrade of field houses, picnic shelters, restrooms, historic structures and agency maintenance facilities.
6. Park Plazas, Fountains and Medians- including street tree planting.
7. Park Land Acquisition.

6 In the 2012-2017 LPPRP plan, Recreation Centers and Swimming Pool and Bathhouse Rehabilitation and Development were separate categories. The two categories have since been combined to focus on implementing the Recreation and Aquatic Plan.

BCRP's more recent 2015 Recreation and Aquatics Facilities Plan, lays out a new approach to facility types and program strategies for the City's recreation and aquatics facilities moving forward. The plan provides a $136 million dollar capital plan for upgrading, expanding and restructuring existing recreation center facilities to function as multi-activity and multi-generational complexes, making use of existing BCRP components, including parks, outdoor athletic fields, field houses, outdoor pools and splash pads. Implementation of this plan has already begun.

Table 2.0 shows the capital projects that the Department of Recreation and Parks has completed since 2012. Map 2.0 shows projects that have been completed, are under construction or in design as of December 2016 that are part of the 2015 Recreation and Aquatic Facility Plan.

Aligning Baltimore City and State of Maryland Goals for Parks and Recreation

The Maryland Department of Natural Resources identified six (6) goals for Parks and Recreation in its 2014-2018 Land Preservation and Recreation Plan to guide statewide efforts to conserve open space and enhance outdoor resources on State Lands. These goals reflect and align with the mission and goals that guide the policies, programs and projects of Baltimore's Department of Recreation and Parks. The State goals are:

1. Make a variety of quality recreational environments and opportunities readily accessible to all of its citizens and thereby contribute to their physical and mental well-being.
2. Recognize and strategically use parks and recreation facilities as amenities to make communities, counties and the State more desirable places to live, work, play and visit.
3. Use state investment in parks, recreation and open space to complement and mutually support the broader goals and objectives of local comprehensive / master plans.
4. To the greatest degree feasible, ensure that recreational land and facilities for local populations are conveniently located relative to population centers, are accessible without reliance on the automobile and help to protect natural open spaces and resources.
5. Complement infrastructure and other public investments and priorities in existing communities and areas planned for growth through investment in neighborhood and community parks and facilities.
6. Continue to protect recreational open space and resource lands at a rate that equals or exceeds the rate that land is developed at a statewide level.

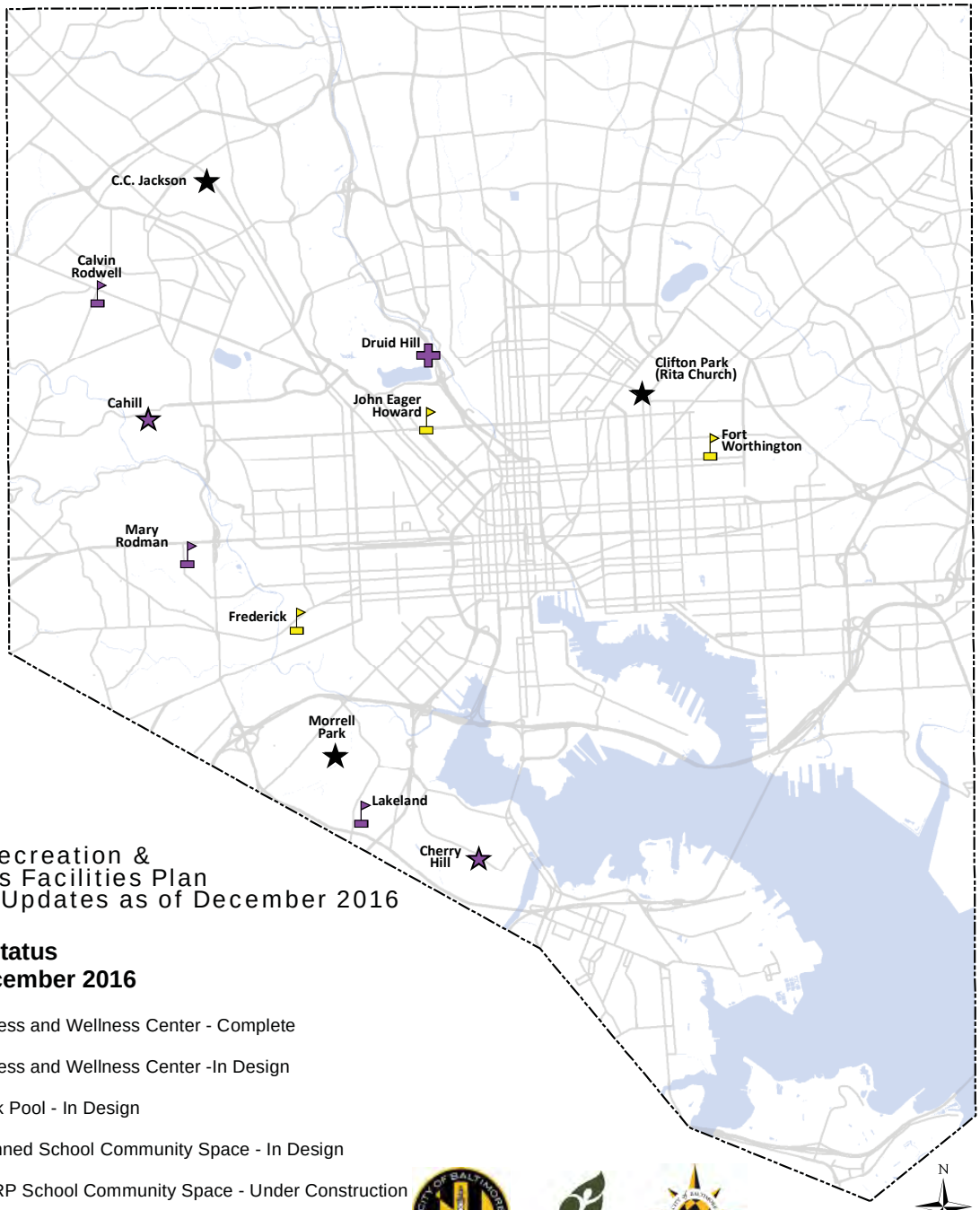
Baltimore City provides a wide variety of recreational environments and opportunities for its residents. Services provided to the public are at no cost or generally below market rate. This includes summer camp programs, facility permit fees and event and single program fees. The Department is continually working to promote its programs and facilities more widely to ensure that residents are aware of the range of recreational opportunities available to them citywide. Goals of the 2015 Recreation and Aquatic Facilities Plan specifically focus on underserved communities and improving access to recreational facilities in the city.

Table 2.0. BCRP FY 2012-2017 Completed Projects

Baltimore City Department of Recreation and Parks
Fiscal Year 2012-2017 Completed Capital Projects (as of 12/27/2016)

Project Name/ Project Description	Project Total	HUR/ MVR	City Gen	City Loan	Pimlico Local Impact	POS Match	POS Direct	POS CP&P	State Bond	Other
Playgrounds Capital Dev. Program #3 (p.35)										
Arundel Elementary, Warwick Park	$283,000									
Buena Vista, Kimberleigh Rd, Lafayette & Aiken Parks	$436,000			X		X				
Woodbourne	$200,000							X		
Herring Run @Parkside, Alexander Odum	$370,000							X		
Betty Hyatt, Winner Ave, Helen Mackall	$400,000			X		X				
Wyman Park Dell, Georgetown & Desoto, Traci Atkins	$300,000			X						
Federal Hill Park	$520,000						X	X		
Elm Ave, Mullen, B&O	$400,000									
Islamic Way	$141,000			X						
Joseph Lee	$768,000			X		X		X		
Lakeland/Wegworth	$1,066,000			X				X		X
Northwest Park	$270,000				X					
Carroll Park, Willow - rubber only	175,000			X				X		
Thames St., Chinquapin	$340,000			X						
Recreation and Aquatic Facilities Capital Dev. Prgm #1										
Solo Gibbs Spray Pool	$415,000			X		X				
Clifton Park Recreation Center	$3,300,000			X		X				
Clifton Park Recreation Center Gymnasium	$3,275,000			X		X				
Morrell Park Recreation Center	$3,500,000			X		X				
Myers Soccer Pavilion HVAC	$250,000			X		X				
CC Jackson Recreation Center Expansion	$4,400,000			X	X	X				
Athletic Fields and Courts Capital Dev. Program #4 (p.35)										
Druid Hill Park Baseball and Football	$2,600,000			X		X				
Patterson Park Court resurfacing	$100,000			X						
Ripken Baseball at CC Jackson	$900,000				X		X			
Carroll Park Athletic Fields and Field House Prog #4, #5	$1,390,000						X			
NBA Easterwood Basketball court resurfacing	$46,000									X
Ft. Holobird athletic field and court Prog #4, #5	$790,000		X	X		X				
Radecke Park Athletic Fields and Field House replacemer	$1,340,000		X	X			X			
Latrobe Under Armour Field	$1,950,000									X
Court Resurfacing: Alexander Odum, Helen Mackall	$104,000			X		X				
Latrobe Park Courts	$477,000						X			
Wilson & Ettings Court (Islamic Way)	$128,000			X						
Caroline & Hoffman court improvements	$100,000						X			
Park Building Modernization Capital Dev. Program #5										
Callowhill and Cherry Hill Pool Roofs	$185,000			X						
Park Facilities Capital Dev. Program #2 (p.35)										
Pierce Park	$1,000,000						X			
Park Heights - Jack Paulsen Park Renovation	$740,000								X	
Druid Hill Park Roadway and Signage Improvements	$131,000	X								X
Druid Hill Park - ADA improvements 3001 East Dr	$70,000						X			
Riverside Park Improvements, Phase I	$600,000			X		X				
Crimea Roadway and Parking Improvements	$280,000	X				X				
Union Square Park	$460,000			X		X				
Patterson Park Dog Run	$400,000			X						
Jones Falls Trail Phase IV	$3,495,000	X							X	
Luckman Park	$900,000			X		X				
Henry H Garnet Park	$250,000			X		X				
Northwest Park Master Plan	$35,000			X						
Roosevelt Skate Park Phase I	$180,000			X						X
Patterson Park Entrances	$296,000			X		X				
Druid Hill Park Picnic Area Improvements	$250,000						X			
Cylburn Arboretum Signage	$165,000			X						
Cylburn Arboretum Formal Garden Walkways	$200,000						X			
Howards Park Dog Park	$265,000			X						X
Herring Run Greenway Phase I	$4,180,000	X							X	
Under Construction - Completion Spring 2017 Capital Dev. Prgm #2										
Druid Hill Park Neighborhood Access	$1,950,000	X	X							
Stony Run Pedestrian Bridges	$1,000,000		X				X			
Gwynns Falls Park Entrance and Roadway Improvements (Sloman Dr.)	$1,290,000	X		X		X				
Outward Bound Rope Challenge Course	$200,000						X			
Roosevelt Skate Park Phase II	$439,000			X					X	
Crimea Stone Wall Repair	$50,000			X						X
Carroll Park Signage	$89,000			X						

* Casino Revenue



BCRP Recreation & Aquatics Facilities Plan
Project Updates as of December 2016

Project Status as of December 2016

- ★ Fitness and Wellness Center - Complete
- ★ Fitness and Wellness Center -In Design
- Park Pool - In Design
- Planned School Community Space - In Design
- BCRP School Community Space - Under Construction

0 0.5 1 2 3 Miles

Map Date: December 27, 2016

Map 2.0

Parks and recreation facilities are recognized as key amenities in Baltimore City that improve the quality of life, both in neighborhoods and citywide. Priorities in capital and program investments are prioritized to benefit the greatest number of residents and ensure equitable geographic distribution. Due to the urban nature of Baltimore City, new facilities are often provided through the expansion of existing facilities or coordinated with other city plans and initiatives on previously developed properties, such as the Baltimore City Public Schools, 21st Century Schools Initiative, Baltimore Housing development projects, the State's Project CORE funds, and planning for the City's vacant properties as part the Department of Planning's Green Network Plan. The Department of Recreation and Parks is also working with Maryland's Department of Natural Resources to expand its programs with Conservation Job Core (CJC), as well as investing in new facilities for outdoor recreation, including Winans Meadow Nature/ Visitor Center, improving an underutilized youth campground and building the new Cahill Fitness and Wellness center in Gwynns Falls/Leakin Park. The Department is also working with other City agencies, including the departments of Health and Planning, Office of Sustainablity and the public School System to support the environmental literacy graduation requirement by increasing access to environmental programming and public lands.

Implementing Programs and Funding Sources

The Department of Recreation and Parks' Capital Improvement Program (CIP) is guided, as it is for all city agencies in Baltimore City, by the Baltimore City Department of Planning to ensure coordination between agencies and overall compatibility with citywide goals. Planning Department staff work closely with the Capital Development and Planning Division at BCRP to prepare the annual and six (6) year Capital Improvement Program as well as a variety of small community plans that impact park issues.

The Department of Recreation and Parks, Capital Development and Planning Division, has several "long-term" Capital Development programs that help the City to remain focused on the goals of the Land Preservation, Parks and Recreation Planning and State Goals. These programs were developed to ensure steady progress on all aspects of providing open space and recreation opportunities in Baltimore City. They support care, operation, and improvement of general neighborhood recreation facilities, special recreation facilities, and our citywide network of open space greenways. The seven (7) programs for capital development are:

1. Recreation and Aquatic Facilities Expansion/ Modernization - the renovation and new construction of recreation and special facilities.
2. Park Rehabilitation and Development – the renovation and new construction of park features, greenways, ADA upgrades, etc.
3. Baltimore Playground Program – playground renovation and new construction for park and recreation sites.
4. Athletic Field and Court Rehabilitation and Development (including lighting).
5. Park Building Modernization – the renovation and upgrade of field houses, picnic shelters, restrooms, historic structures and agency maintenance facilities.
6. Park Plazas, Fountains and Medians - including street tree planting.
7. Park Land Acquisition.

Suggestions for park and recreation improvement projects come from many sources:

1. Department of Recreation and Parks' Park Master Plans and Citywide Plans: Capital projects identified as part of individual park plans (Patterson Park Master Plan), citywide plans (2015 Recreation and Aquatics Plan), and agency programming and facility needs. All agency plans incorporate citizen participation as part of planning and design processes.

2. User Survey, Demand Data and National Research: Generated by the Department of Recreation and Parks, other city agencies or organizations that pertain to parks and recreation preferences or needs.

3. Community or City Staff Generated Plans: Recommendations from neighborhood master plans, Small Neighborhood Action Plans (SNAP), Urban Renewal Plans, Commercial Corridor Plans (LINCS), Urban Land Institute Plans, INSPIRE plans for areas around the locations of new 21st century School Building projects, and other plans and community assistance projects from the Department of Planning.

4. Individual Suggestions from City Agencies or Citizen Calls: Recreation and Parks staff, Planning Department staff, the Mayor's Office of Neighborhoods, individual park "friends" organizations, private citizens, elected officials and community organizations.

Each fall, staff and the Director of the Department of Recreation and Parks evaluate all suggestions from the previous year. Staying within the projected capital budget funding ranges, projects are selected to enhance the park system and support recreation programming. The completed capital budget is submitted by the Director of the Department of Recreation and Parks to the City's Department of Planning. After revisions are made to meet citywide goals, the Planning Department submits the capital budget of all city agencies to the City's Planning Commission for public review and the formal acceptance process.

During staff and public review, several factors are considered as each capital project or land acquisition proposal is evaluated:

1. Contribution to departmental goals (Land Preservation, Parks and Recreation Planning).
2. Contribution to goals or programs of other City agencies.
3. Contribution to City Goals.
4. Value of the facility or resource in relation to the entire park system, with priority for those with at least one of the following factors:
    a. High attendance and use
    b. Multi-use facilities
    c. Proximity to neighborhoods with special needs (such as communities with a high percentage of low-income and at-risk populations)
    d. Special needs groups (senior citizens, teens, children, or disabled populations)
    e. Historical significance
    f. Local regional landmarks

g. High scenic or aesthetic value

h. Wildlife habitat enhancement value

i. Environmental quality improvement value

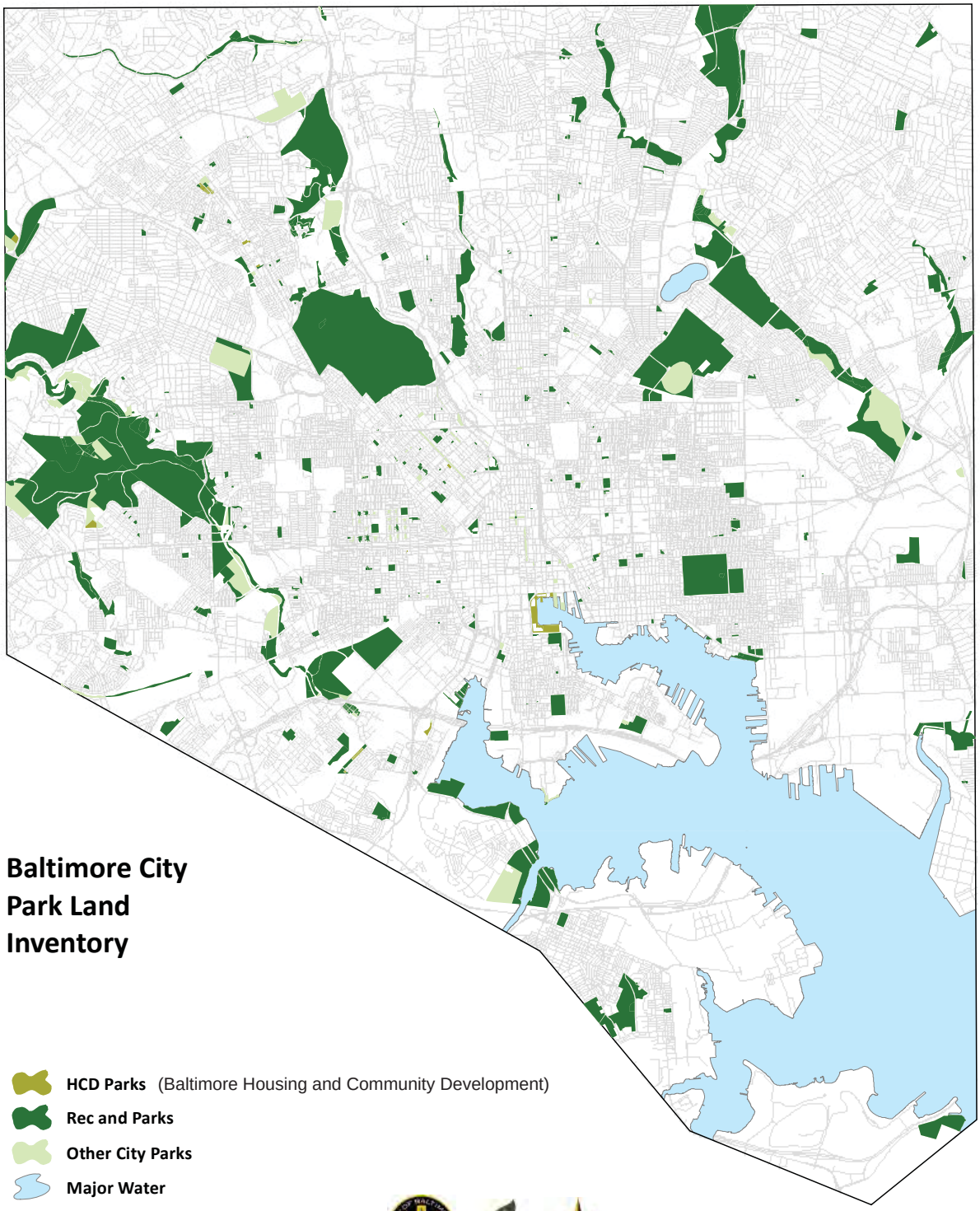
5. Evidence of strong community support or the potential for community involvement and partnerships.

6. Critical need of repairs, issues of public safety or need for ADA compliance.

7. Budget constraints involving capital costs of project, operating costs of the operational project and the potential for additional leveraged funding from other potential partners.

The scope of projects covered in the eight capital programs and the evaluating criteria used by BCRP, work together to identify projects which will have the greatest value for the public, while finding a balance between all the competing goals of the Department. The close coordination between BCRP and the Department of Planning ensures that capital investments in park and recreation facilities will meet the recreation programming needs of the public as well as support environmental community enhancement or economic development projects initiated by other City agencies. Each year, there are far more suggestions for capital improvement projects than funding will support. Based on the seven department review criteria, contribution to citywide goals and community support, projects are given a higher funding priority as the Department's Capital Improvement Program is reviewed.

The Department of Recreation and Parks manages capital and operating funds for recreation and open space in Baltimore. In the last five years, the operating budget of the Department of Recreation and Parks has averaged $37.6 million per year. (80% General Funds, 20% other funds, private grants and donations). The Capital budget of the Department of Recreation and Parks has averaged $14 million/year over the last five (5) years. (36% Maryland Program Open Space, 2% Community Parks and Playground grants, 1% Federal (UPARR and ISTEA), 13% City General Funds, 38% City Bond Funds, 4% Motor Vehicle Revenue/Highway User Revenue, 3% Slot/Casino, 3% Other). Program Open Space funds are generally used to fund renovation of existing facilities (recreation center renovation, renovation projects in the city's large urban or community parks, neighborhood playground renovation). Occasionally, Program Open Space funds are used for park acquisition or new development. Other funds include grants from organizations such as the National Recreation and Parks Association, LWCF grant funds as part of the NPS' Outdoor Recreation Legacy Partnership (ORLP) program, and private funds as part of partnerships with organizations such as the Cal Ripken Sr. Foundation, Under Armour, the Baltimore Ravens, the National Football League and the Baltimore Orioles.



Map Published: November 2016

Map 2.1

Inventory of Existing Public Parks and Recreation Facilities

Baltimore City Owned Public Parks and Recreation Properties

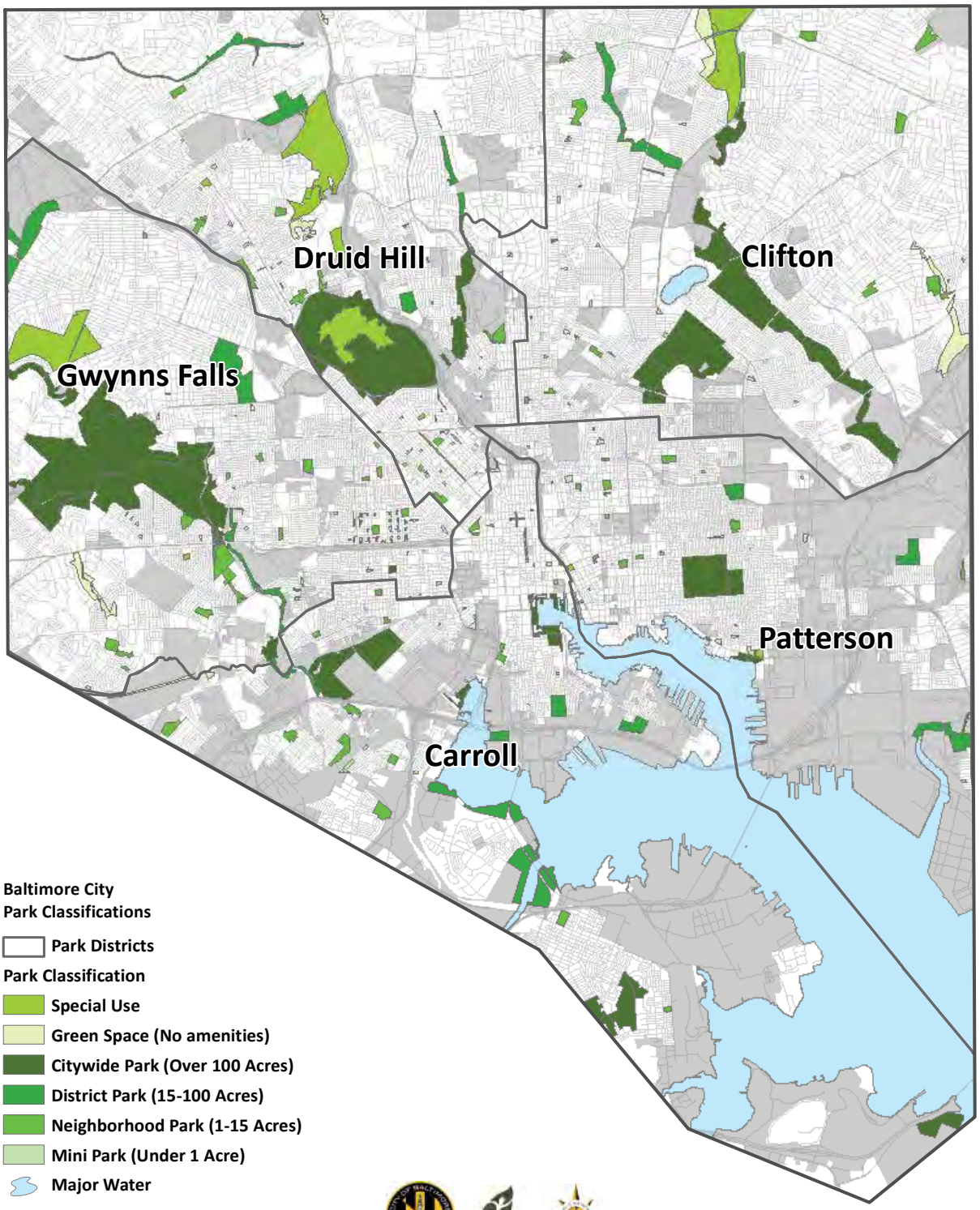
Baltimore City Recreation and Parks is the primary provider and caretaker of public parks and recreation facilities in Baltimore City. There are also some properties under the jurisdiction of, or maintained by, Baltimore City Public Schools, Baltimore Housing and Community Development (HCD), the Department of Transportation and the Department of Public Works (Map 2.1). Baltimore City Public Schools maintains their school yards, playgrounds and athletic fields. The Department of Transportation generally maintains medians and traffic circles and Baltimore Housing maintains a few playgrounds and parks that were developed as part of their properties.

Baltimore City Recreation and Parks is responsible for 4,874 acres of public parkland, 123 playgrounds, 22 swimming pools, 82 tennis courts, 102 basketball courts, 200+ athletic fields (baseball and multi-purpose fields), 18+ miles of greenway and bike trails, 40 recreation centers and a number of special recreation facilities (including a boxing ring, 2 ice skating rinks, roller rink, soccer pavilion) and special use facilities (Carrie Murray Nature Center, Rawlings Conservatory, Middle Branch Rowing Club).

Park land and Open Spaces

Baltimore residents have a variety of parks, recreation facilities and natural open spaces (See Maps 2.2, 2.3, 2.4 and 2.5). Large wooded parks and boulevards are interwoven across the city, forming a network of open spaces. Playfields, playgrounds, courts and recreation centers are found distributed across the city. Athletic fields, playgrounds and courts are offered in a variety of settings. Many playgrounds and basketball courts have been developed in small urban parks (> 0.5 acres), but they are also found in more natural settings in the city's large parks. Multi-use athletic fields have been developed in many neighborhoods parks and schools. BCRP has categorized its network of parks according to size and function as follows: Citywide Parks, District Parks, Neighborhood Parks, Mini Parks, Green Spaces and Special Use Parks (Map 2.2). Table 2.1 summarizes the number and variety of these parks and open space resources. BCRP's full inventory of parks and recreational properties, along with the amenities provided within each property, is provided in Appendix A, p. 161.

The City has 19 large Citywide Parks that are over 100 acres or are part of a larger network. These parks host a variety of recreational facilities as well as provide significant areas of undeveloped woods (Gwynns Falls/Leakin Park, Druid Hill Park, Herring Run Park) or mature tree groves (Patterson Park, Carroll Park, Clifton Park). While these parks cannot be considered "truly wild", they are "natural" in contrast to the surrounding urban development and they successfully support a variety of natural resource based recreation. Hiking, kayaking, and fishing are popular activities utilizing the trails and streams of Gwynns Falls/Leakin Park. Druid Hill Park, Gwynns Falls/Leakin Park, Patterson Park and Cylburn Arboretum (which is classified as special use park) are well known locations for bird watching. The National Audubon Society has established a year-round office adjacent to Patterson Park to allow its staff to take advantage of the mature tree groves and a naturally landscaped lake for urban nature and bird watching programs. Canton Waterfront and Anchorage Promenade Parks are part of the City's waterfront park and pedestrian network and provide opportunities for boaters to launch or moor, leisurely pedestrians and serve as venues for summer concerts and programs.


Druid Hill
Clifton
Gwynns Falls
Patterson
Carroll
Baltimore City
Park Classifications
Park Districts
Park Classification
Special Use
Green Space (No amenities)
Citywide Park (Over 100 Acres)
District Park (15-100 Acres)
Neighborhood Park (1-15 Acres)
Mini Park (Under 1 Acre)
Major Water
Map Published: November 2016
N

Map 2.2

District Parks, 16 in total, range between 15 and 100 acres and are smaller in size than Citywide Parks, but serve multiple neighborhoods or a geographic section of the city. Riverside, Roosevelt and Northwest Parks provide athletic fields, pool facilities and a golf driving range. Other parks, such as Stony Run and Western Run, follow streams and provide walking trails within residential areas.

Neighborhood Parks range between 1-15 acres in size and serve as the basic unit of the park system for users within a quarter to half mile distance. There are 64 of these parks in the Baltimore City network; many of these parks are informal in design, are clearly visible and located along well trafficked streets. The larger neighborhood parks, such as the Irvin Luckman, Burdick and Radeke Parks, include athletic fields, playgrounds and open grass spaces. Other spaces include the city's older public squares and spaces, such as Union Square, Lafayette Square and Harlem Square Park. A few of these parks, such as Easterwood, DeWees and Robert C Marshall parks include recreation center facilities.

Mini Parks are small parks with amenities that may include one or more play features, a pavilion or a playground. Less than an acre in size, some of these mini parks are located in less visible or low trafficked streets. There are 82 of these small local park types. Some of these, like Henry Garnet, Saint Mary's and Saint Casmir, and Park Avenue Median Parks, are passive parks or park medians with seating; others like Thames Street and Dypski Park contain small playgrounds.

Green Spaces are open lawn or woods spaces without amenities and of varied size. These spaces serve as flexible spaces for active or passive use. Baltimore City has 66 of these types of spaces. Many are small neighborhood spaces that are right of ways, medians, inner block parks, and forested or wooded areas.

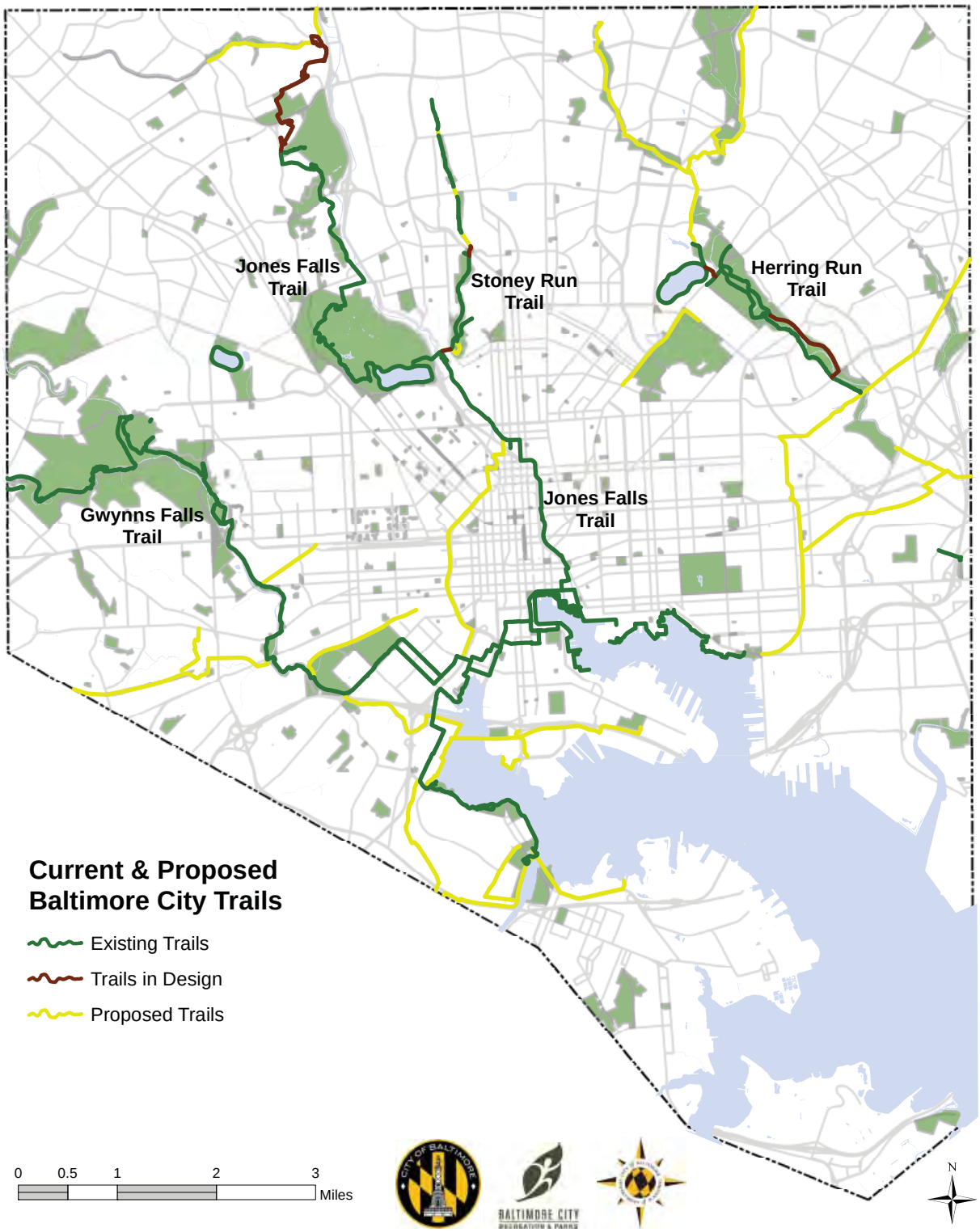
Special Use Parks have a specific use or role associated with them. The City has 20 of these types of spaces, which include Cylburn Arboretum, dog parks, golf courses, monuments, fishing piers and docks, community gardens (called City Farms) and park maintenance areas. Baltimore City Farms is a Recreation and Parks program that offers garden plots for rent to City residents in 12 parks.

The City also owns undeveloped watershed lands in the surrounding counties (17,580 acres: Loch Raven Reservoir and Pretty Boy Reservoir in Baltimore County and Liberty Reservoir in Baltimore & Carroll Counties). These park lands have extensive trail networks that are open to the public for recreation activates, such as hiking, cross country skiing, horseback riding and mountain biking.

Table 2.1 Park Types by Park District and Total Acreage

Park Type	**Park Maintenance District**					**Citywide**	
	Carroll	*Clifton*	*Druid Hill*	*Gwynns Falls*	*Patterson*	*Total #*	*Total Acreage*
Citywide	7	3	2	3	4	19	2,718.42
District	5	1	4	3	3	16	698.55
Neighborhoood	12	12	13	18	9	64	377.77
Mini	13	17	19	15	18	82	63.28
Green Spaces	4	7	17	37	1	66	209.09
Special Use	8	1	7	1	3	20	730.80
Totals	**49**	**41**	**62**	**77**	**38**	**267**	**4,797.89**

** Total acreage does not reflect all park properties*



Map Date: December 27, 2016

Map 2.3

Greenways and Bicycles in Baltimore City

In the last two decades, Baltimore City has been successful in planning and constructing a new greenway trail system that expands our existing park system by making new connections between communities and open space. These connections are vital to connecting communities to green space in a safe and meaningful way. The three main trails follow the city's major stream valleys: Gwynns Falls, Jones Falls and Herring Run. These three separate greenways work as a network whose hub is downtown Baltimore, linking residents with points of interest at the neighborhood level (schools, parks and shopping areas), as well as the major cultural attractions of the Inner Harbor (Map 2.3). The greenway network alignment has been designed to allow connections to trail projects of the surrounding communities in Baltimore County and the East Coast Greenway, a national trail system traveling from Maine to Florida. BCRP is working with the National non-profit Rails to Trails, to investigate and implement connecting trails between the Gwynns Falls, Jones Falls and Herring Run trail networks.

The Department of Recreation and Parks, with support from the Department of Planning and the Department of Transportation, is responsible for trail construction and management. The Gwynns Falls Greenway was completed in 2008, the final segment of the Jones Falls Greenway is due to start construction in 2017 and the first phase the Herring Run Greenway was completed in 2015. The greenway network offers "off road" trail opportunities for both recreational use (bicycles, skateboards, roller blades, walking) and daily commuting. In addition to the greenway trails, the city has a Bicycle Master Plan (2015) to promote safe bicycling routes on city streets (see http://transportation.baltimorecity.gov/bicycle-plan for a copy of the plan. The Bicycle Master Plan, will guide the Department of Transportation as it adds signs and designated bicycle lanes to promote use of bicycles for daily errands and commuting to work. The Department of Transportation is currently constructing an additional 10 miles of bicycle facilities in the downtown area, per the Bicycle Master Plan. This includes 6 miles of on-street, protected bike lanes.

The Rails to Trails Conservancy has been working with Baltimore City Dept. of Transportation (DOT) and other partners to connect the three existing Baltimore City trails (Jones Falls, Gwynns Falls and Herring Run), that, when completely linked, will create a 35-mile walking and bicycle loop connecting the city's diverse neighborhoods with the downtown core. Only 10 additional miles are needed to close critical gaps to create this interconnected Greenway Trail Loop. While the project is in the early planning stages, it is likely that DOT will be the agency to undertake implementation.

The increasing popularity of bicycle riding in Baltimore can be seen each year with the growing demand for bicycle racks at the train station and downtown, increasing numbers of greenway trail users and increasing participation in local bicycle events. The City also launched Phase I of Baltimore bike share in October 2016. Bike share provides options for short, one way trips to be made by bicycle. It is a system that helps normalize biking and makes it more accessible, since people who don't typically ride a bike are attracted to use the system. The "Tour dem Parks" is sponsored by the Friends of Carroll Park and the Mayor's Bicycle Advisory Committee (since 2001). The event includes a race and family ride on a 30 mile loop that passes through the city's five (5) large parks including seven (7) miles of the Gwynns Falls Greenway. "BikeJam" has been sponsored by Friends of Patterson Park since 1998. The day-long festival includes 11 races held on roads within Patterson Park. The events range from a 40-mile race for professional road racers (the KBS Cup ProRace Circuit) to five and ten mile amateur and youth races and a sprint for city messenger bikes. The Kinetic Sculpture Race has become a Baltimore tradition as uniquely fabricated bicycles travel the streets and waters of Baltimore encouraging cyclists of all ages to ride along.

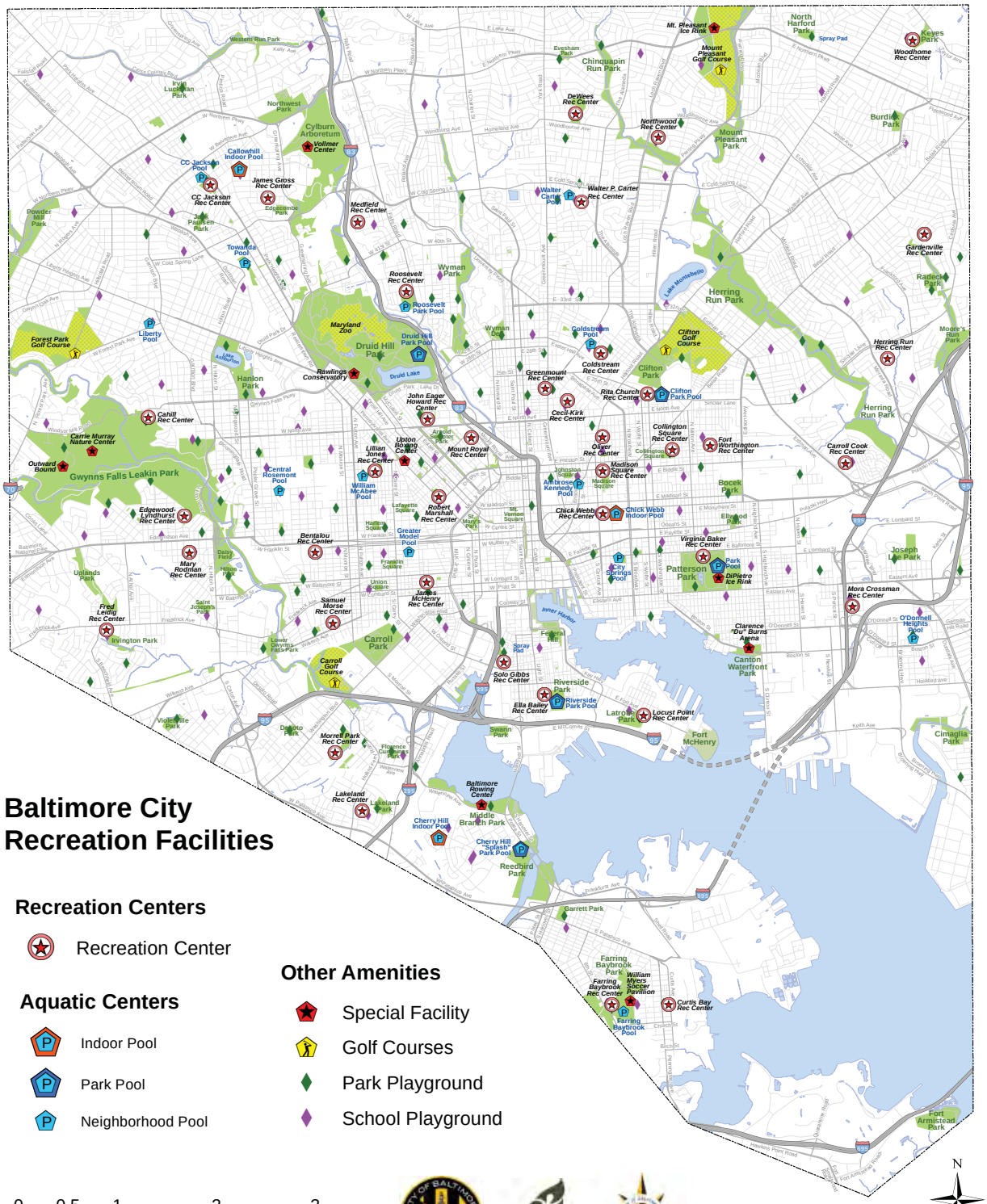
Gwynns Falls Greenway: The Gwynns Falls Greenway extends 14 miles along the Gwynns Falls stream valley, linking over thirty neighborhoods with 2000 acres of parkland. Parks located along the Trail's route include Gwynns Falls/Leakin Park, Leon Day Park, Carroll Park, Middle Branch Park and the Inner Harbor. A spur trail (2 miles) connects the Gwynns Falls Greenway to the I-70 park-n-ride in Baltimore County. The landscape character of the northern and southern sections of the Gwynns Falls Greenway is quite distinct. From Gwynns Falls Park to Carroll Park, the trail weaves along the steep slopes of the stream valley. The trail is completely surrounded by mature woodlands full birds and wildflowers with dramatic views of the rushing stream from the trail bridges. New visitors to this section of the trail are amazed to find so much natural beauty inside the city limits. From Carroll Park south to the Inner Harbor and Middle Branch Park, the trail is a completely different experience. The trail weaves through the streets of row house communities and industrial areas. One spur cuts through Ravens Stadium to reach Federal Hill and the Inner Harbor, while the main trail continues south along the industrial shoreline of the Chesapeake Bay, to reach Middle Branch Park and the Baltimore Rowing Club.

Jones Falls Greenway: The master plan for the Jones Falls Greenway (2000) proposed a new 10-mile bicycle trail for central Baltimore City, roughly following the Jones Falls Stream Valley from the city line to the Inner Harbor. This trail system will connect over 20 neighborhoods and 1,500 acres of parkland, including Druid Hill Park, Cylburn Arboretum and Lake Roland Park in Baltimore County. The northern portions of the trail will pass through a series of wooded parks (Cylburn Arboretum, Woodberry Park and Druid Hill Park), while the southern portion of the trail will be a side path separated from vehicular traffic from Pennsylvania Railroad Station, south through the residential and commercial streets of the Midtown Cultural District and the Inner Harbor. Phase I of the Trail, between Druid Hill Park and Penn Station, was completed in 2005. Phase II, from Penn Station to the Inner Harbor, was completed in 2014. Phase III, two miles of trail through Druid Hill Park was completed in 2008. Phase IV, Druid Hill to Cylburn Arboretum, was completed in 2016. Construction for the final phase, Phase V, Cylburn Arboretum to Mt Washington, is expected to begin in early 2017 with anticipated completion in early 2019.

