



Community Services
Background Report



Anne
Arundel
2040



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Introduction

Anne Arundel County provides, operates and maintains a wide variety of community services and facilities to serve local needs. The ability to provide a high level of services is important to the County and citizens alike. Access to high quality public education, health services, recreation services, and services for the aging has a direct impact on quality of life for local residents.

The provision of these services is an important component of the comprehensive planning process, as land use and development decisions will have a direct impact on the demand for these services as well as the County's ability to provide them. This report will focus on five major community services provided by the County and will identify some areas of need that may be addressed in Plan2040. The community services provided by the County include: Public Education, Library, Aging and Disabilities, Public Health and Recreation and Parks.

Planning Framework

Anne Arundel County's 2009 General Development Plan (GDP) established several key goals applicable to community services. These goals and recommendations are as follows:

1. *Provide high quality education and public school infrastructure for all County residents* by prioritizing capital budget and program to utilize school space as efficiently as possible, using funding and redistricting to maintain the most efficient and equitable use of school capacity, revising the adequate public facilities ordinance, incorporating green building features to new schools and renovations to existing ones, and developing programs for trade and / or industry specific vocational education.
2. *Provide a diverse range of accessible recreational facilities and programs to serve the needs of all County residents* by having joint use schedules at school sites to enhance the community's use of public facilities; utilizing Senior Centers for community recreation purposes when space is available; promoting connectivity to existing and/or planned recreational spaces through the subdivision and site development process; assessing current and future needs for local community centers, including an evaluation of needs identified in the Small Area Plans, as well as other areas that may be underserved with regard to multipurpose community space; acquiring approximately 850 additional acres of land for active recreation projects; upgrading existing parks and developing new parks in accordance with the Land Preservation, Parks, and Recreation Plan; and completing an inventory of sites in the County that provide public waterfront access, making it available on the internet, and identifying future sites as needed to increase public access.
3. *Provide a library system that continues to evolve to meet the changing public information needs* through expansions of the North County and Annapolis Area Libraries and increasing the efficiency of library services by reviewing, operations including hours of service and allocation of funds for materials.
4. *Provide quality health care opportunities convenient to all County residents* by allocating funds to expand environmental health and school health programs as needed, expanding public health programs serving low income residents, and partnering with Anne Arundel Medical Center and Baltimore Washington Medical Center to present programs on health and wellness issues.

5. *Provide services and opportunities for senior citizens to lead healthy, independent, and fulfilling lifestyles* by identifying sites with development or redevelopment potential for senior housing that are located near needed amenities; working with private developers to provide a range of housing options for senior citizens including assisted living facilities, retirement communities, affordable independent living communities, and continuing care communities; addressing additional space needs at the Brooklyn Park Senior Center; and completing the planned expansion of the Pasadena Senior Center.

Further detail regarding the status of these recommendations can be found in the 2009 GDP Implementation Report located at www.aacounty.org/Plan2040.

The 16 Small Area Plans (SAPs) supported the 1997 GDP goals and recommendations by addressing community service needs such as provision of additional hiker / biker trails, athletic fields, public water access, senior centers, long-term health care opportunities for the elderly, programming funding for new schools and renovations to schools, replacing / expanding existing libraries, expanding library hours, increasing services at health centers, and using the schools as multi-use facilities within the communities. A status of the recommendations from the 16 Small Area Plans can be found in a separate background report located at www.aacounty.org/Plan2040.

In addition, there are numerous functional master plans that help to implement the goals and recommendations of the General Development Plan and the Small Area Plans. These are described in the community services chapters below.

Public Education

Anne Arundel County Public Schools

Anne Arundel County's public school system is the fourth largest in Maryland and is among the 50 largest school systems in the Country. With a current student population of over 83,000 students, Anne Arundel County Public Schools (AACPS) strives to provide a challenging and rewarding educational experience for every child. The public school system includes a staff of over 10,000 employees working in 123 public schools and has an annual operating budget of nearly \$1.184 billion for the current fiscal year. Programs and policies of the public schools are established by an eight-member Board of Education that includes seven members appointed by the Governor and one high school senior who serves as the student representative. Starting in fall 2018, the Board will be selected by election. The AACPS system includes 21 Maryland Blue Ribbon Schools of Excellence, of which 18 are also National Blue Ribbon Schools.

Facilities and Services

The AACPS system is organized in 12 feeder districts, with each district served by a single high school. Within this array of high school feeder districts are 19 middle schools and 78 elementary schools. Figures 1 to 3 depict the County's elementary, middle, and high school districts, respectively. The feeder system is a commonly used model for structuring the public education system and tends to be preferred because it builds upon a consistent stream of pupil enrollment from elementary school through middle school and eventually into the corresponding high school. This system helps ensure that the same social networks continually support pupils and enhances community building. AACPS also operates several