Herring Run Greenway: Baltimore plans to design and build the Herring Run Greenway. The trail will connect Herring Run Park, Chinquapin Park, Moore's Run Park and Clifton Park as well as the Lake Montebello water treatment facilities (1,122 acres) to Morgan State University. The trail will wind through low-density residential neighborhoods to connect a series of parks that have popular athletic fields. With new wastewater improvements along upper Herring Run and Chinquapin Run, the City of Baltimore should investigate converting construction access roads to viable trails. Given the recent construction disturbance, the access road trails would minimally affect environmental features while creating a low-cost trail improvement to areas of the city currently void of trail options. Extending the Herring Run Trail southward to Bayview Medical Campus would provide a multi-modal connection with the MARC systems. From here, the potential exists for extending a trail system south of the Waterfront Promenade through "rail with trail" development of the unused Norfolk Southern rail line. Phase I of the trail, completed in 2015, extends from the Halls Spring Area (Harford Rd & Argonne Dr.) to Sinclair Lane, providing opportunities to walk or bike along the stream bed. A full loop extends from Harford to Belair Road and the trail runs along the South side of the stream, from Belair Road to Sinclair Lane. Funding for the design and construction of additional phases has not been determined.

Recreation Facilities and Programs

The City's recreation system includes recreation centers, special use athletic facilities and a citywide network of courts and fields in parks and school sites. (Map 2.4 and 2.5) Table 2.2 summarizes the type and number of recreational facilities in Baltimore City.


Baltimore City
Recreation Facilities
Recreation Centers
Recreation Center
Aquatic Centers
Indoor Pool
Park Pool
Neighborhood Pool
Other Amenities
Special Facility
Golf Courses
Park Playground
School Playground
0 0.5 1 2 3
Miles
N
Map Date: December 27, 2016

Map 2.4

Table 2.2. Recreation Facilities Inventory

BCRP Facilities		
Recreation Facilities - 574		**Pools - 23**
Recreation Centers	40	Indoor Pools
Basketball Courts	102	Spray Pad
Tennis Courts	82	Park Pools
Football Fields	21	Neighborhood Pools
Football/Cricket Fields	1	**Connecting People with Nature - 45**
Football/Lacrosse Fields	1	City Farm
Football/Soccer Fields	2	Community Garden
Lacrosse Fields	2	Educational Garden
Rugby Fields	2	Wetlands Viewing Area
Soccer Fields	49	Boat Ramp
Baseball Fields Babe Ruth	23	Fishing Pier
Baseball Fields Little League	29	Kayak/Canoe Launch
Grass Field- Not Maintained	13	Greenway Trails
Reserve Softball Fields	6	**Special Facilities - 10**
Softball Fields	50	Ice Rink
Bocce	4	Indoor Soccer
Skate Park	3	Bowling Alley/Roller Rink
Horseshoes	1	Rowing & Water Resource Center
Volleyball Courts	14	Boxing Center
Dog Park	3	Nature Center
Golf Course	4	Conservatory
Golf Driving Range	1	Arboretum Vollmer Center
Disc Golf Course	1	**Total Park Properties - 267**
Playgrounds	120	

Recreation Centers

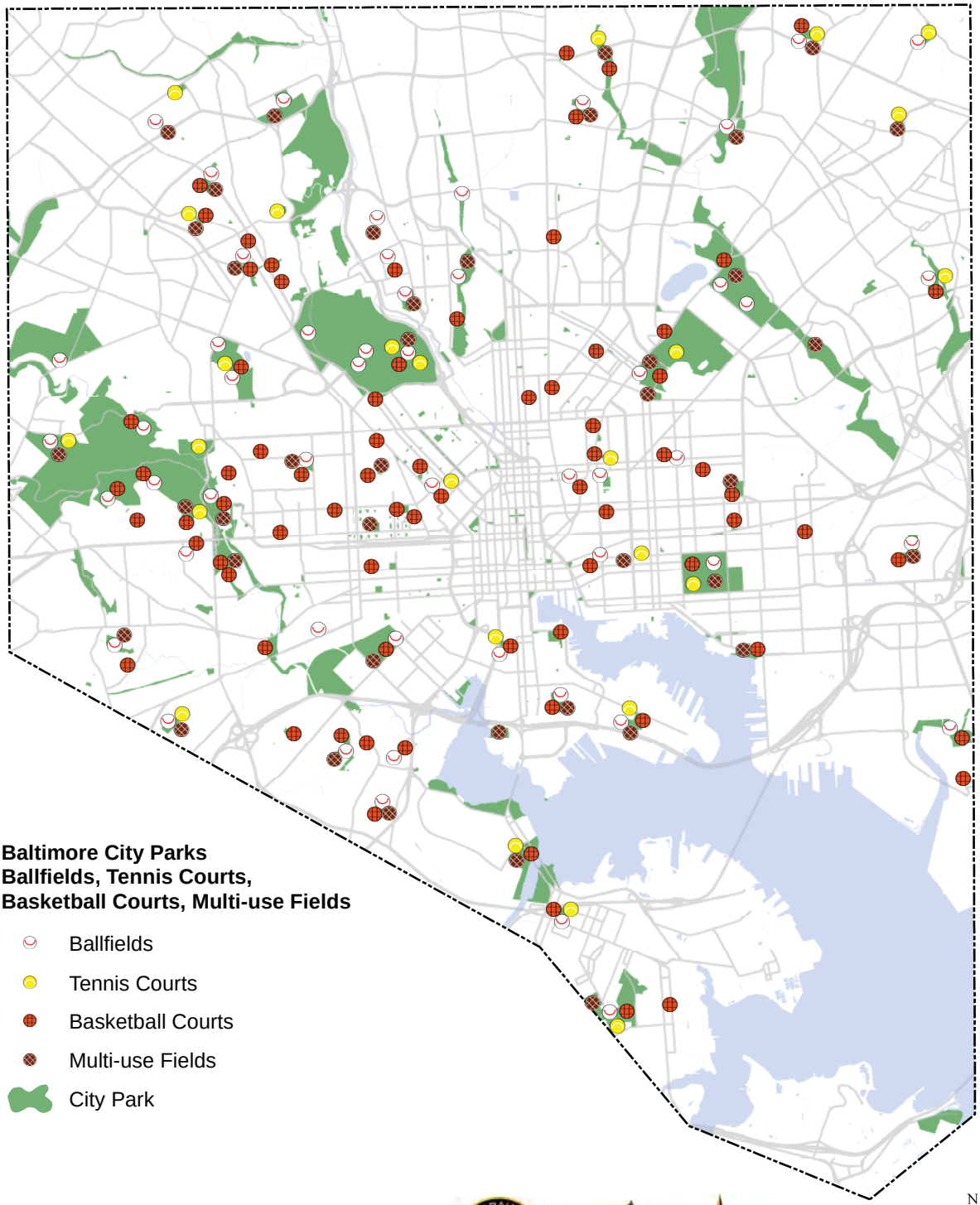
The Department currently operates 40 recreation centers distributed throughout the city. In 2015, the Department revised its plan for a new Community Center network to incorporate recreation and aquatic facilities based on an analysis of existing recreation service coverage to determine areas of the city that were underserved.

The Department's Recreation and Aquatic Facilities Plan (July 2015) calls for a higher quality and greater variety of programs for all ages. The facilities necessary to deliver these programs in the 21st century, will be, where possible, clustered to minimize operating costs; exploit program synergies; and maximize use with good access and extended hours of operation. All of the centers will be located in or near parks and other Department recreation facilities. Many of the new models (Citywide Fitness and Wellness Centers) will include an indoor pool to support greater access to aquatic programming and provide a draw for day long and year round use. Other more local community centers (Community Centers) will typically have access to some nearby type of outdoor pool, spray ground or interactive fountain feature. Athletic Centers will focus around outdoor activities and athletic fields.

While accessibility to facilities and program affordability remains a key objective, BCRP will add fees for some programs to help recover a portion of the operating costs. Once new facilities are opened, older facilities serving those areas will be reevaluated and repurposed, as determined in consultation with local communities. The plan, has received only a small portion of the capital funds required to implement and capital costs continue to rise. Current projections see the cost estimated for the study as $136 million, but is now close to $178 million as construction costs per facility experience inflationary pressures and the poor soil conditions typical of many sites drive up site work costs.

Many BCPS schools have recreation centers attached to their buildings. With funding of Baltimore City Public Schools' (BCPS) 10-Year "21st Century Schools" Plan available, Recreation and Parks has been working with BCPS and the Department of Planning to restructure the provision of its school-based recreation programming. As part of BCPS's 10-year plan, when a designated school with an existing recreation center wing is scheduled to be replaced or renovated, the Department of Recreation and Parks will provide recreation programs and activities making use of the school's indoor and outdoor facilities and not in separate BCRP facilities. This new program strategy, which is discussed as part of the Department's 2015 Recreation and Aquatic Facilities plan, will allow for programming to continue without the need for a separate investment in built structures by BCRP. Many of the existing school wing recreation center buildings are over 40 years old, nearing the end of their life cycle and need renovation or replacement. In addition, many cannot easily comply with ADA requirements and fall short in being able to offer modern programming needs.

Programming at the recreation centers to date varies from center to center, often reflecting the culture of individual neighborhoods and the interests and skills of the center staff. Many centers offer unstructured, "drop-in" recreation, as well as structured programs. Programming content changes to match the skills and interest of different age groups (youth, teens, adults and seniors), but can be classified into three general categories: Sports, Personal Skills/Social Values and Environmental Education. Inclusion services will be available to provide support and assistance to participants with disabilities so that they can participate alongside their peers.



Map Date: January 13, 2017

Map 2.5

Enhanced programming options will be designed to reach out and expand to address the interests of nontraditional recreation center user groups in addition to serving its current population base. Programming will strengthen senior, therapeutic and sports programs by providing additional programming at recreation centers. Collaborations with other city agencies and non-profit organizations will promote programs supporting health, wellness and safety. Young adult programs, through collaborations with other organizations, will offer literacy, job training and job readiness programs. Career driven programs, such as graphic art, fashion designing, theatre, music, writing and filming will also be introduced. The community centers will also extend operational hours to provide a more comprehensive and intergenerational programming.

Team and Individual Sports: Sports programs may be informal for general recreation, or competitive, as teams play inner squad within the center or travel to other recreation centers, cities or states. Each recreation center offers a variety of team or individual sports that change with the season. Clinics for skill development, often in conjunction with outside partners, both serve to attract new participants as well as enhance the play level of existing ones. Sports commonly offered include; aerobics, badminton, baseball, basketball, bowling, dance (ballet, modern, ethnic), football, golf, horseshoes, ice skating, martial arts, lacrosse, ping pong, swimming, roller hockey, roller skating/blading, skateboarding, soccer, softball, t-ball, tennis, track and field, gymnastics, volleyball, weight training and conditioning.

Sports programs are designed to provide supervised instruction and fitness training with an emphasis on teamwork and cooperation, sportsmanship, discipline and raising self-esteem among participants. It is easy to underestimate the importance of some of these by-products of programs in challenged communities where youth are exposed to anti-social behaviors and battle negativity around their self-worth. Most programs are focused on youth, but a variety of adult opportunities for fitness and skill building are available such as softball and basketball leagues, aerobics classes, aquatics and weight training.

The Department of Recreation and Parks “Division of Youth and Adult Sports” and several non-profit organizations have developed partnerships to promote competititve team sports and offer citywide league play. Football, Lacrosse and Soccer programs are offered throughout the year. Teams play on fields in city parks and schoolyards as well as in the city’s two special facility indoor soccer arenas, in Canton Park (Du Burns Arena) and Farring Baybrook Park (Myers Arena). Basketball programs begin with center-based teams and progress to organized competitive leagues and citywide tournaments. Basketball games are held in gyms at schools and recreation centers and tournaments are held in the outdoor court complexes of Druid Hill Park, the school’s gym at Bentalou Recreation Center and Madison Square Recreation Center. Other programs and activities include boxing, skateboarding, track and field, football, hockey, broomball, and more. Various levels of leagues for youth, adults and seniors are also provided.

The city, community organizations and local foundations all work together to support youth Baseball. Several Baseball leagues operate within the larger framework of “Babe Ruth” and “Little League” organizations and games are played in city parks or schoolyard fields. The Department also sponsors the Baltimore Track and Field Development Program that offers youth training and local competition, as well as participation on the Department’s Traveling Track and Field Team. This team competes in regional and national events.

The Department of Recreation and Parks, Office of Youth and Adult sports works with many sports teams and organizations to coordinate independent league games in city parks. Each year, over 1,200 sports teams register and pay for field reservation permits for field sports: baseball, lacrosse, soccer, slow pitch softball, fast pitch softball, tackle football, touch football, flag football, kickball, rugby, ultimate frisbee, disc golf and field hockey. Adult recreational league sports seasons extend well beyond the typical season for youth athletics. The "season-length" figures for Table 2.3 are derived from BCRP program registrations (number of participants) and the overall year figures. Table 2.4 figures are derived from field reservation permit records and reflect the number of users by park activity.

Table 2.3. 2016 Youth and Adult Sports - Numbers of Registered Participants by Program

Day	Week Of Month	Quarter	Month	Registered Year	Number	Category
RegisteredCount				Season		

Course Year	SubCategory	1Winter	2Spring	3Summer	4Fall
2016	Basketball	18	152	84	53
	Broomball	402			55
	Dodgeball	187			
	Floor Hockey		57	17	
	Football			44	445
	Ice Hockey		37	18	42
	Ice Skating	623	187	114	281
	Indoor Soccer	10			12
	Soccer		8	24	29
	Softball		278	135	114
	Track & Field			54	
	Volleyball	227			
2016 Total		1467	719	490	1031

Personal Skills and Social Values: The range of Personal Skills programming reflects the interest of individuals to develop their talents as well as the need for communities to support families and children. Programs often provide opportunities for social interaction, especially for teens, seniors and new families. Each neighborhood recreation center offers a variety of Personal Skills programs that change with the season: arts and crafts, baton, ceramics and pottery, cheerleading, cooking, drama, flower arranging, foreign language, gardening, health & safety, homework assistance, modeling, music (instrumental, band, choir), nature studies, parent-tot groups, personal hygiene, puppets, reading/ writing clinics, senior groups, story hour, summer fun camps, teen discussion groups, teen's night in, youth clubs and youth mentoring.

Environmental Education: Core programming for youth as part of out-of-school time and summer camps include environmental education through the "Enviro Kids" program. Programs include trips on the Chesapeake provided by the Chesapeake Bay Foundation, and trips to Carrie Murray Nature Center. Center Directors have training in Project Wild by MD DNR staff, and training by members of the Greater Baltimore Children and Nature Collaborative (GBCAN).

Table 2.4. 2016 Total Number of Users by Permitted Park Activity

Park Use/Activity	Total Number	Percentage
After-School Program	10	0%
Anniversary Party	600	0%
Baby Shower	445	0%
Basketball - Youth	64	0%
Birthday	2195	0%
Canoe/Kayak	32	0%
Church Services	200	0%
Class	150	0%
Corporate/Business	150	0%
Dance	100	0%
Flag Football	3950	1%
Football - Adult	150	0%
Football - Youth	3600	1%
General Park Use - Central	65909	12%
General Park Use - Northeast	25120	5%
General Park Use - South	36933	7%
General Park Use - Southeast	39059	7%
General Park Use - West	12733	2%
Graduation Party	300	0%
Inner Harbor	168026	32%
Kickball - Adult	2028	0%
Lacrosse - Adult	7	0%
League	1458	0%
Meeting	857	0%
Other - Central	12544	2%
Other - South	370	0%
Other - Southeast	100	0%
Outdoor Education	6	0%
Outdoor Recreation - Southeast	1	0%
Party	7020	1%
Race	93	0%
Repast	100	0%
Soccer - Adult	15758	3%
Soccer - Youth	18424	3%
Softball - Adult	49370	9%
Softball - South	100	0%
Special Event - Central	24275	5%
Special Event - Northeast	3000	1%
Special Event - South	3230	1%
Special Event - Southeast	13450	3%
Special Event - West	300	0%
Summer Camp	16055	3%
Tennis - Youth	94	0%
Wedding Reception	310	0%
Total Head Count	528,676	100%

Aquatic Facilities

Baltimore City Recreation and Parks presently operates 19 outdoor pools, three (3) indoor pools and two (2) stand-alone spray pads. The Department's six largest outdoor pools are located in large city parks and offer a wide variety of summer programming and longer daily operating hours. Thirteen small pools and two spray pads primarily serve local neighborhoods.

The 2015 Recreation and Aquatic Plan calls for a shift in Department focus to the provision of year round indoor pool facilities with the inclusion of eight (8) indoor pools as part of the new Fitness and Wellness Centers. The objective is to ensure that every child in Baltimore learns to swim and knows how to be safe in, on, and around the water. A May 2014 bulletin from the CDC notes that drowning rates amongst minority populations are significantly higher than their white counterparts. Equitable access to aquatic facilities is critical to reversing tragic statistics. Aquatic programming seeks to address all ages, teach swimming and water safety skills and introduce swimming for fitness and as a professional sport. Themed evening programs for adults for example has proven extremely successful at Druid Hill Pool, with hundreds waiting to get in. Such events are great community builders. With additional indoor pool facilities, "Learn to Swim" programming will expand. Outdoor pools will be redesigned to encourage multi-activity and generational use. Life guard and swim instructor training will provide youth employment opportunities.

Baltimore City Recreation and Parks has expanded its "Learn to Swim" programming to public and private schools and educational service providers in Baltimore City. To take advantage of and make better use of some of the existing indoor pools within the public high schools, Baltimore City Aquatics along with participating principals, have created the Baltimore City's Public Pool AQUATIC PROGRAM, which trains and creates an employment path to children in Baltimore. The first phase of the program was implemented in 2015. The second phase will provide programming for the public and the third phase will seek to bring local elementary school children to the High Schools for swim lessons. Aquatic programs can be classified into three general categories: Learn to Swim, Exercise/Fitness, and Family Fun Activities and Special Events.

Learn to Swim: Swim skill programs are offered for parents and children. Parent and Child Aquatics acclimates young children (ages 6 months to 3 years) to the water and prepares them to learn to swim. The program provides parents with safety information and teaches techniques to help orient their children to the water. Youth /Teen/Adult lessons teach aquatic and personal water safety skills in a progression of six levels. American Red Cross "Learn to Swim" programs are provided to feed into youth employment at the pools during the summer months. The introduction of additional indoor pools will provide additional youth employment opportunities.

Water Exercise/Fitness: Aqua Boot Camp, Water Aerobics, and Aqua Zumba are aimed to improve cardiovascular fitness, increase strength and improve flexibility. Offered year round at the indoor pools and outdoors during the summer, some of these programs involve music and make use of resistance equipment to build cardio conditioning. Open Swim times provide opportunities for friends and families to splash around or get extra practice time to refine new swimming skills. Lap lanes are open for serious lap swimmers.

Family Fun Activities and Special Events: A variety of programs are offered to attract different ages, families, skills and interest levels. Some of the programs offered are listed below.

- Baltimore City Swim Club (BCSC) is a competitive, swim team that is registered and competes with USA Swimming. The team is committed to using swimming as a catalyst to promote excellence in athletics, academics and sportsmanship. BCSC is open to youth between the ages 4-18 years of age.
- Learn to Scuba Dive is a two day program to learn to scuba dive in the outdoor pool in Druid Hill Park.
- Splash Expo! - This program is offered every summer at the Park Pools to host a showcase of the seasonal programing offered by the Baltimore City Recreation and Parks Aquatics Division. Opportunities are provided for the public to ask questions, see demonstrations and register on site for summer programs. The pool opens for one hour of free, open swim time after the scheduled demonstrations.
- Dive 'n Movies are offered during summer evenings at some of the Park pools. Dive 'n' Movies provide a unique outdoor movie viewing experience that is fun for the entire family. The movie begins shortly after sundown every Friday night starting in June until the last week of August.
- Friends & Family Day is an annual event in appreciation for the citizens of Baltimore. Every park pool offers several hours on a designated Sunday to the public to enter the pool free of charge.
- Fluid Movement is a Baltimore-based synchronized swim performance art group that compares complex subject matter with delightful and unexpected mediums. They create art that is accessible, and often educational, for audiences of all ages and backgrounds. Performances are created for urban spaces, in Baltimore and beyond, and are currently performed in the water at Druid Hill and Patterson Park Pools.
- Early Bird Swim times are offered during the summer at Patterson Park pool three times a week from 6-9am.
- Kayak Roll Clinic - These classes work on kayaking skills, such as hip snaps, wet exits, and T-rescues, in a safe and controlled environment in one of the outdoor Park pools. Kayaks and skirts are provided.
- Holiday themed events are offered around the time of a holiday or celebration. They are often quest-based, and will reward players who celebrate or take part in the celebration. These rewards are usually unique to the individual or community. Some of these programs have included Swim with Santa or Halloween themed events.

Special Recreation and Other Use Facilities

The City's Department of Recreation and Parks operates several facilities, which offer specialized programming for youth and adults. Activities at many of the special use facilities are structured to offer casual recreation use during "public" sessions and also support team-based athletics during "reserved" sessions. Two indoor soccer arenas are programmed to allow reserved time for team practice and competition as well as free-play time. The two indoor ice rinks provide opportunities for skating lessons and general recreation as well as reserved time for figure skating lessons, ice hockey and broomball team competition and practices. The Department also operates the Upton Boxing Center, which has produced youths who have moved on to professional boxing. The Pete Rawlings Conservatory is located within

Druid Hill Park, the Cylburn Mansion and the Vollmer Center are located with Cylburn Arboretum. Northwest Driving Range is an outdoor golf driving range located in Northwest Park. Two other locations, Du Burns Arena, an indoor soccer arena and Shake "N Bake, the only inner city bowling alley/roller skating rink, are owned by the City, but leased to private operators.

Farring-Baybrook Recreation Center is the hub of the Department's therapeutic recreation programming and Special Olympics. Recreation facilities (playground, courts, pool etc.) in the surrounding park are fully accessible. The center has adapted the traditional recreation programming of personal skills and team sports to meet the needs of mentally and physically challenged individuals. Team sports include swimming as well as wheelchair tennis, bocce, basketball and baseball. Popular sports, such as wheelchair basketball, are offered in many recreation centers in Baltimore.

The Baltimore Rowing and Water Resources Center at Middle Branch Park serves as a location for outdoor kayaking and boating programs, environmental education and an active senior citizen program. The senior program takes place two days a week at the facility. A local senior center closed its doors in 2014 and older adults residing in that impoverished community no longer had a meeting place for recreational programs and related senior services. The Health Department's CARE Services contracted with BCRP for the Senior Citizens Division to provide recreational programming for Cherry Hill seniors at the Rowing Center. With Title III B Older American Act Federal funding, the Senior Citizens Division provides oversight, staffing, supplies and transportation for adults, aged 60 and over, to attend and participate in recreation programs at the center as well as occasional outings to restaurants, shops and other venues of interest. The Health Department's CARE Services provides "Eating Together in Baltimore" nutritional lunches twice a week and a variety of health promotion classes and lectures. There are currently 59 registered members who participate in crafts, games, music, line dancing, health promotion, seasonal special events, trips and cultural arts. Average daily attendance is 36. This program is an excellent example of how Baltimore City agencies can work collaboratively to provide services by creatively "thinking outside the box."

Seniors and Special Needs Programs

The Senior Citizen Division provides recreational, educational and health promotion programs for adults, ages 50 and older. To maximize program resources and minimize costs, the Division develops and maintains effective partnerships with other organizations and non-profits, seeking sponsorships, grants and collaborations. Services provided fall into four major components: conducting large group city-wide programs and events; facilitating a city-wide golden age club network; offering recreation center programming for older adults and conducting daily bus outings with division wheelchair equipped coach buses.

Programs include a variety of active aging opportunities, such as individual and team sporting events, luncheons, Zumba, dances, walking programs, tournaments, crab feasts, talent shows, fashion shows, boat excursions, picnics, dinner theater outings, cooking contests, shopping trips, line dancing and aerobics. Many programs take place at BCRP's facilities and parks and include senior water aerobics at BCRP pools, walks through the Baltimore Zoo, photography hikes through our parks, gardening at Cylburn Arboretum, nature crafts at Carrie Murray Outdoor Education Center, bocce ball, golf and tennis at BCRP locales, line dancing and exercise at recreation centers, etc.

By enhancing wellness and quality of life, Baltimore's older adults can then continue to be vibrant residents of Baltimore City. So many serve as stalwarts in our City and active, engaged seniors are a vital part of the City's rich fabric. They are contributing and supportive members of their churches, neighborhoods, civic associations and families. There is great value in having a variety of quality recreational and social opportunities available to Baltimore's gems, our older adults. As Baby Boomers move into their older years, the Senior Division will continue to expand creative and high quality programs in our community centers and BCRP facilities. We are targeting this cohort with an emphasis on active aging, health and wellness.

Specialized and inclusive programs conducted by the Therapeutic Recreation Division go well beyond the Farring Baybrook Recreation Center and take place in various venues throughout Baltimore City. The TR Division develops and coordinates specialized programs specifically for participants with disabilities and inclusive programs that facilitate opportunities for participants with and without disabilities to engage in recreational activities. The TR Division also serves as a resource for center directors and other programming staff to provide staff support if needed and guidance regarding working with individuals with disabilities. Our role is to assist in making sure that BCRP programs are inclusive and welcoming to all. Inclusion can be accomplished by ensuring that reasonable accommodations are made, such as accessibility, adaptive equipment, specific training, interpreters and companions. In order to implement its inclusion effort, BCRP TR Division will train department staff, provide inclusion assistance as needed, foster awareness and disability sensitivity.

All programs are designed to promote skill development, leisure education, recreation participation, fine motor skill enhancement and refinement, as well as, a creative outlet for individuals with various disabilities. The programs also encourage peer socialization among participants in order to nurture relationships and strengthen social skills. Programs offered as a partnership program with Special Olympics of Maryland also help participants to build upon their ability to work with others in a team setting.

During the fall, winter, and spring programming cycles, the TR Division conducts 30 – 40 programs in the following areas of emphasis: arts & crafts programs, outdoor programs, social programs, sports & wellness programs, including partnership programs with Special Olympics Maryland. During the summer programming cycle, the TR Division conducts 15 – 20 programs, while focusing on summer camp for children with and without disabilities.

Conservation Education, Nature, Health and Wellness Programs

Current programs offered by the Department of Recreation and Parks and partners create pathways for learning and practicing conservation. Programs are offered at a number of different settings in Baltimore: the Carrie Murray Nature Center, the Howard P. Rawlings Conservatory and Botanical Gardens, the Baltimore Rowing and Water Resource Center at Middle Branch Park, Cylburn Arboretum, BCRP Recreation Centers and in Patterson Park. Through its TreeBaltimore Program, Baltimore City Recreation and Parks offers nature education programs in partnership with Blue Water Baltimore, the Parks & People Foundation, Baltimore Tree Trust and the Alliance for the Chesapeake Bay. Other Recreation and Parks programs seek to introduce youth and college students to careers and job skills in natural resources, connect families to nature and introduce opportunities for health and fitness in parks.

The Carrie Murray Nature Center in Gwynns Falls/Leakin Park offers program for all ages and abilities as well as school field trips. Carrie Murray is a licensed "raptor rehabilitation" center with a hawk house that is home to several hawks and owls. The Center offers programs focusing on both wildlife and watershed education. Wildlife programs include evening and weekend workshops open to the public as well as school field trips for K-12 which explore wildlife and habitat in Leakin Park, the 2nd largest urban wilderness park in the U.S.

The Howard P. Rawlings Conservatory and Botanical Gardens hosts plants from five ecosystems growing in an historic glass conservatory and green houses, which is open to the public year round. A staff naturalist holds Plant & People workshops to educate the public of all ages and abilities. The Conservatory also offers an environmental education field trip for elementary schools to learn about ecosystems around the world that includes a tour through the conservatory with a volunteer docent guide and a student activity lead by a staff naturalist. Students learn how to transplant and care for a plant found in the Conservatory and to make a terrarium made from recycled materials to take home. The conservatory also offers biodiversity study for high school and college level students led by the staff naturalist.

The Baltimore Rowing and Water Resources Center at Middle Branch Park offers environmental education and outreach on the Middle Branch of the Patapsco River. Programs include:

- Kids in Kayaks – a program that serves 8th grade students from six different schools. Students learn to kayak and increase their knowledge of watersheds, local wildlife, local history and the impact of improperly disposed waste and unnatural debris on the health of the environment.
- Camp Waters – a six-week summer opportunity for youth ages 10-17 to discover the wonders of the land and water along the banks of Middle Branch Park. The program includes swimming, canoeing, kayaking, rowing, arts and crafts and environmental education.
- Canoe and Scoop – a regular fall, spring and summer program that is open to the public. Children must be at least 50 lbs and anyone under 18 must be accompanied by a guardian. Participants paddle along the shoreline to remove stormwater unnatural debris.

The Cylburn Arboretum campus includes a rain garden, vegetable garden, arboretum, and woodlands. Facilities include the Vollmer Center (green building), the historic Cylburn Mansion, a greenhouse classroom with smart board for professional development, and a Nature Museum. The museum holds natural history collections on display, including birds, mammals, skulls, fossils, and more. The Birds of Maryland Collection is also on permanent loan from Baltimore Bird Club (BBC) / Maryland Ornithological Society (MOS). The Arboretum offers a number of programs and resources in partnership with the Cylburn Arboretum Association. These include a Nature Story Hour, Growing Up Cylburn or Schools Out! Programs for children and families. Participants create gardens, natural holiday decorations, or dye eggs with natural materials. They experience the arboretum through family walks, outdoor concerts and events. The Arboretum also offers a summer nature camp for children from 5-11 years of age. There is also a Food System Lab at Cylburn, which functions as an urban teaching aquaponics farm operated by the Johns Hopkins Center for a Livable Future (CLF). The Food System Lab offers tours and field-trip programs for school and community groups. Reconstruction of the Mansion's formal gardens will enhance the Arboretums profile as a destination and desirable event space as well as provide additional display space.

The National Audubon Society is a partner that also offers pre-school and school age environmental education programs in Patterson Park. They also sponsor adult bird watching sessions and annual species counts of the wildlife that frequent the mature tree groves and lake in Patterson Park.

The TreeBaltimore Program is managed and administered by the Forestry Division and serves as the umbrella organization for all City agencies and private organizations in their effort to increase the tree canopy of Baltimore. The program strives to increase the urban tree canopy through the establishment, management and preservation of trees. To reach its goal of 40 percent tree canopy cover by 2037, TreeBaltimore partners with individual homeowners as well as communities, schools, and businesses. Programs offered by Tree Baltimore include:

- Baltimore TreeKeepers Certification Course / Program for Community Volunteers: http://www.treebaltimore.org/programs/treekeepers/#.WEsr7LIrKCg
- Baltimore Weed Warriors Certification Course / Program for Community Volunteers : http://www.treebaltimore.org/programs/weedwarriors/#.WEssAbIrKCg
- Urban Trees and Forest Education Resources and Curriculum for Teachers and Students (grades 6-12)
- Service Learning Opportunities for Youth involving urban tree plantings and forest restoration / invasive management. Partners include Baltimore Outward Bound
- Tree and Forest Ecology Related Educational and Engagement activities for youth (age 2 and up) – usually presented at community events such as Tree give-aways, Volunteer appreciation events or in partnership with other department field trips. Examples include “Life of a Tree”, “Meet a Tree”, “Trees as Habitat” and “Tree ID” activity
- Printed and Web Resources (Including: Tree Species Information and Planting Care Guides)
- Newsletter – with Educational Articles
- Online Blog on TreeBaltimore Website: http://www.treebaltimore.org/blog/#.WEsmyLIrKCg
- Curriculum resources and support for Middle and High School service-learning that allows students to explore and investigate environmental issues, design projects to address issues and implement a service project in city parks. In partnership with Blue Water Baltimore and greening partners.

The Department of Recreation and Parks works with a number of other partners to offer internships, natural resource job development, foster connections for families and children to nature, and to introduce the notion of health and fitness. The Urban Resources Institute in partnership with Parks and People Foundation places interns for one semester research within any division of the Department to build capacity and mutually increase knowledge about recreation and parks. The YouthWorks / Conservation Job Corps (CJC) in partnership with MD DNR, provides summer programs that build natural resource management skills. During the summer of 2016, 100 youth, aged 14 to 18 years, participated in park and trail improvement and maintenance projects at three watersheds. A new pilot “Girls Gone Green” program expanded the CJC by providing opportunities for young women to interact with professionals and scientists in the field. BCRP also collaborates with Americorps NCCC (National Civilian Community Corps). Since 2013, BCRP has had five teams work on parks, at recreation centers and assist with park programming. Projects included constructing horseshoe pits, trail construction and

maintenance in Gwynns Falls Park, building picnic tables, a retaining wall and french drain system, and painting park buildings.

In collaboration with the Greater Baltimore Children and Nature Collaborative (GBACAN), Recreation and Parks hosts a network of approximately 40 local members that are committed to connecting families with nature. Annual conferences and trainings increase awareness and promote partnerships. Online connections are through social media and an e-newsletter. GBCAN is part of the Grassroots Leadership of the national Children & Nature Network. GBCAN supports the MD Partnership for Children in Nature and is active on the Discovery Committee of the Greater Baltimore Wilderness Coalition. The Department is also working with other city agencies including the Departments of Health, Planning, Office of Sustainability and City Schools to support the environmental literacy graduation requirement by increasing enviromental learning opportunities and access to public lands.

Recreation and Parks works in partnership with the Health Department, the MD Chapter of American Academy of Pediatrics and the Chesapeake Center for Youth Development, to coordinate a national park prescription, Docs in the Park program. The program connects doctors with parks so that they can "prescribe" parks to their patients in order to prevent or address chronic disease. Information and a Baltimore Parks RX map will be located on the Baltimore City Recreation and Parks website. Docs in the Parks events happen throughout the year to raise awareness in communities surrounding parks.

State and National Parks near Baltimore City

There are no State parks inside the Baltimore City limits.[7] Nearby State parks include Gunpowder Falls, Patapsco Valley, Patuxent River, Rocks and Sandy Point. Recreational opportunities in the State parks offer a variety of activities including, hiking, fishing, swimming at a beach, nature study, and other passive recreational experiences that complement the recreational activities found in more urban parks. City visitors reach these State parks by private automobile, as well as organized school, camp and club bus trips.

Fort McHenry is a national park located within Baltimore City boundaries. The grounds around the fort are free to the public and low impact recreation activities such as picnicking, fishing, bird watching, walking and jogging are allowed during operating hours. The Hampton National Historic Site in neighboring Baltimore County also provides spacious grounds and gardens as well as a glimpse of how an historic mansion equivalent in stature to those in Baltimore City Parks such as the Hopkins Mansion in Clifton Park, can be preserved and tell a story (Map 2.6).

7 Baltimore City leases, operates and maintains Northwest Park from the State of Maryland. The site was formerly occupied by the University of Baltimore.

Semi Public & Private Open Space and Recreation Facilities in Baltimore

Baltimore City is home to many universities, colleges and private schools. These institutions have extensive recreational facilities and open spaces. Universities such as Johns Hopkins University, Morgan State University and Loyola College are often generous about allowing the public to utilize their playing fields, courts and running tracks during "off-peak" hours. Private and Catholic secondary schools also allow informal public use of their outdoor athletic facilities outside of school hours. In addition, Baltimore has many historic cemeteries that act as passive open space for walking and bird watching. Combined, these facilities provide an additional 1,975 acres of open space and recreational opportunities.

Other open spaces (not counded as part of the 1,975 acres noted above) include 27.25 acres of urban farms, and 193 acres of community gardens. Some of these and other types of community managed open spaces, such as pocket parks and green patches, are managed under the auspices of nonprofit groups. One such group, Baltimore Green Space, is a nonprofit land trust that "…partners with communities to preserve and support community gardens, forest patches, pocket parks, and other community managed open spaces." [8] While the acres and facilities of the additional open spaces discussed in this section are not included within BCRP's calculated land inventory, we recognize that these assets compliment and expand the public park system (Map 2.7). The City's programs supporting the development of community gardens and urban farms are discussed in more detail as part agricultural land preservation in Chapter 4. The full inventory of City owned garden and urban farm properties is provided in Appendix B., p.175. Another category of semi-public open spaces are privately owned open spaces areas located in flood plain areas that are preserved as public easements (Map 2.6).

An "uncounted" but contributing recreation facility resource for the citizens of Baltimore City are privately operated recreation facilities. As part of the 2015 Recreation and Aquatics Facilities Plan, 17 providers of recreation services with "brick and mortar facilities," amenities and recreation programs similar to those provided by Recreation and Parks, were identified and mapped to indicate supplemental recreation service area coverage (Map 2.8 and Table 2.5).

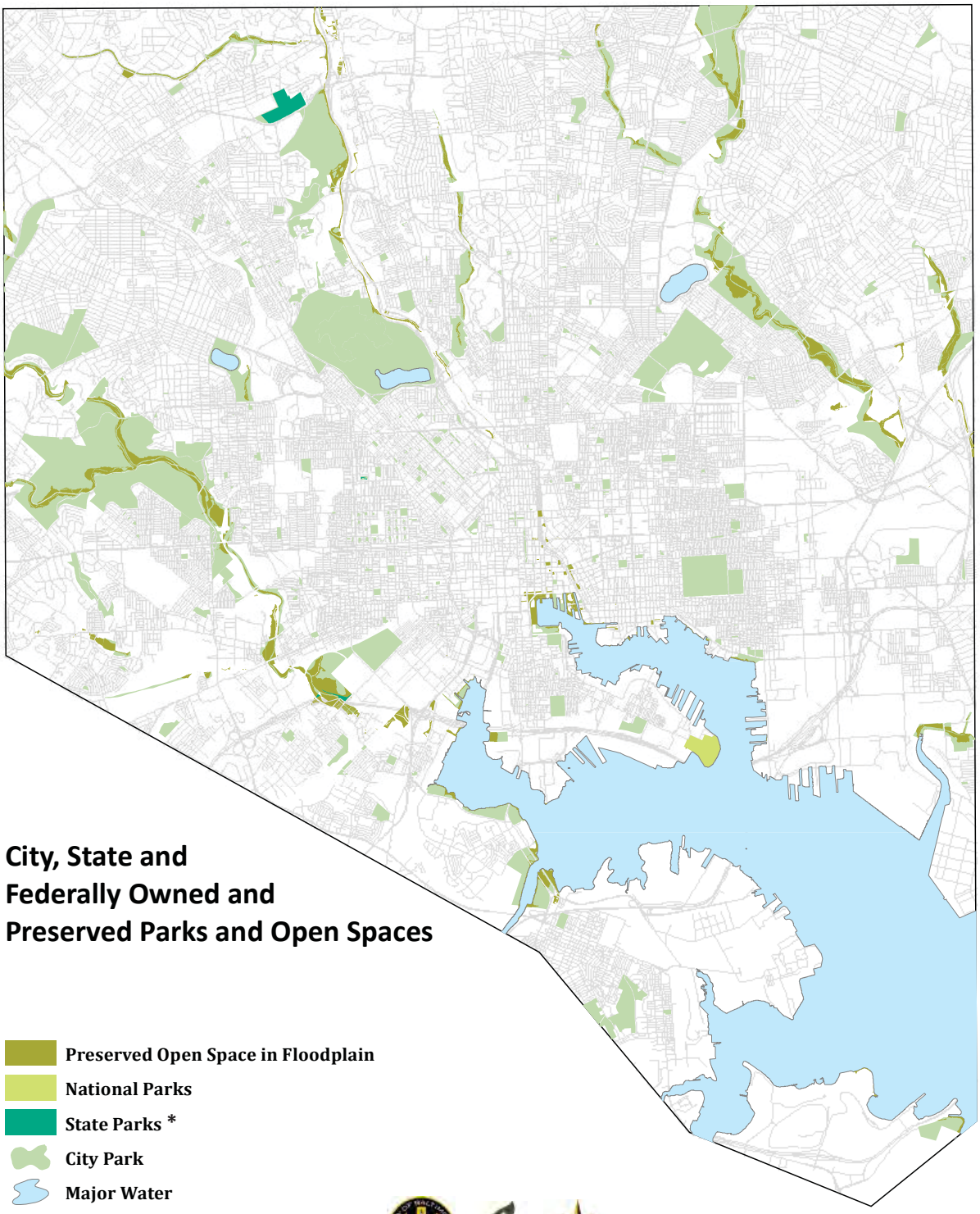
Table 2.5. Non-BCRP Providers by Type

Non-BCRP Provider Type	Count
BCRP Partner or Contractor	8
Young Men's Christian Association (YMCA)	2
Jewish Community Center (JCC)	1
Youth Opportunity Centers (YO!)	2
Living Classrooms (Carmelo Anthony Center)	1
Civic Works (Goodnow Community Center)	1
Boys and Girls Club	2

Source: Baltimore City Recreation and Aquatics Facility Analysis and Plan, July 2015

A list of approximately 260 alternative Non-BCRP recreation service providers was compiled as part of a separate services assessment exercise to evaluate the market position and strategies for BCRP recreation programs and services moving forward. Many of these alternative providers offer recreation programs

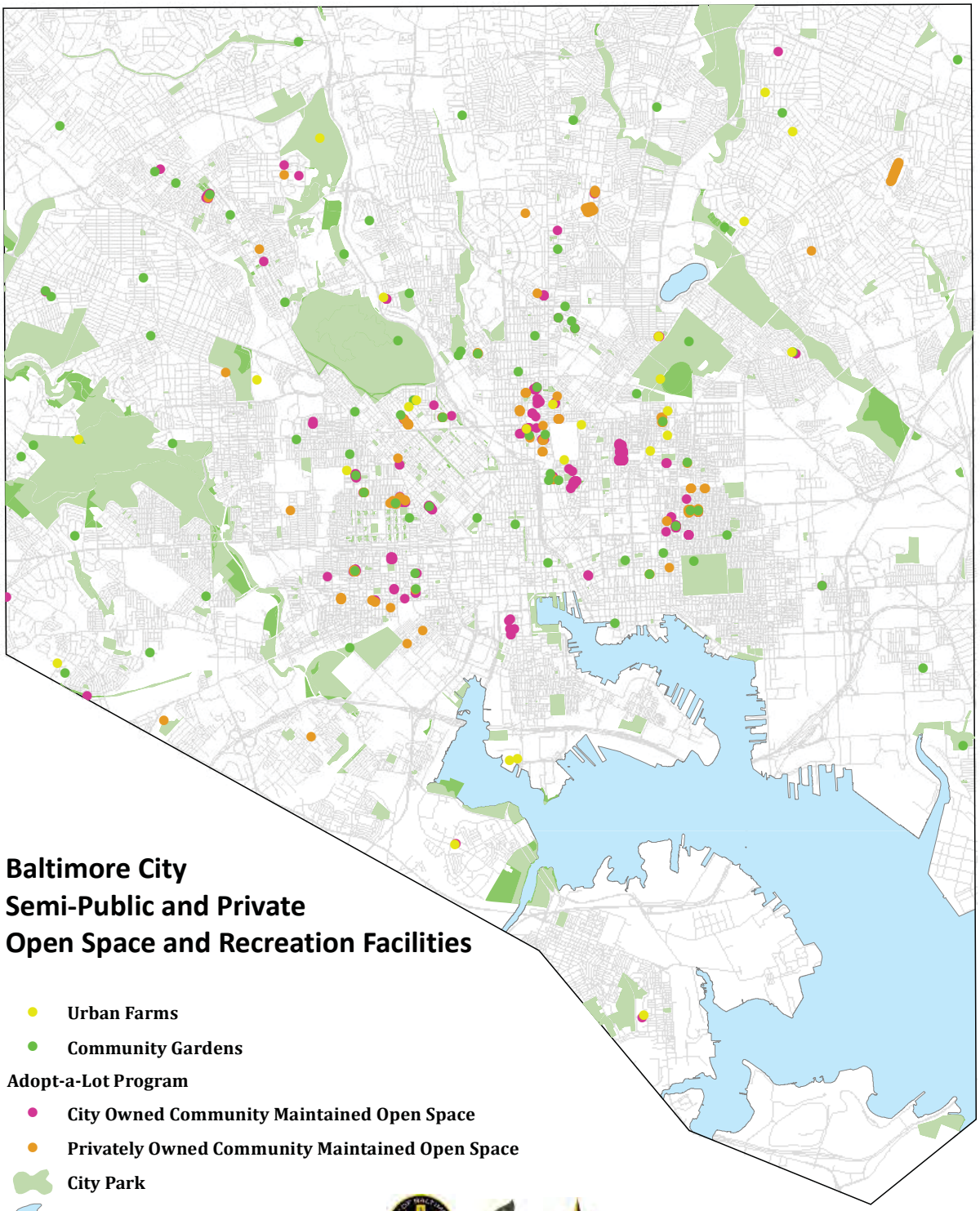
[7] Baltimore Greenspace Website.



Map Published: November 2016

Map 2.6.

* Baltimore City leases, operates and maintains Northwest Park from the State of Maryland.



Baltimore City Semi-Public and Private Open Space and Recreation Facilities

- Urban Farms
- Community Gardens

Adopt-a-Lot Program

- City Owned Community Maintained Open Space
- Privately Owned Community Maintained Open Space
- City Park
- Major Water

Map Published: November 2016

N

Map 2.7

at many different sites across the city and are not housed in one drop-in location, yet they greatly contribute to the universe of recreation programs and services offered to Baltimore City residents. The ability to map this universe of recreation programs across the city is complex and is constantly shifting based upon the variable nature of programs offered. While these programs are not reflected in the Non-BCRP alternative provider maps in this report, they contribute greatly despite their transitory nature to the number and variety of recreation programs serving all age groups in Baltimore City. The nature of these program offerings are temporal, changing by season or year, based upon demand, staff, funding, etc. They, therefore, provide a snapshot of programs that are current at any one given point in time.

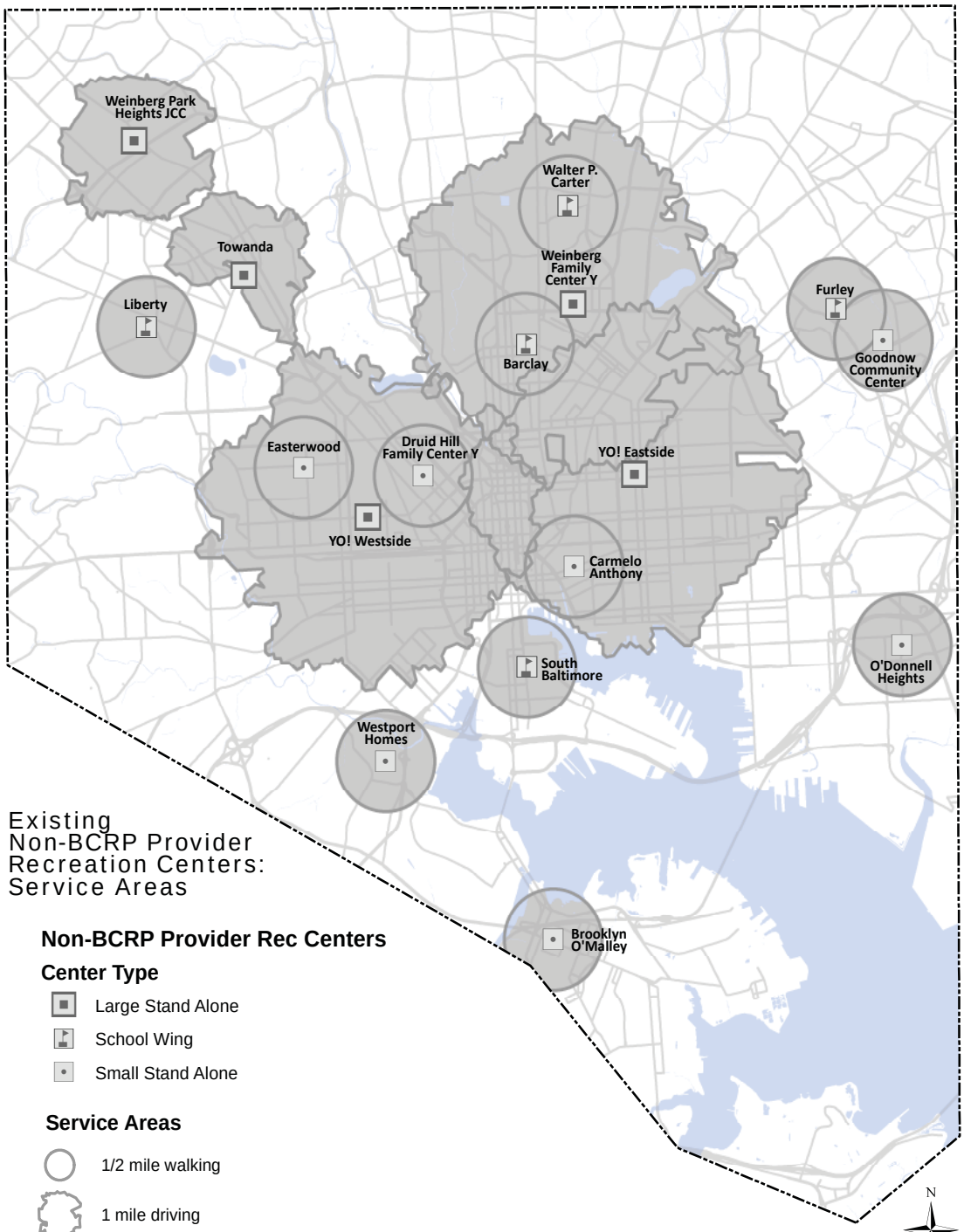
Research conducted by BCRP of the overall universe of Non-BCRP providers in Baltimore City, those with "brick and mortar" locations and those without, identified five categories of Providers:

- Larger Legacy Recreational Organizations (nonprofit) – These nonprofit groups have missions that have historically focused on youth development. Some have their own physical facilities, while others are program providers. There are nine (9) such locations and programs, from the 33rd Street Y of MD, JCC, to the Boys and Girls Club programs at the Justice Center for the Juvenile Detention Center.

- Social/Civic Organizations (non-profit) – These non-profit groups focus on the social and civic needs of at-risk, low income, or marginalized populations. Many charitable, non-profit organizations were established to meet these challenges and gaps in services and to serve as intermediaries for private foundation and donor funds to support these efforts. There is a wide variety of over 100 of these groups from smaller organizations, such as Omega Baltimore at Easterwood to larger capacity entities, such as Child First Authority (in the city charter) and the Parks & People Foundation. Many have specific missions and provide only music (Orchkids) or visual arts (Art with a Heart). Some of these organizations are site specific operations, while others provide services city wide. Many of the smaller groups have been quickly mobilized to respond to immediate needs, have limited access to resources, and lack the capacity to sustain themselves over the long run.

- Community-Based/Volunteer Youth Athletic Organizations – These community-based, youth athletic programs range from Baseball (James Mosher and Roland Park Little Leagues) to girls' volleyball teams like the "Starlings." Over 90 organizations provide a wide variety of sports teams, leagues, and clinics in Baltimore City serving well over 1,000 children, most of which are in specific neighborhoods. Some are organized and sponsored by larger organizations, e.g., the Amateur Athletic Union (AAU) and the United States Tennis Association (USTA). BCRP helps to facilitate many of the leagues and coordinates field usage. This list does not include school-based high school athletics programs.

- City Agency Social Service Providers – There are many other agencies besides BCRP that deliver over 70 recreational, developmental, and leisure programs, from seniors' programs at CARE centers to youth development at Youth Opportunity (YO!) Centers and Head Start programs sponsored by the Mayor's Office of Economic Development and Human Services, respectively. The major provider of afterschool enrichment is through the Family League as part of the Community Schools Initiative. The Family League contracts with 48 program providers for the delivery of afterschool services at over 60 locations. Many are of the "social/civic" and "legacy"



Existing Non-BCRP Provider Recreation Centers: Service Areas

Non-BCRP Provider Rec Centers

Center Type

- Large Stand Alone
- School Wing
- Small Stand Alone

Service Areas

- 1/2 mile walking
- 1 mile driving
- 2 miles driving

0 0.5 1 2 3 Miles

Map Date: December 27, 2016

Map 2.8

classification. Such programming mirrors that of the BCRP Community Recreation Centers, which often provide similar programming at a recreation center which is attached to the school.

- Private, Fitness, Leisure, and Recreation Companies (for-profit) – There are many for-profit, fee- based program service providers to accommodate an existing gap in services or to meet the needs of the economy, new population influx, demographic shifts, and new target markets. There are well over 100 of these businesses, including fitness trainers providing fitness training to urban professionals and their families, private gyms and pools, recreational clubs, for profit youth sports clinics, day care providers, and after school centers. These groups are market driven and focused on a specific target market. They serve a younger professional demographic, which is different than the populations and demographics BCRP traditionally serves.

Measuring User Demand

Recreational Activities, Preferences and Priorities

Information about the perceived importance, demand and preferences for parks and recreation facilities in Baltimore City come from a combination of sources, including: *citizen and facility user surveys, BCRP's self-assessment of its own services (Service Assessment), public engagement and outreach (participation and feedback at public meetings pertaining to park and citywide plans), facility and program usage data and regional and nationwide trends.*

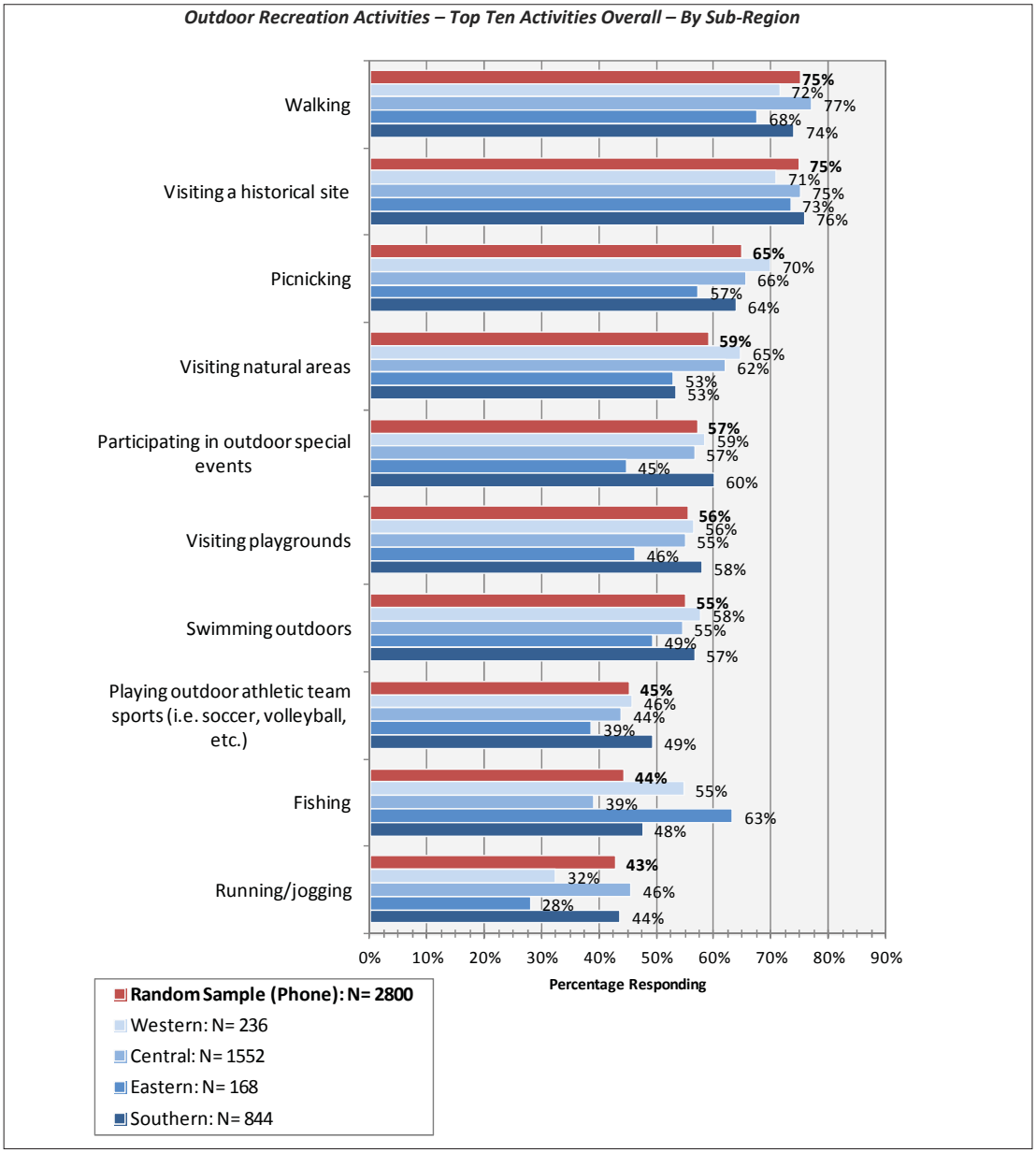
Survey Data: State of Maryland

A number of surveys provide information about recreation activity and interests in Baltimore and other regions across the state. The State's *Maryland Land Preservation and Recreation Plan Survey* (2013) focused on outdoor recreation demands within the state. While the respondents who participated in this survey were relatively diverse (59% white or Caucasian, 29% black or African American, 8% Hispanic), the sample does not adequately reflect the predominant African American make-up of Baltimore City. The average age of the sample was 46.6 years. The median age of Baltimore City residents is around 34 years.

Baltimore City responses are included as part of the Central Region together with Baltimore County, Howard, Montgomery, Carroll, Harford and Cecil Counties. While Baltimore City has a user base that varies quite significantly from these other counties, it is useful to compare and contrast these findings to data collected solely from residents of Baltimore City. The state survey (Figure 2.1) found the ten most popular outdoor recreation activities across Maryland overall include: walking (75%), visiting a historical site (75%), picnicking (65%), visiting natural areas (59%), participating in outdoor special events (57%), visiting playgrounds (56%) and swimming outdoors (55%), playing outdoor athletic team sports –soccer, volleyball, etc. (45%), fishing (44%) and running/jogging (43%). The Central Region differs somewhat in the actual percentages, but follows the same priority order, with the exception that running/jogging scores higher (46%) than playing outdoor athletic team sports (44%) and fishing is the least (39%).

The most frequent statewide barriers to participating in outdoor recreation was "had no time", other personal issues or physical limitation (46%). Other barriers included: unaware of program/facilities offered (9%), cost or user fees (7%), lack of facilities/programs (7%), or transportation access issues (6%). In the Central Region, cost or user fees and transportation access issues tied at (7%) followed by lack of facilities/programs (6%).

Over half (55%) of all statewide respondents indicated the strong importance of available parks, trails, outdoor recreation facilities and education programs. Only a third of respondents (33%) felt that the State's parks, outdoor recreation facilities and programs are completely meeting the needs of their household. Another 36% gave a four (4) out of five (5) rating in terms of how well the State's parks met their needs. Although the responses to this question were not broken down by State Region, it would be interesting to see Central Region responses.



Source: MdDNR Maryland LPRP Survey 2013 Final Report, Figure 7. July 2013

Figure 2.1. Top Ten Outdoor Recreation Activities Preferences- By Sub-Region

Survey Data: Baltimore City

Citywide

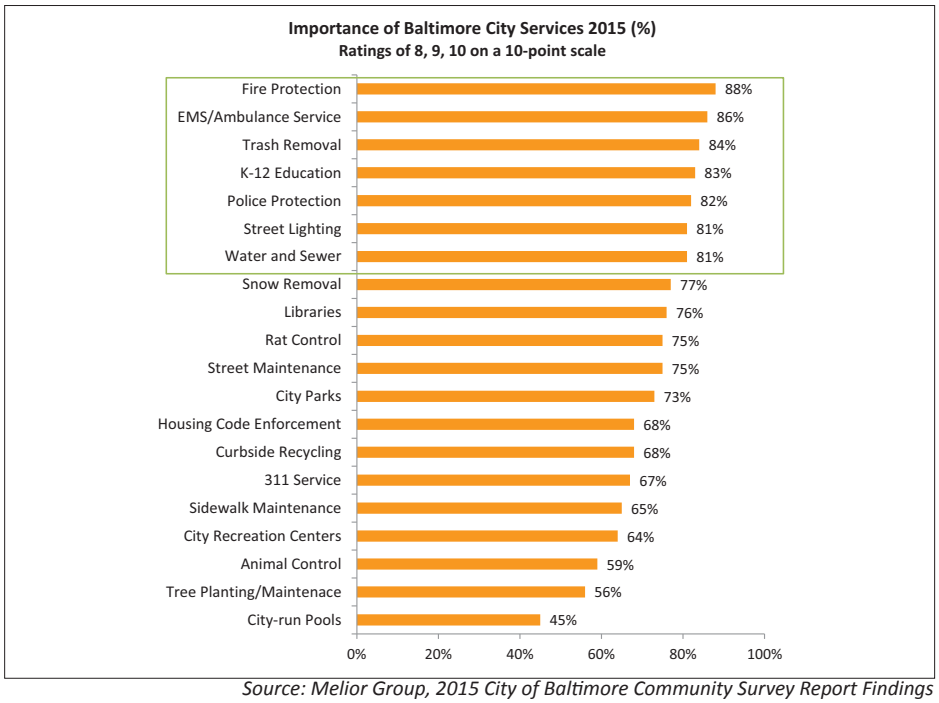
Baltimore City's Bureau of the Budget and Management Research (BBMR) undertakes an annual citywide *Community Survey* of City residents "to assist in planning for service delivery, evaluating departmental service provision, establishing City budget priorities, and ensuring that the voice of residents is part of strategic planning." The annual satisfaction survey asks residents to rate quality of life, the importance of various city services and their satisfaction with City services. A telephone survey has been conducted annually since 2009. The Department of Recreation and Parks will be undertaking two surveys in 2017-18, one citywide and the other specifically of BCRP Recreation and Parks users as part the federal planning grant it received through the National Park Service, to identify citywide issues to equitable park access (see p.30). Once completed, the findings will submitted as an addendum to this report.

BBMR's 2015 survey included 802 residents and was weighted to more closely reflect the demographic distribution of age, gender and race in the City. Respondents had annual household incomes of: under $25,000 (22%), $25,000 -$50,000 (24%), 50,000 – 75,000 (17%), 75,001-100,000 (9%), over $100,000 (18%). Another 10 percent of respondents declined to provide their annual household income information.

Residents were asked to rate the importance of 20 city services on a 10 point scale. City parks and recreation centers ranked 12th and 17th on the list, with 73 percent and 64 percent of residents, respectively, considering them an important city service. The importance of parks and recreation centers to Baltimore City residents is higher relative to the state wide findings of the importance of parks and recreation to Maryland residents (55%). In the City survey, tree planting and maintenance and city run pools were rated as the least important services to residents; they ranked 19th and 20th in the list, with 56 percent and 45 percent of residents, respectively, rating them as very important (Figure 2.2).

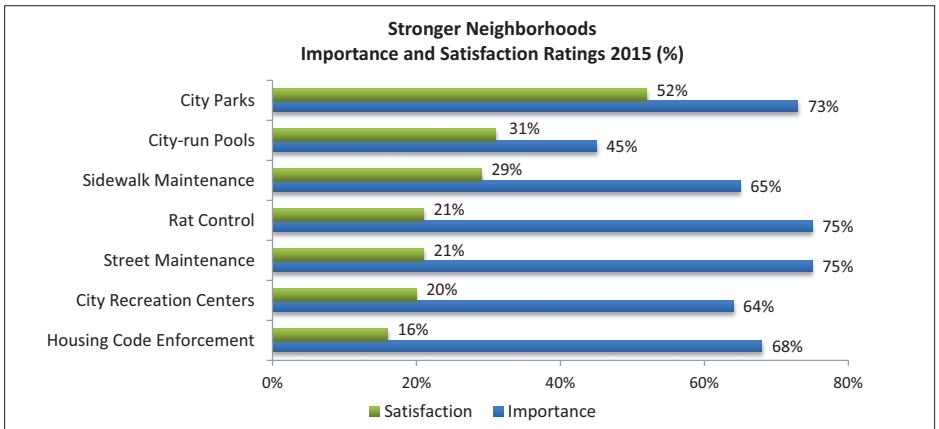
The rate of importance of these services differed by race and ethnicity. Black residents rated city parks, recreation centers and city run pools as more important than White and Hispanic residents. This is likely due to greater use of these facilities than the other groups who have other private sector options. Satisfaction ratings overall for city parks, pools and recreation centers were below their considered level of importance (Figure 2.3). City recreation centers received the lowest satisfaction rating (20%) compared to its relative importance (64%). Satisfaction for City recreation centers decreased 7 percent from 2014.

Another key finding from the 2015 survey had to do with use of transportation. Sixty percent (60%) of respondents rarely or never use public transit, but half (51%) say they frequently or always walk. Another 86 percent of residents rarely or never use a bicycle. Those most likely to use public transit are: Black residents (31%), residents with incomes less than $25,000 (49%), residents without a high school degree (46%) and residents who live in the southern planning district, which includes neighborhoods such as Cherry Hill, Mt. Winans, Morrell Park and others within the Carroll Park District.



Source: Melior Group, 2015 City of Baltimore Community Survey Report Findings

Figure 2.2. Importance of Baltimore City Services



- Black and Hispanic residents find these services more important than White residents.

Stronger Neighborhoods
Importance Ratings by Race/Ethnicity of Respondent 2015 (%)[26]

	Total	White	Black	Hispanic
Rat control	75	65	80	85
Street maintenance	75	69	78	69
City parks	73	67	75	69
Housing code enforcement	68	57	72	85
Sidewalk maintenance	65	53	71	59
City recreation centers	64	43	73	45
City-run pools	45	24	58	36

[25] Importance ratings of 8, 9, and 10 on a 10-point scale where 1 meant Not At All Important and 10 meant Most Important; Satisfaction ratings of Excellent and Good on a 4-point scale that also included Fair and Poor.
[26] Note small base sizes of Asian and Other segments preclude analysis as the information is not projectable to the population.

Source: Melior Group, 2015 City of Baltimore Community Survey Report Findings

Figure 2.3. Stronger Neighborhoods: Importance and Satisfaction Ratings by Item and Respondent Race /Ethnicity

Recreation and Parks Facilities

Surveys of visitors at individual facilities and parks are undertaken as deemed needed and designed to elicit feedback on specific issues, identify priorities, desired programs or improvements. Findings from surveys inform maintenance priorities, programming and future capital improvements. Recent surveys have examined:

- Summer Camp Program Evaluation by Parents and Camp Attendees (Summer 2014);
- Recreation Program Preferences for Teens and Adults (Fall 2014); and
- Facility Cleanliness, Staff Attitudes, Program Ratio, Registration Process and Performance (Fall-Winter 2015-16).

BCRP's Assessment of Agency Services and Programs

In conjunction with the development of the 2015 Recreation and Aquatics Plan, the Department undertook, with the consultant GreenPlay, LLC, a systematic review of its organizational services including activities, facilities, and public lands to determine opportunities to agressively pursue a market niche, divest interest or resources or form partnerships. Results of the Assessment indicated whether a service was *"core to the BCRP's mission"* or if there was significant duplication of community efforts to provide a particular service. The services assessment identified programs and services that the Agency should consider advancing or affirming its market position, further investment, divesting or collaborating with partners.

The Services Assessment provided an inventory and assessment of more than 170 programs and services currently delivered by BCRP in 26 service categories:

1. Fitness and Wellness
2. Active Older Adults
3. Arts and Culture
4. Social Enrichment
5. Youth and Adult Sports
6. Outdoor
7. Environmental Education/Nature Programs
8. Aquatics
9. Out of School Time
10. Trips/Outings (specific trip, not part of camp or after school)
11. Specialized Events Requiring Registration
12. Community-wide Events
13. Organized Parties/Events
14. Equipment Rental (including bus rental, lights, etc.)

15. Facility Rentals/ Exclusive Use Private/Non Profit OR Partner
16. Long-Term Leases
17. Concessions/Vending/Banquet/Merchandise for Resale
18. Open Park/Facility Usage
19. Staffed Park/Facility Usage
20. Contracted Professional Services
21. Application/Permitted Services
22. Volunteer Programs
23. Work Study/Internship/Community Service Programs
24. Inclusion Services
25. Therapeutic/Adaptive/Special Recreation Services
26. Support Services

An extensive list of alternative providers was compiled and analyzed for use in evaluation of future service provision strategies (These providers were previously discussed on page 63-68). The analysis of BCRP services and programs found opportunities for efficiencies and collaboration in service delivery as well as opportunities for program expansion. Areas for potential efficiencies were identified from a more centralized approach to Arts and Crafts programs and better coordination among different BCRP divisions offering public art exhibits. Recommendations for day camps included a more standardized service delivery format including safety, marketing, staff training, etc. Accreditation for full day camps was also recommended.

Opportunities for service and program expansion were outdoor and environmental education/nature programs and fitness programs at recreation centers. A coordinated and expanded approach to facility rentals and the employment of interns, students and community service hour programs were also mentioned.

Numerous services scored with a service strategy to *Affirm Market Position*. Affirming market position suggests a strategy to carry existing service forward into new service areas as sites are selected, expanding market reach, evaluating pricing strategies, and enhancing investment of resources to realize a return on investment.

Similar to programs and services scored in the Affirm Market Strategy, numerous services scored in the *Advance Market Position*. Advance market position suggests that a smaller number of (or no) alternative providers exist to provide the service, the service has the ability to sustain or generate revenue and BCRP is in a strong market position to provide it. Figure 2.4 shows a sample list of BCRP services with the Affirm Market and Advance Market Positions.

BCRP Sample List of Services Indicated for Affirming Market Position

Service Category	Program or Service
Arts and Culture	• Native American Programs • Black History Month Classes
Youth and Adult Sports	• Basketball – Youth and Adult Sports • Ice Hockey, Ice Skating
Aquatics	• Water Aerobics/Aquatic Zumba – Seniors
Out of School Time	• Camps – all themes
Specialized Events Requiring Registration	• Host Webinars
Facility Rentals/Exclusive Use	• Private/Public/Individual Rentals (includes Birthday Parties)
Maintenance	• Car parking for outdoor events • Clean outdoor rented space for permitted activities

BCRP Sample List of Services Indicated for Advancing Market Position

Service Category	Program or Service
Fitness and Wellness	• Walking Programs, Line Dancing/Folk Dancing – Seniors • Aerobics/Jazzercise/fitness/Zumba/Dance
Arts and Culture	• Arts and Crafts, Performing Arts • Cooking and Language Classes
Youth and Adult Sports	• Adaptive Sports Classes • Baseball, Broomball, Floor Hockey, Wheelchair Basketball
Outdoor	• Beginner Kayaking, Inner Harbor Kayak Tours
Environmental Education/Nature Programs	• Exhibits/Shows • Tours/Walks (guided) – Seniors
Community Wide Events	• Senior Trips, City-wide Senior Special Events • Fun Wagon Mobile Recreation Unit
Facility Rentals/Exclusive Use	• Pavilion Rentals, Garden and Facility Rentals
Applications/Permitted Services	• Facility and Event Permitting
Support Services	• Volunteer data collection, orientation, and recognition

Source: Baltimore City Recreaton and Parks Dept., Services Assessment, July 2015

Figure 2.4. Sample List of Services for Affirming and Advance Market Positions

Public Engagement and Outreach Data

As part of the 2015 Recreation and Aquatics Plan, the Department held a series of community engagement meetings to ensure the Department's mission and vision were aligned with and identified future recreation needs. Meetings were held with Department staff, City Council members, the general public, leaders from 28 non-profit, school, city and business organizations, youth and youth leaders.

Feedback from these public meetings identified the following vision for Recreation and Parks in terms of what the Baltimore community will need in the future:

- Create productive citizens
- Support environmental health
- Promote physical and mental health
- Provide safe and welcoming places for people to use
- Grow the population of the city
- Serve as an economic driver in the community
- Create a stronger more vibrant community
- Be a leader in sustainable practices

For capital improvements, such as recreation centers, pools, parks and playgrounds, public review and comments are typically solicited on a project by project basis. For park and facility master plans, a series of meetings are held with an advisory stakeholder group as well as the public at large. Public feedback is solicited at local community meetings, targeted stakeholder groups and citywide meetings. New plans for facilities are also typically posted on the Department's website for comments. Capital projects and an overview of the capital program are also regularly presented for discussion at the Baltimore City Recreation and Parks Advisory Board. Recreation and Parks Advisory Board members are appointed by the Mayor. The monthly meetings provide the opportunity for public discussion.

Application for capital improvement program (CIP) funding, including City Bond and General Fund, is administered annually through the Planning Department as part of the City's capital budgeting process. The Director of the Parks and Recreation Department typically presents the current and proposed capital improvements. The CIP also captures and obtains approvals for initiatives funded through State Program Open Space, State Bond, Federal Transportation Improvement Funds and other local sources.

Facility Use and Program Participation Data

Parks and Recreational Facilities

Parks

In 2015, an estimated 431,032 people visited permitted facilities within Baltimore City Parks. As of October 2016, the number of visitors to those same park-permitted facilities totaled an estimated 528,676, showing an increase of 22.6 percent over 2015. Permitted facilities in parks include athletic fields (baseball, softball, football and soccer), basketball, tennis and volleyball courts, pavilions and picnic areas, festival and event areas, golf courses, community gardens and roadways. Informal park visitors who were not attending events associated with permits are not included in this count and therefore, add to the overall park visitor totals (Table 2.6).

Park visitor numbers in 2016 are higher due to increases in event attendance. In 2015, the City cancelled all park-permitted events during the month of May as a result of the unrest caused by the death of Freddie Gray. Some events scheduled after May chose to relocate to other venues. Recreation and Parks implemented some new procedures and park programs in 2016, which likely increased park use. New procedures included opening up the field reservations to allow new user groups to gain access to some of the fields that were previously reserved for long-term user groups. In some cases, the newer groups have brought more teams as part of their leagues than the previous long- term groups. BCRP also created and promoted new park programs. The Rhythms and Reels Program showcased 61 free movies and concerts in the parks during the summer months. The $5 5k Series has held four 5k fun runs for only $5 in efforts to activate new park enthusiasts.

Recreation Centers

In 2012, Baltimore City Recreation and Parks instituted the use of a new RecPro software recreation management system. However, due to inadequate fiber optic cable infrastructure, not all facilities were able to come online. Since 2012, the number of recreation facilities using the software is gradually increasing. The system is used to track attendance and program registrations across the various recreation facilities, both recreation centers, some aquatic facilities and special facilities. These numbers represent only a portion of the populations served by BCRP recreation facilities. Currently 29 of the 40 BCRP operated recreation centers are using RecPro on a daily basis.

During the 2016 calendar year, total attendance at these 29 centers was 479,885 visits. This includes people who were registered for programs as well as general use. Each site averaged 16,547 visits per year.

Aquatic Facilities

During the 2015 summer swim season, from Memorial Day to Labor Day, Recreation and Parks aquatics facilities hosted an estimated 205,853 visits at 19 outdoor and three (3) indoor pools. During the 2016 summer swim season, the aquatics facilities had an estimated 177,689 visits, showing a 13 percent decrease. Attendance numbers were down in 2016 due to advertising of a six-week season (instead of 10 week schedule), due to lack of operating funds, and the 12 neighborhood pools closed after summer camp sessions ended. In addition, in 2016, Baltimore City Public Schools did not hold their “Read to

Succeed" summer camp for 6,000 students, who make use of the pools as part of the program.

Special Recreation and Other Use Facilities

Baltimore City's special recreation and other use facilities host a variety of Recreation and Parks programs, programs in partnership with other organizations and provide rental opportunities. In some cases, the Department leases the facility to partnership organizations to run programs.

Table 2.6. 2016 Total Number of Users by Permitted Park Area

Park Setting/Area	Total Number	Percentage
Banquet Room	12737	2%
Baseball Field	33530	6%
Basketball Court	1548	0%
Community Garden	200	0%
Dog Park	8	0%
Event Area	276906	52%
Festival Site	125	0%
Football Field	3822	1%
Golf Course	144	0%
Park Playground	385	0%
Pavilion	79584	15%
Picinic Area	12710	2%
Roadway	700	0%
Soccer Field	586	0%
Soccer/Football Field	9828	2%
Softball Field	45347	9%
Tennis Court	16331	3%
Trail	1325	0%
Turf Field	24246	5%
Volleyball	50	0%
Wet	6614	1%
Wooded Area	200	0%
Zoo	1750	0%
Total Head Count	528,676	100%

These special facilities are popular. William Myers Soccer Pavilion served 30,261 residents in 2016. Carrie Murray Nature Center hosted 15,086 visitors in 2016 and Mimi DiPietro Ice Rink and Mt Pleasant Ice Arena served 48,809 people. Upton Boxing Center, which is home to and trains many professional boxers, offered programs serving 2,487 people. Cylburn Arboretum hosted 27, 697 visitors (during FY 16: July 2015-June 2016) and The Rawlings Blake Conservatory hosted 8,857 during the same Fiscal Year period.

Recreational Programs

Summer Camps

In 2016, Recreation and Parks offered 43 different summer camp programs; 38 were located at recreation centers, and 5 were offered as specialty camps. Total camp enrollment for the summer was close to 3,000 children between the ages of 5 and 13.

Youth and Adult Sports

The Division of Youth and Adult Sports hosts a number of competitive sporting activities in City parks, arenas and school facilities for over 1,000 youth and adult sports teams. During 2016, competitive sports programs were offered in 12 different sports, including basketball, broomball, dodgeball, floor hockey, football, ice hockey, ice skating, indoor soccer, outdoor soccer, softball, track and field, and volleyball. A total of 3,707 people participated in these programs.

Seniors and Special Needs

With the addition of two staff members in FY 2016, the Therapeutic Recreation (TR) Division experienced a 10.8% increase in attendance from FY15 (16,044) to FY16 (17,783). During this period, the TR Division added programming sessions in water fitness, canoeing, nature education, disc golf, therapeutic gardening and fishing. The Senior Citizens Division added one staff member and experienced a 7 % increase in city-wide programming event attendance from FY15 (5,767) to FY16 (6,155). Senior visits to community centers and other BCRP recreation facilities increased 3% from FY 15 (12,580) to FY 16 (12,983). The total number of recreation experiences for all senior special events, bus trips, community center visits and golden age activities was 61,224, which is a 2.8% increase from the previous year (59,508).

Regional and Nationwide Trend Data

Urban Parks

Parks in urban areas are increasingly playing a more proactive and expanding role. Primarily thought of as places for leisure, recreation, social gatherings and open space preservation, parks are increasingly impacting and contributing to qualities of urban life, economic development, public health and infrastructure. These ideas formed the basis of a roundtable discussion, and resulted in white paper[9], held by the National Recreation and Park Association (NRPA) and the American Planning Association (APA), in March 2014. The discussion included the consideration of parks as part of, and interconnected and accessible to, the larger public realm and network of civic spaces, including streets, right of ways, trails and community resources. The notion of parks as "high-performance public spaces"[10] conveys the multi-functional social, environmental and economic benefits that parks provide and the need to have higher expectations for public spaces that are consciously and purposefully designed.

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[8] Levitz, Dana. (May 2014). *The Role of Parks in Shaping Successful Cities: A White Paper*. Prepared for the National Recreation and Parks Association and American Planning Association.

10 Term first advanced by the Design Trust for Public Space, a nonprofit organization focused on the future of public space in New York City, as an objective modern landscape design. Term is referenced in *The Role of Parks in Shaping Successful Cities: A White Paper* by Dana Levitz, p. 3.

Key themes focused on urban parks' role and contributions to: economic development, planning and developing health policies and improved outcomes for city residents, and reimagining the concept of urban infrastructure to incorporate "green infrastructure" to respond to shoreline climate changes, and systems to control and manage stormwater and runoff. These multi-functional spaces add new uses for parkland as part of the city's system of infrastructure, and allows for residents to more easily access and integrate physical activities into their lifestyles. These new functions also require new approaches to design and environmental educational opportunities.

At the end of 2013, the Chicago Park District partnered with several consultants to determine the impact of Chicago Park District's assets on the City of Chicago's economy. The resultant 2014 report: *The Power of Parks: An Assessment of Chicago Parks' Economic Impact*, found that parks generate significant tangible value for Chicago residents through: increased property value, revenue generation through tourism to the local economy as well as directly to the Chicago Park District to support its operations.[11] The analysis also found that parks play a fundamental role in community engagement. The report identified four clusters of parks within the asset inventory of the Chicago Park District that, due to their attributes, contribute differently to Chicago residents and its economy. These four clusters include a grouping of several park categories:

- Magnet Parks – a large park in excess of 50 acres with a combination of indoor and outdoor facilities
- Mini parks - parks less than ½ acre with a playground and may or may not contain other outdoor or small indoor facilities.
- Citywide, regional, community and neighborhood parks – parks from ½ acre to 75 acres in size that include a variety of outdoor and indoor facilities. Neighborhood parks have playgrounds and may include other outdoor or smaller indoor facilities.
- Passive, unimproved and nature preserves – spaces without indoor or outdoor facilities for active recreation, may be acquired for future park development devoted to the establishment and preservation of natural areas.

Magnet parks were found to be responsible for a large portion of the non-tax revenues of the Park District and for revenues generated by events and incremental tourism. Mini-parks are highly local and despite their small size touch the highest number of residents and generate – as a category – the highest impact on property value. Citywide, regional, community and neighborhood parks play the most important role for community engagement through programming and amenities, but a less positive property-valued impact. Passive park land, unimproved and nature preserves contribute positive and tangible benefits to residents through increased property values, even though they are not actively programmed by the Chicago Park District.

The above research has relevance for Baltimore to consider and quantify in the future to determine the tangible benefits different types of parks contribute to the City's park and recreation network and to determine a relevant and appropriate balance.

11 Chicago Park District, Civic Consulting Alliance, Global Economics Group, Roland Berger Strategy Consultants (2014), *The Power of Parks: An Assessment of Chicago Parks' Economic Impact*, p.20.

Recreation Facilities and Programs

Facilities

Research on relevant national trends for recreation facilities and programs was completed as part of Baltimore City Department of Recreation and Parks' 2015 Recreation and Aquatics Facility Analysis and Plan. The following two sections are excerpts from the Report.

In *Recreation Management* magazine's "2014 State of the Industry Report", published in June 2014, author Emily Tipping indicates that national trends show increased users of recreation facilities in both the private and public sectors. Parks and recreation providers responding to the survey indicated an average age of 23.8 years for their community recreation facilities. A majority of the parks and recreation survey respondents (69%) reported that they have plans to build new facilities, or make additions or renovations to their existing facilities, over the next three years. Nearly one-third (32.5%) of parks respondents stated that they have plans to build new facilities, and 28 percent said that they plan to add to their existing facilities. More than half (52%) are planning renovations to existing facilities.

While these data reflect agencies who oversee three or fewer facilities, Baltimore City is on a similar path, focusing on both new facilities and renovation of existing facilities. Rita Church and Morrell Park Community Centers are the first new stand-alone recreation centers built since 1978. Urban community center system trends for cities similar in population to Baltimore are presented in Table 2.7.

The current national trend is toward "one-stop" indoor recreation facilities to serve all ages. Large, multi-purpose regional centers help increase cost recovery, promote retention, and encourage cross-use. Agencies across the U.S. are increasing revenue production and cost recovery. Multi-use facilities versus specialized space offer programming opportunities as well as free-play or drop-in opportunities. "One stop" facilities attract young families, teens, and adults of all ages.

However, in order to maintain service at the neighborhood level, these larger facilities must be reasonably accessible from larger distances and be supplemented by programs and services at the local level. In several cases, including the cities of Denver and Colorado Springs, Colorado, collaborative efforts have been put into place to rely partially or mostly on the efforts of one or more non-profit providers for these supplemental services.

Recreation Programs

One of the most common concerns in the recreation industry is creating innovative programming to draw participants into facilities and services and maintain relevance in a world with many recreation alternatives. According to *Recreation Management* magazine's "2013 State of the Industry Report," the most popular programs offered by survey respondents include holiday events and other special events (64.2 %), fitness programs (61.4%), educational programs (58.9%), day camps and summer camps (55.2%), youth sports teams (54.3%), sports tournaments and races (49.2 %), mind-body/balance programs (49.1%), swimming programming (teams and lessons) (48.5%), adult sports teams (47.8 %), sports training (44.1%), arts and crafts (42.7%), and programs for active older adults (40.9%).

Table 2.7. Urban Community Center Comparisons

Community	Population 2010 U.S. Census	Current # Centers & Definitions	Projected Centers & Square Footage	Service Area Notes	Siting Tools Used
Denver, CO	600,158	11 local 9 neighborhood 7 regional	1 regional 60K sq ft	10 NSRAs (Neighborhood Recreation Service Areas) determined with major geographic boundaries. LOS measured in 1/3 mile for walkability and 3 mile radius for regional centers	Service Equity Gap Analysis. Focused on combination of walkable (local), neighborhood, and regional LOS.
Prince George's County, MD	863,420	43 neighborhood 2 regional (to become multi-generational) Will repurpose and remodel – no closures	9 multi-generational 60-80K sq ft	9 service areas defined (non-political, based on population projections)	Market Study Cost Recovery Population Projections Travel Distance – 10 min by car Active access – building 200 miles of trails Equity – site regardless of income levels
Virginia Beach, VA	437,994	4 - 82K+ sq ft 1 - 22K sq ft 1 - 70K sq ft	1 renovation 67K sq ft;	7 service areas; not related to unserved populations	No reported data
Tulsa, OK	391,886	(2010) 21 Community Centers, 11 fully functional, the remainder partial or not functional; 5 pools in operation and approved for renovation	No reported data	No specific service areas	Service Equity and Gap Analysis based on composite values methodology of existing system; consideration of other providers, growing population
Baltimore	620,961	40 Recreation Centers, undesignated	11 Fitness and Wellness (30,000+ sf) 5 Community Centers 4 Outdoor Athletic Centers, 22 School-Based	6 Geographic Recreation Service Areas	GIS based level of service gap analysis; consideration of alternative providers; existing City plans for future housing, U.S. Census data; proximity to athletic fields, transit, and active transportation opportunities
Columbus, OH	787,033	29 Community Recreation Centers, varying size and facility condition	1 major renovation per year, replacing one center	Service areas determined by population and location	Analysis of alternative providers and underserved areas
Cleveland, OH	396,815	21 Recreation Centers, varying size and facility condition	No reported data	At least one center in each of the city's council wards	No reported data
Boston, MA	617,594	29 Community Centers, varying size and facility condition	No reported data	No specific service areas	No reported data
Atlanta, GA	420,003	33 Recreation Centers – facilities grouped into Class 2, Class 3 and Class 4 based on size and programming ('Class 2' are smallest facilities with least amenities, Class 4 are largest facilities with most amenities)	1 Class IV recreation facility and natatorium currently planned	10 centers designated as "Centers of Hope" with extended programming and hours; based on 2.5 mile radius	GIS, analysis of alternate providers, population data
Washington D.C.	601,723	67 Recreation or Community Centers, defined by size and programming	No reported data	No specific service areas	No reported data

Source: Baltimore City Recreation and Parks Dept. Recreation and Aquatics Analysis and Facilities Plan, July 2015.

The report also suggested that slightly more than three in ten (30.2%) respondents indicated that they are planning to add additional programs at their facilities over the next three years. The most common types of programming they are planning to add include:

- Educational programs (up form No. 5 on 2012 survey)
- Fitness programs (up form No. 3)
- Mind-body/balance programs - yoga, tai chi, Pilates of martial arts (up from No. 6)
- Day camps and summer camps (up from No. 10)
- Holiday events and other special events (up from No. 7)
- Environmental education (down from No. 1)
- Teen programming (down from No. 2)
- Active older adults programming (down from No. 4)
- Sports tournaments or races (not on 2012 survey)
- Sports training (not on the 2012 survey)

Adult sport teams and performing arts dropped off the top 10 list for new programming from 2012.

Fitness Programming

There have been many changes in fitness programs in the last decade. The American College of Sports Medicine's (ACSM's) *Health and Fitness Journal* has conducted an annual survey since 2007 to determine trends that would help create a standard for health and fitness programming. Table 2.8 shows survey results that focus on trends in the commercial, corporate, clinical, and community health and fitness industry. Strength training remains at a solid 2nd for the second year in a row and body weight training appears for the first time in the top 20 trend survey.