Figure 1: Elementary School Districts

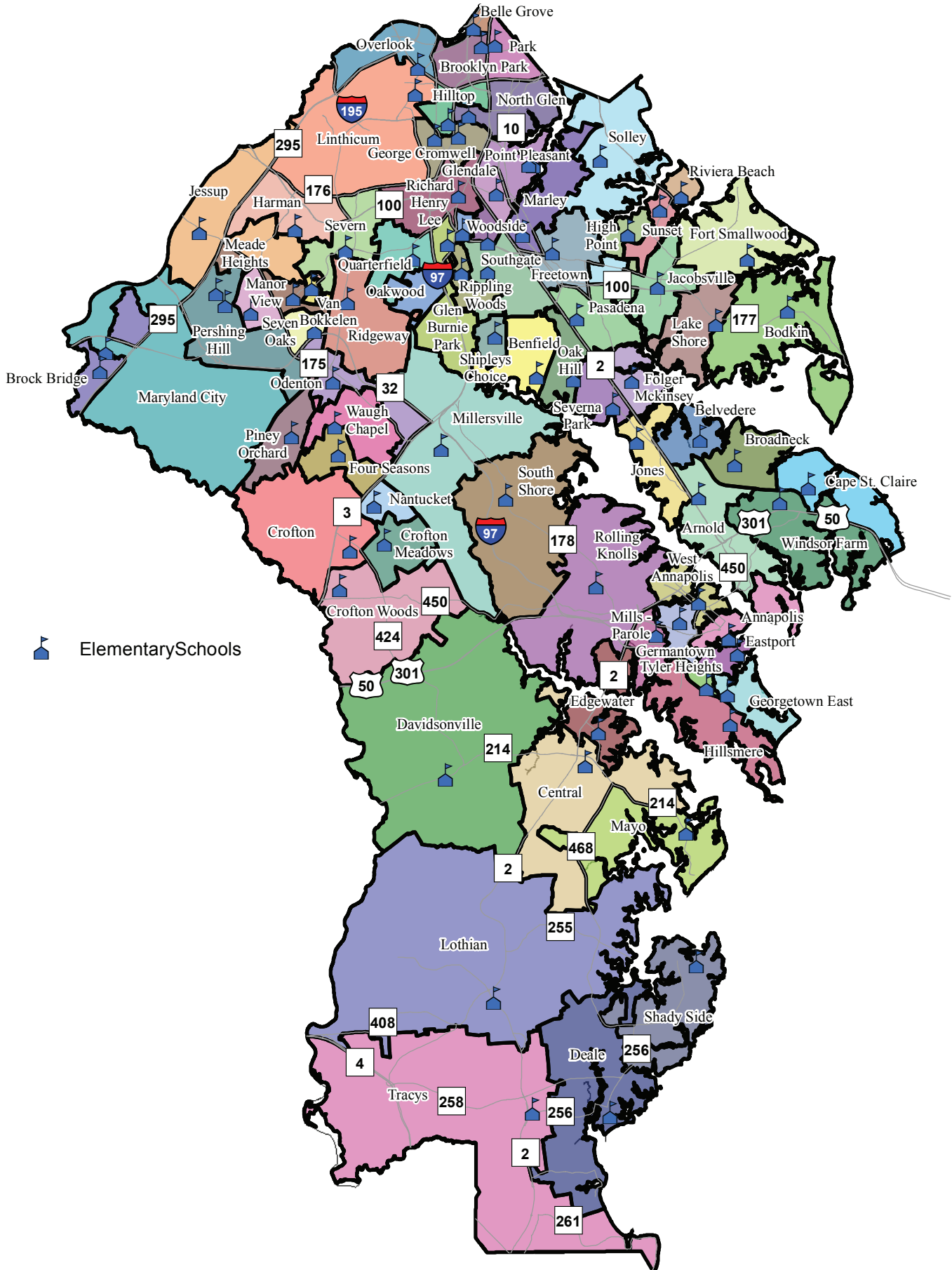
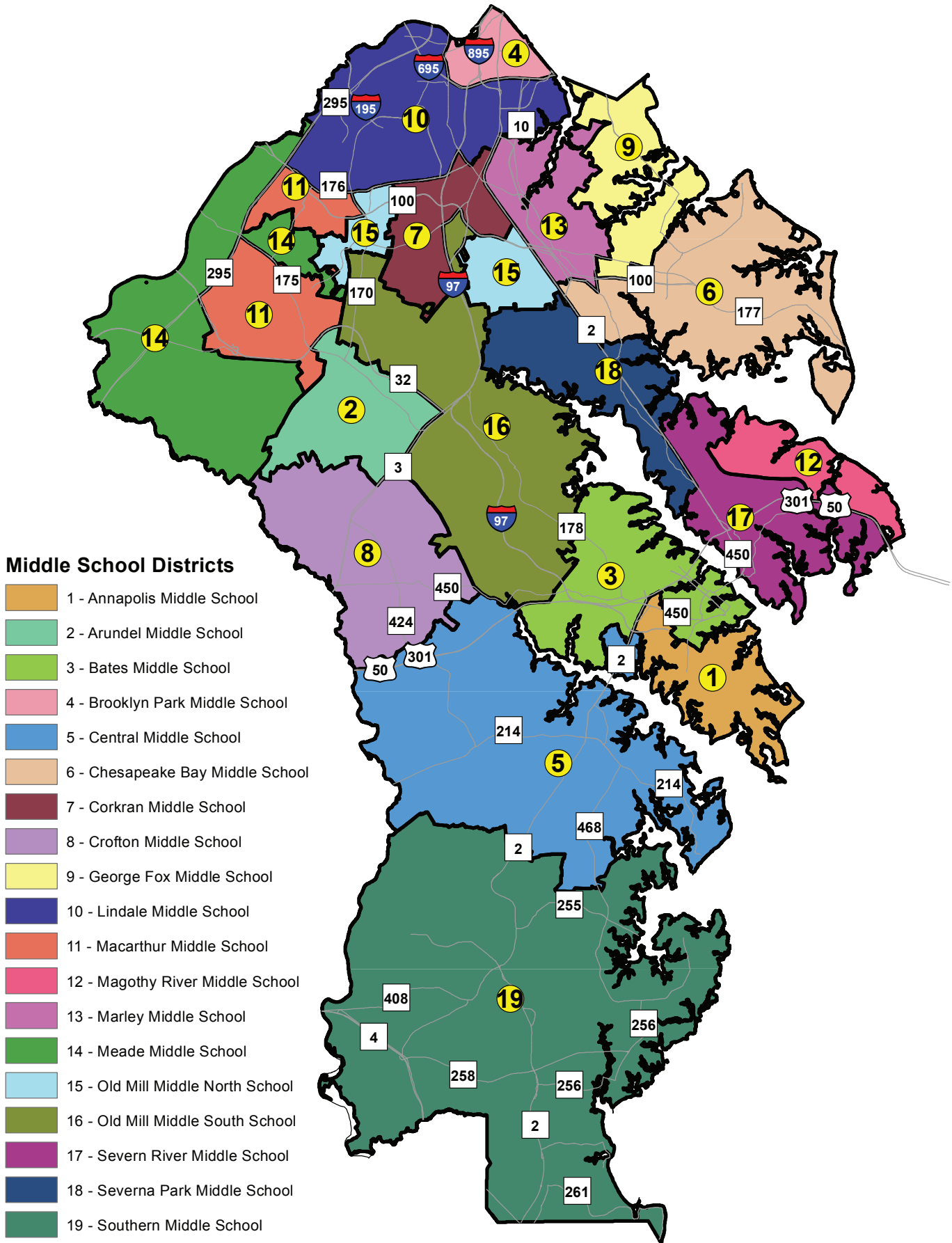