Table 2.8. Top 10 Worldwide Fitness Trends for 2007 and 2013

2007	2013
1. Children and obesity	1. Educated and experienced fitness professionals
2. Special fitness programs for older adults	2. Strength training
3. Educated and experienced fitness professionals	3. Body weight training
4. Functional fitness	4. Children and obesity
5. Core training	5. Exercise and weight loss
6. Strength training	6. Fitness programs for older adults
7. Personal training	7. Personal training
8. Mind/Body Exercise	8. Functional fitness
9. Exercise and weight loss	9. Core training
10. Outcome measurements	10. Group personal training

Source: American College of Sport Medicine

Level of Services Analysis and Overview of Capital Needs

Level of Service Analysis

In 2014, as part of developing its Recreation and Aquatics Facilities Plan, Baltimore City Recreation and Parks undertook a data driven analysis of its existing network of recreation and aquatic facilities and programs with the objective to determine answers to the following questions:

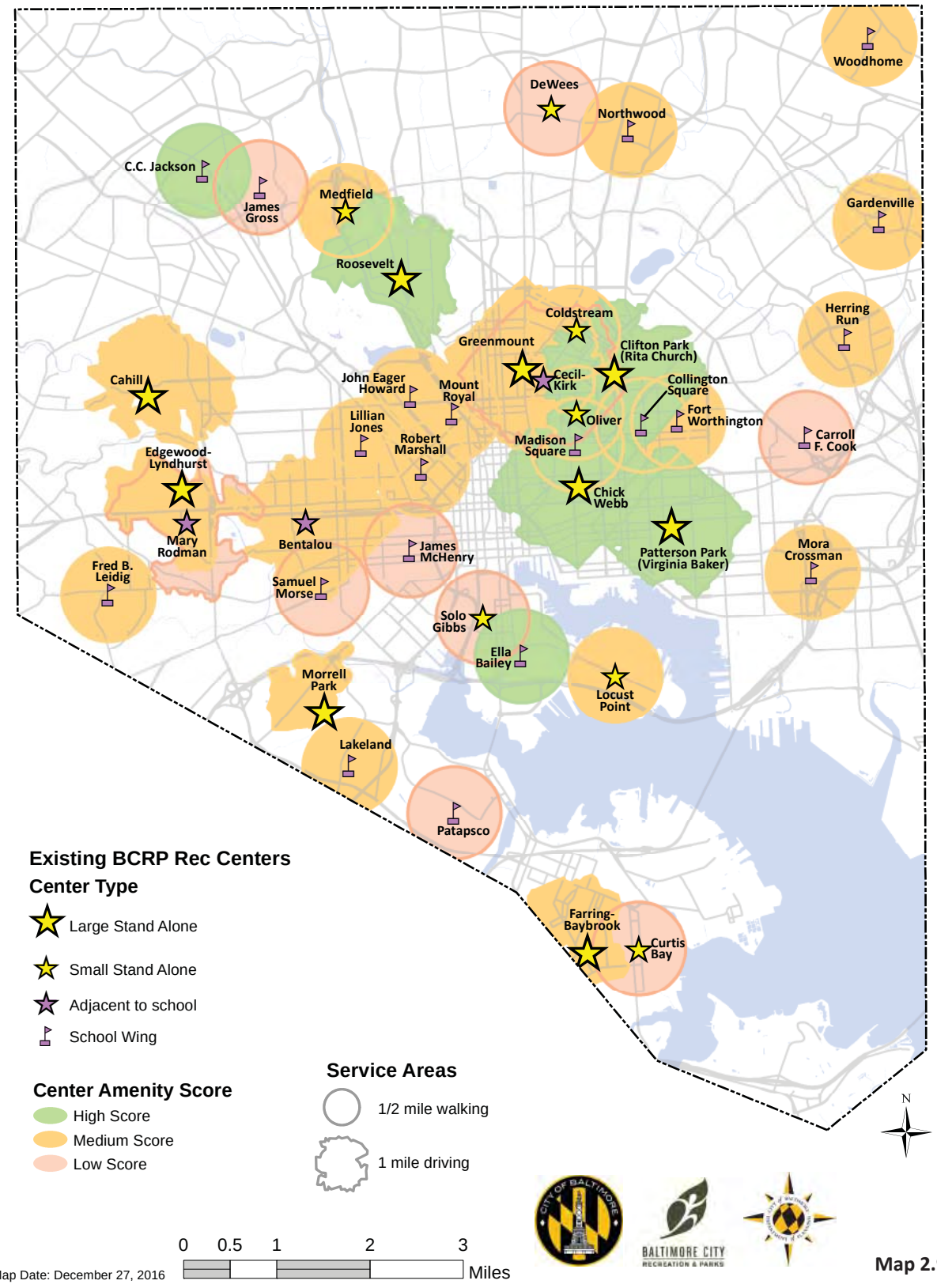
- What facilities best meet Baltimore's Recreation Center and Aquatics needs in an equitable way?
- What amenities are needed in future facilities?
- How are the facilities located across the community?
- How can new facilities support the use of active modes of travel?
- What gaps in service exist throughout the community?
- Where should future facilities be located?

The existing recreation centers and aquatic facilities were analyzed and scored by levels of service, location and distribution across the city as a network of public spaces to support the Department's recreational programming needs. The level of service analysis considered a variety of factors, including: quality and quantities of amenities at existing facilities, population, proximity to transit stops, proximity to trails, existing and planned development and coverage by non Rec and Parks providers. The scoring analysis resulted in six recreation centers with a high level of service score, 24 centers with a medium score and 10 centers with a low score. Patterson Park scored the highest with a score of 33 out of a mazimum of 46 points, which James McHenry scored the lowest, with a score of seven (Map 2.9 and Table 2.9). The Aquatic facility scoring resulted in nine facilities with a high score, two centers with a medium score and 12 centers with a low score. Callowhill and Cherry Hill Indoor pools scored the highests with a score of 14 out of a maximum of 22 points. North Harford Spray Pad scored the lowest with a score of two (Map 2.10 and Table 2.10).

As previously mentioned, a list of 17 non Baltimore City Recreation and Parks (BCRP) providers of recreation services with "brick and mortar facilities," amenities and recreation programs similar to those provided by Recreation and Parks helped inform the analysis of the existing Baltimore City recreation program coverage and determine geographic gaps in the level of recreation program service coverage within the City (Table 2.5 Map 2.8). Non BCRP providers are considered part of future BCRP recreation and aquatic program provision.

Gaps in service delivery for recreation and aquatic facilities were identified as areas where there was no coverage at all by existing Rec and Parks recreation centers, or where coverage was by low scoring centers (Maps 2.11). The gaps were scored to illustrate desirability for placement of new facilities based on several factors:

- Proximity to multi-use trails and public transit
- Coverage by non-BCRP providers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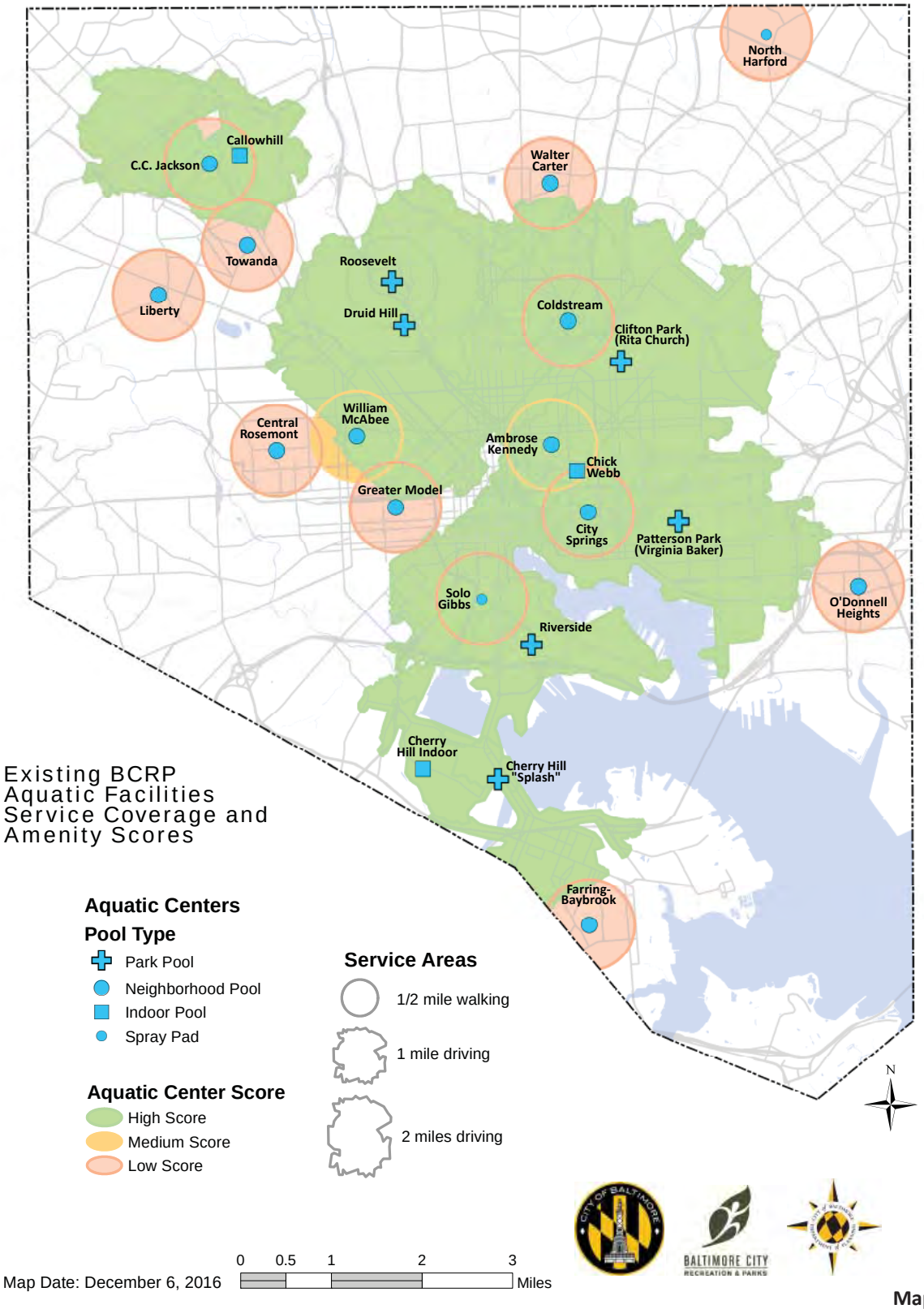
DeWees
Northwood
C.C. Jackson
James Gross
Medfield
Gardenville
Roosevelt
Coldstream
Herring Run
Greenmount
Clifton Park (Rita Church)
Cecil-Kirk
Cahill
John Eager Howard
Mount Royal
Collington Square
Lillian Jones
Oliver
Fort Worthington
Carroll F. Cook
Robert Marshall
Madison Square
Edgewood-Lyndhurst
Chick Webb
Mary Rodman
Bentalou
James McHenry
Patterson Park (Virginia Baker)
Mora Crossman
Fred B. Leidig
Samuel Morse
Solo Gibbs
Ella Bailey
Morrell Park
Locust Point
Lakeland
Patapsco
Farring-Baybrook
Curtis Bay
Existing BCRP Rec Centers
Center Type
Large Stand Alone
Small Stand Alone
Adjacent to school
School Wing
Center Amenity Score
High Score
Medium Score
Low Score
Service Areas
1/2 mile walking
1 mile driving
N
0 0.5 1 2 3
Miles
Map Date: December 27, 2016
BALTIMORE CITY
RECREATION & PARKS

Map 2.9


North Harford
Callowhill
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Towanda
Roosevelt
Liberty
Druid Hill
Coldstream
Clifton Park (Rita Church)
William McAbee
Central Rosemont
Ambrose Kennedy
Chick Webb
Greater Model
City Springs
Patterson Park (Virginia Baker)
Solo Gibbs
O'Donnell Heights
Riverside
Cherry Hill Indoor
Cherry Hill "Splash"
Farring-Baybrook
Existing BCRP Aquatic Facilities Service Coverage and Amenity Scores
Aquatic Centers
Pool Type
Park Pool
Neighborhood Pool
Indoor Pool
Spray Pad
Aquatic Center Score
High Score
Medium Score
Low Score
Service Areas
1/2 mile walking
1 mile driving
2 miles driving
N
0 0.5 1 2 3 Miles
Map Date: December 6, 2016

Map 2.10

Table 2.9. Summary of Existing Recreation Facilities by Score Category

Score Category	Existing Recreation Centers	
High (21 – 33) **6 Centers**	C.C. Jackson Chick Webb Clifton Park (Rita Church) Ella Bailey Patterson Park (Virginia S. Baker) Roosevelt	
Medium (13 – 20) **24 Centers**	Bentalou Cahill Coldstream Collington Square Edgewood-Lyndhurst Farring-Baybrook Fort Washington Fred B. Leidig Gardenville Greenmount Herring Run John Eager Howard	Lakeland Lillian Jones Locust Point Madison Square Medfield Morrell Park Mora Crossman Mount Royal Northwood Oliver Robert C. Marshall Woodhome
Low (7 – 12) **10 Centers**	Carroll F. Cook Cecil-Kirk Curtis Bay DeWees James D. Gross	James McHenry Mary E. Rodman Patapsco Samuel F.B. Morse Solo Gibbs

Table 2.10. Summary of Existing Aquatic Facilities by Score Category

Score Category	Existing Aquatic Centers	
High (8 – 14) **9 centers**	Callowhill Cherry Hill Indoor Cherry Hill Splash Chick Webb	Clifton Druid Hill Patterson Riverside Roosevelt
Medium (6 – 7) **2 centers**	Ambrose Kennedy William McAbee	
Low (2 – 5) **12 centers**	C.C. Jackson Central Rosemont City Springs Coldstream Farring-Baybrook Greater Model	Liberty North Harford O'Donnell Heights Towanda Solo Gibbs Walter P. Carter

- Existence of city planning and development initiatives
- Population

The analysis revealed two areas of the city without access to a recreation center or aquatic facility that were highly desirable locations to offer new recreation programs or a new facility as illustrated in Map 2.12. These areas were North Baltimore (Roland Park, Tuscany Canterbury, Blythewood, Guilford and Homeland) and Southwest Baltimore (Violetville, Saint Agnes, Gwynns Falls).

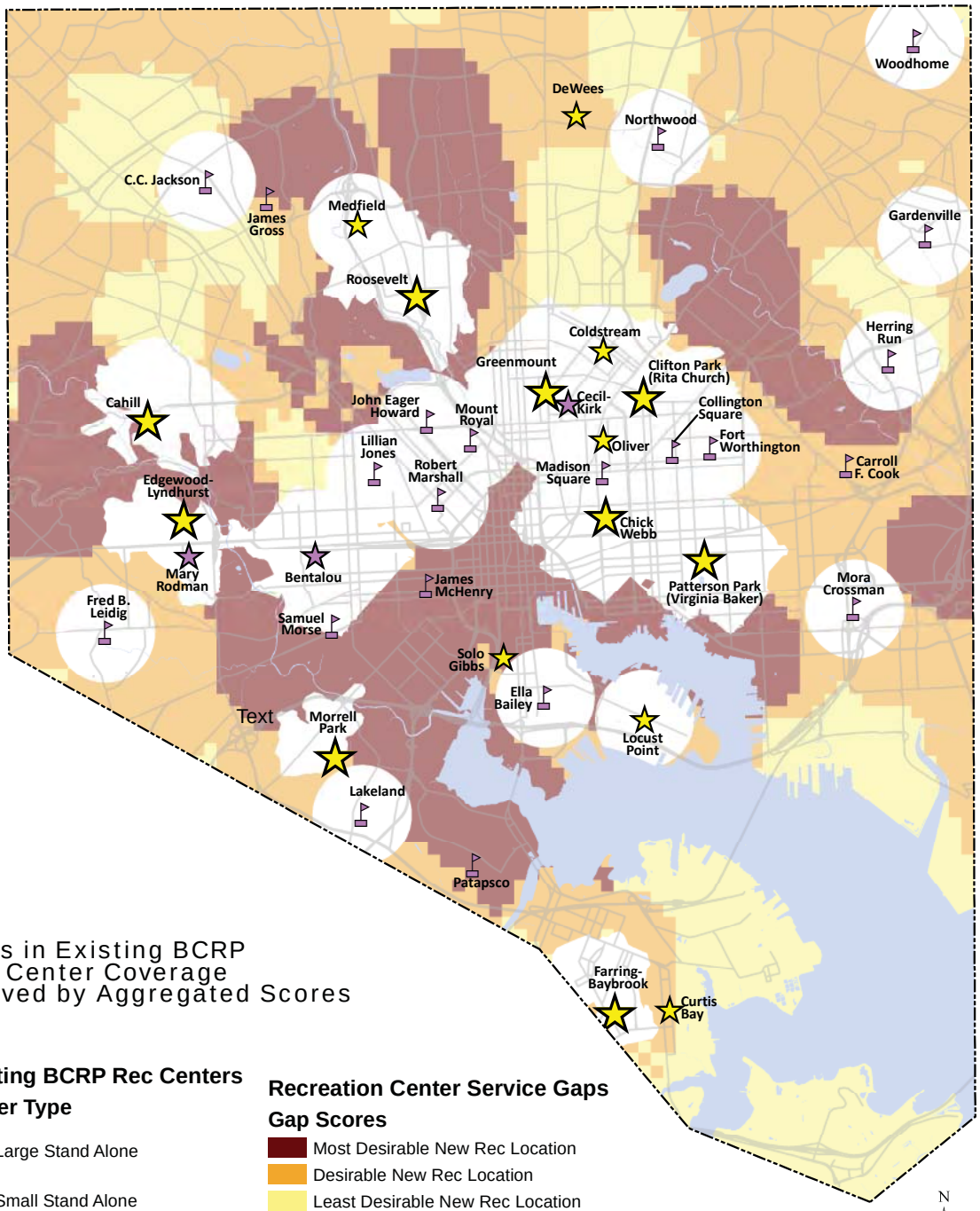
BCRP staff examined and evaluated the North and Southwest Baltimore areas to determine opportunities for the provision of recreation programs and services. North Baltimore, while lacking in BCRP facilities, contains many other non BCRP private recreational facilities and opportunities for residents. Residents in these neighborhoods have multiple recreation options. Gaps in the Southwest area could be addressed by extending existing BCRP recreation services via mobile recreation facilities, programming existing parks and open spaces, and making adjustments to the provision of existing transportation options. The YMCA of Central Maryland was in recent talks to build a new facility on the Old Cardinal Gibbons site. A multi-purpose synthetic field is already planned and funded as part of the redevelopment. If this happens, it will eliminate the gap in recreation services in the Southwest area altogether.

The 2015 Recreation and Aquatics Plan addresses currently underserved areas in the city by ensuring that recreation services are provided by BCRP facilities or private non BCRP facilities to ensure a full coverage of recreational services citywide as illustrated in Maps 2.13 and 2.14. The plan identified a new approach to recreation service provision as well as a $136 million dollar capital plan for a recreation and aquatic facilities.

In 2016, the Baltimore City Department of Planning performed a Park Needs Analysis with assistance from the Recreation and Parks Department. The park needs analysis is part of a larger Equity Analysis was being done as part of the City of Baltimore's Green Network Plan. The purpose was to identify areas of the City that lack access to public parks and green spaces and to determine a strategy for permanent and temporary uses for the City's 30,000 vacant properties as well as opportunities to enhance and connect the city's existing green network. The plan will result in a site suitability and prioritization of spaces to be considered for short pilot projects and long term spaces, ranging from active recreation spaces, landscapes or naturalized spaces, productive gardens, green spaces to collect storm water run-off, and temporary green spaces to be held for future development. The "Green Network" plan is anticipated to be completed by summer 2017.

The Park Needs Analysis identifies residential areas lacking pedestrian and vehicular access to parks and open spaces (Maps 2.15 and 2.16). The Green Network Plan analysis also identified properties adjacent to existing parks and green spaces, and opportunities to create new park spaces and to extend connections to existing recreation networks.

Previous attempts to identify areas with poor access to parks and open spaces treat the City's diverse park system in a uniform way. They fail to take into account the variety of park types and urban topography between neighborhoods across the City.



Gaps in Existing BCRP Rec Center Coverage Derived by Aggregated Scores

Existing BCRP Rec Centers

Center Type

- Large Stand Alone
- Small Stand Alone
- Adjacent to school
- School Wing

Recreation Center Service Gaps

Gap Scores

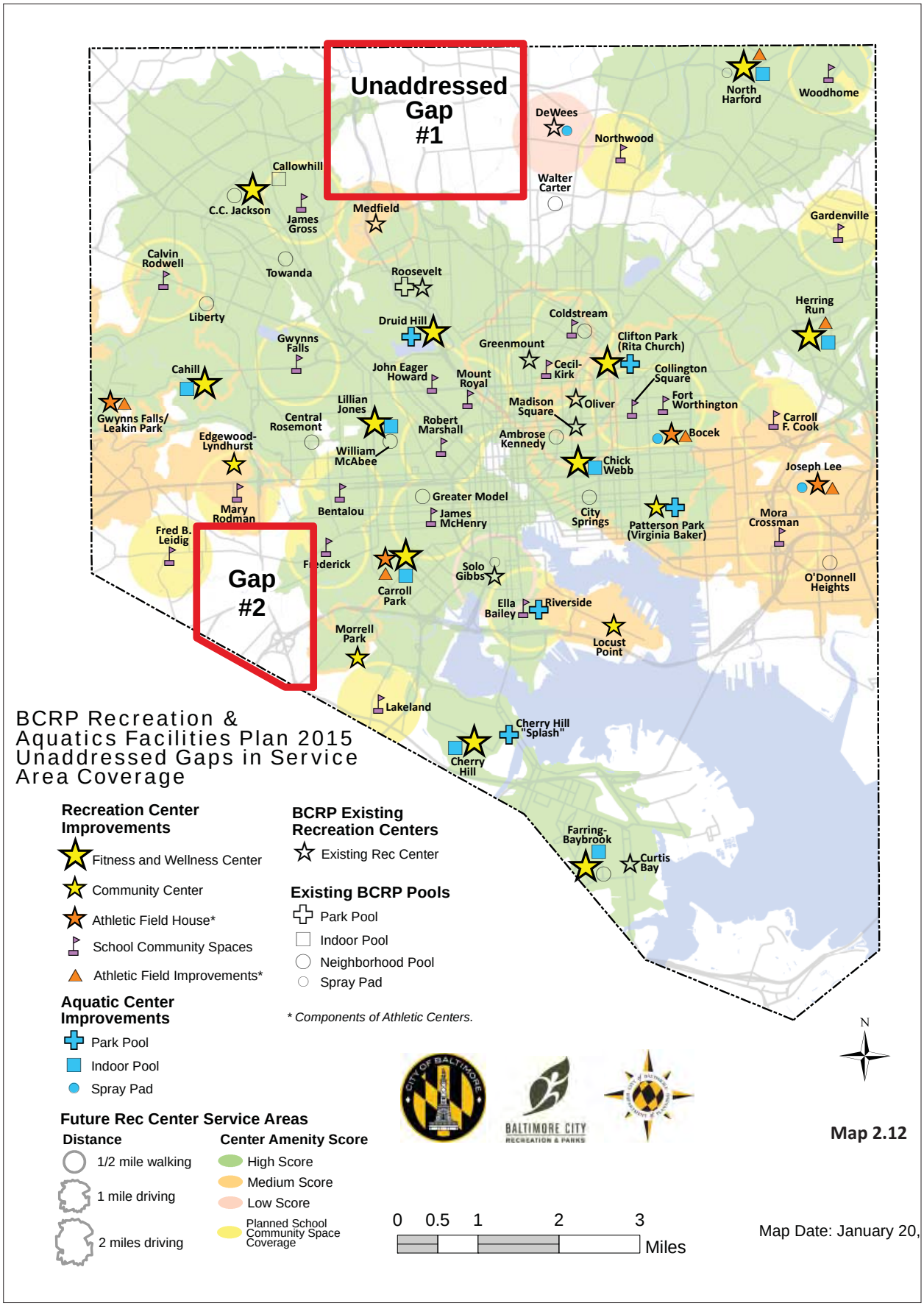
- Most Desirable New Rec Location
- Desirable New Rec Location
- Least Desirable New Rec Location

N

0 0.5 1 2 3 Miles

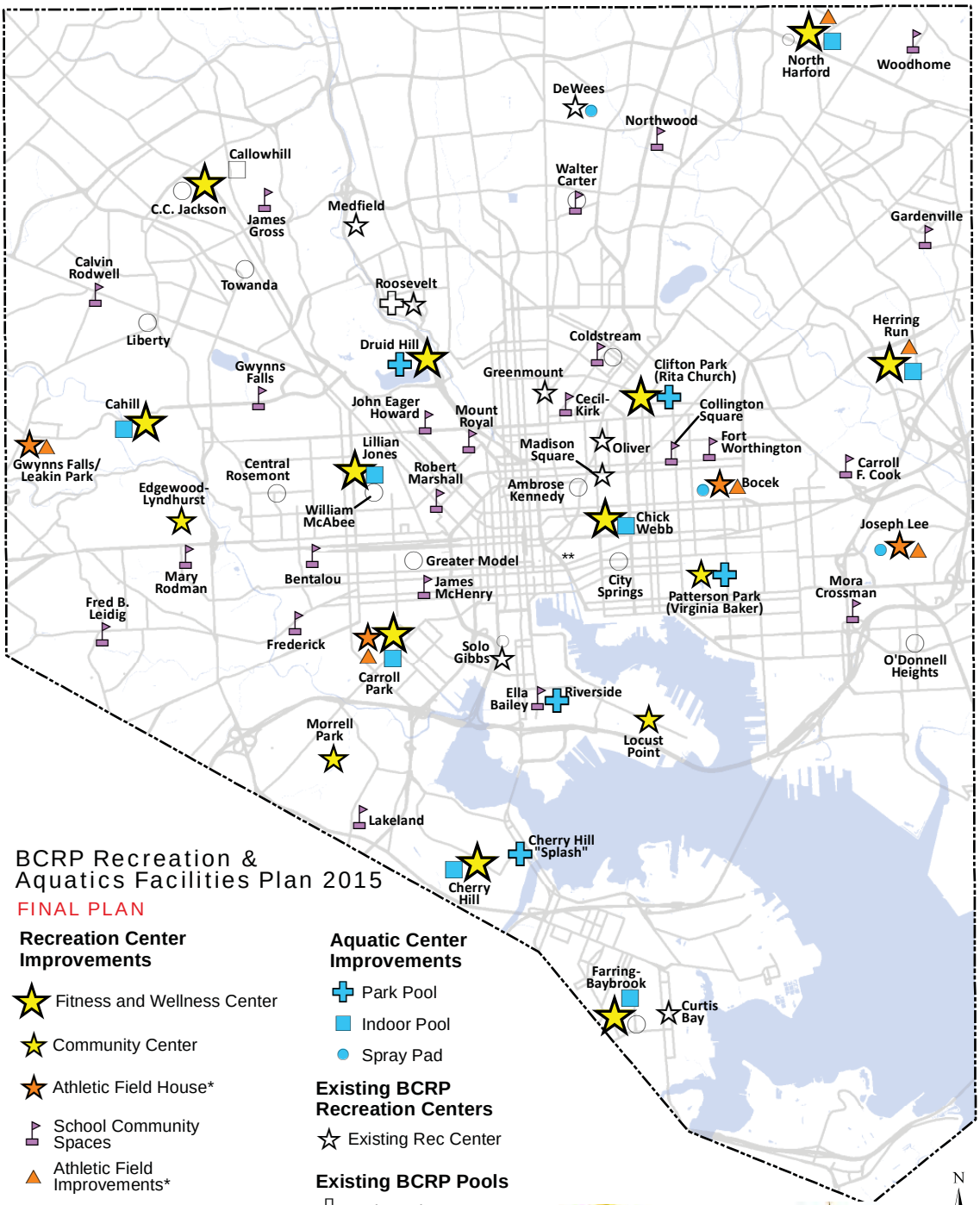
Map Date: December 27, 2016

Map 2.11



Map 2.12

Map Date: January 20,


North Harford
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DeWees
Northwood
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C.C. Jackson
James Gross
Medfield
Walter Carter
Gardenville
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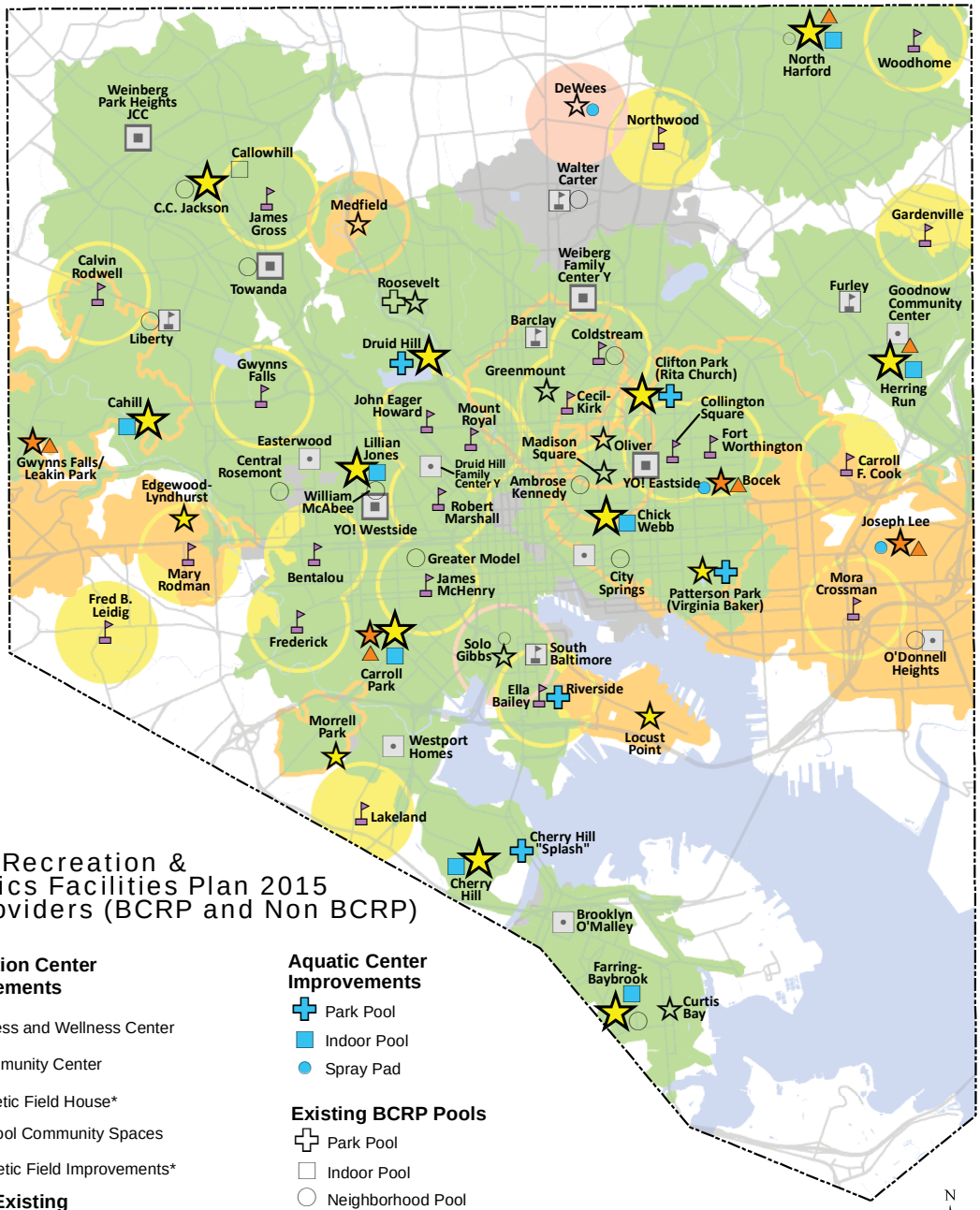
Towanda
Roosevelt
Liberty
Druid Hill
Coldstream
Herring Run
Gwynns Falls
Greenmount
Clifton Park (Rita Church)
Cecil-Kirk
Cahill
John Eager Howard
Mount Royal
Collington Square
Gwynns Falls/ Leakin Park
Lillian Jones
Madison Square
Oliver
Fort Worthington
Central Rosemont
Robert Marshall
Ambrose Kennedy
Bocek
Carroll F. Cook
Edgewood-Lyndhurst
William McAbee
Chick Webb
Joseph Lee
Mary Rodman
Bentalou
Greater Model
**
City Springs
Patterson Park (Virginia Baker)
Mora Crossman
Fred B. Leidig
James McHenry
Frederick
Solo Gibbs
O'Donnell Heights
Carroll Park
Ella Bailey
Riverside
Morrell Park
Locust Point
Lakeland
Cherry Hill "Splash"
Cherry Hill
Farring-Baybrook
Curtis Bay
BCRP Recreation & Aquatics Facilities Plan 2015
FINAL PLAN
Recreation Center Improvements
Fitness and Wellness Center
Community Center
Athletic Field House*
School Community Spaces
Athletic Field Improvements*
Aquatic Center Improvements
Park Pool
Indoor Pool
Spray Pad
Existing BCRP Recreation Centers
Existing Rec Center
Existing BCRP Pools
Park Pool
Indoor Pool
Neighborhood Pool
Spray Pad
* Components of Athletic Centers.
** Madison Square will be a substitute for Chick Webb, if necessary.
BALTIMORE CITY RECREATION & PARKS
N
Map Date: December 27, 2016
0 0.5 1 2 3
Miles

Map 2.13


North Harford
Woodhome
Weinberg Park Heights JCC
DeWees
Northwood
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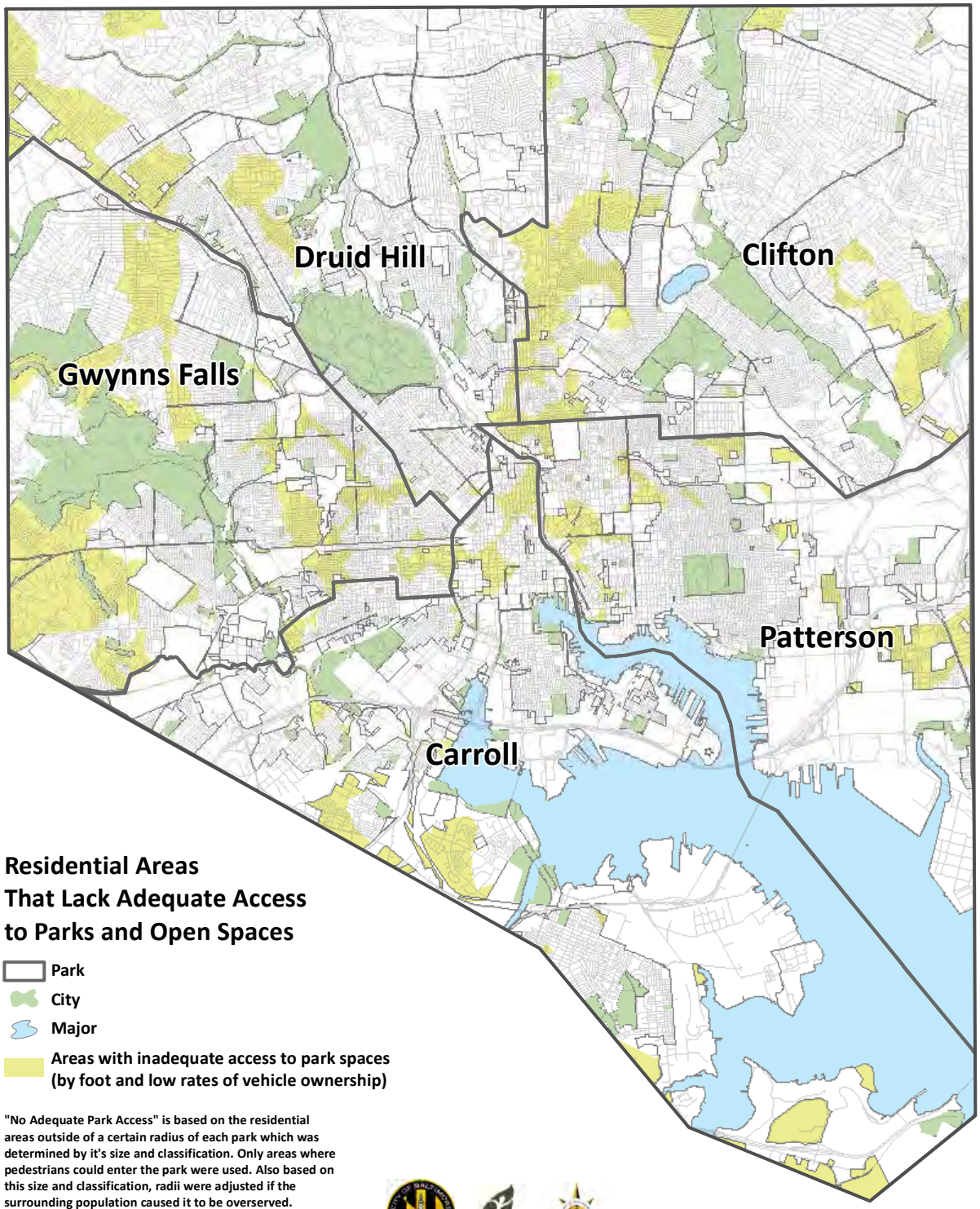
C.C. Jackson
James Gross
Medfield
Walter Carter
Gardenville
Calvin Rodwell
Towanda
Roosevelt
Weiberg Family Center Y
Furley
Goodnow Community Center
Liberty
Barclay
Coldstream
Druid Hill
Gwynns Falls
Greenmount
Clifton Park (Rita Church)
Herring Run
Cahill
John Eager Howard
Mount Royal
Cecil-Kirk
Collington Square
Gwynns Falls/ Leakin Park
Easterwood
Lillian Jones
Madison Square
Oliver
Fort Worthington
Central Rosemont
Druid Hill Family Center Y
Ambrose Kennedy
YO! Eastside
Bocek
Carroll F. Cook
Edgewood-Lyndhurst
William McAbee
Robert Marshall
Chick Webb
Joseph Lee
YO! Westside
Mary Rodman
Bentalou
Greater Model
James McHenry
City Springs
Patterson Park (Virginia Baker)
Mora Crossman
Fred B. Leidig
Frederick
Solo Gibbs
South Baltimore
O'Donnell Heights
Carroll Park
Ella Bailey
Riverside
Morrell Park
Westport Homes
Locust Point
Lakeland
Cherry Hill "Splash"
Cherry Hill
Brooklyn O'Malley
Farring-Baybrook
Curtis Bay
BCRP Recreation & Aquatics Facilities Plan 2015
All Providers (BCRP and Non BCRP)
Recreation Center Improvements
Fitness and Wellness Center
Community Center
Athletic Field House*
School Community Spaces
Athletic Field Improvements*
BCRP Existing Recreation Centers
Existing Rec Center
Aquatic Center Improvements
Park Pool
Indoor Pool
Spray Pad
Existing BCRP Pools
Park Pool
Indoor Pool
Neighborhood Pool
Spray Pad
* Components of Athletic Centers.
Future Rec Center Service Areas
Distance
1/2 mile walking
1 mile driving
2 miles driving
Center Amenity Score
High Score
Medium Score
Low Score
Planned School Community Space Coverage
Non-BCRP Provider Coverage
Non-BCRP Provider Recreation Centers
Large Stand Alone
School Wing
Small Stand Alone
N
0 0.5 1 2 3 Miles
Map Date: December 6, 2016

Map 2.14



Residential Areas That Lack Adequate Access to Parks and Open Spaces

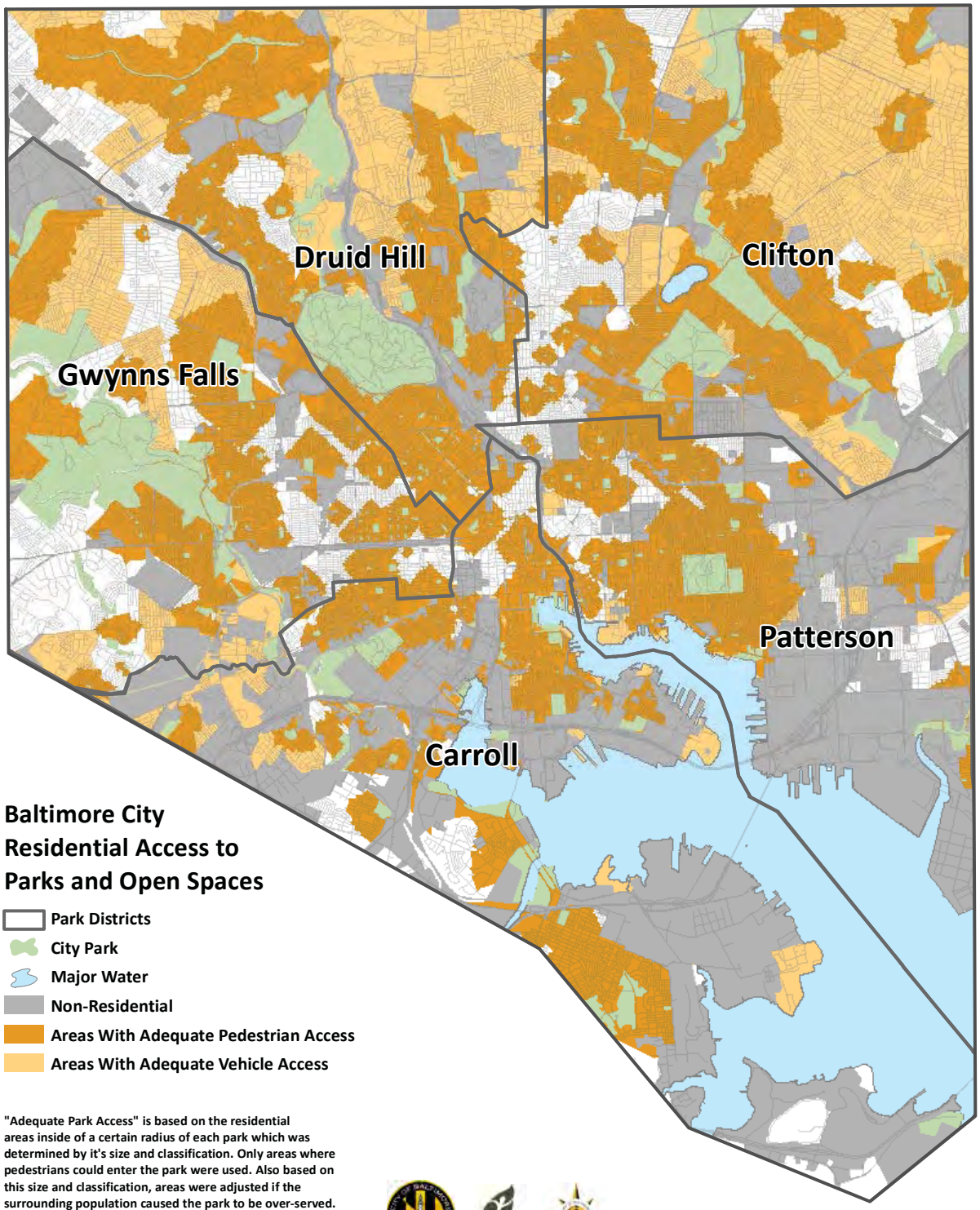
- Park
- City
- Major
- Areas with inadequate access to park spaces (by foot and low rates of vehicle ownership)

"No Adequate Park Access" is based on the residential areas outside of a certain radius of each park which was determined by it's size and classification. Only areas where pedestrians could enter the park were used. Also based on this size and classification, radii were adjusted if the surrounding population caused it to be overserved. Each radius is based on walking distance by street. Highways were input as barriers in our walking network.

Map Published: September 2016

N

Map 2.15


Druid Hill
Clifton
Gwynns Falls
Patterson
Carroll
Baltimore City
Residential Access to
Parks and Open Spaces
Park Districts
City Park
Major Water
Non-Residential
Areas With Adequate Pedestrian Access
Areas With Adequate Vehicle Access
"Adequate Park Access" is based on the residential areas inside of a certain radius of each park which was determined by it's size and classification. Only areas where pedestrians could enter the park were used. Also based on this size and classification, areas were adjusted if the surrounding population caused the park to be over-served. Each radius is based on street network walk distance. Highways were input as barriers in our walking network.
Map Published: September 2016
N

Map 2.16

Looking at examples from other communities and their standards based upon acreage, as well as using the institutional knowledge of the Baltimore City Recreation and Parks Department, the analysis categorized the City's parks into 6 classes (Table 2.11).

Table 2.11. Park Needs Analysis- Park Classes

Classification	Acre Range	Acceptable Walk Distance (Miles)	Acres Needed to Serve 1000 People
Citywide Park	Over 100 Acres	0.667	6
District Park	15-100 Acres	0.5	4
Neighborhood Park	1-15 Acres	0.4	2
Mini Park	Under 1 Acre	0.334	0.3
Green Space	No amenities	0	0
Special Use	Special Use	0	0

In order to better account for differences between park types and topographic barriers, Walking distance buffers were created for each park based on the street network and its classification above. Only edges of the park where pedestrians can enter were used to create these buffers. We also programmed highways as barriers to pedestrians in the network.

The population within the walking distance buffer was calculated using 2010 Census Blocks to estimate the population each park served. When park buffers overlapped, areal interpolation was used to divide the population served between both park service areas. Once a population served number was calculated for every park, we found where the population served was greater than its defined capacity in the chart above. In these cases, the park buffer was revised and reduced by the rate of overcrowding shown in the equation below:

*Revised Access Buffer=Walk Distance Buffer*Capacity/Population*

For example, if a Citywide Park was 6 acres, it could serve 1,000 people according to the chart. If there were 1,250 people living within its 0.67 mile walk distance, it was considered overserved. To account for this, we shrank the 0.67 mile walk distance buffer by multiplying it by 0.8 which was the rate calculated from the equation above. The revised access buffer became 0.54 miles rather than 0.67. Combining all of the access buffers gave us our area of "adequate pedestrian park access".

Understanding that those areas without pedestrian access may be vehicle-dependent neighborhoods on the outskirts of the City, we decided to include any area in the "adequate park access" category that had over 90% vehicle ownership according to the American Community Survey 5-year estimates from 2010-2014.

Baltimore City Recreation and Parks will be conducting further analysis during 2017 to identify barriers and issues to equitable access to parks, open space and recreation services citywide as part of a year-long public engagement and data collection process. The findings of this research will further inform this plan and be submitted as an amendment to this document.

Overview of Capital Needs

The Department of Recreation and Parks is responsible for the care of all buildings and facilities on park property. Our inventory of buildings ranges from unique historic mansions and simple park comfort stations to modern recreation centers and special facility buildings (soccer pavilions, ice rinks etc.).

The majority of the recreation buildings are over 40 years old. Many are in need of basic building renovations (electric, mechanical, doors, windows, floors, ceilings, interior paint, ADA restroom and entrance remodeling and roof replacement). Many of them do not address current nor have the capacity or flexibility to meet future recreation programming needs.

The Department's 2015 Recreation and Aquatic Facilities Plan lays out a comprehensive vision and plan for a new network and models of recreation and aquatic programming and facilities. This plan is the culmination of a number of initiatives that began in 2010 with the establishment of a Mayoral Recreation Center Task Force with the charge to analyze the current inventory of recreation centers and provide a vision for future centers in the city. The Department spends $975,000 annually on over 200 system maintenance and repair projects, including roof repair/replacement, building painting, door replacement, heating and air conditioning preventative maintenance, floor replacement, and plumbing and electrical maintenance. In the past three fiscal years (FY15, 16 and 17), major capital renovations and upgrades have been completed at four of the new model recreation centers (Clifton Park, Morrell Park, CC Jackson and Rita Church/Clifton Gymnasium). It is anticipated that the new Cherry Hill Fitness and Wellness center will be deferred to Spring/Summer 2019 due to complex construction scheduling with the renovation and addition of the adjacent Cherry Hill school on the same site at the same time. Additional funding is needed to accommodate a multi-use playing field that will serve both the Fitness Center and the newly renovated school, which will be provided on the site of the Patapsco School. The Patapsco School is scheduled to be demolished after the Cherry Hill School renovation is completed. The Cahill Fitness and Wellness Center in Gwynns Falls/Leakin Park and serving western Baltimore is anticipated to start construction by Spring/Summer 2018.

The Department has already appropriated over $49 million dollars to build new or extensively renovate five (5) fitness and wellness/community centers and one park pool in support of the new 2015 recreation center and aquatic facilities capital plan (Map 2.0, p.38). While implementation of the full plan was estimated at $136 million dollars, rising construction costs are likely to push implementation costs to **$178 million dollars.** This includes $84 - $112 million dollars to build or transform seven (7) recreation centers into citywide fitness and wellness facilities with new indoor pools, $20-$25 million dollars to upgrade five (5) existing recreation centers, $20- $25 million dollars to upgrade 4 existing outdoor athletic centers focused around team sports fields, playgrounds and fitness facilities in parks, $13 -$16 million dollars to transform four (4) existing outdoor park pools to provide water park features and add three (3) new splash pads. Another 22 school-based recreation spaces will offer local recreation

programs and activities operated in multi-purpose spaces housed within Baltimore City Public Schools' new 21st Century school buildings. Implementation of the school-based spaces will follow the schedule and funding for the Baltimore City Public Schools 21st Century Building Plan.

The Department continues to seek funding from multiple other sources and was awarded $5.2 million dollars from the Maryland Department of Natural Resources in FY15 to expand facilities and outdoor recreation programming and nature education at the Cahill Fitness and Wellness Center. The center is currently in design. In FY17, the Department received a $565,000 grant in partnership with Parks & People Foundations from the NRPA to renovate and create a new park space at Ambrose Kennedy Park.

The Department also has extensive capital funding needs to upgrade its park maintenance facilities. Park maintenance crews are based in five (5) maintenance yards (with over 30 individual structures). The repair shops, mower storage barns, locker rooms and offices are all past their life cycle, ADA challenged, inefficient, and have high risks for health and safety violations. Improvements to the Gwynns Falls maintenance yard buildings are currently in design in 2017, with implementation funding requested for FY18. Renovation of the main office building of the Druid Hill yard was completed in 2007 but the forestry, shop and garage buildings are all in need of renovation or replacement. In addition to the five maintenance yards there are another 30 small maintenance/storage structures scattered in individual parks across the city. The parks contain a variety of structures including, field houses, bridges, shelters, and comfort stations, all requiring renovation. There are over 35 individual comfort stations and only about 10 percent have been renovated to meet ADA codes. At least 30 comfort stations need a complete renovation at an estimated cost of **$6 million dollars** (30 x $200,000).

The Department operates an additional 12 neighborhood pools, some of which have small office/ restroom facilities. These small "walk to" pools were built in the late 1960's. Many of them need upgrades (new gutter systems, decking, new pumps, ADA compliance, restrooms) and the layout and features do not adequately address current usage patterns, programming or building code requirements. The Department's Recreation and Aquatic Facilities Plan will replace these small outdated outdoor pools with year round indoor pools as part of the citywide fitness and wellness community center network. The cost of replacing the indoor pools is included in the citywide fitness and wellness center cost estimates above.

Playground renovations will always be a part of the annual capital expenses. Over the last several years the cost of playground renovation has climbed as funds allocated by outside sources have dropped. The cost of renovations has grown from the $150,000/ site to $200,000/ site in order to meet or exceed the minimal requirements of safety and accessibility while maintaining user experience. In 2011, the Department conducted an agency wide assessment of playground condition and function, comparing best practices in maintenance and replacement with similar cities like Boston, Philadelphia, and Washington, DC. The assessment revealed playground equipment should be replaced after 12 years, with replacement age not to exceed 15 years. By 2018, 16 playgrounds will reach 15 years of age with a redevelopment cost estimated at $**3.2 million dollars**. On average, the department should plan to replace 10 playgrounds a year (120 park playgrounds divided by 12) in order to provide adequate upkeep. Additional funds are required to replace playground surfaces every 8 years. The Department should replace on average 15 playground surfaces per year at an estimated cost of **$750,000** dollars per year (15 x $50,000).

Basketball and tennis courts need periodic resurfacing to correct pavement cracks and surface wear. A typical court resurfacing/fence repair project has risen to $75,000/court. Baltimore has 102 basketball courts and 82 tennis courts. The Department has made a consistent effort to keep the courts in the large parks in playable condition. Individual courts in the system of small parks are behind schedule for resurfacing. Ten percent of the basketball and tennis courts in small parks should be resurfaced at an estimated annual cost of **$1.6 million dollars** (22 x $75,000). In addition, expenditures are required at intervals to repair or replace other related items such as court fencing, goals and netting, and site upgrades to comply with ADA accessibility.

Team sports fields including multi-purpose and ball fields also need re-grading. A typical field re-grading and re-seeding project costs **$400,000 dollars.** Baltimore has over 200 athletic fields that are over-utilized. The Department started to add irrigation systems to the fields as they are upgraded to help maintain the life of the fields. In certain locations the Department is adding lighting to allow for continued hours of field use. While some of the major capital athletic field improvements are included as part of the Department's 2015 Recreation and Aquatics Facilities Plan, additional funds for maintaining those fields that are not included. To keep fields in playing condition over the long term, regular improvements are required to replace team benches, provide bleachers, add lighting, re-grade field surfaces, and provide new turf and access paths every 30 years. The Department should replace on average six (6) fields per year at an estimated cost of **$2.4 million dollars** per year. In the long term, the Department would like move away, where possible, from the current design and practice of the overlapping and sharing of turf between ball fields and multi-purpose fields. A good number of the Department's multipurpose fields overlap with and make use of the outfields of ball fields. This practice results in the overuse of turf. Separating the two types of fields allows for single field use, will add to the amount of fields available for team play, add longer field life and reduce the frequency of capital improvements.

The Department continues to implement a restructured permitting process and set of procedures. During FY17, the Department will be installing a new software system (RecTrac) to allow for more detailed data collection as well as expanded facility scheduling capabilities for the Department's programs. The system also allows for more flexibility and will be accessible via mobile devices. The Department continues to better integrate its recreation facilities and programs to allow for maximum programming and use. This includes recreation centers, pools, parks and athletic fields. As the Department further develops and implements routine standard procedures, the aim is to ensure a standard level of maintenance, allow for maximum field availability, better distribution and more efficient use of athletic fields across the City.

The care and replacement of trees in our parks is often a forgotten need. An analysis undertaken of the annual tree loss over the past three years for our streets and developed park land showed that the Department needs to replace 3,368 trees annually. Capital funds (General Fund or HUR) are the only source for tree purchase. As a result of budget reductions there is no forestry general fund operating support for tree purchase or planting. Operating funds are restricted to pruning, removal, and stump grinding. The Emerald Ash Borer infestation has started in the city and will kill all Ash trees in the City. It is important to invest now in replacing these trees by planting new varieties. The unit cost per tree, based on a 2 ½ to 3 inch caliper planting with two years of establishment maintenance, is $460 dollars, resulting in program cost for tree replacement of **$1.55 million dollars** per year. The estimated cost of street and parkland tree replacement is $15.5 million dollars over a ten year period.

The Department is undertaking a Citywide Tree Inventory over the current and next two fiscal years. The subsequent data will provide more accurate detail on anticipated tree loss – including hazardous trees not currently included in the 3,368 annual loss. This hazard mitigation, part of a robust asset management program, is critical to improving Baltimore's overall infrastructure.

The basic system repairs listed so far were chosen because it is easy to estimate their cost. Care and renovation of the historic or specialized park features is difficult to estimate. The projects require special design services and often require custom work, which adds to the project budget. Recent projects include the Druid Hill Park Pavilion and the Union Square fountain and pavilion. The Department is responsible for 20 historic mansions or large structures and several small pavilions and fountains. At this time, we have no data on the cost needed to properly care for our historic statues. We also have no estimates on the miles of sidewalk, roads and curbs that need replacement or the numbers of park light fixtures, although the need for this work is present in every park. An Asset Management system populated with all of our assets, their life cycles and replacement costs is needed.

Comprehensive park renovations for the six (6) "Citywide" historic parks are based on individual master plans and are likely to exceed **$ 50 million dollars** (Druid Hill $10 million, Carroll Park $10 million, Clifton Park $15 million, Gwynns Falls /Leakin Park $10 million, Cylburn Park $6 million). In FY17, the Department completed an update to the Patterson Park Master Plan which has informed the capital projects in Patterson Park for FY 18 and into the future. The Patterson Park Master Plan estimates **$36 million dollars** is needed for major and basic renovations to this 133 acre park. The 2005 master plan for Roosevelt Park estimates $3 million is needed for basic renovations of this 18 acre historic park. Using an average between Roosevelt Park and Patterson Park as a base figure, at least **$90 million dollars** is needed for renovation of mid-sized historic parks (6 x 15 million). Without addressing all the needs of the Department, such as completing the city's greenway system, increasing the tree canopy, renovation of passive parks, renovation of athletic fields, addition of athletic field lights or considering the interest for new park uses such as skateboard facilities, we have documented a need for over **$373 million dollars** for basic restoration of existing park and recreation facilities.

Capital Improvement Plan: FY2018 - FY2023

Baltimore City Recreation and Parks' Capital Improvement Plan is presented in detail for Fiscal Year 2018, which begins July 1, 2017. Capital Improvements for FY2019 - FY2023 are discussed by program area. Map 2.0 (p.38) shows projects that have been completed, under construction, or in design as of December 2016 as part of the 2015 Recreation and Aquatic Facility Plan.

1. Recreation and Aquatic Facility Expansion/ Modernization
2. Park Rehabilitation and Development
3. Baltimore Playground Program
4. Athletic Field and Court Rehabilitation and Development (including lighting)
5. Park Building Modernization
6. Park Plazas, Fountains and Medians- including street tree planting
7. Park Land Acquisition

Fiscal Year 2018

Individual projects are listed under the appropriate program area. A total of 34 projects, totalling $21.359 million dollars were submitted for funding requests for FY18 as part of Baltimore City's annual Capital Improvement Program budget process in January 2017. As of May 2017, 26 projects were approved for FY18 funding by the City with a total budget of $17.273 million dollars. The following list includes only those projects that were approved, including some that are still tentative as of June 2017. In some cases, project funding was approved at a level below original request. Table 2.12 lists all the projects by priority and funding sources. Map 2.17 shows the approved FY18 capital project locations.

The identification of these FY prioirity projects is based upon implementation of BCRP's Recreation and Aquatic Plan, individual and citywide park plans, Dept of Planning neighborhood/area plans, project specific State POS project specific funding allocations, BCRP agency priorities and neighborhood identified priorities.

Recreation and Aquatic Facility Expansion/ Modernization

- Cahill Fitness and Wellness Center
- Cherry Hill Recreation Center *(tentative)*
- FY18 Bocek Park Improvements
- FY18 Recreation Facility Renovation: Lillian Jones, Furley, Cecil Kirk

Park Rehabilitation and Development

- FY18 Park Rehabilitation Program (Ridgleys Cove, McKim, Janney, Ambrose Kennedy)
- Fred B. Leidig Recreation Center (field)
- Druid Hill Park Reservoir Improvements
- FY18 Park Roadway Improvements: Druid Hill, Clifton, ABC/Catherine St. Park Improvements
- Federal Hill Slope Stabilization
- Youth Campground in Gwynns Falls Park
- Patterson Park Master Plan Implementation
- Druid Hill Park: Community Service Center & Ball Field
- Morrell Park Improvements
- FY18 Canton Waterfront Park
- FY18 Park Trail Networks
- Citywide Parks and Recreation Strategic Plan and Facilities Audit
- Park Planning and Design: Shot Tower Park, North Avenue
- Clifton Park Improvements
- FY18 Herring Run Park Improvements
- Herring Run Stream Stabilization
- Druid Hill Park Trail Head

Baltimore Playground Program

- FY18 Community Parks and Playgrounds: Violetville Park

Athletic Field and Court Rehabilitation and Development *(including lighting)*

- FY18 Athletic Field Renovations (Gwynns Falls)

Park Building Modernization

- FY18 Historic Park Facility Renovations: Conservatory, DH WWI, McKim
- FY18 Park Maintenance Facilities (Gwynns Falls)

Park Plazas, Fountains and Medians *(including street tree planting)*

- FY18 Tree Baltimore Program

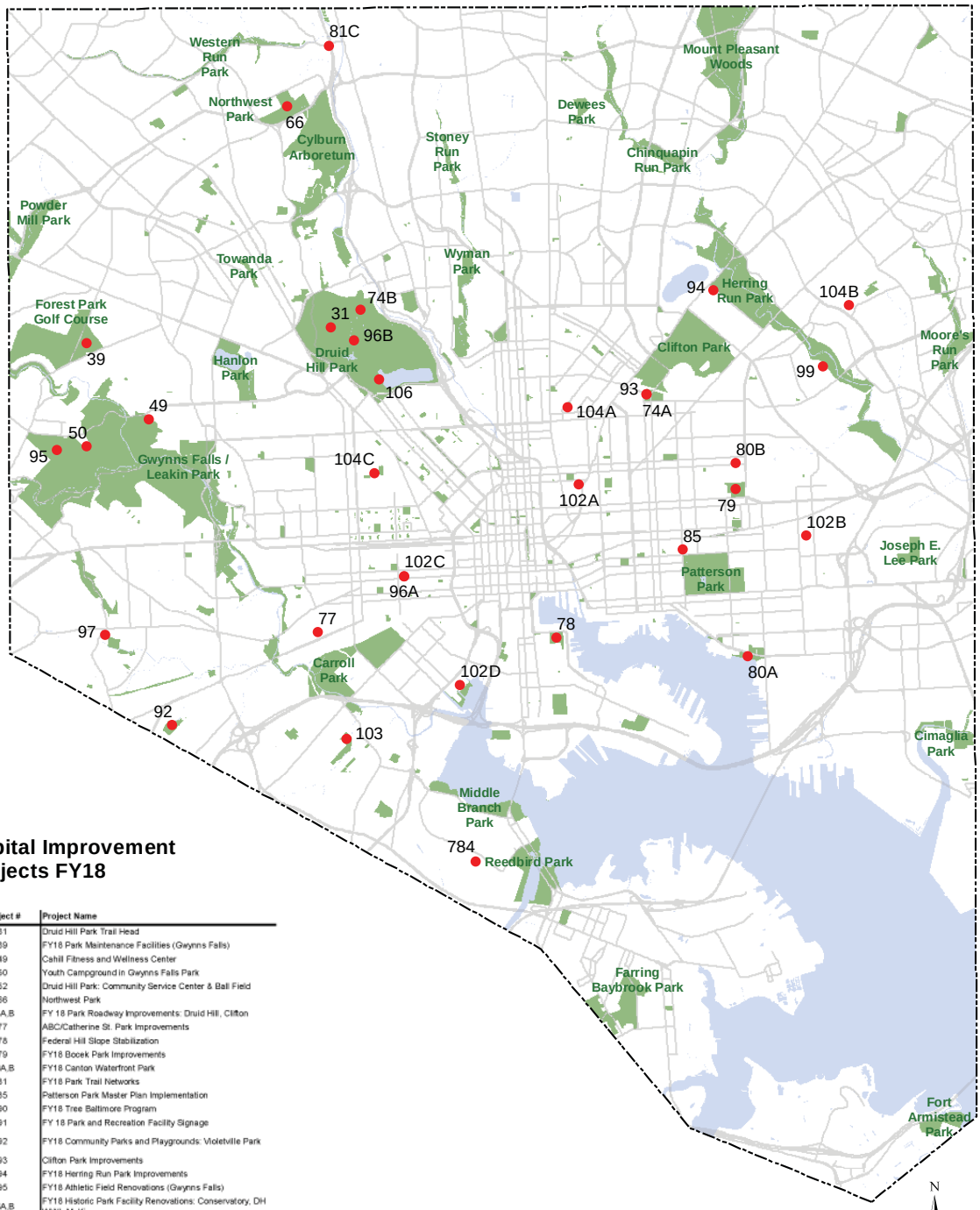
Table 2.12 FY18 Capital Project Listing By Priority and Funding Source

Department of Recreation and Park FY2018
5/9/17

Priority	Account	Fiscal Year 2018 Capital Improvement Program Project Name/ Project Description	Project Total	HUR	City Gen	City Loan	Pimlico Local Impact	POS Match	POS Direct	POS CP&P	State Bond	Other
2	474-091	Park & Recreation Facility Signage (Citywide)	0			0						
1	474-104	Recreation Facility Renovation FY18 (Lilian Jones, Furley, Cecil Kirk)	300			300						
1	474-090	Tree Baltimore Program FY18	400	275	125							
1	474-092	Community Park and Playgrounds (Violetville)	177							177		
1	474-085	Patterson Park Masterplan Implementation	300						300			
1	474-097	Fred Leidig Recreation Center	400								400	
2	474-098	Park Building Renovation FY 18 (DH comfort)	0			0						
1	474-103	Morrell Park Improvements	300								300	
1	474-074	Park Roadway Improvements FY18 (Druid Hill, Clifton)	650	400		250						
1	474-093	Clifton Park Improvements	1,100						600		500	
1	474-094	Herring Run Park Improvements	500						500			
3	474-100	Madison Sq Fitness & wellness Center	0			0						
1	474-095	GF athletic field	300						300			
1	474-049	Cahill Fitness & Wellness Center	4,350			1,950		2,400				
1	474-099	Herring Run Stream Stabilization	600		200	400						
1	474-079	Bocek Park Athletic Center	300								300	0
2	474-784	Cherry Hill Recreation Center**	2,000			0						2000*
3	474-087	North Harford Fitness & Wellness Center	0			0						
1	474-080	Canton Waterfront Park	99									99
1	474-096	Historic Park Facility Renovation FY18 (Conservatory, McKim, DH WWI)	525			525						
1	474-052	Druid Hill Park: Reptile House	**972**			200		772				
1	474-031	Druid Hill Park Trail Head	300						300			
1	474-039	Park Maintenance Facilities (GF Maint Yard)	1,000			250		750				
2	474-050	Campground	1,000			250						750
2	474-086	Latrobe Park Improvements	0			0						
3	474-107	Park Planning and Design (Shot Tower Park, North Ave, Mund, Mary Rodman)	0			0						0
1	474-081	Park Trail Networks	200			200						
	474-066	Northwest Park Improvements	0				0					
1	474-077	ABC / Catherine St. Park Improvements	300			300						
1	474-106	Druid Hill Reservoir Improvements**	25			25						
1	474-101	Citywide Park Masterplan and ADA audit**	150			75						75 NPS
2	474-102	Park Rehabilitation Program (Ridgleys Cove, McKim, Janney, Ambrose Kennedy)	725			525						200
1	474-078	Federal Hill	300			150						150*
4	474-084	Talbot Rd Land Acquisition	0			0						
		Total Capital Program for FY18	17,273	675	325	5,400	0	3,922	2,000	177	1,500	1,049
								3,921,847	2,000	177,077	1,500	

** Approved Budget is less than Requested
* Casino Revenue

Priority 1 4,625



Capital Improvement Projects FY18

Project #	Project Name
31	Druid Hill Park Trail Head
39	FY18 Park Maintenance Facilities (Gwynns Falls)
49	Cahill Fitness and Wellness Center
50	Youth Campground in Gwynns Falls Park
52	Druid Hill Park: Community Service Center & Ball Field
66	Northwest Park
74A,B	FY 18 Park Roadway Improvements: Druid Hill, Clifton
77	ABC/Catherine St. Park Improvements
78	Federal Hill Slope Stabilization
79	FY18 Bocek Park Improvements
80A,B	FY18 Canton Waterfront Park
81	FY18 Park Trail Networks
85	Patterson Park Master Plan Implementation
90	FY18 Tree Baltimore Program
91	FY 18 Park and Recreation Facility Signage
92	FY18 Community Parks and Playgrounds: Violetville Park
93	Clifton Park Improvements
94	FY18 Herring Run Park Improvements
95	FY18 Athletic Field Renovations (Gwynns Falls)
96A,B	FY18 Historic Park Facility Renovations: Conservatory, DH WWI, McKim
97	Fred B. Leidig Recreation Center
99	Herring Run Stream Stabilization
102A,B,C,D	FY 18 Park Rehabilitation Program (Ridgleys Cove, McKim, Janney, Ambrose Kennedy)
103	Morrell Park Improvements
104A,B,C	FY 18 Recreation Facility Renovation: Lillian Jones, Furley, Cecil Kirk
106	Druid Hill Park Reservoir Improvements
784	Cherry Hill Recreation Center

Map 2.17

0 0.5 1 2 3 Miles

Map Date: July 7, 2017

Fiscal Years 2019-2023

Recreation and Aquatic Facility Expansion/ Modernization

Table 2.13. Projected Future Funding for Recreation and Aquatic Facility Expansion/Modernization

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$ 5,450,000	$ 6,200,000	$ 8,500,000	$11,100,000	$ 10,700,000
General Fund (200)	$	$ 600,000	$ 600,000	$ 600,000	$ 600,000
POS- Matching (#604)	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ 1,500,000
Casino Local Aid (#613)	$	$	$	$	$
TOTAL	**$ 6,950,000**	**$ 8,300,000**	**$ 10,600,000**	**$13,200,000**	**$ 12,800,000**

Future projects in this category will focus on implementing the capital projects identified in the 2015 Recreation and Aquatic Facilities Plan. While the projected future funding amount is insufficient, it will allow some projects to move forward. Prioritization of projects will be evaluated annually based on available funding. Figure 2.5 lists the projects and estimated costs (as of 2015). As mentioned previously, rising construction costs are likely to push implementation costs to **$178 million dollars.**

Figure 2.5. List of 2015 Recreation and Aquatics Facility Plan Capital Projects

New Capital Project Description	Estimated Capital Cost
Bocek Field House	$0.5 million
Bocek Field Upgrades	$3.7 million
Bocek Splash Pad	$0.5 million
Carroll Park Fitness and Wellness (incl. indoor pool)	$12 million
Carroll Park – Athletic Fields	$1.5 million
Cherry Hill Outdoor Pool Upgrades	$3 million
Chick Webb Fitness and Wellness (incl. indoor pool)*	$12 million
Clifton Park Pool Upgrades	$2.5 million
DeWees Park Upgrade	$1.05 million
Druid Hill Park Fitness Center	$8 million
Edgewood/Lyndhurst Community Center Upgrades	$1 million
Farring Baybrook Fitness and Wellness (incl. indoor pool)	$12 million
Gwynns Falls Park Field Upgrades	$3.5 million
Herring Run Fitness and Wellness	$15 million
Herring Run Athletic Fields	$6.5 million
Joseph Lee Field House	$0.5 million
Joseph Lee Field Upgrades	$3.5 million
Joseph Lee Splash Pad	$0.5 million
Lilian Jones Fitness and Wellness	$12.5 million
Locust Point Community Center Upgrades	$2.5 million
North Harford Fitness and Wellness – Phase I Rec Center	$7 million
North Harford Fitness and Wellness – Phase II (incl. indoor pool)	$5 million
Patterson Park Community Center	$6.3 million
Patterson Park Outdoor Pool Upgrades	$2.5 million
Riverside Park Outdoor Pool Upgrades	$3 million
York Road Area Community Center**	$6-10 million
GRAND TOTAL	**$136.05 million**

* Madison Square Fitness and Wellness Center is an alternative for Chick Webb, if necessary.
** Specific site to be determined for the York Road Area Community Center.

BCRP's Recreation and Aquatic Facilities Plan, completed in July 2015, identifies the Department's overall approach and guiding principles along with a list of recreation and aquatic capital projects. The plan will upgrade, expand and restructure existing recreation center facilities to function as multi-activity and multi-generational complexes, making use of existing and upgraded BCRP components, including parks, outdoor athletic fields, seasonal facilities, outdoor pools and splash pads. The plan supports core BCRP programs, relieves the overuse of many existing athletic fields, integrates year round aquatic programs and facilities, and provides opportunities for the generation of additional programming and permit revenue.

All recreation complexes and centers are located in or adjacent to parks with access to outdoor athletic fields and varied recreational facilities (outdoor pool, skate park, park trails). These locations will offer extended morning and evening operating hours and a full range of programs to attract and serve all age groups. The complexes will serve as the hub for recreation centers, aquatics, youth and adult sports, environmental education and active outdoor programs. The plan for capital investment includes the following:

Fitness and Wellness Centers - Newly Construct and Substantially Rehabilitate Facilities

The Department will expand facility size, programs and activities for all ages and operating hours and will offer six to seven day operations at an additional seven (7) fitness and wellness centers for a total of 11. Similar to the center designs underway for Cherry Hill and Cahill, these centers represent a new approach to recreation for the Department by emphasizing year-round programming. Most facilities will feature indoor pools, fitness areas, dance and multipurpose rooms, a gymnasium and locker rooms. These state-of-the-art 21st century centers will be multi-activity and multi-generational complexes providing a wide variety of recreation and aquatic programming for residents citywide.

Community Centers – Renovate Existing Facilities (Total: 5)

The Department will expand facility size, programs and activities for all ages, operating hours and offer six to seven day operations at an additional four (4) facilities. These smaller centers will vary in size and programming depending upon location. Expanded spaces may include a fitness room, dance spaces, multi-purpose rooms, lobby and circulation areas, and locker rooms. Programming will likely serve more local residents.

Create New or Upgrade Existing Outdoor Athletic Facilities

The Department will create four (4) outdoor athletic centers focused around team field sports, playgrounds and fitness facilities located in parks. They will feature a field house, lighted athletic artificial turf fields, grass fields, a playground, an outdoor spray pad, walking loops, fitness stations and parking. These facilities will offer additional BCRP programs, opportunities for team league play, individual and family fitness and play.

Upgrade Existing Outdoor Pools and Spray Pads

The Department will upgrade four (4) existing outdoor pools, create three (3) new spray pads, renovate and improve bathhouse and pool facilities and provide new water park features. This will bring our facilities up to current industry standards.

School-Based Recreation Spaces

School-based recreation spaces will offer local recreation programs and activities operated in multi-purpose spaces housed within Baltimore City Public Schools' new 21st Century school buildings. BCRP will provide recreation programming at levels to be determined in conjunction with the local community and school needs. A total of 22 spaces are anticipated; implementation will follow the schedule and funding for the Baltimore City Public Schools' 21st Century Building Plan**.**

The department currently operates 40 recreation centers. Under the new plan, no centers will close. Existing recreation centers will continue to provide recreation programs at their current levels. After the proposed centers and complexes are opened, BCRP will evaluate the programming at these centers within the new landscape of recreation services, and if necessary, repurpose the underutilized facilities and programs to meet other local recreation and park needs to be determined in consultation with the local community.

The aquatic strategy is to provide access to aquatic facilities year-round through a combination of indoor and outdoor facilities. The plan will triple the number of indoor pools from three (3) to nine (9). Many of the proposed new citywide Fitness and Wellness Community Centers will include indoor pool facilities. This new approach shifts from BCRP's predominantly outdoor pool system, with independent programs and operations, to an integrated network of indoor and outdoor aquatic and recreation programs offered through recreation centers, pools, parks and schools.

The outdoor pool facilities will be redesigned to accommodate modern aquatic amenities and programming, and include recreational water park features, areas for learning to swim lessons, active and passive recreation, and upgraded bathhouse facilities. The focus will be on multi-activity areas to serve visitors of all ages. Pool renovations will be scheduled between September and the following June to avoid closing a pool during the summer swim season.

The restructured recreation and aquatic facilities will focus on creating stronger relationships between local institutional, community associations and neighborhood residents to support the Mayor's goal for Stronger Neighborhoods. Clean and inviting buildings also contribute to positive community images and boost program attendance.

Park Rehabilitation and Development

Table 2.14. Projected Future Funding for Park Rehabilitation and Development

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$4,375,000	$3,950,000	$1,225,000	$5,775,000	$13,550,000
POS- Matching (#604)	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$ 1,500,000
Pimlico Local Impact (#612)	$1,500,000				
TOTAL	**$7,375,000**	**$5,450,000**	**$2,725,000**	**$7,275,000**	**$15,050,000**

Instead of repairing worn out or damaged signs, benches, trash cans and other park features, the Department will begin a comprehensive effort to replace basic park amenities using products that are adapted to modern park uses and incorporate recycled materials in their design. Older features that have worn beyond repair, such as drinking and ornamental fountains will be modernized to reduce water waste and meet ADA codes. Comprehensive replacement and re-design of park walks allows the Department to meet ADA goals, reduce impervious surface and increase the size of sidewalk street tree pits. In addition, special areas within the park system will be renovated to meet the needs of modern park programs, including dog areas. These upgrades will be based on the priorities established in individual Park Master Plans and will improve the visual quality of the parks, support Tree Baltimore, reduce maintenance costs and increase trash recycling. Specific site will be determined in the budget year, but we are anticipating the following future projects needs in the approximate budget year noted.

FY19: Ambrose Kennedy park expansion, Arnold Sumpter Dog Park, Clifton Park Masterplan Implementation, Cylburn Formal Garden, Druid Hill Conservatory Garden Masterplan Implementation, Druid Hill Tree Nursery upgrades, Druid Hill Lighting Improvements, Federal Hill Walkways, CC Jackson Park Expansion, Winans Meadow, Gwynns Falls Trail, Halls Springs in Herring Run Park, Mt. Pleasant Erosion Stabilization, Park Acquisition, and Union Square Improvements.

FY20: Carroll Park CSX Bridge Study, Druid Hill Conservatory Garden Masterplan Implementation, Druid Hill Three Sisters Ponds, Pennsylvania Triangle Park, Ridgleys Cove, Shot Tower Park, Arnold Sumpter, Trail Improvements, and Park Signage.

FY21: Cylburn Wedding Pavilion Design, Druid Hill Conservatory Garden Masterplan Implementation, Farring Baybrook Masterplan Implentation, Gwynns Falls Leakin Park Site Improvements, Madison Square Park Improvements, Mund Park Design, and Rev. Quille Park.

FY22: Carroll Park CSX Bridge, Cumberland & Carey Park, Druid Hill Conservatory Garden Masterplan Implementation, Ft Armistead, Middle Branch Park Improvements, Solo Gibbs Park, St. Katherines Park, and Union Square Park.

FY23: Clifton Park Master Plan Implementation, Druid Hill Conservatory Garden Masterplan Implementation, Farring Baybrook Master Plan Implementation, Florence Cummings Park, Ft. Armistead Park, Middlebranch Gateway Plan Improvements, Reedbird Park Improvements, and Solo Gibbs Masterplan Implementation.

Baltimore Playground Program

Maryland Community Parks and Playground Program

Table 2.15. Projected Future Funding for Maryland Parks and Playground Program

	FY19	FY20	FY21	FY22	FY23
State CPP (#690)	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
TOTAL	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**	**$ 500,000**

Baltimore Playlot Program

Table 2.16. Projected Future Funding for Baltimore Playlot Program

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$ 500,000	$ 700,000	$ 700,000	$ 700,000	$ 700,000
TOTAL	**$ 500,000**	**$ 700,000**	**$ 700,000**	**$ 700,000**	**$ 700,000**

This category is generally funded through two different sources: the State's Maryland Community Parks and Playground Program and Baltimore City's Baltimore Playlot Program. Playground renovations will include installation of new playground structures and site improvements to comply with all CPSC, ASTM and ADA guidelines for safety and accessibility. Department staff, in consultation with surrounding neighborhood and PTA groups, will develop all new playground designs. Specific project locations will be identified closer to the fiscal years.

In the 1980's, professionals concerned with reducing the severity of playground-associated injuries developed a set of guidelines for the design of playground equipment and the surface under the equipment. In the 1990's, standards for accessibility were also developed for playground structures. The Mayor's Playground Task Force surveyed conditions at more than 250 of the City's park and school playgrounds. More than half the sites needed renovation to meet safety standards. Since 2000, 187 new playgrounds have been installed at schools and parks but more than 45 playgrounds still need renovation.

To make parks and schoolyards a safe and inviting play space for children, worn out playground equipment must be removed and replaced. Department staff in consultation with surrounding neighborhood and PTA groups will develop all new playground designs. Renovated playgrounds will meet all CPSC, ASTM and ADA guidelines for safety and accessibility. Sites will be selected from the priority list developed by the Mayor's Playground Task Force. Providing safe, attractive outdoor recreation spaces in our neighborhoods contributes to the stability of neighborhoods and increases recreational opportunities for children and families.

Athletic Field and Court Rehabilitation and Development

Athletic Field Renovations

Table 2.17. Projected Future Funding for Athletic Field Renovations

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$ 3,150,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 2,500,000
Casino -VLT(#613)					
TOTAL	**$ 3,150,000**	**$1,000,000**	**$ 1,000,000**	**$ 1,000,000**	**$ 2,500,000**

Athletic Court Renovations

Table 2.18. Projected Future Funding for Athletic Court Renovations

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$ 600,000	$ 600,000	$ 600,000	$ 600,000	$ 600,000
TOTAL	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**

In future budget years, athletic fields throughout the city's park system will be renovated to accommodate a variety of team sports on either irrigated grass or synthetic turf fields. Basketball and tennis courts will be renovated to include court resurfacing, seal-coat, new fences and lights. Wherever necessary, paths will be added to meet ADA requirements.

Renovation of existing athletic facilities in parks helps meet the City's goals for Stronger Neighborhoods by providing quality athletic fields that attract individuals and teams to participate in sports. Sports promote community and team building, individual self-esteem and healthier children and adults. Baseball, soccer and football fields are in high demand for youth and adult athletic leagues. The fields require an upgrade to renew their useful life and to better withstand the amount of play. Re-grading athletic fields to correct issues of poor drainage or changes in field layout to allow installation of lights will help the department meet the demand for fields. Other improvements include pedestrian walkways, field and area fencing and seating. All renovations include a focus on proper drainage, standardized athletic equipment, flexibility of use, increased pedestrian circulation and ADA accessibility. Many of the improvement projects will include athletic field lighting and restroom facilities to extend use hours while accommodating athletes and spectators alike. Renovation of athletic fields in parks is also necessary to provide the settings for recreational activities sponsored by the Department's recreation centers, the Division of Youth and Adult Sports as well as club and team organizations (for profit and non-profit) by permit fee.

The Department is currently developing a coordinated management system to better integrate the permitting process, athletic field usage and demand, and field maintenance requirements. The outcome will be to ensure a standard level of maintenance, allow for maximum field availability and better distribution of use of athletic fields across the City, as well as complement indoor and outdoor program activities.

The goal is to improve field maintenance, align permit fees with the heavy usage needs, and improve overall field conditions. Recreation and Parks will partner with schools, the Cal Ripken, Sr. Foundation, Living Classrooms, and various leagues. Some athletic fields will be converted to artificial turf to increase the length and amount of active use time and to allow play regardless of weather conditions. By increasing the usage on an artificial turf field, existing problematic athletic fields located in flood plains can be removed, reducing maintenance costs and operations. Site selections are based upon the programming needs expressed by the Amateur Athletic and Parks Maintenance Divisions as well as community requests.

Basketball and tennis courts need periodic resurfacing to remain in playable condition. With time, courts settle and crack, lines fade, goal posts deteriorate and fences require repair or replacement. Renovation will return these worn out athletic facilities into attractive park amenities as well as modernize them for ADA access. Site selections are based upon the programming needs expressed by the Recreation, Youth and Adult Sports and Parks Maintenance staff as well as community requests.

Renovation of tennis and basketball courts in parks is also necessary to provide the settings for recreational activities sponsored by the Department's recreation centers and Division of Youth and Adult Sports as well as club and team organizations (for profit and non-profit) by permit fee. The Department's camp programs, such as the All-Star Tennis Academy, and partnerships with groups, such as the Cloverdale Athletic Club - Baltimore Basketball Association, would benefit from these improvements. Site selections in the budget year are based upon the programming needs expressed by the Amateur Athletic and Parks Maintenance Divisions and community requests.

Park Building Renovations

Table 2.19. Projected Future Funding for Park Building Renovations

	FY19	FY20	FY21	FY22	FY23
City Bond (#100)	$3,275,000	$ 825,000	$ 800,000	$ 800,000	$ 800,000
Pimlico Local Impact (#612)	$ 550,000				
TOTAL	**$ 3,825,000**	**$ 825,000**	**$ 800,000**	**$ 800,000**	**$ 800,000**

Future projects will include renovation of park restrooms, park maintenance buildings, park pavilions and other park facilities including ADA upgrades and more energy efficient building systems. Specific project locations will be identified closer to the fiscal years.

The park system contains a variety of structures, all requiring upkeep and renovation. There are over 35 individual comfort stations, and only about 10% have been renovated to meet ADA codes. At least 30 comfort stations need a complete renovation. Park pavilions are one of the most popular amenities in the park system. Many of them are historic and contribute to not only the aesthetic quality of the park but to the social benefits as well, enhancing the overall park experience.

Park maintenance crews are based in five (5) maintenance yards (with over 30 individual structures). The repair shops, mower storage barns, locker rooms and offices are all crumbling and inefficient. Upgrading the maintenance yards improves the ability of Department staff to keep the parks properly maintained. Currently the maintenance facilities don't meet the needs of modern maintenance efforts. Many of the facilities are over 50 years old, are severely out of date, not up to building codes and often times unsafe and unhealthy places for city employees to work. The buildings are not designed to properly store modern day equipment and chemicals. Providing appropriate work environments for the city's work force results in better maintained, cleaner and more user friendly parks for all citizens. The Department is planning to consolidate maintenance yards and its operations between parks. Costs to renovate these yards and vacate others will save operational costs in the long term.

Older park buildings do not comply with ADA codes or current building codes and often contain asbestos and/ or lead paint. Renovations for ADA, changes in building layout and upgrades to more efficient building systems allow the City to adapt existing buildings for modern uses.

Park Plazas, Fountains and Medians

Tree Baltimore Program

Table 2.20. Projected Future Funding for the Tree Baltimore Program

	FY19	FY20	FY21	FY22	FY23
General Fund-HUR (#800)	$ 400,000	$ 400,000	$ 400,000	$ 400,000	$ 400,000
TOTAL	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**

Future projects support the ongoing purchase and installation of trees in support of Tree Baltimore. The Department's Tree Baltimore staff and Forestry Division determine the locations for new trees including city sidewalks, grass medians, parks and private property.

Improving and increasing the tree canopy of Baltimore contributes to the City's goal for a Cleaner, Greener, and More Sustainable City since trees clean air, water and soil. They reduce air temperatures, increase property values, reduce flooding, buffer noise, slow traffic, and provide wildlife habitat. Capital funds are the only General Fund or HUR source for tree purchase. As a result of budget reductions, there is no forestry general fund operating support for tree purchasing or planting. Operating funds are restricted to pruning, removal, and stump grinding. The Emerald Ash Borer infestation has started in the city and will kill all Ash trees in the City. Therefore it is important to invest now in replacing these trees by planting new varieties.

Tree Baltimore is carried out through a combination of activities: tree planting; care of existing trees; regeneration of our native forests and fostering a sense of stewardship. Large landowners purchased trees from Tree Baltimore at reduced prices. All landowners are responsible for planting and maintenance. Private-public partnerships like these stretch city dollars. This program exemplifies the ability "to plant more with less."

Tree Baltimore is part of the Baltimore Sustainability Plan and the City-County Watershed Agreement. Tree Baltimore is a partner with Baltimore County's Growing Home Campaign and the State's Marylanders Plant Trees initiative. Tree Baltimore staff has a strong relationship with the U.S. Forest Service to interpret satellite and aerial imagery and create tree canopy data and mapping. The Department is creating a Tree Prioritization Map with multiple agency data layers to prioritize mandates and agendas. The following City agencies work closely with the Department of Recreation and Parks to further support the work of Tree Baltimore:

- Department of Transportation - includes trees in resurfacing contracts and creates/enlarges 250 tree pits each winter.
- Department of Planning - collaborates on tree policy and mitigation requirements.
- Health Department – identifies schools in high asthmas zones to plant trees.
- Department of Public Works', Division of Water Quality plants riparian buffers.

Land Acquisition

Baltimore City is exempted from the restrictions on spending for land acquisitions (Natural Resources Article 5-905(b)(1), because the city was fully developed when Program Open Space laws were enacted. Baltimore's environment is overwhelmingly developed and opportunities to purchase quality natural resource lands are unusual. Land acquisition is undertaken as land becomes available and is evaluated on a per site basis.

The City's Green Network Plan will likely identify parcels to add to the existing park land, recreation facilities, reforestation, or to the exchange of several small open spaces for larger, more functional open space. Many of these parcels are already owned by Baltimore City. As neighborhoods are redeveloped, each public parcel, including open space, will be evaluated for its ability to enhance access to park space; host recreational amenities; enhance conservation efforts; be maintainable and become a safe, attractive community asset.

The focus for natural resource protection in the future will be limited to those lands that are important for habitat enhancement, are required for the development of our Greenway trail systems or will benefit existing park and recreation facilities. Funds for land acquisition will be applied for as the need arises.

III. NATURAL RESOURCE LAND CONSERVATION

System Overview

Forests, Wetlands, Waterways, Streams and Other Natural Landscapes

Baltimore is the oldest, fully developed jurisdiction in the State of Maryland. As noted in Chapter I, approximately 14 percent of Baltimore remains in open space or parkland. Of the total acres of park land managed and maintained by Baltimore City Recreation and Parks, 37 percent is developed, maintained and actively used by the public and 63 percent is protected natural resources, available for use, including forested land, streams, trails, etc. (Map 3.0).

Baltimore City has a variety of natural resources that contribute to the biodiversity of Baltimore City and the State of Maryland. These include designated conservation areas, forested areas and street trees, old field/shrub and scrub vegetation areas, wetlands, streams and the 100 year floodplain, steep slopes, critical habitat for endangered species, designated habitat protection areas and protection of rare, threatened and endangered species. These areas will be discussed in more detail in later sections.

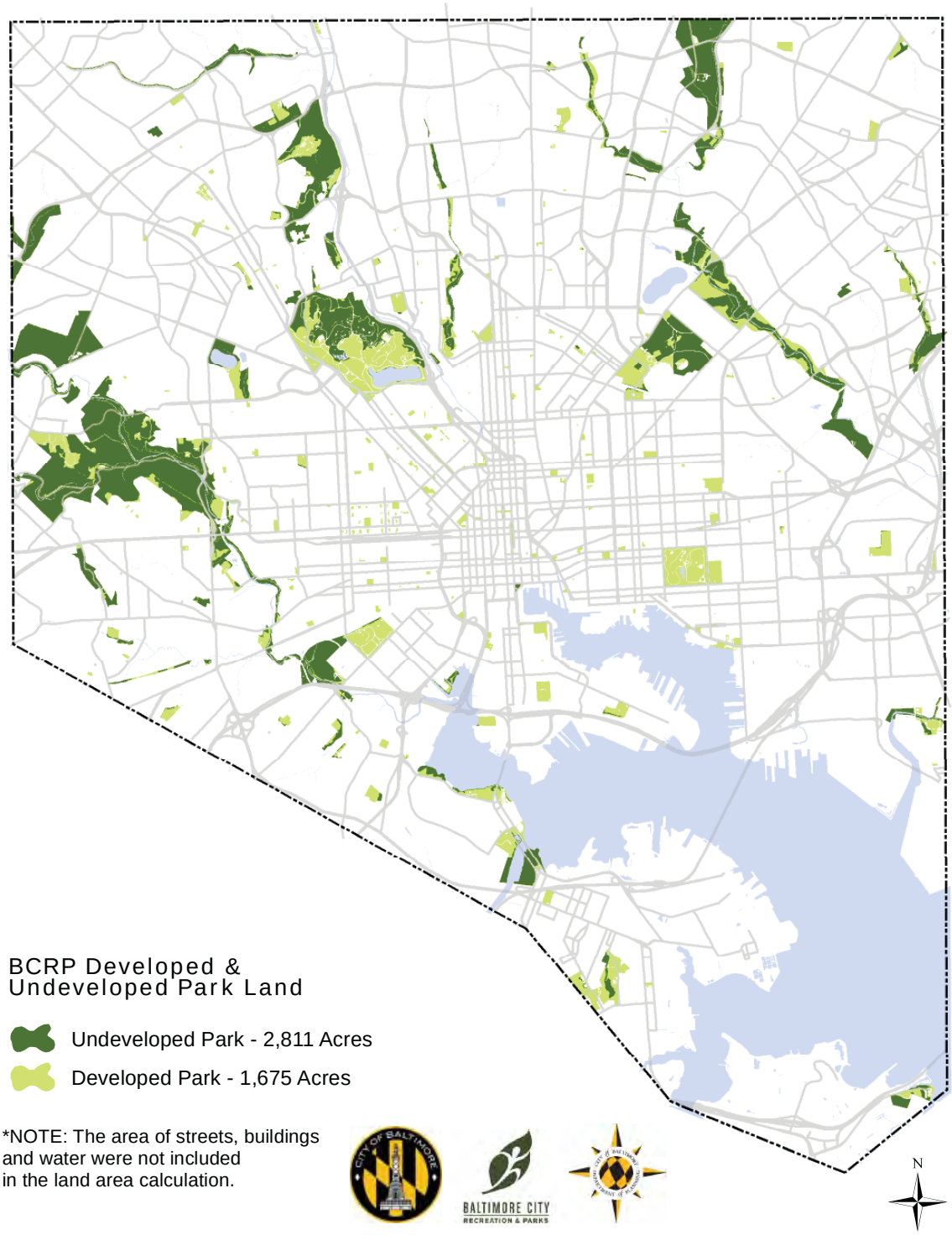
The preservation and conservation of natural resources is a shared priority throughout Baltimore City and is addressed through programs and projects managed by several Baltimore City agencies in addition to Recreation and Parks. These include the Department of Planning, Office of Sustainability, the Department of Public Works, the Department of Transportation and the Department of General Services.