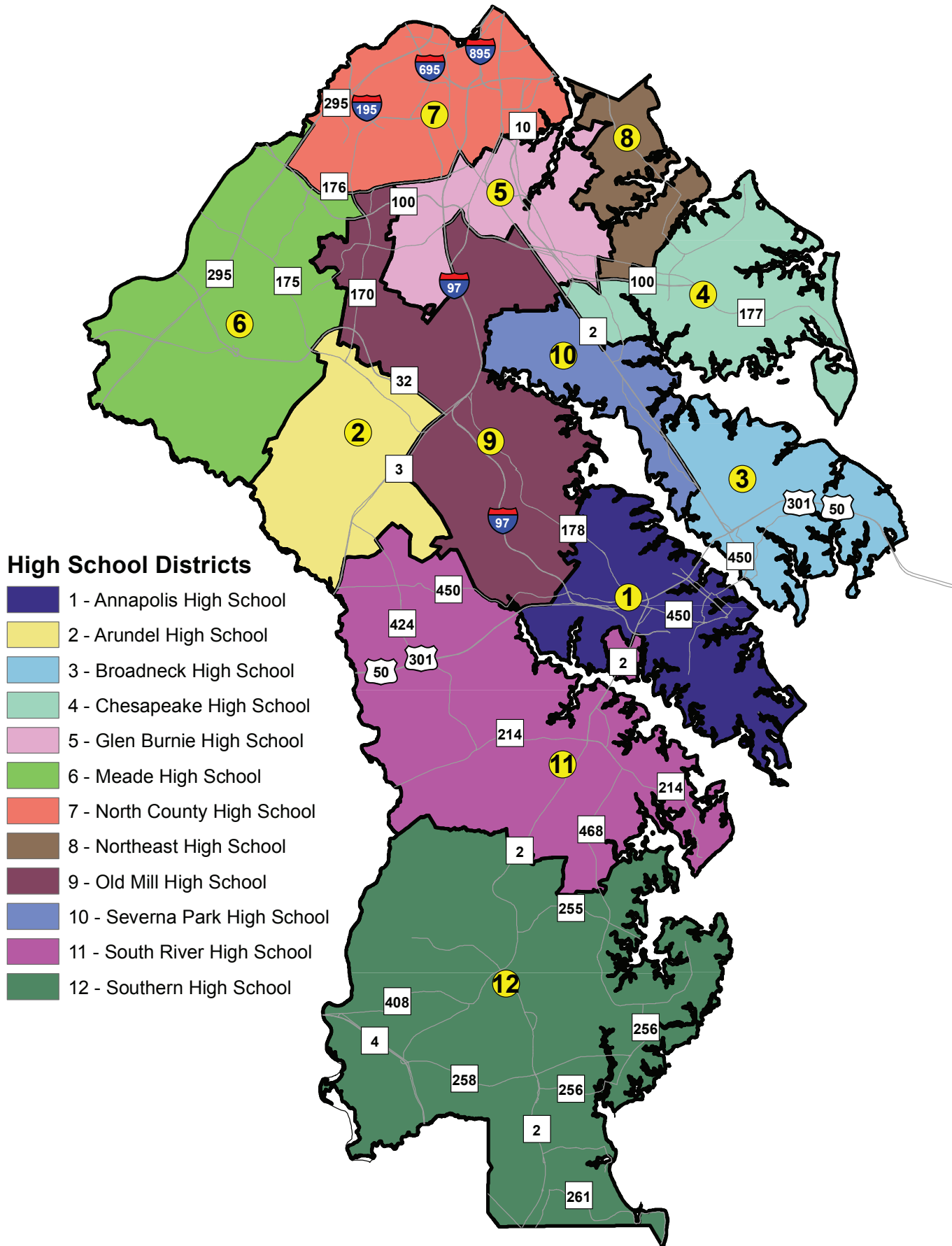
Figure 2: Middle School Districts



Middle School Districts

- 1 - Annapolis Middle School
- 2 - Arundel Middle School
- 3 - Bates Middle School
- 4 - Brooklyn Park Middle School
- 5 - Central Middle School
- 6 - Chesapeake Bay Middle School
- 7 - Corkran Middle School
- 8 - Crofton Middle School
- 9 - George Fox Middle School
- 10 - Lindale Middle School
- 11 - Macarthur Middle School
- 12 - Magothy River Middle School
- 13 - Marley Middle School
- 14 - Meade Middle School
- 15 - Old Mill Middle North School
- 16 - Old Mill Middle South School
- 17 - Severn River Middle School
- 18 - Severna Park Middle School
- 19 - Southern Middle School

Figure 3: High School Districts



special schools and centers, including two alternate education centers, three special education centers, two contract and two charter schools.

AACPS also oversees a career and technology education program through its Centers of Applied Technology (CAT). The CAT programs include shared coursework in automotive technology, construction, computer technology, health occupations, and various trade services. Courses can be taken at each of the two CAT facilities, located in Severn and Edgewater, with additional coursework offered at select middle schools and at each of the 12 high schools in the County. Currently there are approximately 3,000 students enrolled in career and technology education at the two centers.

Since the adoption of the 2009 GDP, there have been many capital improvements to the public school system including a renovation of and an addition to Annapolis, Benfield, Belle Grove, Crofton, Mills-Parole, Overlook, Point Pleasant, Southgate, and West Annapolis elementary schools, West Meade Early Education Center and Northeast High School. Also, Folger McKinsey, Germantown, Lothian, Pershing Hill and Rolling Knolls elementary schools and Severna Park High School have been replaced with new buildings.

Educational Facilities Planning

The Educational Facilities Master Plan: The Board of Education of Anne Arundel County (BOE) is required by State law to prepare and annually update an Educational Facilities Master Plan (EFMP). The required elements of the EFMP include:

1. Goals, standards, and guidelines for school system facilities;
2. An inventory and evaluation of existing facilities;
3. Population and enrollment projections over a ten-year period (including special education);
4. A listing and analysis of facilities utilization and needs over the next seven-year period, showing use of existing schools and future needs; and
5. A community analysis including a description of location by census tract, land use and zoning, public utilities, and General Development Plan (GDP) or Master Plan goals and objectives.

The 2018 EFMP lists three planning goals that include:

1. Provide for the most effective and efficient use of all school facilities;
2. Provide the ability to conduct an effective instructional program that addresses community needs; and
3. Determine the need for renovation of and/or addition to current facilities to meet changing needs for students, communities, and programs.

These planning goals complement the stated educational goal presented in the 2009 GDP, which is to provide the best education for each citizen as well as equity for all school facilities. As is the case with other public facilities, the GDP encourages a policy emphasizing efficient use of existing schools and the construction of new facilities where there is a demonstrated need. The Board of

Education, AACPS, the Office of Planning and Zoning, and other County agencies work in cooperation to address these goals.

The BOE regularly and systematically assesses population and enrollment projections and their impacts on each of the 12 feeder systems. The BOE uses a detailed methodology developed by the State of Maryland for producing student enrollment forecasts. Using the ‘Grade-Succession Model’, the AACPS in concert with the Maryland Department of Planning (MDP), leverages historical data on birth rates and current enrollment to develop mathematical ratios. These ‘grade cohort survival’ ratios consider other demographic factors such as yearly birth rates, mortality for school-aged children, net migration, transfer of children between public/private schools, grade promotion, student drop-outs in later years of secondary schools and shifts in graded and un-graded groups¹.



The new, LEED-certified Severna Park High School opened to classes in winter of 2017.

Courtesy of Tom Holdsworth Photography

Student enrollment projections are updated annually for a ten-year planning period. This assists AACPS in developing long-range plans for needed land acquisitions, expansions, renovations, and new or replacement schools. It is important to note that the student enrollment forecasts assume that there will not be significant variation between the current demographic trends and future trends. Over time, there can be changes in enrollment trends created by externalities such as increased demand for housing, natural increases in household size, or changes in land use or development plans. In such instances, professional staff judgments are incorporated into the enrollment forecasts. School enrollment projections combined with professional staff judgment provide facilities planners with a way to look into the future and prepare for needed capacity relief in a targeted manner.