Accomplishments and Challenges

Accomplishments

Until the 1970's, Baltimore, like the rest of America, did not value natural resources and water quality as highly as we do today. In the past we used our wetlands for dumping trash. Our streams and floodplains were seen as repositories for industrial waste and sewage. Trees were entirely removed from development sites, and little to no attention was paid to the detrimental effects of invasive species on our urban forests.

In the 1970's Baltimore's leadership embraced a new vision for our natural environment, recognizing the benefits of our harbor, streams and open spaces as places for citizens to recreate and enjoy, rather than a dumping ground for wastes and industrialization. The Inner Harbor was restored as a destination for tourism and recreation. The junkyards along the southern Middle



BCRP Developed & Undeveloped Park Land

Undeveloped Park - 2,811 Acres

Developed Park - 1,675 Acres

*NOTE: The area of streets, buildings and water were not included in the land area calculation.

N

0 0.5 1 2 3 Miles

Map Date: December 29, 2016

Map 3.0

Branch waterfront were removed, and a waterfront park with small boat access was created in their stead. Plans were put into place for a greenway trail system along the Gwynns Falls stream valley.

The new vision for Baltimore's natural resources continued with the City's adoption of the Critical Area Management Program in the 1980's, and the Forest Conservation Act and Sensitive Areas Plan in the 1990's. In 2009, Baltimore City adopted a Sustainability Plan that established 29 goals across seven core themes: Cleanliness, Pollution Prevention, Resource Conservation, Greening, Transportation, Education and Awareness and Green Economy (see page 125). The plan identified a range of specific strategies and projects with a projected implementation timeline which has resulted in the City's progress in all seven areas as of 2015.

Stemming from key strategies specified within the Baltimore Sustainability Plan, Homegrown Baltimore is an initiative of the City of Baltimore to increase the production, distribution, sales, and consumption of locally grown food within Baltimore. The City is highly committed to building a robust local food system that provides equitable access to healthy foods for all residents; supports Baltimore's gardeners, farmers and businesses; promotes environmental sustainability; and utilizes vacant space productively.

Baltimore's Urban Agriculture Plan, Homegrown Baltimore: Grow Local, was adopted by the Baltimore City Planning Commission in 2014. The plan documents the history, benefits, and types of urban agriculture in Baltimore; lays out current local urban agricultural efforts and the policies that affect them; and identifies challenges and provides recommendations for creating a more robust urban agriculture sector for our city.

Urban agriculture has a long history in the City of Baltimore, and can offer solutions to address a wide range of problems. Numerous urban agriculture projects are currently underway in the city, including urban farms (both community-oriented and commercially-oriented), community gardens, school gardens, home and rooftop gardens, aquaculture projects, apiaries, and orchards. New policies related to urban agriculture support the development of these projects, and the rewrite of Baltimore's Zoning Code (adopted in June 2017) will further promote agricultural uses of land lying within the city boundaries. A wide range of government agencies and partners also provide critical resources to support these projects.

The City's Climate Action Plan, adopted in 2012, identifies strategies to help the City reduce greenhouse gas emissions by 15 percent below 2010 levels by 2020. Strategies include protecting and enhancing Baltimore's urban forest and encouraging walkable and bike-able infrastructure. The City's Disaster Preparedness and Planning Project (DP3) was adopted in 2013 to provide a unified approach to hazard mitigation and climate adaptation. The Natural Systems chapter of the DP3 report identifies a number of strategies for using natural systems, including our parklands and tree canopy, as a part of a mitigation strategy against climate change.

Received for the first time in 2016, Baltimore is now one of the few cities with a Class Five Community Rating System (CRS) designation and one of the only cities on the east coast, reflecting recognized excellence in its approach to public information, mapping and regulations, flood damage reduction, and flood preparedness. The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed National

Flood Insurance Protection (NFIP) requirements. As an incentive, flood insurance premium rates are discounted to reflect reduced risk.Certifying Baltimore as a CRS was a goal established by the Disaster Preparedness Project and Plan, to help better protect Baltimore from flooding and save it's residents money on insurance premiums.

The three goals of the CRS are to:

- Reduce flood damage to insurable property
- Strengthen and support the insurance aspects of the NFIP
- Encourage a comprehensive approach to floodplain management

With the Class Five CRS designation, Baltimore residents and business within the City's 100-year floodplain will receive a 25 percent reduction in annual flood insurance premiums going forward, while all other policyholders will receive a 10 percent discount on their premiums. A fully searchable interactive map of affected areas is available. Baltimore city planning officials estimate that the savings will affect over 3,000 policyholders immediately, including their families and many small businesses, with an average savings of $153 a year. The citizens of Baltimore pay almost $2.5 million collectively in flood insurance annually, meaning the new designation will save them almost half a million dollars every year. The most significant number of points awarded in the designation process came from the city's strong community outreach and education.

More information on the CRS program is available at the following website links:

- http://www.baltimoresustainability.org/crs/
- http://www.baltimoresustainability.org/baltimore-to-receive-fema-floodplain-award-residents-to-receive-hundreds-of-thousands-in-savings/

In 2013, The Maryland Department of the Environment (MDE) reissued a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (MS4) permit to the City of Baltimore. This permit covers stormwater discharges from the municipal separate storm sewer system owned or operated by Baltimore City, and will expire at the end of 2018. The City expects that the MS4 permit will be reissued at this time, although the terms of the permit are unknown at this time. A watershed implementation plan (WIP) will be developed once the new permit is issued. The Department of Public Works is currently implementing a number of projects as part of the current WIP plan.

In 2015, Baltimore City adopted new green building standards based on the international green building code to ensure more stringent energy efficiencies and stormwater runoff management in new development. The City's Bicycle Master Plan was also updated in 2015. In 2016, Baltimore City adopted a new zoning code that creates three new districts related to open space and environmental conservation: an Open Space District, a Flood Plain Overlay District and a Chesapeake Bay Critical Area Overlay District. Though the open space district existed in previous code, this new code fully maps it throughout the City on all park property and other private, but deeded open space. These districts will preserve and protect public and private open space as an important public asset and critical

environmental infrastructure. The new zoning code includes a landscape and architectural design manual to guide the development of private property.

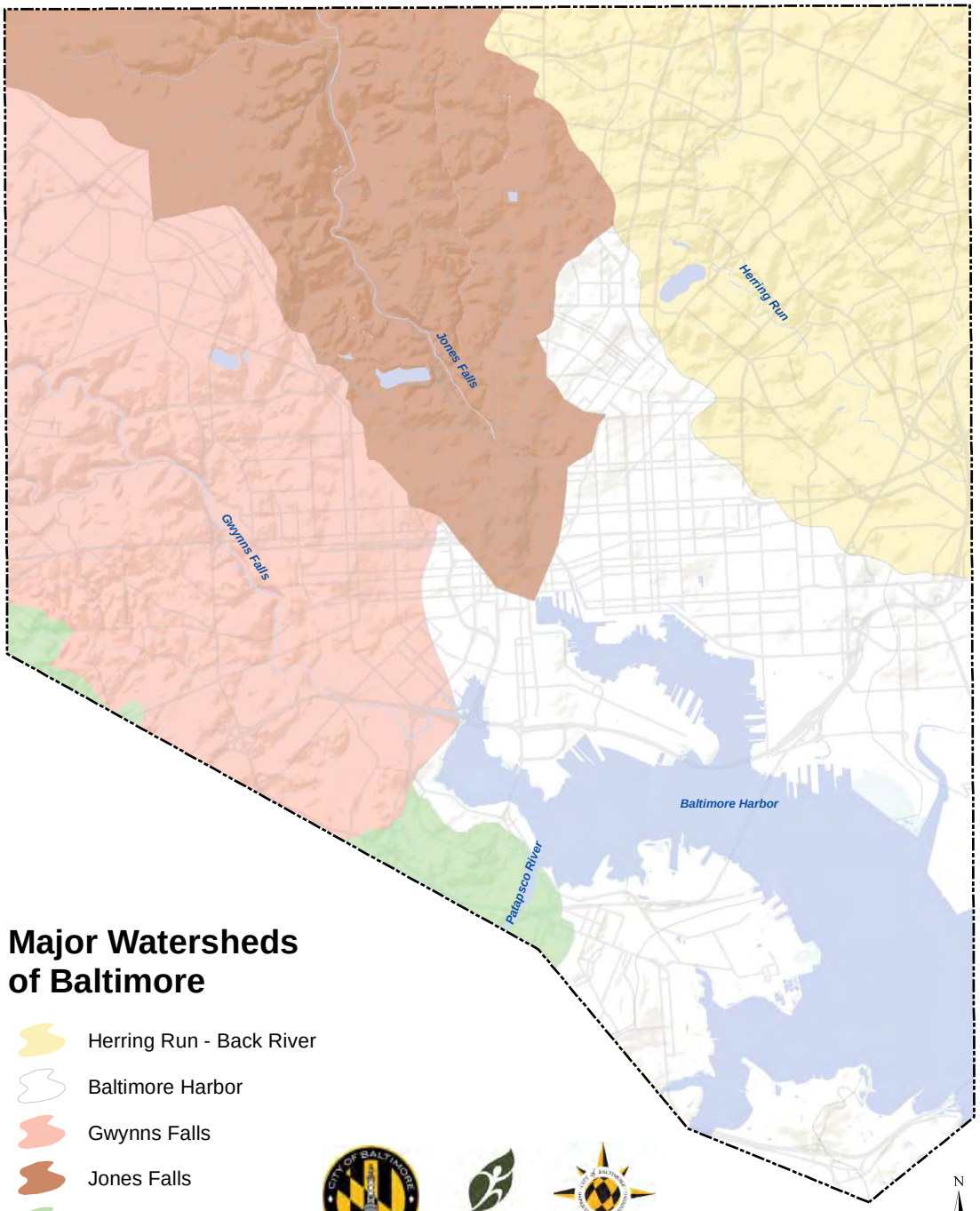
Natural resource protection in Baltimore extends beyond regulations that protect our remaining resources and waterways to include the impacts of development pressures. The City of Baltimore, community groups and non-profits are also very active in restoring the natural resources that remain. In 2010, five local, grassroots environmental organizations, each dedicated to restoration and clean-up of the stream valleys and major watersheds (the Jones Falls, Gwynns Falls, Herring Run and Direct Harbor), joined forces as part of a new organization, known as Blue Water Baltimore to collectively address water quality issues in Baltimore (Map 3.1). Blue Water Baltimore's Baltimore Harbor Waterkeeper program monitors the Tidal Patapsco and its major tributaries, the Jones Falls and the Gwynns Falls watersheds, for water quality and pollution on a weekly basis and utilizes the data to produce the Healthy Harbor Report Card and the Baltimore Harbor Water Alert. The data is also used to identify major incidents of water pollution, to inform legal advocacy priorities, and to identify restoration opportunities within the watersheds.

The Waterfront Partnership is another organization that has been involved in cleaning up the harbor. In 2009, the organization set a goal to make the harbor swimmable and fishable by 2020. To accomplish this goal, they have instituted a number of efforts including the installation of the Inner Harbor Water Wheel Trash Inceptor, the launch of the Greater Baltimore Oyster Partnership, planting floating wetlands and water quality monitoring.

In calendar year 2016, Baltimore City Recreation and Parks' Volunteer Office reported a total of 44,217 volunteer hours with 8,102 volunteers. Of this number, 23,306 hours and 5,775 volunteers were involved in projects in city parks. Volunteer time covers anything from picking up trash to repairing natural surface trails. BCRP also organizes a "4th Saturday Clean-Up" volunteer program. In 2016, 215 volunteers helped remove over 4,000 pounds of trash from the Gwynns Falls, Jones Falls and Herring Run trails. Another six miles of trail were maintained with a total of 452 volunteer hours.

Recreation and Parks also works in conjunction with 80 friends of parks groups who served 5,700 volunteer hours in 2016, mostly helping with the day-to-day maintenance in city parks. The Friends of Parks volunteers work with the Recreation and Parks' Park District Managers and Volunteer Coordinator every year to create a 'work plan' where different projects and maintenance priorities are outlined. This allows for a discussion about the different needs in the parks and how to best go about solving these identified issues.

The City of Baltimore collects fees through the Critical Area Management Program and the Forest Conservation Program that are used to restore habitat, replant riparian forest buffers and green urban neighborhoods. Baltimore also developed a partnership with the U.S. Army Corps of Engineers to install trash interceptors in the Middle Branch and create new wetlands at a 3.0 acre site. In 2016, another trash interceptor was installed in Canton with funds raised by the Waterfront Partnership.



Major Watersheds of Baltimore

- Herring Run - Back River
- Baltimore Harbor
- Gwynns Falls
- Jones Falls
- Patapsco River

N

Sources: Esri, USGS,

0 0.5 1 2 3 Miles

Map Date: December 29, 2016

Map 3.1

The Department of Public Works evaluated all the city streams for bio-engineering projects that will improve stream hydrology for better water quality, enhanced habitat and reduced stream bank erosion. The first construction project, stream stabilization in the upper, middle and lower portions of Stony Run Park, was completed in 2010. Stream stabilization projects have also been completed in Biddison Run and Western Run. An additional nine miles of stream restoration projects are identified in the MS4 Permit and are scheduled to be completed in FY19.

Most recently Baltimore City initiated large-scale, proactive steps to retain and improve its urban forests. In addition to initiating a comprehensive, city-wide, GIS-based tree inventory in 2016, we have embarked on a program to contain and eliminate invasive species in our woodlands through forest management plans, an invasive vegetation management plan, and through our Weed Warriors stewardship program. The implementation of these plans remain largely unfunded, however, but are nonetheless seen as critical to forest conservation within our parklands.

These Forestry programs for our parklands are designed to dovetail with other new proactive initiatives that are partially funded and ongoing. Most relevant is our program to prune all street trees within the City (an initiative we need to extend to our parklands) and our Emerald Ash Borer Response Plan. We are treating or removing and replacing over 4,000 of the City's ash trees – but unfortunately, it does not include any treatment or mitigation of the ash within our woodlands. Replacing this woodland canopy is also linked to successful invasive vegetation management.

All Forestry work, in turn, connects to our TreeBaltimore Strategic Action Plan which was adopted by the City in 2011. A highlight of the plan is our planting prioritization map, which was designed to target streetscape and vacant lot plantings where most needed - based on a variety of factors. Thus, the "missing piece" from this Plan is the protection and expansion of our urban tree canopy found within our parklands and their forests.

Challenges

As noted under "Accomplishments," our Forestry Division's crucial challenges remain the funding of invasive species management, and the maintenance and replacement of trees within our parklands. To fund invasive vegetation management alone, an additional $350,000 dollars is needed annually – just to begin targeting specific parkland areas. Needed implementation funding for Gwynns Falls Leakin Park will be known by Summer of 2017, when the forest management plan for that area is complete. Pruning maintenance within our developed parkland would cost approximately $3,750,000 dollars for the estimated 25,000 trees. Replacement of ash trees within our parks' woodlands will cost $3,200,000 dollars.

Additional Urban Forestry challenges include the need for at least three more forest management plans (Herring Run, Druid Hill, and Cylburn Arboretum at a total cost of approximately $390,000). TreeBaltimore Education and Community Engagement also remain a challenge: Staff expansion is required to outreach to schools, and to deliver programming and service learning opportunities for youth. Also, increased impervious surface removal will also tie into our Prioritization Map as well as support the city's Sustainability's Office Green Network Plan.

Through the Department of Planning, Office of Sustainability's Growing Green Initiative (GGI) and the Green Network Plan, the city intends to transform some of the City's inventory of vacant properties into green spaces, including community gardens, neighborhood parks, stormwater management, and urban agriculture. Some of the challenges of this endeavor include limited capacity of city agencies, non-profit organizations, and communities to fund the creation, maintenance, and programming of additional green spaces. Through the Green Network Plan process, the City is looking for creative funding and financing strategies to help address these challenges.

Challenges also remain to maintain and expand Baltimore's urban agriculture sector. These include growers' the lack of security with regard to a long term land lease, insufficient water access, safe urban soils, insufficient funding to assist grower operations, complex permiting regulations.

As our region continues to experience climate change, the City will increasingly experience hot weather events and short but intense rainfall events. Continuing to implement the recommendations set in the DP3, including increasing our tree canopy, reducing impervious surfaces, and implementing higher floodplain standards can help to address these challenges.

An ongoing challenge is trash in streams and the harbor. In 2015, the United States Environmental Protection Agency (EPA) approved the report entitled, "Total Maximum Daily Loads (TMDL) of Trash and Debris for the Middle Branch and Northwest Branch Portions of the Patapsco River Mesohaline Tidal Chesapeake Bay Segment, Baltimore City and County, Maryland" (Trash TMDL). The Trash TMDL requires that Baltimore City reduce the amount of trash and litter in the Jones Falls, Gwynns Falls and Direct Harbor Watersheds. An implementation plan developed by the Department of Public Works was approved in 2016. Trash reduction initiatives include expanded street sweeping, debris collectors, volunteer activities and public education. As noted in Chapter II, Recreation and Parks' Canoe 'n Scoop and the above discussed volunteer trail clean-up programs are part of the city's efforts to organize volunteers and educate the public on the need to reduce trash and the overall harm it causes to the environment. Changing behaviors is, by far, the biggest challenge.

Public Benefits of Natural Resource Lands and Outdoor Recreation

Natural lands offer many benefits for cities. From a social standpoint, they provide visual relief from the built environment; offer free, democratic places for recreation, socializing, and gathering; provide opportunities for young people to connect to and learn about the natural world; and, when well-maintained, have a positive effect on property values. From a human health standpoint, they can filter pollution from the air; provide shade and lower temperatures to combat the urban heat island effect; encourage exercise and active living; offer space for growing fresh, local food; and even improve our cognitive and emotional functioning via the positive impacts of exposure to nature (various studies have linked time spent in natural environments to all sorts of positive results, for example reduced effects of ADHD on the ability to retain information). Finally, from an environmental standpoint, they can slow stormwater and reduce erosion; filter pollutants before they reach our waterways; and promote healthy, functioning ecosystems for important flora and fauna.

Baltimore City has a number of existing opportunities and areas in the city for people to connect with nature both in terms of facilities and programs. The most notable facilities include Gwynns Falls/ Leakin Park, 31 miles of greenway trails fully completed and in use and another proposed 6.2 miles currently in design and planning, Cylburn Arboretum, Middle Branch and Canton Waterfront Parks. Recreation and Parks aims to continue to expand its outdoor facilities and programs in the upcoming years.

Baltimore City's Gwynns Falls/Leakin Park, at just under 1,000 acres, is one of the nation's largest urban forests; a unique and hidden resource within Baltimore City. The park is underutilized but with tremendous potential to provide outdoor recreation and environmental education to City residents and visitors. While Gwynns Falls/ Leakin Park attracts people from across the City, the park is a particularly important resource for West Baltimore residents who are underserved with local outdoor recreational facilities and programs. Neighborhoods adjacent to the Park include: Windsor Hills, Fairmont, Mount Holly, Garwyn Oaks, Wakefield Park, Rosemont, and Franklintown Road, among others.

The park has a number of existing facilities, including the Carrie Murray Nature Center, Cahill Recreation Center, Gywnns Falls Trail, Baltimore Chesapeake Outward Bound School (a nonprofit outdoor adventure leadership development program), Cardin Pavilion, a youth group campground, tennis courts, athletic fields and a number of heritage buildings. The youth group campground is the only urban outdoor campground in Baltimore City. Baltimore City Recreation and Parks is currently engaged in an effort to rehabilitate, upgrade or develop the park's facilities and programs, including improvements to facilitate more use of its outdoor assets and make more areas of the park accessible. The objective is to create more outdoor recreation opportunities, environmental and educational programs, and increase access through trails and cross-programming between facilities.

Over the past seven years, Maryland Department of Natural Resources (DNR) has been a crucial partner with Baltimore City Recreation and Parks in its desire to increase outdoor recreation and nature appreciation and learning, as well as to stimulate employment opportunities for youth in Gwynns Falls/ Leakin Park. On average, BCRP employs 40 youth per year on projects in Gwynns Falls/Leakin Park through the Conservation Jobs Corps (CJC) program administered by the DNR's Maryland Park Service. Projects have ranged from rebuilding trails, managing the spread of invasive plants, planting and watering trees, creating a nature playground and installing rain gardens at Carrie Murray Nature Center, and restoring an unused youth campground to a usable site with a cistern, benches, camping pads, and perimeter walking path.

In FY15, DNR provided $5.2 million towards replacing the existing Cahill Recreation Center with the construction of a new state of the art Fitness and Wellness Center and creating a new center in Winans Meadow to anchor outdoor environmental programming and function as a visitor center for the western side of the Park. Matched with City funds, these two capital projects are currently in design, with anticipated construction starts in 2018.

Other Gwynns Falls/Leakin Park projects include: the enlargement of an outdoor rope challenge course used by Baltimore Chesapeake Outward School (with Maryland DNR funds), and an initial design for improvements to the Youth Group Campground (with city funds). BCRP has some funds, as part of its FY17 Capital Improvement Program, to develop a comprehensive nature trail network plan to improve

the connections between areas within the park overall and deepen visitors' outdoor experiences of the natural resources. Although many improvements are being made, total funding to improve the Youth Group Campground is not currently available. Additional capital improvements funds have been requested as part of a Maryland DNR application submitted to the National Park Service under the Land Water Conservation Fund.

Cylburn Arboretum is a public garden and nature preserve that encompasses more than 200 acres. The arboretum includes more than three miles of nature trails, wetland areas, a state-of-the-art "environmentally green" Vollmer Visitor Center and the historic Cylburn Mansion. The arboretum contains an extensive collection of trees and woody shrubs, based loosely on the original plantings established by the Tyson family on their private estate. Collections include azaleas, bamboo, beeches, boxwoods, chestnuts, conifers, hollies, Japanese maples, magnolias, maples, Maryland oaks, and viburnum. The arboretum also includes a number of flower and vegetable gardens, as well as greenhouses designed and built in the 1960s. The greenhouses grow plants for the city's parks, and are not open to the general public. Recent capital projects have included restoration of the historic Mansion's formal gardens, repair of a stone retaining wall and pathway, and visitor wayfinding signage throughout the arboretum.

The 150-acre Middle Branch Park was created by Baltimore City in 1977 by consolidating existing shore side parks; at that time the City began restoring environmentally degraded sites. Ten years later, the Baltimore Rowing and Water Resources Center opened, reviving a tradition of rowing competitions. Middle Branch Park offers a clear view of the Baltimore City skyline, as well as a wildlife observatory area and a boardwalk. From the park, visitors can scull with the Baltimore Rowing Club, participate in the Baltimore City Recreation and Parks Canoe and Kayak programs, paddle in one's own craft, or participate in recreational fishing or crabbing. The park connects to the Gwynns Falls Trail and biking or walking access to Gwynns Falls Leakin Park (14 miles to the west) or to the city's Inner Harbor (1 mile to the north). With new private development planned at Port Covington and at Westport, key sites that front on the Middle Branch of the Patapsco River, an updated master plan is needed to develop a network of natural and recreational spaces to revitalize the Middle Branch shoreline as a citywide waterfront destination. Baltimore City completed a master plan for the Middle Branch in 2007 and is considering undertaking an updated plan in the future, given the recent changes in the area. Some recommendations for improvements along the waterfront have already been made as part of the 2015 South Baltimore Gateway Plan.

Canton Waterfront Park is positioned as one of the eastern-most access points to the harbor, making the park a useful location for outdoor recreation facilities, such as the boat ramp and fishing pier. The park serves as a convenient starting point for traversing the Waterfront Promenade and offers a range of festivals and concerts during the warmer months. The park also contains the Korean War Memorial, which features a history of the war and contains the names of 527 Marylanders who died in the conflict. A master plan for the park will be undertaken as part of BCRP's CIP in FY18 which will make recommendations for additional uses and identify capital projects for improving and expanding the pedestrian promenade, expanding kayaking programs and other activities in the park to increase its recreational resources as a citywide destination and neighborhood amenity. This plan will identify specific capital projects to be included as part of future Capital Improvement Program requests.

The Rails to Trails Conservancy has been working with Baltimore City Dept. of Transportation (DOT) and other partners to connect the three existing Baltimore City trails (Jones Falls, Gwynn Falls and Herring Run), that, when completely linked, will create a 35-mile walking and bicycle loop connecting the city's diverse neighborhoods with the downtown core. Only 10 additional miles are needed to close critical gaps to create this interconnected Greenway Trail Loop. This project is not part of BCRP's CIP.

Goals and Objectives for Natural Resource Land Conservation

Baltimore City Goals

The Department of Planning, Office of Sustainability and the Department of Recreation and Parks, Forestry and Capital Development Divisions work closely to shape the goals and objectives to manage and improve the City's natural resources.

The Department of Recreation and Parks Forestry Division cares for trees in the parks, on the sidewalks and in the medians; this includes over 125,000 street trees and a large inventory of park trees. The Division also prunes and removes trees to ensure public safety and clears roadways after major storms. Through the TreeBaltimore program, Rec and Parks partners with organizations and volunteers to plant over 8,000 new trees every year. The Division is currently undertaking an inventory to evaluate tree health, document the changes in the City's tree canopy over time and determine future tree planting goals and objectives. The Department of Recreation and Parks' mission and vision, outlined in chapter II, articulates preservation and conservation of natural resources as key components to improve health and wellness, protect natural resources, connect children to nature, and to provide education and programming to help communities engage in conservation practices.

Urban Forestry Goals

1. Increase Baltimore's urban tree canopy to 40 percent by 2037 (See Sustainability Goals).
2. Improve the quality of Baltimore's woodlands to ensure native biodiversity and by decreasing the adverse effects of invasive species.
3. Advance the quality of life for all residents by providing an improved parkland experience through healthy, "low risk" trees and through supplemental and replacement plantings.
4. Spearhead the Baltimore City's effort in the appreciation and acceptance of trees by all residents through education and community engagement.
5. Complete our city-wide comprehensive tree inventory (excluding woodland trees), and adopt it as our primary tree maintenance management tool.
6. Convert Camp Small, the city's wood dump, into a zero waste recycling facility.

Baltimore City Office of Sustainability | 2015 Annual Report |

GREENING

		Still Pending	Very Early Stages	Early Stages	Mid-Stages	Advanced Stages	Implemented/ Ongoing
G1 |	**Double Baltimore's Tree Canopy by 2037**						
A	Assess current urban forest cover	○	○	○	○	○	✓
B	Protect our existing trees	○	○	○	●	○	✓
C	Build communication and cooperation among City agencies to support Baltimore's trees	○	○	○	○	●	✓
D	Develop a City-wide education program about the values of trees	○	○	○	○	○	✓
E	Develop and strengthen innovative public-private partnerships	○	○	○	○	○	✓
F	Identify and pursue opportunities for increasing trees planted on private property	○	○	○	○	●	✓
G	Increase tree plantings in sidewalks, medians and other public right-of-ways	○	○	○	○	○	✓
G2 |	**Establish Baltimore as a leader in sustainable, local food systems**						
A	Increase the percentage of land under cultivation for agricultural purposes	○	○	○	○	○	✓
B	Improve the quantity and quality of food available at food outlets	○	○	●	○	○	✓
C	Increase demand for locally-produced, healthy foods by schools, institutions, supermarkets, and citizens	○	○	○	●	○	✓
D	Develop an urban agriculture plan	○	○	○	○	○	✓
E	Implement Baltimore Food Policy Task Force recommendations related to sustainability and food	○	○	○	●	○	✓
F	Compile local and regional data on various components of the food system	○	○	○	○	○	✓
G3 |	**Provide safe, well-maintained public recreational space within 1/4 mile of all residents**						
A	Conduct an inventory and assessment of existing and potential outdoor spaces for recreation	○	●	○	○	○	✓
B	Develop a plan with recommendations for increasing the quantity, quality, and use of recreation spaces	●	○	○	○	○	✓
C	Create an inclusive organizational system to support stewardship of public spaces	○	○	○	○	○	✓
G4 |	**Protect Baltimore's ecology and biodiversity**						
A	Manage Baltimore City land to restore, conserve, and create habitat for native species and eliminate invasive plant species	○	●	○	○	○	✓
B	Implement sustainable landscape maintenance practices throughout the City	○	○	●	○	○	✓
C	Develop and implement a system to regenerate soil health in Baltimore City	○	●	○	○	○	✓
D	Build community support to conserve and restore Baltimore's urban stream ecosystem	○	○	○	●	○	✓
E	Support and develop native plant nurseries in the City	○	○	●	○	○	✓

Source: Baltimore Office of Sustainability

Figure 3.0. Sustainability Plan Greening Strategy Implementation

The Department of Planning, Office of Sustainability and Commission on Sustainability spearheaded a community-based planning process in 2008 to develop Baltimore's first Sustainability Plan. Adopted by the City in 2009, the plan "…offers a broad community responsive sustainability agenda that articulates the type of community Baltimore wants to be – a community that invests in the quality of life of its people, the health and resilience of its environment, and the long term success of its economy.[2]" The plan lays out 29 priority goals across seven core themes.

Sustainability Goals

Cleanliness

1. Eliminate litter throughout the city
2. Sustain a clean and maintained appearance of public land
3. Transform vacant lots from liabilities to assets that provide social and environmental benefits

Pollution Prevention

4. Reduce Baltimore's greenhouse gas emissions by 15% by 2015
5. Improve Baltimore's air quality and eliminate Code Red days
6. Ensure that Baltimore water bodies are fishable and swimmable
7. Reduce Risks from hazardous materials
8. Improve the health of indoor environments

Resource Conservation

9. Reduce Baltimore's energy use by 15% by 2015
10. Reduce Baltimore's water use while supporting system maintenance
11. Minimize the production of waste
12. Maximize reuse and recycling of materials

Greening

13. Double Baltimore's Tree Canopy by 2037
14. Establish Baltimore as a leader in sustainable, local food systems
15. Provide safe, well-maintained public recreational space within 1/4 mile of all residents
16. Protect Baltimore's ecology and biodiversity

2 Baltimore City Department of Planning, Office of Sustainability, 2015 Annual Sustainability Report, Executive Summary (June 2016).

Transportation

17. Improve public transit services
18. Make Baltimore bicycle and pedestrian friendly
19. Facilitate shared-vehicle usage
20. Measure and improve the equity of transportation
21. Increase transportation funding for sustainable modes of travel

Environmental Education and Awareness

22. Turn every school in Baltimore City into a green school
23. Ensure all city youth have access to environmental stewardship programs and information
24. Raise the environmental awareness of the Baltimore community
25. Expand access to information on sustainability

Green Economy

26. Create green jobs and prepare city residents for these jobs
27. Make Baltimore a center for green business
28. Support local Baltimore businesses
29. Raise Baltimore's profile as a forward-thinking, green city

Every goal is accompanied by a set of recommended strategies, some of which include specific targets, time frames and metrics. The Baltimore Office of Sustainability monitors progress of plan goals and produces annual reports. The Greening theme most closely corresponds to the conservation and natural resource objectives for park land and recreation. Figure 3.0 shows the specific strategies and targets identified for the Greening and implementation stage as of 2015. The Department of Recreation and Parks is involved in implementing a number of programs and projects to fulfill the plan goals.

In April 2016, the Baltimore City Department of Planning Office of Sustainability began the process of updating the goals and objectives of the Sustainability Plan for 2017. They recruited and trained 125 Ambassadors to interview residents about how they like/dislike their neighborhoods. One of the most common reasons people like their neighborhoods is because of proximity to open or green space, including parks, gardens and farms. The updated plan is expected to be finalized in Spring 2017.

Implementing BCRP's 2012-2017 LPPRP: Preservation to Date

Since 2012, the Department of Recreation and Parks and the Department of Planning Office of Sustainability have implemented a variety of programs and projects to further preservation and conservation of the City's natural resources.

The Department of Recreation and Parks includes natural resource protection and habitat enhancement as part of the criteria used to determine funding priorities for capital improvement projects and land acquisition. Recreation and Parks' Forestry Division has several programs for improving the quality of the urban forest through its TreeBaltimore Program. These efforts help preserve, expand and enhance the remaining natural systems of stream valleys and linked open spaces in Baltimore.

To date, Recreation and Parks Forestry's established implementation projects include vibrant forest stewardship and invasive vegetation management volunteer programs ("TreeKeepers" and "Weed Warriors," respectively); recycling much of the city's brush and logs by marketing to lumber mills and landscape companies; removing the backlog of residential pruning and tree removal requests; coordinating all city-wide tree planting efforts through our TreeBaltimore Program; giving away and/or planting 40,000 trees through the same program; playing a key role in energy conservation through extensive plantings under the Baltimore Energy Initiative; addressing the loss of ash trees along city streets and developed parkland; combating storm water pollution through targeted plantings and occasional removal of impervious surfaces; and raising awareness of the importance of trees in climate change adaptation, heat island reduction, utility cost savings, and in quality of life improvement for underserved neighborhoods and parks.

The tree inventory contract for the City of Baltimore has been awarded to Davey Resource Group. Their team of certified arborists will begin collecting data in spring 2017 for every street tree in the city street right of way, as well as locations where trees could be planted. All trees in maintained areas of city parks will also be surveyed. All of the data collected will be mapped and used to prioritize tree plantings, plan tree maintenance work, and ultimately assist the City in improving the health of the urban forest. Once the data has been collected by the contractor it will be updated by the City's urban forestry staff as tree work is completed, and new trees are planted.

The recommendations of the 2006 Comprehensive Master Plan for the City of Baltimore included the creation and adoption of a Citywide Landscape Manual in addition to modernization of the Baltimore City Zoning Code. A Draft Landscape Manual has been developed in conjunction with and in support of the update of the Zoning Code and has been coordinated with the City of Baltimore and the State of Maryland Critical Areas, Forest Conservation, and Stormwater Management regulations. The manual will be adopted by June 2017 as part of the transition rules for adoption of the zoning code. The manual strives to support the goals of the City of Baltimore Comprehensive Master Plan, the Baltimore Zoning Code and the Baltimore Sustainability Plan through the regulation and provision of landscape elements in development and redevelopment projects in Baltimore.

Aligning Baltimore City and State of Maryland Goals for Natural Resource Land Conservation

The Maryland Department of Natural Resources identified six (6) goals for Natural Resource Land Conservation in its 2014-2018 Land Preservation and Recreation Plan to guide statewide efforts to preserve and conserve public lands for natural resource protections and outdoor recreation use. These goals are:

1. Identify, protect and restore lands and waterways in Maryland that support important aquatic and terrestrial natural resources and ecological functions, through combined use of the following techniques:
    - Public land acquisition and stewardship;
    - Private land conservation easements and stewardship practices through purchased or donated easement programs;
    - Local land use management plans and procedures that conserve natural resources and environmentally sensitive areas, and minimize impacts to resource lands when development occurs;
    - Support incentives for resource-based economies that increase the retention of forests, wetlands or agricultural lands;
    - Avoidance of impacts on natural resources by publicly funded infrastructure development projects; and
    - Appropriate mitigation response, commensurate with the value of the affected resource.
2. Focus conservation and restoration activities on priority areas, according to a strategic framework ,such as the Targeted Ecological Areas (TEAs) in GreenPrint (which is not to be confused with the former easement program also called GreenPrint).
3. Conserve and restore species of concern and important habitat types that may fall outside of designated green infrastructure (examples include: rock outcrops, karst systems, caves, shale barren communities, grasslands, shoreline beach and dune systems, mud flats, non-forested islands, etc.)
4. Develop a more comprehensive inventory of natural resource lands and environmentally sensitive areas to assist state and local implementation programs.
5. Establish measurable objectives for natural resource conservation and an integrated state/local strategy to achieve them through state and local implementation programs.
6. Assess the combined ability of state and local programs to achieve the following:
    - Expand and connect forests, farmland and other natural lands as a network of contiguous green infrastructure;

- Protect critical terrestrial and aquatic habitats, biological communities and populations;
- Manage watersheds in ways that protect, conserve and restore stream corridors, riparian forest buffers, wetlands, floodplains, and aquifer recharge areas and their associated hydrologic and water quality functions;
- Adopt coordinated land and watershed management strategies that recognize the critical links between growth management and aquatic biodiversity and fisheries production; and
- Support a productive forestland base and forest resource industry, emphasizing the economic viability of privately owned forest land.

The State goals clearly reflect and align with the mission and goals that guide the policies, programs and projects of Baltimore City's Department of Recreation and Parks as well as across Baltimore City agencies. Given Baltimore City's urban environment, there are not many opportunities to acquire additional natural resource lands, however, city priorities focus on creating connections between existing spaces to improve access and diversify use of natural resources for recreation, food production, stormwater management, increase of wildlife and habitat, and expanding the urban tree canopy.

The Department of Recreation and Parks has applied together with the Maryland Department of Natural Resources for a capital grant with the National Park Service (NPS) to rehabilitate and reactivate an existing youth campground in Gwynns Falls/Leakin Park. The project, currently under review by NPS, seeks to provide camping facilities with enhanced program support to introduce urban youth to natural environmental experiences and education. Recreation and Parks will also be undertaking a citywide advocacy and data collection process during 2017 to educate the public in the role of urban parks and engage people in the process of identifying issues to address equitable access to parks and recreation.

The Department of Planning's Green Network Plan, currently underway, is evaluating the City's 30,000 vacant properties with the aim to create green connections between existing parks, provide opportunities for urban agriculture, address needs for stormwater management and neighborhood redevelopment. The Department of Recreation and Parks and Planning will be undertaking a planning effort in conjunction with the Parks and People Foundation to develop a plan along the Middle Branch to expand park and outdoor recreation opportunities, shoreline rehabilitation and habitat preservation.

As part of the City's MS4 Permit, DPW will be restoring approximately nine miles of streams, installing dozens of stormwater BMPs in city parks and planting over 2,300 trees[3]. In addition, DPW partnered with TreeBaltimore to successfully receive a $500,000 grant from Maryland DNR to plant trees in the South Baltimore Gateway area.

Project implementation continues on the Waterfront Partnership's 2013 Inner Harbor 2.0 Plan, with the aim to create a healthy Harbor to allow for a more interactive experience with the water as well as make the Harbor swimmable and fishable.

[3] DPW is contracting with TreeBaltimore to plant and maintain the trees.

Protected Natural Resource Lands Inventory and Maps

Natural Resource Lands Inventory

Designated Conservation Areas

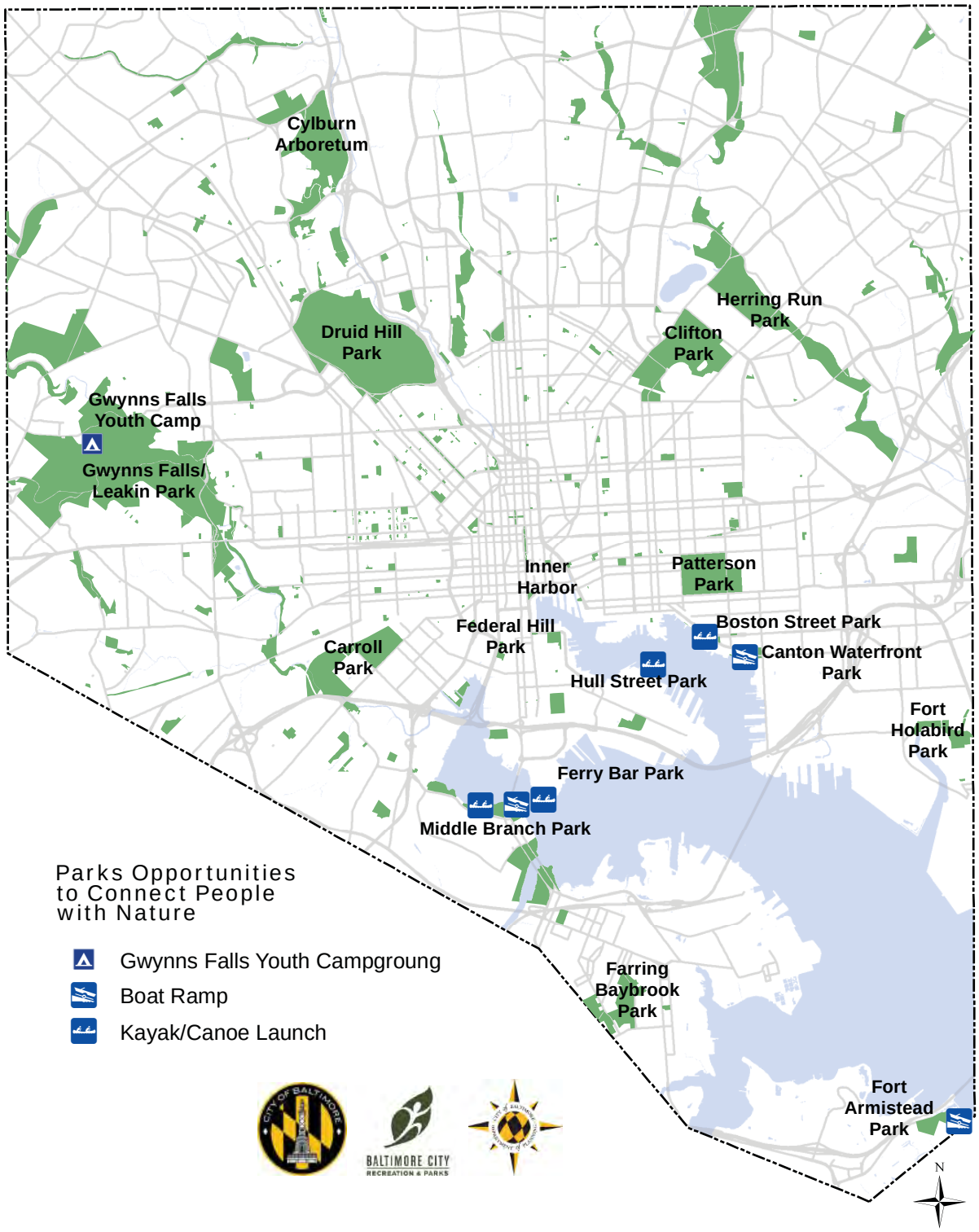
Natural resources, or resource areas that contribute to the overall biodiversity of the City, may be protected public parklands owned and managed by the Department of Recreation and Parks or they may be designated and protected as special areas of environmental interest through regulatory programs managed by the Department of Planning.

Baltimore City's 82 square miles of land are more highly developed than any other comparable region in the State. As mentioned previously, Maryland Department of Planning's land use data (2009), indicates that only 14 percent of the City's land remains undeveloped. Despite this loss of natural lands, the City has preserved some important lands that have a unique natural resource value in such a highly urbanized area.

During the late 19th Century, as the rate of urbanization increased, the City began acquiring land to be set aside for parks. This effort, stimulated by the 1904 Olmsted Brothers plan, emphasized the need for a comprehensive park plan linking and expanding the City's existing parks with landscaped boulevards and scenic wooded slopes in the stream valleys. To a great extent, the 1904 Olmsted plan was implemented and the stream valleys have become the foundation of Baltimore's extensive park system. Today, large parks protect the wooded stream valleys of the Gywnns Falls (Gwynns Falls/ Leakin Park), the Jones Falls (Druid Hill Park and Cylburn Arboretum) and Herring Run (Herring Run Park and Chinquapin Park). Carroll Park, Farring Baybrook Park, Clifton Park and Patterson Park are not associated with streams, but they have enough wooded acreage to provide significant opportunities for recreation and habitat protection in Baltimore.

The majority of Baltimore City's Chesapeake Bay shoreline has been developed. In the 1970's, Baltimore began to acquire shoreline parcels to create a public waterfront along the Patapsco River. Reedbird Park and the Middle Branch Park both preserve important habitat along the Patapsco River estuary of the Chesapeake Bay. Other waterfront parks that preserve important waterfront open space include Canton Waterfront Park and Swann Park (Map 3.2).

Baltimore's Critical Area Program monitors both public and private lands that extend 1000 feet from the shoreline. The Department of Planning has identified twelve sites as Designated Habitat Protection Areas (Map 3.3, Map 3.4 and DHPA list Table 3.0) within the Critical Area. The DHPA status highlights and protects waterfront areas that have special value for migrating shorebirds and other wildlife that depend on the estuary environment.