AACPS undertook a comprehensive strategic facilities assessment in 2015 that evaluated current schools as well as new facilities for the ten-year planning horizon. In addition, the 2015 Strategic Facilities Utilization Master Plan examined best practices regarding school size. The recommendations became the basis for the current Capital Budget and Program.

Currently, a Student Yield Study is underway for AACPS that will develop new student yield factors and recommendations for future school sites and public services. The study is expected to be completed by early 2019.

School Utilization Analysis: The Board of Education (BOE) includes an analysis of facilities utilization in the EFMP. School facilities utilization is based upon a comparison between the Full-Time Equivalent (FTE) enrollment and the State-Rated Capacity (SRC) for each school. SRC is defined as the maximum number of students that can be accommodated in a facility without significantly hampering delivery of the educational program. The methodology for determining SRC differs between primary and secondary schools (e.g. elementary vs. middle or high schools). For elementary schools, the SRC is determined by multiplying the number of classrooms by the State’s approved capacity. The SRC for secondary schools (grades 6–12) is 85 percent of the product of the number of teaching stations

1. 2018 EFMP, Description of the Model Used to Forecast Student Enrollment in AACPS (p. 392)

multiplied by 25, and then adding the product of the number of teaching stations for special education multiplied by 10².

Utilization results from the July 2018 EFMP indicated that during the 2017 school year, there was one high school (Arundel), no middle schools, and 19 elementary schools that exceeded the State Rated Capacity. According to the projections offered in the 2018 EMFP, five of the elementary schools exceeded the SRC by more than 10%, and nine of those schools exceeded the SRC by less than 5 percent. Nevertheless, continuous efforts are made to maintain facilities utilization at or below the SRC for each school attendance area.

Adequate Public Facilities Requirements for New Developments: The County's Adequate Public Facilities Ordinance (APFO) is used as a growth management tool by connecting the approval of development projects to the availability of public facilities including schools. Adequate public facilities requirements are found in Article 17, Title 5 of the County Subdivision and Development Code test whether a development can be approved without pushing a particular school above the SRC.

The Planning and Zoning Officer is required to prepare a school utilization chart for approval by the County Council in determining adequate school facilities. New legislation passed in by the County Council in 2018 amends Article 17, Title 5 and has improved the testing requirements for subdivision development impacts. A public elementary or middle school is determined as open on the school utilization chart if the school enrollment is less than 95% of the SRC and a public high school is determined as open if the SRC is less than 100% of the SRC. In addition, Article 17 now requires that the school utilization chart be updated by the Planning and Zoning Officer on May 1 and September 1 of each year. A proposed development passes the test for adequate public schools if each public elementary, middle, and high school is designated as "open" on the school utilization chart for the geographical attendance areas for the development in the third school year after the school year in which the determination is being made and based on the number of students projected to be generated by the development in the third school year after the school year in which the determination is being made based on the student generation factors for the development does not exceed 85% of the available capacity of each open school as of the date of the last approved or updated school utilization chart.

School Facilities Funding: Funding for the renovation, expansion, or replacement of school facilities comes from a combination of State and local funding sources as well as from impact fees and grants. The County's Fiscal Year 2019 Capital Budget and Program allocates \$738 million over the six-year capital program for Board of Education projects.

Under the County's development impact fee program (Article 17, Title 11 of the Subdivision Regulations), new development is required to pay impact fees to help cover the costs of land, capital facilities, and other expenses necessary to accommodate development impacts on public schools. School impact fees are required from new residential developments, and the rates are allocated based on the type of residential unit (e.g. single family vs. townhouse or multifamily unit). The County is currently completing a required analysis that may lead to recommendations for revisions to its impact fee program.

2. 2018 EFMP, Capacity and Space Formula (pp. 387)

Current Capital Program

The FY2019 Approved Capital Budget and Program includes funding for a 13th high school as recommended during the Small Area Plan process. The school is scheduled to be open by fall 2020. In addition, there is funding for revitalization of Manor View Elementary School, modernization and an addition to High Point Elementary School, revitalization and additions to George Cromwell, Edgewater, Tyler Heights, and Richard Henry Lee elementary schools and replacement of Jessup and Arnold elementary schools. The approved Budget also includes funding in the out years for a new Old Mill West high school, new Mountain Road corridor and West County elementary schools, and feasibility studies for Old Mill High School, Old Mill Middle School North, Old Mill Middle School South and Quarterfield, Hillsmere and Rippling Woods elementary schools.

Anne Arundel Community College

Established in 1961, Anne Arundel Community College (AACC) is a fully accredited, nationally recognized, public, two-year institution and the largest single-campus community college in Maryland, serving approximately 50,000 students annually in credit and non-credit courses. AACC offers credit programs leading to an associate degree, certificate or a letter of recognition. Students may prepare for transfer to a four-year institution or move into an immediate career. Students of all ages continually redefine themselves through 225 programs of study and more than 3,500 courses.