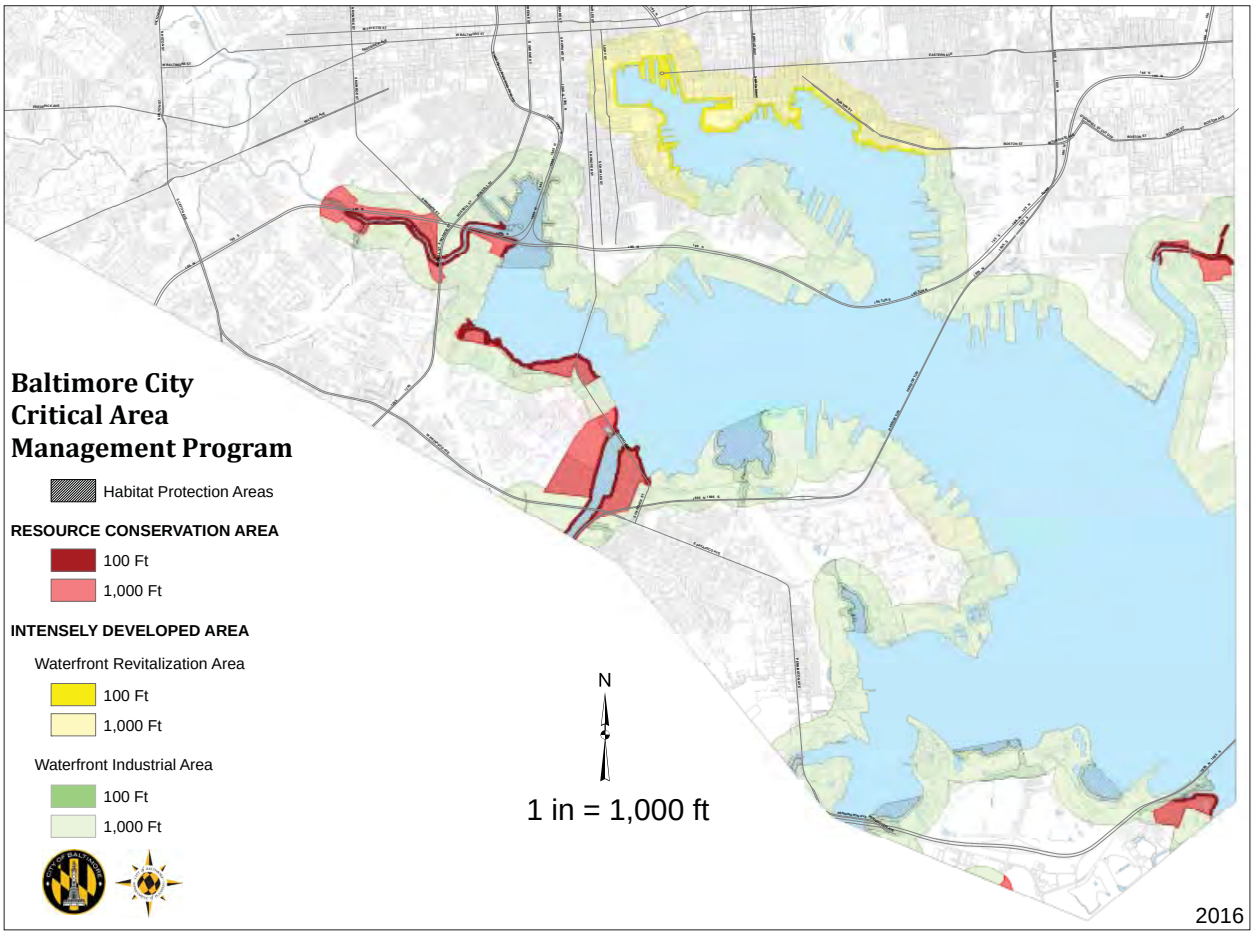
Parks Opportunities to Connect People with Nature

- Gwynns Falls Youth Campgroung
- Boat Ramp
- Kayak/Canoe Launch

0 0.5 1 2 3 Miles

Map Date: December 29, 2016

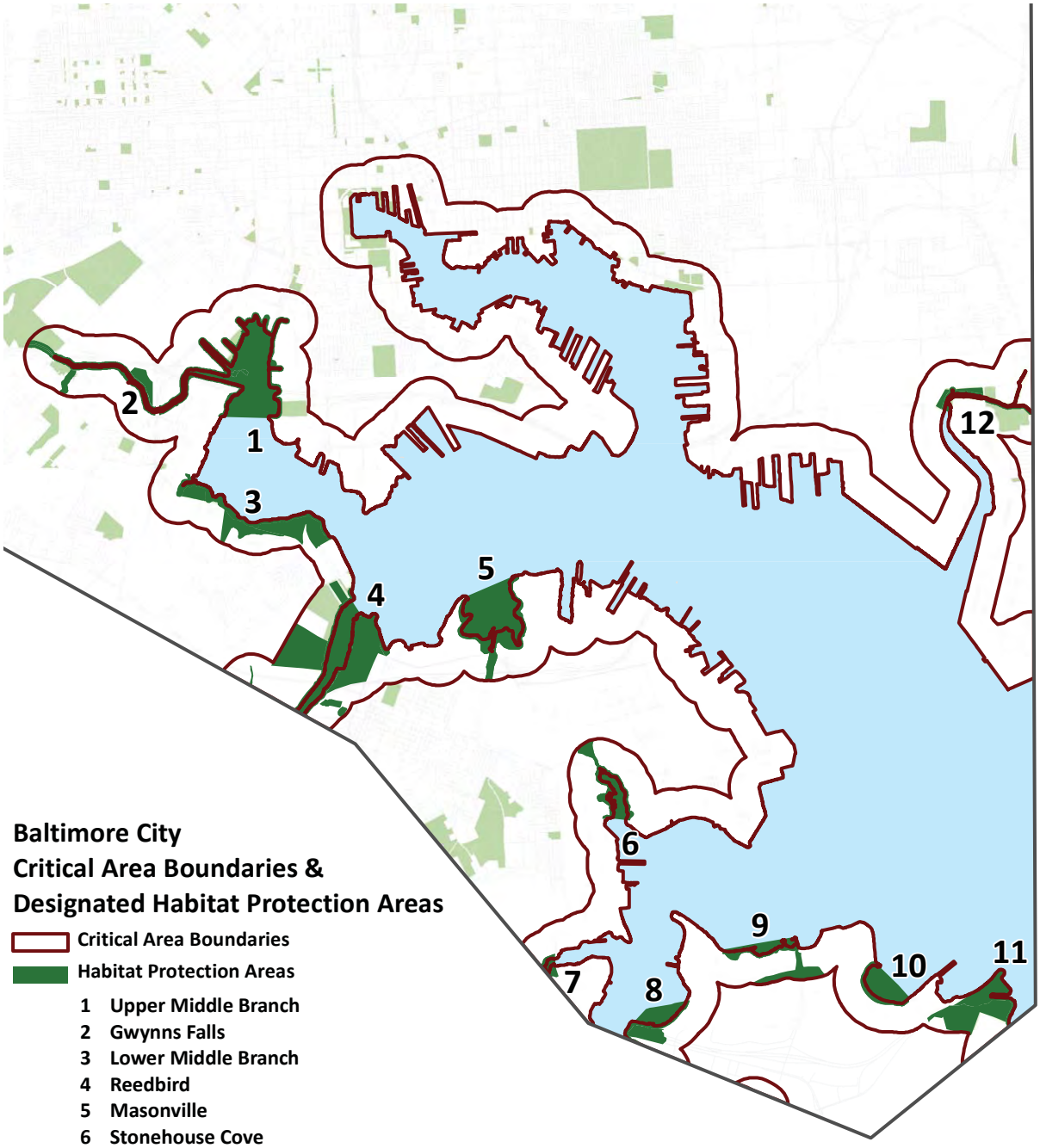
Map 3.2



Map 3.3. Sustainability Plan Greening Strategy Implementation *Source: Baltimore Office of Sustainability*

These wooded and shoreline natural resource areas have an important value to the environment of the City. Aside from their recreation benefits, parks and natural lands function to moderate the climatic conditions in the City. The trees, fields and natural stream valleys offer an aesthetic alternative to a continuous landscape of roads and buildings. These areas also provide habitat for many species of animals and plants including migratory woodland birds and waterfowl. In the Chesapeake Bay Critical Area, a few relatively small pockets of vegetated open space comprised of various stages of secondary growth vegetation and wetlands serve to support migratory and resident waterfowl. Because the park system includes large forested areas, stream valley parks and medians with mature tree canopy, the city's open space network has preserved significant north/south wildlife corridors that lead to adjacent County open space and the Chesapeake Bay.

In addition to preserving land as parks and establishing specific sites as important habitats for protection, Baltimore has a variety of environmental regulations and policies to protect sensitive natural resources that are privately owned.



Baltimore City
Critical Area Boundaries &
Designated Habitat Protection Areas

Critical Area Boundaries
Habitat Protection Areas

1 Upper Middle Branch
2 Gwynns Falls
3 Lower Middle Branch
4 Reedbird
5 Masonville
6 Stonehouse Cove
7 Cabin Branch
8 Hawkins Point
9 Quarantine Road
10 Thomas Cove
11 Fort Armistead
12 Colgate Creek

Map Published: May 2012

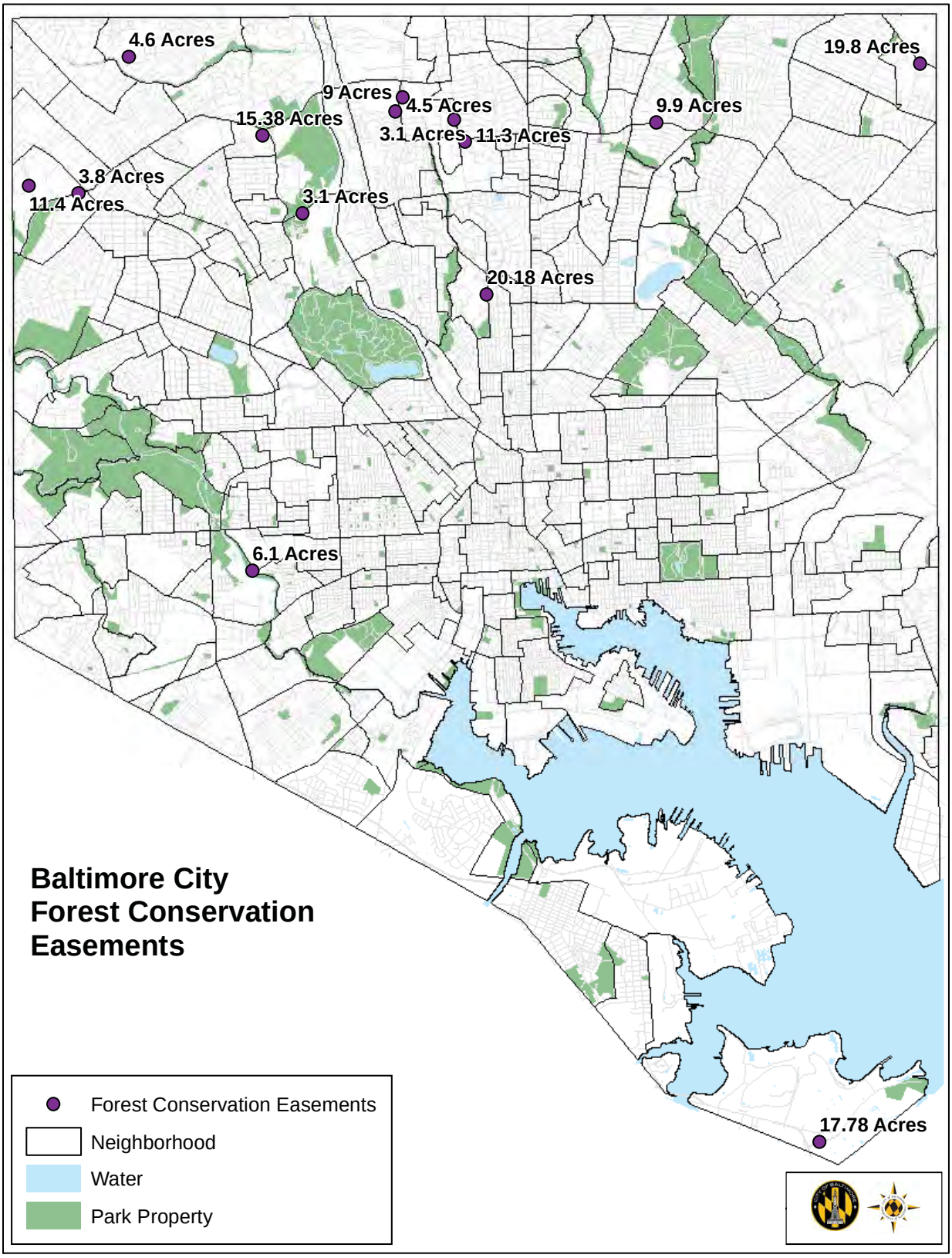
N

Map 3.4

Table 3.0. Baltimore City Designated Habitat Protection Areas

Baltimore City Designated Protection Areas		
	Habitat Protection Area	**Description**
1.	Upper Middle Branch	The site of an historic waterfowl staging and concentration area. In addition, portions of this shallow water area have been used as wetland mitigation sites for various waterfront development projects (Public & Private ownership).
2.	Gwynns Falls	The site of a greenway trail, needing protection as a wildlife corridor. This corridor connects the upland forests of the upper Gwynns Falls watershed with the wetlands and tidal waters of the upper Middle Branch (Public ownership).
3.	Lower Middle Branch	The site of tidal wetlands and waters of a tributary stream and an adjacent area of mature oak forest on steeply sloped land (Public ownership).
4.	Reedbird	The site of tidal wetlands, reforested meadows and active recreation facilities (ball fields, courts, pools, greenway trail). (Public ownership).
5.	Masonville	The site of an historic waterfowl staging and concentration area with wetlands. This is the largest waterfowl staging area in the City, and one of the largest in the State of Maryland (Private ownership).
6.	Stonehouse Cove	The site of an historic waterfowl staging and concentration area. The cove contains vegetated tidal wetlands bordering upland forested areas. The upper reach of the cove contains an intermittently tidal stream that is heavily vegetated along both banks (Private ownership).
7.	Cabin Branch	The site of vegetated tidal wetlands along a stream bank (Private ownership).
8.	Hawkins Point	The site of an historic waterfowl staging and concentration area (Private ownership).
9.	Quarantine Road	The site of an historic waterfowl staging and concentration area and a wooded drainage area adjacent to a forest (Public & Private ownership).
10.	Thoms Cove	The site of an historic waterfowl staging and concentration area (Private ownership).
11.	Fort Armistead	The site of a large tidal wetland with an adjoining upland forest (Public & Private ownership).
12.	Colgate Creek	The site of a tidal tributary stream with vegetated shoreline (Public & Private ownership).

Forest Conservation Easements are another tool Baltimore City uses to preserve and conserve natural land. This program is often administered in conjunction with the Forest Conservation Act which establishes rules for development sites that minimize the loss of existing forests and replenish tree cover. Where an amount of forest is being retained that is equal to or greater than the "break even point" for the site (calculated as per the State law), site owners may choose to place the forest into permanent conservation via an easement. When this is done, no future Forest Conservation reviews are required for the site, even if more than 20,000 square feet of land is disturbed again in the future. The City's current Forest Conservation Easements are shown in Map 3.5. An inventory of these properties is provided in Appendix B, p. 175.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3.1 Acres
11.3 Acres
3.8 Acres
11.4 Acres
3.1 Acres
20.18 Acres
6.1 Acres
17.78 Acres
Baltimore City
Forest Conservation
Easements
Forest Conservation Easements
Neighborhood
Water
Park Property

Map 3.5

Forested Areas and Street Trees

Analysis of the most recently available data from 2007, indicates that Baltimore's urban tree canopy cover is 27 percent. When calculated as a percent of the City's land area, 27 percent of the City is covered by tree canopy and another 27 percent is made up of non-woody groundcover. This tree cover is spread over all types of land uses, not just parks. The largest stands of forest in Baltimore are clustered around the major stream valleys of Herring Run, Jones Falls and Gwynns Falls. A more updated survey of Baltimore's urban tree canopy cover is expected to be available in 2017.

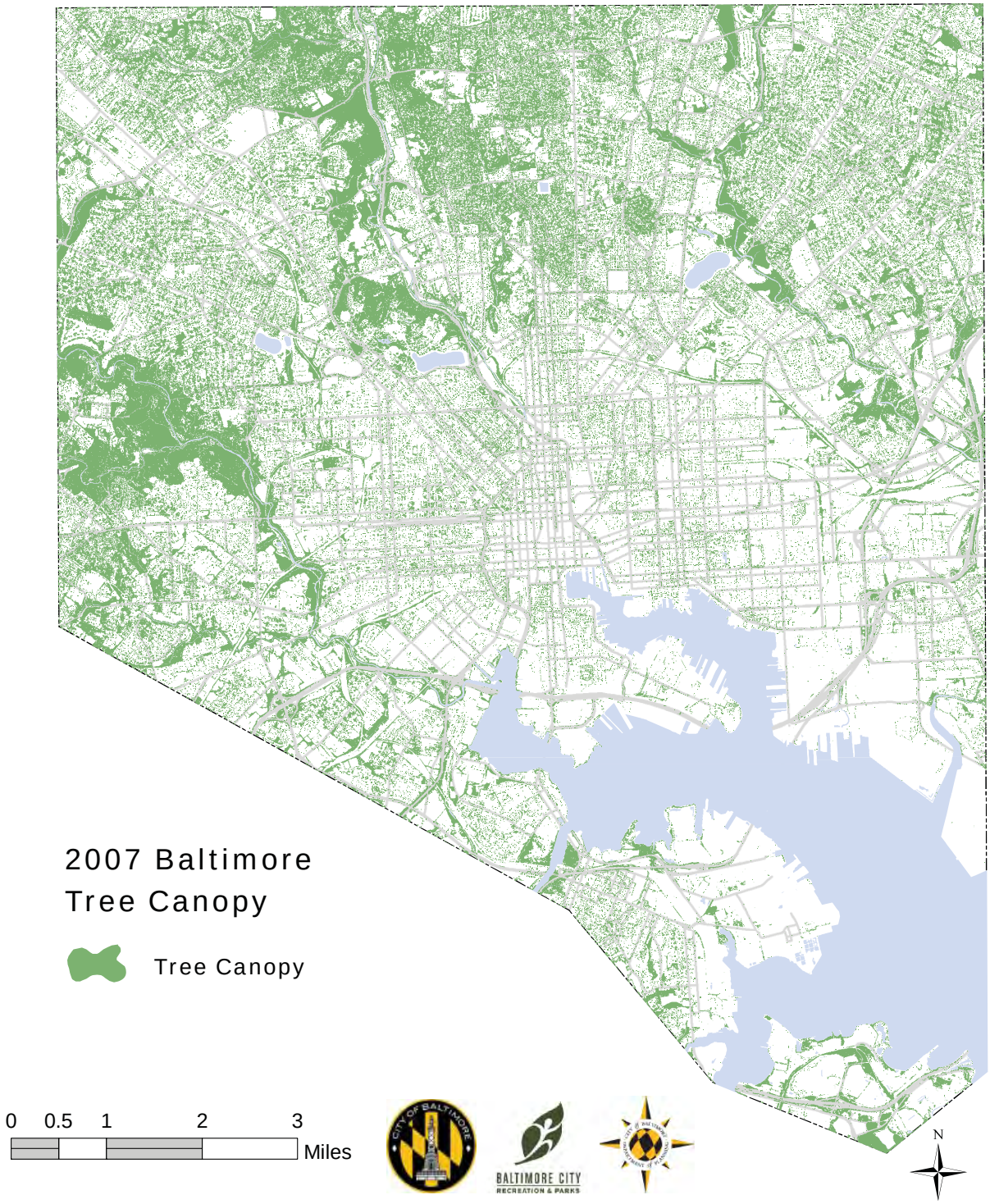
Not surprisingly, of the four major watersheds in Baltimore, the Direct Harbor watershed has the greatest amount of impervious surface at 74 percent and the lowest amount of tree canopy at a little over 6.5 percent. The Jones Falls watershed, largely due to the presence of Druid Hill and Cylburn Parks and the leafy residential neighborhoods in the northern part of the City, has the highest percent of tree canopy at 28 percent (Map 3.6). The Gwynns Falls stream valley has the highest concentration of forest, contained primarily within Gwynns Falls/Leakin Park (Figure 3.1). In Baltimore City 4,843 acres of land have been included in the Chesapeake Bay Critical Area, however, due to Baltimore's history as a waterfront industrial city, only 85 acres of this is forested.

The Department of Planning combined the 2001 Ikonos data (3 broad categories: impervious surface, non-woody groundcover and tree canopy), with a recently completed land use map for Baltimore City. As a result, it is possible to compare the Ikonos types of land cover with land use. The results reinforce previous assumptions about natural land cover but also include some surprises. Of all land uses, cemeteries and parks contain the highest percentage of tree cover at 34 percent. Golf course and low-density residential areas have the next highest percent of tree canopy at 27 percent. Parks, due to the variety of sizes and types, have the greatest variance in the amount of tree canopy (as measured by standard deviation). Private schools, garden apartments and railroad right of ways all have about 14 percent tree canopy. Industrial land uses have a higher percent of tree canopy than rowhouse neighborhoods, 7 percent compared to 3 percent.

The forest composition within the City's major parks reflects the different soils and microclimates of the parks. Lake Roland Park, Cylburn Arboretum, Druid Hill Park and Wyman Park are all located within the steep and rocky valley of the Jones Falls. The dominant forest species of these parks are Beech/Tulip Poplar. The Gwynns Falls stream valley is also steep and rocky, but the extensive wooded parkland has been less disturbed by development. Three tree associations are found in Gwynns Falls Park: Oak-Hickory, Beech-Birch, and Maple-Ash-Box Elder. While portions of the stream valley of Herring Run include steep slopes, the majority of the stream valley is wide and flat. The forest associations found in Herring Run Park and Chinquapin Park are Oak-Hickory and Maple-Box Elder.

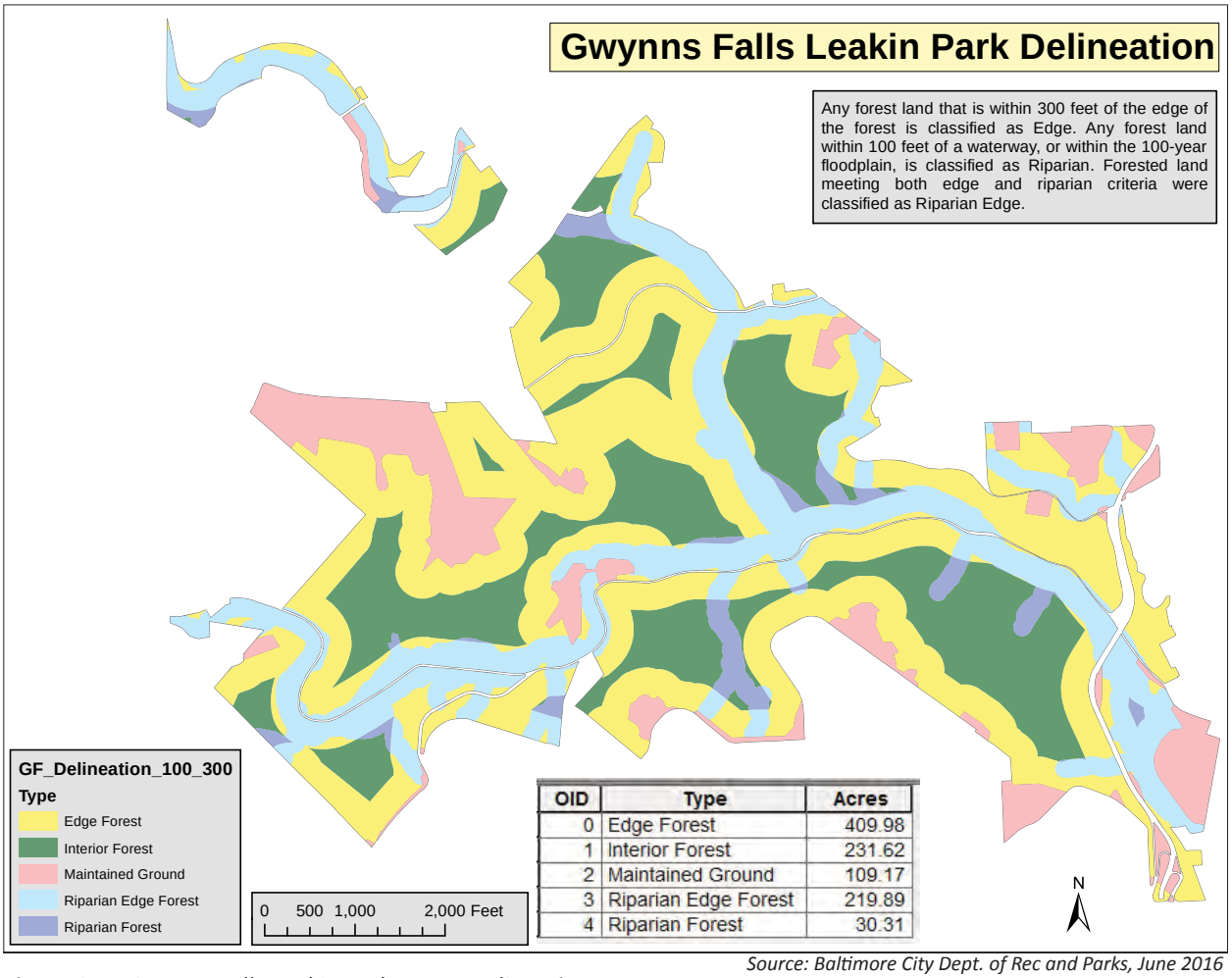
Old Field/Shrub and Scrub Vegetation Areas

An inventory of land cover (DNR 1993) and a Habitat Assessment Study (Baltimore City Department of Planning 1989) both discuss the presence of shrub/scrub habitat in the city. The DNR report classified 760 acres as shrub/scrub vegetation and the Habitat Assessment Study identified the largest concentration of this habitat type in lower Herring Run Park and Middle Branch Park (within the Critical Area).



Map Date: December 29, 2016

Map 3.6



OID	Type	Acres
0	Edge Forest	409.98
1	Interior Forest	231.62
2	Maintained Ground	109.17
3	Riparian Edge Forest	219.89
4	Riparian Forest	30.31

Source: Baltimore City Dept. of Rec and Parks, June 2016

Figure 3.1. Gwynns Falls Leakin Park Forest Delineation

Wetlands

Baltimore has both tidal and non-tidal wetlands. These systems are but a fraction of what was found in the area before development of the city. Today, tidal wetlands are located on the Patapsco estuary, extending for a short distance upstream into the tributaries of the Patapsco. These areas consist of a few fragments associated with the remaining natural shoreline of Baltimore. Non-tidal wetlands in the city are associated with streams and are usually narrow and linear in configuration as they follow the stream channels. The tidal wetlands are classified as estuarine according to the U.S. Fish and Wildlife Service classification system. Tidal water is brackish, ranging in salt content from less than one part per thousand to ten parts per thousand and decreasing in salinity on the upstream end of the estuary. The non-tidal wetlands include riverine, palustrine, and lacustrine systems.

Using air photos, field surveys and information from the 1981 National Wetlands Survey data, the Baltimore City Department of Planning inventoried wetlands in the Critical Area. This study identified approximately 110 acres of tidal marsh and 10 acres of non-tidal wetlands remaining within the Critical Area. The most significant habitat is found in Masonville Cove (70 acres), a dredge material disposal site that includes high and low marsh habitat (Map 3.4).

Streams and 100-Year Floodplain

Baltimore lies within two major drainage basins: the Patapsco River and the Back River basins. The Patapsco's two main tributaries are the Gwynns Falls, which drains the northwest part of the city, and the Jones Falls, which drains the central part of the city. Herring Run drains the eastern part of the city, emptying into Back River in Baltimore County. These three major stream systems are fed by several tributaries: Herring Run is fed by Chinquapin Run and Moore's Run, Jones Falls is fed by Stony Run and Western Run and the Gwynns Falls is fed by Maiden's Choice and Dead Run (Map 3.7).

Baltimore historically was crossed by an intricate pattern of small streams. However, many of these tributaries have dried up due to urbanization or have been channelized and piped into the city storm water system. The remaining major streams and tributaries have been impacted by urbanization with sedimentation and erosion occurring throughout most segments. The Department of Public Works designed a bio-engineered stream bank stabilization project for the entire length of Stony Run in an effort to reduce erosion and sedimentation. Construction of the upper portion of Stony Run was completed in January 2006, followed by the middle portion in March 2007 and the lower portion in March 2010.

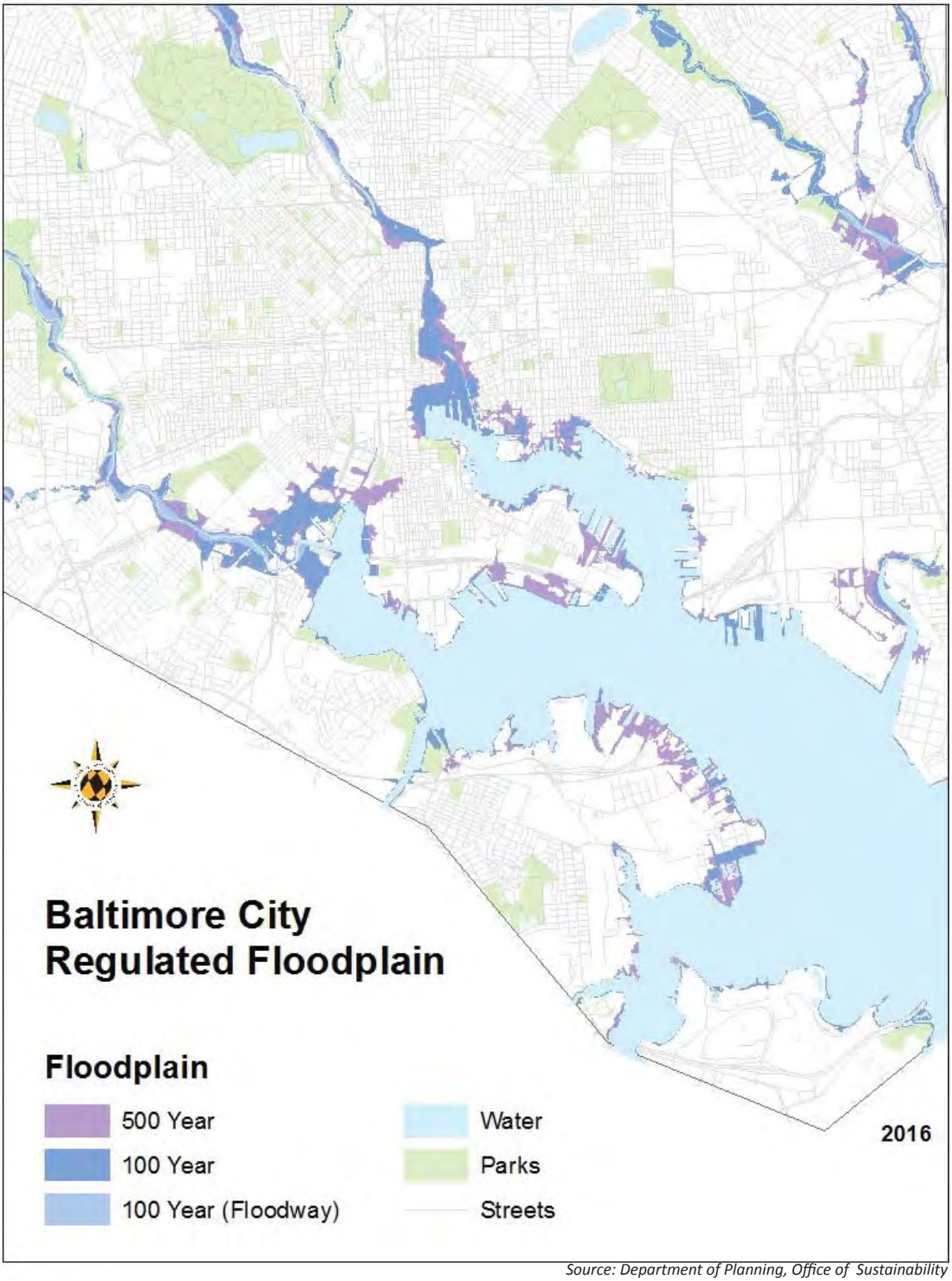
Phase two of the lower portion project is scheduled for FY 2016-2018. The Department of Public works plans to complete similar bio-engineered projects to improve the habitat, stream bank stability and water quality of other Baltimore streams, including Western Run, Biddison Run, Moores Run, Maidens Choice, Powder Mill and Chinquapin Run to meet the City's Municipal Separate Storm Sewer System (MS4) permit.

The 100 year floodplain of the streams and shoreline of Baltimore vary depending on topography of the Piedmont and Coastal Plain formations. The Federal Emergency Management Administration (FEMA) has mapped all floodplain areas in Baltimore City. To facilitate accessing the FEMA data, the Department of Planning has transferred the information onto GIS topographic base maps and has completed an inventory of all property, private and public within the designated floodplains.

Steep Slopes

Baltimore is located within two physiographic regions: the Piedmont Plateau and the Atlantic Coastal Plain. The juncture of these two provinces is called the "fall line." This line roughly bisects the city in a northeast/southwest direction. Extending northwest from the "fall line" is the Eastern Division of the Piedmont Plateau. This area is underlain with a complex series of metamorphic rocks that result in a highly diverse topography. In contrast, the Atlantic Coastal Plain topography is relatively flat and consists of unconsolidated sand, clays and gravel.

Many of the City's steep slopes (20% slope or greater) are located in the Piedmont portions of the major stream valleys of the Jones Falls, Gwynns Falls, Herring Run and their tributaries. For the most part, undisturbed steep slopes are found within or adjacent to City-owned park lands. For example, most of the steep stream banks of the Gwynns Falls and the Dead Run are found within the mature forests of



Source: Department of Planning, Office of Sustainability

Map 3.7 Gwynns Falls Leakin Park Forest Delineation

Gwynns Falls Leakin Park or within undeveloped private land associated with residential areas adjacent to the park. Significant areas of steep slopes in the Jones Falls stream valley are currently protected as mature forested parkland within Cylburn Arboretum and Druid Hill Park. Industrial and institutional land uses are more common than residential lands in the Jones Falls valley. Many of these privately held slopes appear to have been disturbed in the past, but have stabilized with the naturally re-vegetated woods (while these re-generated woods are dominated by invasive species, they are still valued for their ability to stabilize steep slopes). Steep slopes are only found in the northern sections of the Herring Run. About a third are found in wooded land held by institutions, a third are found in Herring Run Park and another third in wooded residential property. The few steep slopes in South Baltimore are the result of landfill development, as the natural topography of this area is level coastal plain.

Critical Habitat for Endangered Species

The only known natural habitat for endangered species in the City is Cylburn Arboretum, where an important State-listed species is known to occur. The endangered Peregrine Falcon has nests on both the USF&G building in downtown Baltimore and the Interstate 695 Bridge. The falcon's choice of food sources depends on the feeding habits of the fledgling bird's parents. As a result, the falcons nesting at the USF&G building prefer the abundant downtown pigeon population and those on the I-695 Bridge prefer waterfowl found in the Middle Branch environs.

Lake Roland Park, a Baltimore County-owned park located on the edge of the City, includes extensive areas of a rare serpentine barren ecosystem that harbors a unique and rare natural plant community. This park has an official COMAR designation as a State Natural Heritage Area, one of only 32 in Maryland.

Threatened, and Endangered Species

The Maryland Nongame and Endangered Species Conservation Act lists three bird species and thirteen plant species as rare, threatened or endangered. Our Green Infrastructure (GI) Hubs, Cylburn Arboretum and Gwynns Falls/Leakin Park (Map 3.4) are all potential habitat or resting areas for migration of these species. These Green Infrastructure Hubs are integral to providing flyways, natural habitat corridors, and blocks of contiguous forest for a wide variety of plant and animal species. The City protects the following Green Hubs as well as other significant areas of woodland habitat through park ownership and the following forest management plans:

1. *Gwynns Falls/Leakin Park* - A designated State Green Infrastructure Hub with 999 acres of mature forest.
2. *Druid Hill Park* – A park area of 744 acres, including natural forest and lawns with mature tree canopy.
3. *Cylburn Arboretum* - A designated State Green Infrastructure Hub with 100 acres of natural forest and meadows.

Among these City parks, Gwynns Falls/Leakin Park and its stream valley is the most significant in terms of wildlife habitat. There are sections of the Gwynns Falls stream that pass through highly resistant rock and forested buffers. These segments have not been as severely impacted by urbanization as other streams and can support a surprisingly large population of fish (27 species were identified in a 1989 study).

Gwynns Falls/Leakin Park, Cylburn Arboretum and Druid Hill Park each contain large forested areas where trees have not been disturbed for over 100 years. The presence of water and the size and diversity of the plant communities are the most significant features in these parks, which are known to support a variety of wildlife populations including forest interior dwelling birds.

Natural Resource Land Mapping

The Department of Planning and the Department of Recreation and Parks, Forestry and Capital Development Divisions, work closely to utilize the latest natural resources mapping technology to study the conditions of natural resources in the City. The two most recent sources of natural resources information for Baltimore City, include a GIS based Sensitive Areas Plan (created by the Department of Planning 2002), and the data derived from the October 2001 Ikonos multi-spectral image of Baltimore City. With assistance from MD-DNR, this image was used to extract a high resolution, generalized land cover grid for Baltimore. The resolution of the image, 4 meter near infrared and 1 meter panchromatic, far exceeds any previous mapping of Baltimore's "green infrastructure." (Map 3.6)

The Mayor's Office of Information Technology (MOIT) maintains the city's GIS based information for all agencies. Data sharing occurs through MOIT for Statewide information (DNR, MDP), urban tree canopy mapping studies through the US Forest Service, a variety of student research projects and miscellaneous private requests. The Forest Service conducts a fly over approximately every three years. Fly over data collected in 2015 and 2016, will be analyzed in the coming months. The most recent analyzed data is from 2007.

Implementing Ordinances and Programs

The Department of Planning and the Department of Recreation and Parks employ a variety of planning, management and regulatory strategies to preserve and restore the natural resources of Baltimore City. Both agencies include protection and enhancement of natural resources in their Department goals, but the implementation tools and scope of influence are different.

As stated in the City Charter of Baltimore, the Department of Recreation and Parks is responsible for the care and maintenance of all city parklands, from small paved passive parks to large areas of undisturbed woodlands. The Department has identified protecting and enhancing natural resources found within the park system as part of the agency's mission statement. Day to day park operations in park maintenance, forest management and street tree care as well as capital projects for park acquisition, tree canopy expansion and habitat restoration all contribute to improving the quality of the natural resources on publicly held lands.

As stated in the City Charter, the Department of Planning is responsible for shaping the character of Baltimore City including the stewardship of natural resources on both public and private land. Sensitive natural resources throughout the city are mapped by the Department of Planning and regulations are triggered any time that change is proposed for individual parcels. The Critical Area program, Forest Conservation Program, Flood Plain Management Program and Sensitive Areas Plan were all crafted to protect as much of our sensitive natural resources as possible while also allowing for continued economic growth and redevelopment in Baltimore. As a composite system, public ownership (city parkland), public easements and designated protected areas (public and private lands) support each other to preserve open space and provide essential habitat for plants and animals in the city.

Sensitive Areas Plan

The Baltimore City Sensitive Areas Plan, adopted in 1998, identifies and describes protection policies for the following natural resource systems:

1. Streams and their buffers
2. 100-year floodplains
3. Habitats of threatened and endangered species
4. Steep slopes
5. Urban Forests including parkland forests, landscape trees in parks, forest on private lands, the tree canopy in residential neighborhoods, and the 500,000 street trees maintained by the City.

Every public or private development or renovation project in Baltimore is required to file site plans as part of the building permit process. Projects must be adjusted if the Planning Department review determines that the work cannot meet city standards for each of these sensitive natural features.

Forest Conservation Act

The Maryland Forest Conservation Act was passed by the General Assembly in 1991 and is intended to conserve the State's forest resources. The Forest Conservation Act regulates all development proposals (on public or private land) that disturb or subdivide parcels 20,000 square feet of land or more. For each development project, the owner must submit a Forest Stand Delineation (FSD) and Forest Conservation Plan (FCP) or Landscape Plan for review by the Environmental Division of the Department of Planning as part of the City's building permit review process. If a site is forested, the applicant may not present the project to the City Site Plan Review Committee until the Department of Planning has approved the FSD.

Forested Sites: The applicant is required to submit a full Forest Stand Delineation (FSD) for the site that contains a detailed environmental assessment according to the guidelines found in the State

of Maryland, Department of Natural Resources Forest Conservation Manual. The applicant is also required to submit a Forest Conservation Plan (FCP), which may include preservation of existing trees and on-site or off-site planting.

Non-Forested Sites: If no forests exist on the site, the applicant may provide a simplified FSD and landscape plan to meet the Forest Conservation requirements. Specimen trees located on these sites may also be required to be preserved. The City cannot issue construction permits until the Forest Stand Delineation and Forest Conservation Plan are reviewed and approved.

Forest Management and Urban Street Trees

BCRP Capital Development and Planning is responsible for drafting and implementing forest management plans for Baltimore. While the tree species mix is different in individual parks, the management issues are similar across the city: removal and control of invasive species in the forest, regeneration of mature tree canopies where trees are planted in lawn areas, increasing species diversity and improving the survival rate of new tree plantings. Many of the wooded parks, including the City's two Green Infrastructure Hubs, already have forestry management plans (Gwynns Falls 1990, Druid Hill 1995 & update 2006, Cylburn 2005, Wyman Park 2005, Chinquapin 2006 and Herring Run 2007). An update to the Gwynns Falls forest management plan is currently underway. Baltimore park staff has worked closely with park managers from New York City to develop "entitation" forest management plans that break down large forest areas into distinct management strategy areas (closed canopy, invasive dominant, herbaceous dominant, etc). Classifying the forest areas by dominant species and plant type allows better project scheduling and prioritization of work as well as more efficient use of volunteers and grants.

BCRP Forestry works with the Department of Planning to match developers that cannot meet their Forest Conservation Plan or Critical Area Mitigation Program requirements "on site" with park areas that can benefit from habitat restoration/expansion projects. Private developers have funded a variety of reforestation and invasive removal projects in the park system. BCRP Forestry's TreeBaltimore Program also trains and leads volunteers (from watershed associations, school groups, park friends associations, etc.) in identification and removal of invasive trees and vines in the forests, and park tree plantings. Volunteers interested in assisting with street tree care and pruning are trained in the Community Tree Steward program.

Baltimore City's Sustainability Plan includes an urban tree canopy goal of 40 percent cover by 2037. The goal is also integral to the City's Climate Action Plan, which calls for a 15 percent reduction in greenhouse gases by 2020. This second goal requires TreeBaltimore to do its part by planting approximately 75,000 trees within the next eight years - and the program is currently on track to exceed that goal.

To help meet the goal of an increased tree canopy, the Forestry Division revised the Baltimore Tree Ordinance to increase the survival rate of new street trees. Changes included a revision of the city's tree planting code, new construction standards for tree pits, and new standards for planting street trees. The Planning Department and the Forestry Division also developed a new section of the building permit

review process that incorporates incentives for homeowners and developers to plant more trees on private land (2006).

Critical Area Management Plan

In 1984, the Maryland General Assembly passed the Chesapeake Bay Critical Area Protection Law. This law requires all jurisdictions abutting the Chesapeake Bay, including Baltimore City, to designate all lands within 1,000 feet of tidal waters as Critical Areas and to require environmental protection and mitigation for the effects of development and redevelopment within these zones (Map 3.3). This law also designates all lands within 100 feet of tidal waters as the Critical Area Buffer and requires the City to restrict development within the Buffer. The program has been successful in contributing to a reduction of phosphorus and other pollutants into the Bay as well as increasing and enhancing shoreline habitat.

Baltimore City's Critical Area Management Program (CAMP) is administered by the Department of Planning. Development or redevelopment projects that are within the Critical Area may be subject to restriction or mitigation at the building permit stage, or at an earlier stage of approval if any of the following public actions are required:

- Subdivision
- Rezoning
- Zoning variance
- Conditional use or special exception
- Building permit
- Building permit within a Designated Habitat Protection Area (DHPA) or certain changes in use or expansion of existing uses in a Designated HPA.

All building, grading and use permit applications for properties in the Critical Area are reviewed by the Environmental Division of the Department of Planning. The Department of Planning works with owners of each project to improve the habitat of the shoreline of the redevelopment parcel, or alternatively, to provide funding that can be used to enhance the habitat within another section of the Critical Area or a Designated Habitat Area.

Flood Plain Areas

To minimize the incidence of flood damage, the City has enacted special provisions of the Building Code, Zoning Ordinance, and Subdivision Regulations applying to all public or private properties that lie within flood plain areas. The federal government has defined flood plain areas within Baltimore City and these areas are described generally on Flood Insurance Rate Maps (FIRM) available for reference at the Department of Planning.