AACC also offers extensive lifelong learning opportunities and non-credit continuing professional education courses to those seeking career training or retraining, more than 140 continuing education certificates and over 30 workforce credentials.

With learning as its central mission, AACC responds to the needs of a diverse community by offering high quality, affordable, accessible and innovative lifelong learning opportunities. The vision of AACC is to be a premier learning community that transforms lives to create an engaged and inclusive society. AACC strives to embody the basic convictions of our Country's democratic ideal: that individuals be given full opportunity to discover and develop their talents and interests; to pursue their unique potentials; and to achieve an intellectually, culturally and economically satisfying relationship with society.

Economic Impact

AACC contributes to the County's economic development in numerous ways. The net added income generated by AACC operations (\$112.1 million), the spending of nonlocal students (\$60.5 million) and the higher alumni earnings and increased business profit and ripple effects from alumni impact (\$347.9 million) contributes \$520.5 million in income to the Anne Arundel County economy each year. For every tax dollar spent on educating students attending AACC in Fiscal Year 2015-2016, taxpayers received an average of \$2.60 in return over the course of the students' working lives. This equates to an approximate annual rate of return of 10 percent. State and local governments see an approximate rate of return of 9.6 % on their support for AACC.

Facilities and Services

AACC is a single-campus community college in Arnold, with off-campus sites at Arundel Mills in Hanover; the Glen Burnie Town Center; the Sales and Service Training Center in Arundel Mills mall;

the Hotel, Culinary Arts and Tourism (HCAAT) Institute in Glen Burnie; and the Center for Cyber and Professional Training across from Arundel Mills in Hanover; as well as offices at the Fort Meade Army Education Center. AACC also offers classes at more than 90 County locations including schools, churches and senior centers.

Student services are available online and at the Arnold campus, AACC at Arundel Mills, the Glen Burnie Town Center and the Fort Meade Army Education Center.

Arnold Campus

The Andrew G Truxal Library contains 152,186 books, 135 print periodicals, 201 videotapes, 570 CDs, 2,938 DVDs and 60 online databases offering access to more than 15,000 electronic journals, 114,000 electronic books, 60 science models, hundreds of thousands of digital images and hours of streaming video and audio. AACC has a lab for mechatronics, a combination of mechanical engineering, electronics and computer programming used in today's manufacturing industry, in the Center for Applied Learning and Technology. The Center also contains design studios and computer labs for architecture and interior design, continuing education, computer information systems, computer science, electronic and telecommunication technologies and engineering programs. The Careers Center includes the state-of-the-art Berlitz Memorial Microbiology and Environmental Studies Laboratory, an entrepreneurial studies resource center and math lab.



The Andrew Truxal Library at Anne Arundel Community College earned a LEED Gold certification.

Courtesy of EwingCole

AACC at Arundel Mills (AMIL)

AACC at Arundel Mills, designated by the State as a Regional Higher Education Center, is a four-story, 77,000-square-foot facility. It houses the AACC University Consortium that allows students to attain a four-year degree without leaving the County; the Teacher Education and Child Care (TEACH) Institute; the Hotel, Culinary Arts and Tourism Institute's Casino Dealer School facilities; the Physician Assistant program; the Science, Technology, Engineering and Math (STEM) Center; student services; classrooms and labs.

Sales and Service Training Center (SSTC)

The Sales and Service Training Center at Arundel Mills Mall works in partnership with the Anne Arundel Workforce Development Corporation and the Maryland Department of Labor, Licensing and Regulation to provide services to job seekers and employers at no cost through the One-Stop Career Center. AACC offers Adult Basic Skills and GED classes throughout the year during the days, evenings and on Saturdays.

Center for Cyber and Professional Training (CCPT)

The Center for Cyber and Professional Training is located at 7556 Teague Road near Arundel Mills. The 30,000 square-foot center houses eight specialized computer labs, one new health sciences skills lab, four SMART classrooms, a testing center and faculty support space. It also is home to the Corporate Training Group, which provides employee training and business services to companies, agencies and organizations whenever and wherever the training is needed.

Glen Burnie Town Center (GBTC)

AACC operates facilities in two buildings in Glen Burnie. The five-story Arundel Center North has classrooms, computer facilities and student services. The 10,000-square-foot Hotel, Culinary Arts and Tourism Institute has a commercial kitchen that can hold two classes and three training classrooms and a computer lab.

Facilities Planning

AACC completes a Facilities Master Plan every ten (10) years as required by the Maryland Higher Education Commission (MHEC). The Facilities Master Plan is reviewed and approved by MHEC and updates/revisions to the plan are submitted on a yearly basis. The most recent Facilities Master Plan was completed in 2016 and identified capital projects that are the direct result of the College's need to accommodate students, faculty and staff, modernize or replace aging and/or antiquated facilities, and/or provide space for services and programs. The plan reviewed the College's effective use of instructional space by looking at space utilization rates.

In conjunction with the facilities master planning effort, AACC also conducts a Facilities Condition Assessment every five (5) years. This assessment analyzes all buildings and building systems with respect to maintenance and repairs, replacement, and remaining useful life.