Because these FIRM maps are only approximations, the Environmental Division of the Department of Planning carefully reviews any development proposal for property in or near a known flood plain area. The precise elevation and coordinates of the proposed development are submitted and the proposed grading changes evaluated to determine if the improvement is inside a flood-hazard area. If the property and the proposed development lie within a flood plain area, all of the special requirements of the Building Code, Zoning Ordinance, and Subdivision Regulations must be met. Included among the flood plain regulations (Article 7, Flood Plain Management, Baltimore City Code) are:

- Private development, including residential, commercial, and industrial development, may not take place within the floodway.
- Selection, placement, and stabilization of fill materials must be done in accordance with the specifications of the Maryland Department of Natural Resources, Water Resources Administration.
- The lowest floor elevation of new or substantially improved residential structures must be at a minimum of two (2) feet above the 100-year flood level. A certificate confirming the "as built" elevation for new construction projects is required prior to issuance of an occupancy permit.
- Any flood plain development approved shall be in conformance with the requirements of the permit programs of the Maryland Department of Natural Resources, the Water Resources Administration and the U.S. Army Corps of Engineers.
- Buildings constructed within the flood plain area must meet requirements for resistance to flotation and ability to resist hydrostatic forces, as detailed in the United States Army Corp of Engineers Flood proofing Regulations #EP 1165-3-314.

Disaster Preparedness and Planning Project Plan

Created in 2013, the Disaster Preparedness and Planning Project Plan develops a unified approach to hazard mitigation and climate adaptation. The Federal Emergency Management Agency (FEMA) requires every local jurisdiction to adopt an All Hazards Mitigation Plan (AHMP). DP3 was created as a manner to address existing hazards while simultaneously preparing for those predicted by climate change.

Baltimore identified the following natural hazards that pose a threat:

- Flooding
- Coastal Hazards—Hurricanes, Sea Level Rise, Storm Surge, Coastal Inundation
- Precipitation Variability—Precipitation, Winter Storms, Drought, Dam Failure
- Extreme Wind
- Extreme Heat
- Air Quality

The plan focuses strategies and actions for climate adaptation and hazard mitigation on four key sectors: Infrastructure, Buildings, Natural Systems and Public Services.

Habitat Protection through Land Acquisition

The existing natural resources and the potential for contribution to the overall environmental quality of the park system are as important as the potential for recreation facility development when evaluating a parcel for park acquisition. Baltimore City continues to consider park expansion when there is an opportunity to protect important natural resources. The Department looks for opportunities to add woodlands, with significant habitat value, preferably located adjacent to existing parkland that have limited maintenance needs to avoid adding to the Department's operating costs. By focusing the majority of the Department's acquisition funds towards expansion of existing woodlands and meadows, or filling gaps in the stream valley/wildlife corridors, the City is able to protect natural resources and improve the habitat quality of our park system.

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IV. AGRICULTURAL LAND PRESERVATION

System Overview

Baltimore City does not have agricultural land. However, it is home to a strong, innovative and growing agricultural effort. There are approximatey 275 community gardens and 20 urban farms in Baltimore. The city is a national leader in supporting urban agriculture through policy, with emphasis on production farming. This includes the Homegrown Baltimore: Grow Local Urban Agriculture Plan, an urban agriculture tax credit, the Land Leasing Initiative, and improved regulations for animal husbandry and hoop houses.

Urban agriculture has a long history in the City of Baltimore, and can offer solutions to address a wide range of problems. Numerous urban agriculture projects are currently underway in the city, including urban farms (both community-oriented and commercially-oriented), community gardens, school gardens, home and rooftop gardens, aquaculture projects, apiaries, and orchards. New policies related to urban agriculture support the development of these projects, and the rewrite of Baltimore‘s Zoning Code (adopted in June 2017) will further promote agricultural uses of land lying within the city boundaries. A wide range of government agencies and partners also provide critical resources to support these projects.

The Baltimore Food Policy Initiative (BFPI) – an intergovernmental collaboration between the Department of Planning (DOP), Office of Sustainability (BOS), Baltimore City Health Department (BCHD), and Baltimore Development Corporation (BDC) – was founded in 2010 to “improve health outcomes by increasing access to healthy affordable food in Baltimore City’s food deserts.” With each agency lending its expertise, the City creates comprehensive strategies that tackle food access from many perspectives, and implements programs and policies with multi-sector support. The Department of Planning has led the effort to refine the City’s food agenda and priorities through sustainability and food access lenses, and has incorporated food into a variety of plans and policies. The Baltimore City Health Department is committed to making Baltimore a city where all residents can realize their full health potential, through cross-cutting collaborations and innovative community-based food access programming. The Baltimore Development Corporation, recognizing that food is a catalyst for economic development, offers retailers, small food businesses and food entrepreneurs access to information, resources and incentives. BFPI partners with many other city agencies, as well as community organizations, nonprofits, academic and research institutions, businesses, and others. Recent efforts include creating a panel of Food Equity Advisors made up of City residents from neighborhoods impacted by food deserts, to ensure that the voices of those most affected by food insecurity are included in our decision-making about how to address the problem.

Accomplishments and Challenges

Accomplishments

Stemming from key strategies specified within the Baltimore Sustainability Plan, Homegrown Baltimore is an initiative of the City of Baltimore to increase the production, distribution, sales, and consumption of locally grown food within Baltimore on the City's vacant land. The City is highly committed to building a robust local food system that provides equitable access to healthy foods for all residents; supports Baltimore's gardeners, farmers and businesses; promotes environmental sustainability; and utilizes vacant space productively.

Baltimore's Urban Agriculture Plan, Homegrown Baltimore: Grow Local, was adopted by the Baltimore City Planning Commission in 2014. The plan documents the history, benefits, and types of urban agriculture in Baltimore; lays out current local urban agricultural efforts and the policies that affect them; and identifies challenges and provides recommendations for creating a more robust urban agriculture sector for our city.

To encourage urban agriculture on vacant land, the City, through its Land Leasing Intiative, has leased out three acres of City-Owned land at two sites to non-profit farms. These are five year leases at $100 per year, with capital bond funds available for infrastructure improvements. The City is working on leases for another five sites, covering an additional four acres. In 2014, the City adopted a soil safety policy that provides guidance for safe growing practices.

In 2014, the State of Maryland updated its Tax Code to allow for tax credits for urban agriculture. In 2015, the Baltimore City Council enacted new legislation to implement this tax credit here in Baltimore City. This credit gives farmers 90% off of their property taxes, as long as the parcel is used for urban agriculture for five years, produces a minimum threshold of value, and is not used for any other purpose that would normally subject it to property taxes.

The Baltimore Food Policy Initiative and the Baltimore Office of Sustainabily are currently in the process of developing an urban agriculture training program in collaboration with Future Harvest, Chesapeake Alliance for Sustainable Agriculture to offer farmer education on the latest innovations in sustainable growing.

In 2016, the Baltimore Office of Sustainablity commisioned a report to investigate opportunities for flower farming on vacant lots in Baltimore. The report, Baltimore in Bloom, issued in January 2016 explored the current state of flower farming in Baltimore and made recommendations on how community organizations and the City can support flower farming. The report found that the demand for locally grown flowers is gaining traction and there is an opportunity to develop this sector. Baltimore Office of Sustainability, Growing Green Initiative developed a booklet, How to Grow and Sell Cut Flowers on Vacant Land, that provides an introduction to growing and selling cut flowers in Baltimore City's community gardens and green spaces.

The City has also been actively promoting urban agriculture through policies and regulations. Revisions to the Building Code allow for the construction of hoophouses without a permit. As part of the 2017 update to the Zoning Code, new use categories and standards were added for community gardens and urban farms to allow community gardners and farmers access to formal recognition for their land use. Temporary structures are permitted during the growing season in community managed open spaces, while permanent or temporary structures such as greenhouses and hoophouses are permitted to extend the growing season for the purposes of urban agriculture sites.

Updated in 2013, the animal regulations to be friendlier to farmers by increasing the number of chickens, rabbits and goats and waiving the permit fees for beehives. In 2014, the Baltimore Office of Sustainability developed a Soil Safety Policy, with support from the Abell Foundation, Johns Hopkins Center for a Livable Future, and other partners. The policy provides guidance to anyone wishing to grow food safe for human consumption in Baltimore, and lays out requirements for those seeking a use permit for a new community garden or urban farm under Baltimore's new adopted Zoning Code.

Challenges

Challenges remain, however that should be addressed in order to maintain and expand Baltimore's urban agriculture sector. Urban soils are often rocky and contaminated. The City is seeking ways to provide better access to soil testing and healthy soils. Water access can be challenging at sites without an available water meter pit. The City is working with the Department of Public Works to install water lines at farms on on City-owned property but the process for this is a work in progress. Community acceptance of proposed new farms can be difficult, as many residents are unfamiliar with the idea of a farm next to their houses and are concerned about odors and rodents.

Public Benefits of Urban Agricultural Land

Urban agriculture has gained significant attention in recent years as it has come to be seen as a way of addressing multiple urban issues with the potential to provide numerous benefits to cities, including the following:

- *Increasing the availability of fresh produce in close proximity to consumers.* Urban agriculture may help alleviate the lack of access to healthy fresh foods in food desert neighborhoods and may help individual households increase their food security. It can also contribute to community food security by augmenting a community's food self-reliance through an increased local food supply.

- *Developing the local economy and creating jobs.* Money spent on local agriculture stays within the local economy, yielding benefits for local economic development. Urban agriculture can also create new jobs and/or training opportunities for individuals interested in starting their own urban agriculture projects or working in related sectors.

- *Improving the natural environment.* Urban farms and gardens minimize waste by using their own waste and the waste of residents and industries to produce compost, which is recycled back into the soil, enriching the soil and thus the productivity of the farm or garden. Local production and distribution of food can also reduce waste by minimizing packaging.

  With improvements to the soil structure and the provision of plants with extensive root systems, urban farms and gardens can better absorb storm water run-off, decrease the burden on wastewater treatment plants and the contamination of groundwater and waterways, by allowing for groundwater recharge.

  Plants can reduce air pollution by absorbing pollutants through their foliage. Greenery and permeable land also regulate the microclimate by controlling humidity, lowering summer temperatures, acting as a windbreak, and creating shade. Urban agriculture also can increase a city's biodiversity by creating habitat for and attracting beneficial soil microorganisms, insects, birds, and animals and providing food andresting spaces along birds' migratory flight patterns.

- *Contributing to the environmental sustainability of cities.* Growing food in cities can decrease the distances food must travel to get to consumers. Furthermore, less food is wasted when travel is minimized, and the more sustainable practices typically used in urban agriculture offer greater efficiency in production inputs such as the use of farm machinery, fertilizers and pesticides.

  With fewer energy requirements, urban agriculture can provide food to cities in a manner that contributes fewer climate change-inducing greenhouse gas emissions. Gardens and farms also sequester carbon, reducing atmospheric carbon that contributes to climate change.

- *Making productive use of vacant lots.* - Using vacant lots for community gardens and to produce food, reduces the prevalence of vacant abandoned land that contributes to neighborhood decay and attracts crime, vagrancy, and rodent infestation. Research on community gardens shows that urban agriculture has significant positive effects on surrounding property values, particularly in low-income neighborhoods, producing additional property tax revenues from the neighborhood.

- *Greening of cities.* Urban agriculture can have a regenerative effect on neighborhoods, transforming weedy, trash-ridden vacant lots into productive green space within the urban landscape. Increased access to green space is linked to improved health outcomes including longevity, self-reported health, better immune functioning, reduced stress, and milder symptoms of attention deficit hyperactivity disorder among children. Green space has also been shown to play an important role in residents' feelings of attachment towards a community and their interactions with other residents.

- *Strengthening community resilience.* - Urban agriculture and other efforts to re-localize the food system returns control of food production to communities, helping to increase a community's resilience to natural and human-created disaster, as well as disturbances such as an economic downturn. Community gardening efforts can bring neighbors together, creating stronger bonds and demonstrating community investment in the neighborhoods in which they are located.

- *Providing educational opportunities about the food system.* Field trips and hands-on experiences, urban gardens and farms provide opportunities for young people to better understand where food comes from. Urban agriculture sites can also act as informational hubs for nutrition, healthy eating, cooking, and food-growing for community members of all ages.

Goals and Objectives for Agricultural Land Preservation

Baltimore City Goals

As previously mentioned, the Department of Planning, Office of Sustainability together with the Baltimore Food Policy Initiative (BFPI)- an intergovernmental collaboration between the Department of Planning (DOP), Office of Sustainability (BOS), Baltimore City Health Department (BCHD), and Baltimore Development Corporation (BDC) – work closely to shape the City's goals and objectives to manage, support the production of agricultural land and increase access to healthy affordable food.

Goals for expansion of the City's agricultural land resources have focused on making use of the city's vacant land. The Department of Planning has taken the lead in identifying goals to stimulate the agricultural and flower industries through Baltimore's Urban Agriculture Plan, Homegrown Baltimore: Grow Local, and its Baltimore in Bloom report on flower farming. The Green Network Plan has focused on recommending a variety of greening opportunities as part of a network throughout the City.

Some of the goals and objectives of the City specifically identified for overcoming challenges with urban agriculture include:

1. Offer solutions for increased land security to a relevant range of growers
    - Develop Automatic Notification of License Renewal
    - Streamline Community Managed Open Space Process
    - Incorporate Community Farms into Existing Land Trust
    - Encourage Direct Land Purchasing
    - Improve Land Leasing Initiative
    - Strengthen Tenure of Adopt-a-Lot Program
    - Support Incentives for Gardens and Farms on Privately-Owned Vacant Land
2. Ensure Maximum water access for growers by streamlining the process and preserving water supply lines
    - Improve Payment Process for Water Access Program
    - Develop Options for Winter Water Access
    - Provide Resource for Sites without a Water Meter Pit
    - Preserve Existing Water Infrastructure
    - Support the Development of Rainwater Capture Systems

3. Build rich, safe urban soils through increased access to equipment, compost and local soil testing
    - Increase Equipment Availability
    - Develop Soil Standards
    - Provide Soil Testing
    - Support Composting at All Levels
4. Leverage Local and Regional Resources to help growers
    - Expand Funding Assistance
    - Support Garden Irrigation Fund
5. Streamline operations, regulations and staffing to support growers
    - Designate a Department of Housing & Community Development Staff Position for Urban Agriculture
    - Create and Support Staff Positions
    - Support Farm Incubator Development
    - Assess New Zoning Code's Permit Process
    - Assess Animal Regulations
    - Explore Liability Insurance Options
    - Ensure Citizen Education and Engagement

Implementing BCRP's 2012-2017 LPPRP: Preservation to Date

While Baltimore City did not identify specific agricultural policies or plans as part of its 2012 - 2017 LPPRP plan, the City's has made progress on its creation and preservation of agricultural land since 2012. These accomplishments are discussed in the accomplishments section on page 150 .

Aligning Baltimore City and State of Maryland Goals for Agricultural Land Preservation

The Maryland Department of Natural Resources identified six (6) goals for Agricultural Land Preservation in its 2014-2018 Land Preservation and Recreation Plan to guide statewide efforts to preserve public lands for agricultural production. These goals are:

1. Permanently preserve agricultural land capable of supporting a reasonable diversity of agricultural production;
2. Protect natural, forestry and historic resources and the rural character of the landscape associated with Maryland's farmland;
3. To the greatest degree possible, concentrate preserved land in large, relatively contiguous blocks to effectively support long-term protection of resources and resource-based industries;
4. Limit the intrusion of development and its impacts on rural resources and resource-based industries;
5. Ensure good return on public investment by concentrating state agricultural land preservation funds in areas where the investment is reasonably well supported by both local investment and land use management programs;
6. Work with local governments to achieve the following:
    - Establish preservation areas, goals and strategies through local comprehensive planning processes that address and complement state goals;
    - In each area designated for preservation, develop a shared understanding of goals and the strategy to achieve them among rural landowners, the public-at-large and state and local government officials;
    - Protect the equity interests of rural landowners in preservation areas by ensuring sufficient public commitment and investment in preservation through easement acquisition and incentive programs;
    - Use local land use management authority effectively to protect public investment in preservation by managing development in rural preservation areas;
    - Establish effective measures to support profitable agriculture, including assistance in production, marketing and the practice of stewardship, so that farming remains a desirable way of life for both the farmer and public-at-large.

While the State goals clearly focus on large tracts of agricultural land and preserving the rural character and legacy of Maryland's farm land, Baltimore City's goals clearly align to create and support agricultural land. Due to the City's dense urban development, the City is making use of its underutilized vacant, land to stimulate economic development, create jobs and meet the needs for healthy food in areas of the city underserved by supermarkets and availablity of fresh and healthy foods.

Agricultural Land Inventory and Maps

Agricultural Land Inventory

Baltimore City has approximatey 58 acres of land cultivated for garden or agricultural production. A total of 275 community gardens, make up 27.5 acres of land use. Each garden is roughly .1 acre in size. The City also has 20 urban farms, totalling 27.25 acres. Through the City's Homegrown Baltimore Land Leasing Initiative, the City provides long term leases of an additional 3.28 acres (as of 2015 and 2016) of 28 city-owned vacant parcels to qualified farmers to make improvements to the property, such as impervious surface removal, soil amendments and shed renovations. An inventory of these properties is provided in Appendix B, p. 175.

Agricultural Land Mapping

The tracking and mapping of agricultural land is mapped by the Department of Planning, Baltimore Office of Sustainability. Locations of urban farms and community gardens are identified on Map 2.7, p. 65.

Implementing Ordinances and Programs

Building Code

Baltimore City Building Code, Section 105.2 Permits are not required for shade cloth or plastic film structures commonly known as hoop houses, constructed for nursery or agricultural purposes, not including service systems. The covering of the structure must be a material that conforms to National Fire Protection Association (NFPA) 701 standards.

Zoning Code

In June 2017, Baltimore City approved a new zoning code that includes new use categories and standards for community gardens and urban farms. The new Community-Managed Open Spaces use category permits temporary greenhouses, including high tunnels/hoop-houses, cold-frames, and similar structures to extend the growing season. Accessory structures, such as sheds, gazebos and pergolas, are also permitted. The new Urban Agriculture use category allows for greenhouses, both permanent and temporary, high tunnels/hoop-houses, cold-frames, and similar structures used to extend the growing season. There is no limit on the number or square footage of these structures. More information about the zoning code can be found at the following online link: https://planning.baltimorecity.gov/programs/transform-baltimore.

Animal Regulations

Updated Baltimore City animal husbandry regulations allow for bees, chickens, rabbits, and goats. For more details, see the following online link: http://health.baltimorecity.gov/sites/default/files/AC%20Reg%20-%20Wild%20Exotic%20Hybrid%20Animals%20-%20September%2026,%202013_1.pdf).

Soil Safety

The Soil Safety Policy provides guidance to anyone wishing to grow food for human consumption in Baltimore City. It also provides the requirements necessary to obtain a use permit for a new community garden or urban farm as part of the new Baltimore City Zoning Code.

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APPENDIX A

Baltimore City Recreation and Parks Property Inventory by Park Type

(Please Note: All Inventory Tables in Appendix A are formatted for 11" x 17" paper)

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APPENDIX B

Baltimore City Recreation and Parks Property Inventory by Natural Resource and Agricultural Land Program Type

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Baltimore City Forest Conservation Easements 2014			
Property Easement Name	**Address**	**Year**	**Acres**
Gilman School	5407 Roland Ave.	1996	9
Roland Park Country School	5204 Roland Ave.	2000	4.5
Gwynns Falls Reclamation Site	2900 W. Baltimore St.	2013	6.1
Maryland School for the Blind	3501 Taylor Ave.	2013	19.8
Johns Hopkins University Homewood	3400 N. Charles St.	2000	20.18
Sinai Hospital	2401 W. Belvedere Ave.	1999	15.38
Good Samaritan Hospital	1650 Woodbourne	2002	9.9
Loyola University	2221 W. Cold Spring Lane	1998	3.1
Millenium Landfill	3601 Fort Armistead	2012	17.78
Arlington Housing	4501 W. Northern Parkway	2003	3.8
College of Notre Dame	4701 N. Charles St.	1998	11.3
Friends School	5114 Charles St.	2004	3.1
Seton Business Park	4809 Mt. Hope Dr.	1998	11.4
Heather Ridge Condominiums	6200 Red Cedar Place	2014	4.6
Total Acreage			**139.94**

Baltimore City Community Gardens Inventory	
COMMUNITY GARDEN NAME	**ADDRESS**
BOYD STREET GARDEN	101-1023 BOYD ST
BRUCE STREET PARK	1303-1326 N BRUCE ST
FAITH GARDEN / CHESS PARK	2310-2330 E CHASE ST
MORRIS STREET GARDEN	2200-2218 MORRIS ST AND 2256-2560 MORRIS
BRENTWOOD COMMONS	1816 BRENTWOOD AVE
GARDEN OF EDEN	900-932 N GLOVER ST
MOUNT WASHINGTON COMMUNITY GARDEN AND ARBORETUM	1920 KELLY AVE
DUNCAN STREET MIRACLE GARDEN	1800-1843 N DUNCAN STREET
500 N. BLOCK DUNCAN STREET COMMUNITY GARDEN	502 N DUNCAN STREET
IRVINGTON PEACE PARK	506 S COLLINS AVE
KENSINGTON COMMUNITY GARDEN	
LENNOX STREET COMMUNITY GARDEN	728- 732 LENNOX ST
BETTER WAVERLY YOUTH SCULPTURE GARDEN	808 HOMESTEAD STREET
VILLAGE GREEN	2812 - 2822 FOX ST
HOMESTEAD HARVEST COMMUNITY GARDEN	623 HOMESTEAD ST
MARTHA'S PLACE MEMORIAL GARDEN PROJECT	594 PRESSTMAN AVE
NORTH FULTON PLAY PARK	2 N FULTON AVE
MADEIRA GARDEN	403-429 MADEIRA ST
IMPROVING WAVERLY GARDEN	644 PARKWYRTH AVE
UFPIA COMMUNITY GARDEN	1827 E PRATT STREET
CHARLES M. HALCOTT SQUARE	104 SOUTH DUNCAN STREET
301 S. CALHOUN STREET	301 S CALHOUN STREET
EDNOR GARDENS LAKESIDE	
MILTON-MONTFORD ROSE GARDEN	801 MONTFORD
AMAZING ROSE STREET GARDEN	601-627 N ROSE ST
PARK HEIGHTS RENAISSANCE URBAN GARDEN (GARDEN OF HOPE)	3300-3325 WOODLAND AVE
RESERVOIR HILL COMMUNITY GARDEN	942 WHITELOCK ST
THE BEANIE GREEN AND CITY BUG PROJECT / NEWINGTON AVENUE NEIGHBORS	730 NEWINGTON AVE
COPPIN HEIGHTS COMMUNITY GARDEN	1823 N WARWICK AVE
UNITY COMMUNITY GARDEN	4001 SOUTHERN AVE
WESTPORT COMMUNITY GARDEN	2322 ANNAPOLIS RD
GARDENS OF HOPE	1202-1227 SHIELDS PLACE
BRENTWOOD GARDEN	1705-1723 BRENTWOOD AVE
RADNOR WINSTON COMMUNITY GARDEN	5002 YORK RD
SHARP KIDS	1101- 1105 RACE ST
CHC NEIGHBORHOOD GARDEN	5303 CUTHBERT AVE
FERNDALE COMMUNITY GARDEN	3301 FERNDALE AVE
COLLINGTON SQUARE ECO-TEACHING GARDEN (MURA STREET GARDEN OR GAZEBO/PARK COLLING	2126-2130 MURA ST
(T)HERE: A PARK	212 E LANVALE ST
1025 WILLIAM ST	1025 WILLIAM ST
PATHWAY PROJECT	131 S CARROLLTON AVE
FILBERT STREET GARDEN	1317 FILBERT ST
1705 NORTH COLLINGTON AVE.	1705 COLLINGTON AVE
1800 W. LEXINGTON GARDEN	1835 LEXINGTON ST
200 SOUTH LOUDON AVE	200 SOUTH LOUDON AVE
FULTON AVENUE GARDEN	1600 N FULTON
NEW SONG'S GARDEN OF KNOWLEDGE	1530 PRESSTMAN ST
MISS PAT'S GARDEN	209 N MONTFORD AVE
WINCHESTER BEAUTIFICATION PROJECT	1125 MCKEAN AVE
NEW BEGINNINGS GARDEN #2	1011-1015 N CARROLLTON AVE
HARLEM PARK/SANDTOWN COMMUNITY GARDEN	1408-1428 W LAFAYETTE
BEAUTIFICATION GARDEN #2 (OUR COMMUNITY GARDEN)	916 N CAREY STREET
BEAUTIFICATION GARDEN #1 (OUR COMMUNITY GARDEN)	913 N CAREY STREET
NATE'S GARDEN	1225 MOSHER ST
GATEWAY GARDEN / SEED BED	1221 MOSHER ST
OUR COMMUNITY GARDEN	918 N CARROLLTON ROAD
MEMORY GARDEN 2 / VEGETABLE GARDEN	911 N STOCKTON STREET 916 N CAROLLTO
KIDS' GARDEN (OUR COMMUNITY GARDEN) / MEMORY GARDEN	1221 SMALL ST
LOVE GARDEN	1130 LAFAYETTE AVE
SMALL GARDEN	923 N CARROLLTON AVE

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Baltimore City Community Gardens Inventory	
COMMUNITY GARDEN NAME	**ADDRESS**
KIDS ON THE HILL SCULPTURE GARDEN	2325 MADISON AVE
MEMORIAL PARK	625 N CARROLLTON AVE
THE GARDEN THAT FAITH BUILT	523 N SCHROEDER STREEET
FRANKLIN SQUARE COMMUNITY GARDEN	262-264 BRUCE STREET
SUNFLOWER VILLAGE	220 NORTH CAREY STREET
VINE STREET GREENERY	2137 VINE ST
OROSW COOPERATIVE GARDEN	101-113 N FULTON AVE
CITY CROPS GREEN CORNER	1112 W FAYETTE ST
BALTIMORE STREET GREEN SPACE	1706-1718 W BALTIMORE ST
BRUCE / BALTIMORE BLOCK IMPROVEMENT FLOWER BOXES	15 N BRUCE ST
PROJECT PLASE GARDEN AT CALVERTON	
CLEAN AND GREEN BALTIMORE AT SMALLWOOD	2139-2145 W BALTIMORE ST
BOYD BOOTH SITE 4 & 5	2100 HOLLINS ST AND 2048 HOLLINS ST
BOYD BOOTH	2120 BOYD
CHARM CITY COMMUNITY PARK	103 S PAYSON ST
SOUTH GILMOR	
NEW SOUTHWEST/ MT CLARE SIGN LOT	
GARDEN BIG / THE COMMUNITY GARDEN AT 1425 OSTEND	1425 WEST OSTEND STREET
BOYD BOOTH SITE 1	410-420 SOUTH PULASKI STREET
BOYD BOOTH SITE 3	439 S SMALLWOOD ST
DRUID HEIGHTS PLAYGROUND	2140 MCCULLOH ST
EUTAW-MASHBURN	1624 EUTAW PLACE
MIDTOWN ACADEMY GARDEN	1398 W MOUNT ROYAL AVE
THE BUDDHA GARDEN AT 0	1300 W MOUNT ROYAL AVE
BARCLAY	208 E LANVALE ST
HARLEM'S PRIDE	728 BRUNE STREET
HERITAGE CROSSING COMMUNITY BEAUTIFICATION	1002 ARGYLE AVE
WAXTER CENTER FOR SENIOR CITIZENS	1000 CATHEDRAL ST
MOUNT VERNON CHILDREN'S PARK	801 N CALVERT ST
ST. MARYS PARK, SETON HILL	606 NORTH PACA STREET
BOYD BOOTH 2	417-423 SOUTH PULASKI STREET
COLE STREET COMMUNITY GARDEN	1525-1530 COLE STREET
PIGTOWN FOOD FOR THOUGHT	1172 CARROLL STREET
PIGTOWN TOT LOT	838 CARROLL STREET
ARCHER AT WASHINGTON	839 WASHINGTON BLVD
PIGTOWN POCKET PARK	600 SCOTT STREET
WEST BARRE STREET OPEN SPACE	121 W BARRE ST
WELCOME ALLEY PARK	129 WELCOME ALLEY
S HANOVER STREET OPEN SPACE	625 1/2 S HANOVER STREET
PUBPED WAY OPEN SPACE	
WEST HUGHES STREET OPEN SPACE	
FEDERAL HILL MAIN ST STREETSCAPE	800-1200 BLOCKS S CHARLES AND LIGHT STREETS
SHARP LEADENHALL GARDEN	116 WEST HAMBURG STREET
HEATH STREET COMMUNITY GARDEN	1701 S CHARLES ST
BAR GREEN THRESHOLD CHESS PARK	1800 BARCLAY ST
HICKORY AVE GREEN SPACE	3348 HICKORY AVE
HOLBROOK STREET GARDEN	1700- 1718 HOLBROOK ST
AM 7 DAY	700 E CHASE ST
CHASEWOOD GARDENS OR BRENTWOOD VILLAGE ELDERS GARDEN	501 EAST CHASE STREET
EAST SIDE GARDEN	1559 E BALTIMORE ST
GARDEN OF TRANSFORMATION	1601 E LOMBARD ST
MIDDLE ALTERNATIVE PROGRAM AT LOMBARD	1601 E PRATT STREET
COLLINGTON AVE MEMORIAL PARK	1801, 1803, 1805 COLLINGTON AVE
LANVALE GARDEN	1600 RUTLAND AVE
HISTORIC EAST BALTIMORE COMMUNITY ACTION COALITION	1807 EAST PRESTON STREET
BIDDLE STREET GARDEN	2132- 2136 BIDDLE STREET
EAST BALTIMORE COMMUNITY GARDEN	1710 E EAGER ST
EBDI	1000 RUTLAND AVE
COOL BEGONIAS	909 N PATTERSON PARK AVE
LAND OF PROMISE	2312-2328 E EAGER ST
ASHLAND GARDEN COMMUNITY	2526 ASHLAND AVE
RECLAIMING OUR COMMUNITY AT MADISON STREET	2222 MADISON ST

Baltimore City Community Gardens Inventory	
COMMUNITY GARDEN NAME	**ADDRESS**
MCELDERRY PARK ASSOCIATION	611 N MONTFORD AVE
AMAZING PORT STREET GARDEN	615-623 NORTH PORT ST
LUZERNE STREET SCAPE	600-623 N LUZERNE AVE
542 NORTH LAKEWOOD AVE.	542 NORTH LAKEWOOD AVE
BANNER NEIGHBORHOODS GARDEN	2900 E FAYETTE ST
PATTERSON PARK NEIGHBORHOOD ASSOCIATION	E BALTIMORE ST & N PORT ST
BALTIMORE AMERICAN INDIAN CENTER NATIVE COMMUNITY GARDEN	113 S BROADWAY
HAMPSTEAD HILLS	500 S LINWOOD AVE
B.U.G.S. (BALTIMORE URBAN GARDEING WITH STUDENTS) GARDEN	802 S CAROLINE ST
MORRIS STREET GREEN SPACE	2720 FAIT AVE
CANTON MILLS PET WASTE STATION	
RIVERSIDE NEIGHBORHOOD TREE PLANTING	200 AND 300 BLOCKS RANDALL
SPIRIT OF WILKENS AVENUE	2601 WILKENS AVE
STAFFORD PARK COMMUNITY GARDEN	3025 STAFFORD STREET
CALVERTON APARTMENTS	32 S CALVERTON ROAD
FAYETTE ST STREETSCAPE	2300 W FAYETTE ST
SEED GARDEN	200 FONT HILL AVE
FRIENDSHIP GARDEN	300 N HILTON STREET
FRANKLINTOWN NEIGHBORHOOD IMPROVEMENT ASSOCIATON	723 N ROSEDALE ST
EDGEWOOD COMMUNITY ASSOCIATION GARDEN	701 LINNARD
4004 FREDERICK AVE	4004 FREDERICK AVE
THE BEREA TEMPLE FLOWER GARDEN	4120 FERNHILL AVE
GROWING GIRLS AND GARDENS	3910 BARRINGTON RD
PEACE GARDEN	3204 CHELSEA TERRACE
NA 1	2405-2411 ELISNORE AVE
LEONARD E. HICKS COMMUNITY CENTER	2718 W NORTH AVE
THE IBE GARDEN	2801 N DUKELAND ST
GARDEN OF HOPE - UNITED H.O.P.E. + SAY TOGETHER GARDEN	VIRGINIA AVE
HOLISTIC LIFE FOUNDATION, INC.	2008 NORTH SMALLWOOD STREET
MONDAWMIN THE GATEWAY	1644 GWYNNS FALLS
ROBERT W COLEMAN COMMUNITY GREENING	2207 WINDSOR AVE
AFYA COMMUNITY GARDEN	4204-4224 PARK HEIGHTS AVE
BALTIMORE READS LITERACY GARDEN	PARK HEIGHTS AVE & HILLDALE AVE
DRUID PARK DRIVE COMMUNITY GARDEN	2500 DRUID PARK DRIVE
ROCKS AND ROWS GARDEN	3713 CLIPPER ROAD
BALTIMORE HONEY	2054 DRUID PARK DRIVE
THE GAIA PROJECT	1600 CLIFTON ST
URNS FOR PARK AVENUE	2028 PARK AVE
BEAUTIFICATION OF RESERVOIR HILL	748 RESERVOIR ST
GREENING UPPER MT. ROYAL TERRACE	2100 MOUNT ROYAL TERRACE
UPPER PARK AVE URNS	2100 BLOCK OF PARK AVE
WHITELOCK RENEWAL	950 WHITELOCK ST
LINDEN	2436 LINDEN AVE
CLEAN & GREEN @ LINDEN	825 DRUID PARK LAKE DRIVE
CHAUNCEY AVE. COMMUNITY GREENING PROJECT	812 CHAUNCEY AVE
ACADEMY FOR COLLEGE AND CAREER EXPLORATION	1300 W 36TH STREET
ST MARY'S SENIOR GARDEN	3939 ROLAND AVE
MEDFIELD HEIGHTS ELEMENTARY SCHOOLYARD HABITAT	4300 BUCHANAN AVE
REMINGTON GATEWAYS	2600 HAMPDEN AVE
MILLERS COURT GARDEN	2601 N HOWARD ST
2700 BLOCK MACE	
SHERWOOD GARDENS	4310 UNDERWOOD ROAD
COMERS GARDEN	321 EAST 20TH ST
GUILFORD AT 22ND	2230 GUILFORD AVE
VILLAGE LEARNING PLACE	2521 ST PAUL ST
GUILFORD GLORIFICATION AND GREENING GROUP	2700 GUILFORD AVE
RIGNEY HOMESTEAD	3010 ABELL AVE
OUR PLAYGROUND	900 E 33RD ST
ELIZABETH COTTON - HAPPY GARDEN	700 E NORTH AVE
GATEWAY COMMUNITY DEVELOPMENT / ARK CHURCH	1900 AISQUITH ST
FENTRICES' GARDEN	2073 BOONE ST
HOMEWOOD HOUSE COMMUNITY GARDEN	2200 HOMEWOOD AVE

Baltimore City Community Gardens Inventory	
COMMUNITY GARDEN NAME	**ADDRESS**
COMMUNITY GARDEN - JH AT EASTERN	1103 E 33RD ST
PEACE GARDEN	3333 GREENMOUNT AVE
TINGES COMMONS OR WAVERLY ART GARDEN	701 E 33RD STREET
PRIMROSE PATH	807 E 33RD ST
FOLLOW YOUR DREAMS GREENING PROJECT 2004	2600 BOONE ST
I C GREEN	609 MONTPELIER ST
ABBOTSTON GARDENS	1541 ABBOTSTON ST
BELAIR-EDISON MAIN STREET COMMUNITY GARDEN	3300 BELAIR ROAD
DARLEY PARK COMMUNITY GARDEN	25TH ST AND CLIFVIEW AVE
HERITAGE HIGH	2801 SAINT LO DRIVE
BALTIMORE HEBREW	7401 PARK HEIGHTS AVE
GAN CHIA	7310 PARK HEIGHTS AVE
CHEDER CHABAD PRESCHOOL	6706 CROSS COUNTRY BOULEVARD
CROSS COUNTRY SCHOOLYARD	6100 CROSS COUNTRY BLVD
SPEAK TO MY HEART MINISTRIES	3903 W BELVEDERE AVE
BYRON PATRICK WRIGHT BYRON PATRICK	3614 LUCILLE AVE
NORTHWEST PARK COMMUNITY GARDEN	W ROGERS AVE & WEXFORM RD
SAY Y.E.S. TOGETHER GARDEN	2810 OAKLEY AVE
FRIENDS COMMUNITY GARDEN	5114 N CHARLES ST
TUNBRIDGE PUBLIC CHARTER	5504 YORK ROAD
PLEASANT HOPE GARDEN	430 E BELVEDERE AVE
ASTT HEALING GARDEN (ADVOCATES FOR SURVIVORS OF TORTURE AND TRAUMA)	431 EAST BELVEDERE AVE
GOVANS COMMUNITY GARDEN	5828 YORK ROAD
WINSTON GOVANS WOODS	814 WINSTON AVE
4417 IVANHOE AVE	4417 IVANHOE AVE
ANTIOCH AT 43RD	703-709 EAST 43RD STREET
SPRINGFIELD WOODS	998-900 SPRINGFIELD AVE
LABRYNTH AT ST MATTHEWS COMMUNITY	5401 LOCH RAVEN BLVD
VEGETABLE COOPERATIVE	
HAMILTON CROP CIRCLE	4500 HARFORD ROAD
HAMILTON CROP CIRCLE	6308 OLD HARFORD RD
WEST FIELD GARDEN	2718 WESTFIELD AVE
STADIUM SCHOOL NEIGHBORHOOD FLOWER & BEAUTIFICATION GARDEN	2500 E NORTHERN PARKWAY
EPIPHANY LUTHERAN CHURCH	4301 RASPE AVE
CITY NEIGHBORS HAMILTON CHARTER	5609 SEFTON AVE
DEBORAH'S GARDEN AT NEW CREATION CHRISTIAN CHURCH	5401 GRANKFORD AVE
KARESA BARI COMMUNITY GARDEN	5311 GOODNOW ROAD
BELAIR EDISON BLOSSOMS COMMUNITY GARDEN	3505 KENYON AVE
	100 SOUTH DEAN ST
NEW ROOTS GARDEN	3505 EASTERN AVE
NEW ROOTS GARDEN	3505 EASTERN AVE
SOUTHEAST ANCHOR LIBRARY GARDEN CLUB	3601 EASTERN AVE
DR. KATHY SHELL MEMORIAL GARDEN	701 RAPPOLLA ST
GRACELAND PARK	6300 O'DONNELL STREET
CHILD FIRST GARDENS AT HOLABIRD	1500 IMLA ST
GARRETT PARK IMPROVEMENT PROJECT	3560 3RD ST
CURTIS BAY	4301 WEST BAY AVE
WESTPORT COMMUNITY GARDEN	2324 CEDLEY ST
EAT HEALTHY, LIVE HEALTHY	
EDIBLE ERA	2700 SEAMON
VIOLETVILLE COMMUNITY GARDEN	912 PINE HEIGHTS AVE
S.P.R.O.U.T. (STILLMEADOW PLANTING AND REVITALIZING OUR URBAN TREASURE)	5110 FREDERICK AVE
FREDERICK AVE.	
BEE FRIENDLY APIARY	422 NOTTINGHAM RD
THE SAMARITAN WOMEN COMMUNITY GARDEN	602 S CHAPELGATE LANE
ELEGANT ACCENTS	3700 BLOCK MOHAWK AVE
GARDEN BUILD AT THE GWYNN OAK METHODIST CHURCH	5020 GWYNN OAK AVE
GWYNN OAK COMMUNITY GARDENS	5107 GWYNN OAK RD
CARMINE GARDENS	5120 CARMINE AVE
	2700 QUEEN ANNE RD

Baltimore City Community Gardens Inventory	
COMMUNITY GARDEN NAME	**ADDRESS**
OUTWARD BOUND COMMUNITY GARDEN	1901 EAGLE DR
GARWYN OAKS COMMUNITY SIGN GARDEN	3500 BLOCK GWYNNS FALLS PKWY
GREENMOUNT COMMUNITY GARDEN	501 - 503 E 22ND ST
2FISH COMMUNITY GARDEN	24TH ST
SAINT STAN'S	
BEREA COMMUNITY GARDEN	1400 N ROSE ST
BREWERS HILL GARDENS	N GAY STREET
BRIARCLIFT MEADOW	COOKS LN AND BRIARCLIFT RD
CEDMONT BLOOMS AS OUR CHILDREN GROW	GLENMORE AVE AND FAIRDEL AVE
CLIFTON PARK GAIA GARDEN	3201 HARFORD RD
COMMUNITY GARDEN	300 BLOCK FONT HILL AVE
IVANHOE HILLS COMMUNITY GARDEN	440 IVANHOE AVE
MOVEABLE FEAST @ DUNCAN ST. MIRACLE GARDEN	DUNCAN STREET
MSU COMMUNITY ORGANIC VEGETABLE GARDEN	ES LOCH RAVEN BLVD NEC WINSTON AV
OAKENSHAWE ORCHARD AND FUTURE GARDEN	WS BARCLAY ST 81-9 FT
OLIVER GARDEN	1338 N CENTRAL AVE
SANDTOWN WINCHESTER CONDOMINIUM ASSOCIATION	828 N FULTON ST
RIDGLEY'S DELIGHT COMMUNITY ASSOCIATION	
RUTTER'S MILL PARK	1402 RUTTER
ARMISTEAD GARDENS COMMUNITY GARDEN	5001 EAGER ST
OLD GOUCHER COMMUNITY GARDEN	208 E 23RD ST
ORKNEY ROAD GREENING PROJECT	500 ORKNEY ROAD
PARKWAY COMMUNITY GARDEN	3200 TIOGA PARKWAY
PEOPLES HOMESTEADING	2426 MCELDERRY ST
PILLAR WORSHIP CENTER	361 FONTHILL AVE
RAINBOW COMMUNITY ASSOCIATION GARDEN	5102 BEAUFORT
THE QUIET PLACE	ALLEY BEHIND 2303 CLIFTON AVE
TUERK HOUSE GARDEN	730 ASHBURTON ST
UNION SQUARE COMMUNITY PARK	GILMOR AND LOMBARD
URBAN EDEN GARDEN	3310 WOODLAND AVE

Baltimore City Urban Farms Inventory 2017	
Urban Farm Name	**Address**
BALTIMORE FREE FARM	3510 ASH STREET
BETHEL FARM LAB	1500 Bethel Street
BOONE STREET FARM	2100 BOONE STREET
CHARM CITY FARM	800 E. HOFFMAN
CHERRY HILL PEOPLE'S GARDEN	900 CHERRY HILL ROAD
FANNIE LOU HAMER FARM	2801 N. DUKELAND STREET
FILBERT STREET GARDEN	1317 Filbert Street
FOOD SYSTEMS LAB AT CYLBURN	4915 GREENSPRING AVENUE
HIDDEN HARVEST FARM	1825 N. CALVERT STREET
HILLEN HOMESTEAD 1	1913 E. 28TH STREET
HILLEN HOMESTEAD 2	3500 KENYON AVENUE
PERLMAN PLACE FARM	1900 PERLMAN PLACE
PESCATORE BACKYARD DELICACIES	2815 HAMILTON AVENUE
REAL FOOD FARM	2801 SAINT LO DRIVE
STRENGTH TO LOVE FARM	1826 LORMAN STREET
THE FLOWER FACTORY	1433 N. GAY STREET
THE GREENER GARDEN	5623 MCCLEAN BOULEVARD
THE SAMARITAN WOMEN'S FARM	602 S. CHAPEL GATE LANE
URBAN PASTORAL	1701 N. GAY STREET
WHITELOCK COMMUNITY FARM	930 WHITELOCK STREET

Home Grown Baltimore Land Leasing Initiative Inventory 2015 and 2016	
BlockLot	**Address**
2015	
5603F025B	6643 WALTHER AVE
5603F025C	6635 WALTHER AVE
2016	
1143 001	1329 HOMEWOOD AVE
1143 005	1321 HOMEWOOD AVE
1143 006	1319 HOMEWOOD AVE
1143 007	1317 HOMEWOOD AVE
1143 008	1315 HOMEWOOD AVE
1143 009	1313 HOMEWOOD AVE
1143 010	1311 HOMEWOOD AVE
1143 011	1309 HOMEWOOD AVE
1143 078	1326 HILLMAN ST
1143 077	1324 HILLMAN ST
1143 076	1322 HILLMAN ST
1143 075	1320 HILLMAN ST
1143 074	1318 HILLMAN ST
1143 073	1316 HILLMAN ST
1143 072	1314 HILLMAN ST
1143 071	1312 HILLMAN ST
1143 070	1310 HILLMAN ST
1143 048	1325 HILLMAN ST
1143 053	1323 HILLMAN ST
1143 054	1321 HILLMAN ST
1143 055	1319 HILLMAN ST
1143 056	1317 HILLMAN ST
1143 057	1315 HILLMAN ST
1143 058	1313 HILLMAN ST
1143 059	1311 HILLMAN ST
1143 060	1309 1/2 HILLMAN ST

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BALTIMORE CITY
RECREATION & PARKS
REGINALD
MOORE
DIRECTOR