The combination of the Facilities Master Plan and the Facilities Condition Assessment provides AACC with a credible planning tool to assist in the development of capital budget requests for both the State of Maryland and Anne Arundel County.

Current Capital Program

AACC submits yearly capital budget requests to Anne Arundel County and the Maryland Higher Education Commission. The College's current capital budget includes funding for a new 175,000 GSF Health Sciences and Biology Building (HSBB) that will be constructed on the Arnold campus. This project includes the demolition of two existing college buildings and the partial relocation of a portion of the college Ring Road. The State of Maryland and Anne Arundel County are funding this new facility. This project (which was included in the College's 2016 Master Plan) is scheduled to be completed in the fall of 2021.

In addition to the HSBB facility, the College continues to request capital funding for systemic renewal projects such as roof replacements, HVAC system replacements, and fire alarm system upgrades. Other yearly capital funding requests include sidewalk, parking, and roadway improvements as well as a Campus Improvements fund that is designated for emergency projects and miscellaneous needed repairs.

Library Services

The Anne Arundel County Public Library (“AACPL” or “the Library”) consists of fifteen branches organized into three regions, with administrative offices in a separate building. There is no central library. The operating budget for FY2019 is \$24.6 million and the materials budget is \$3.7 million. In FY2017, the Library circulated 5.2 million items and was visited 2.4 million times. The AACPL Foundation, chartered in 2006, fosters philanthropic support from individuals, businesses, organizations and foundations to enhance the Library’s strategic goals.

The Library’s physical plant consists of 267,037 square feet in sixteen buildings constructed between 1965 and 2004. Two branches have been scheduled and funded for replacement. In 2018, the existing Annapolis Library, 20,900 square feet built in 1965, will be demolished and construction begun on a 32,500 square feet replacement. In 2019, the Riviera Beach Library, 10,500 square feet built in 1971, will be demolished and construction begun on a 20,000 square feet replacement. The Mountain Road Library has operated in a leased, 8,900 square feet storefront since 1994.

Strategic Environment

The Library has recently completed several extensive assessments of its strategic environment:

1. A *Facilities Master Plan Study* was completed in December 2017. This document was developed to assess the current state, customer usage and expectations, and future needs for the Library’s physical plant. The study also compiled information on the County’s demographics and projected growth profiles for the next 10 years.
2. The Library commissioned an in-depth customer survey of both library users and non-users. This survey was conducted during November 2017 by the Anne Arundel Community College Center for the Study of Local Issues. This survey examined customer satisfaction with current library services as well as expectations for future library services and improvements.
3. The architectural programming effort for the rebuilding of the Annapolis Library produced *Creating Pathways for the Community* in May 2016. This document is the Library’s first architectural program developed in over 12 years and reflects changes in customer expectations for libraries in the Internet Age.
4. In addition, the Aspen Institute’s October 2014 report, *Rising to the Challenge: Re-Envisioning Public Libraries*, provides a nation-wide strategic context for the role of the modern public library.

These assessments independently arrived on a unifying theme: libraries in general and AACPL in particular, need to meet new expectations for service in the 21st Century. Traditionally, library services have been valued on outputs or transactions, such as the number of items circulated, the number of questions answered and the number of books on the shelf. But 21st Century libraries are valued in terms of the impact the library has in the lives of people. The modern library achieves transformative outcomes (learning experiences) in its customers, such as improvements in skills, knowledge gained, changes in status (employment, educational achievement), or change in life conditions (better health, nutrition).

The Library’s physical plant must be transformed accordingly. In order to meet these new expectations for memorable, high-quality customer learning experiences, new library buildings and renovations should strive to provide spaces focused on:

- PEOPLE – The public library is a hub of civic engagement, fostering new relationships and strengthening the human capital of the community. Librarians are actively engaged in the community. They connect individuals to a vast array of local and national resources and serve as neutral conveners to foster civic health. They facilitate learning and creation for children and adults alike.
- PLACE – The public library is a welcoming space for a wide range of purposes: reading, communicating, learning, playing, meeting and getting business done. Its design recognizes that people are not merely consumers of content but creators and citizens as well. Its physical presence provides an anchor for economic development and neighborhood revitalization, and helps to strengthen social bonds and community identity. The library is also a virtual space where individuals can gain access to information, resources and all the rich experiences the library offers. In the creative design of its physical and virtual spaces the public library defines what makes a great public space.
- PLATFORM – The public library is user-centered. It provides opportunities for individuals and the community to gain access to a variety of tools and resources with which to discover and create new knowledge. The platform enables the curation and sharing of the community’s knowledge and innovation. A great library platform is a “third place” (an interactive entity that can facilitate many people operating individually and in groups) and supports the learning and civic needs of the community.

Taken together, these three elements – people, place, and platform – call for a library building that differs substantially from most of the Library’s current buildings. The Library’s planning objectives therefore seek to realign the Library’s physical plant with the needs of its customers through a deliberate and sustainable capital plan.

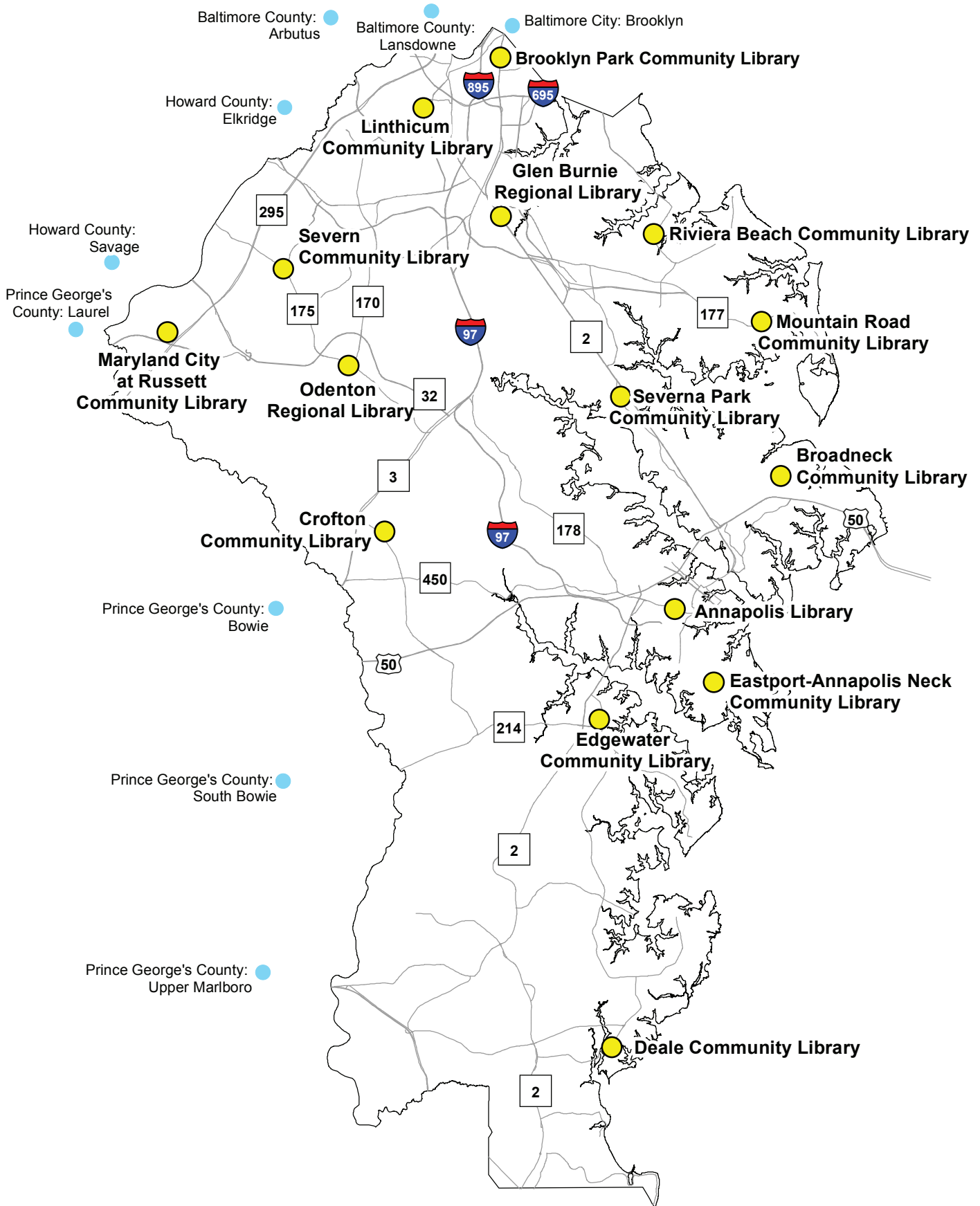
Capital Objectives and Strategy

To meet community needs for accessible and sustainable library services, the Library established these two capital objectives:

1. There should be a minimum of 0.55 gross square feet (GSF) of library space per capita in the County overall and at least 0.5 GSF in each geographical region of the County. This standard is based on the performance and GSF comparison of our peer libraries and Maryland libraries overall. The framework for this standard was established in the 2017 Facilities Master Plan Study.
2. New facilities and renovations are undertaken with these design goals:
 - A. Libraries are places for learning experiences, not just for transactions.
 - B. Libraries provide learning experiences in sustainable, responsive spaces that adapt to changing needs.
 - C. Libraries are centers for community engagement, bringing people into welcoming spaces. At the same time, libraries are launch pads supporting staff outreach and engagement with their communities.
 - D. Libraries reflect the character of individual neighborhoods while upholding the AACPL brand.

In defining a strategy to meet these objectives, the Library established four regions based on census block group data provided by the *Facilities Master Plan Study*. The regions (see Figure 4) are grouped by “dominant library”, i.e., the library most used by customers living in that block group. Three of these regions have comparable shares of the County population (about 30% each) and share suburban

Figure 4: Library Facilities



characteristics. The remaining region is the largest geographically and has the smallest population, but has a distinctive rural character.

The current, funded library capital projects will yield a distribution of library space and overall GSF in the County by the end of Fiscal Year 2021 as shown in Table 1.

Table 1: Library GSF Distribution in FY-2021

Region	Population	GSF	GSF/Capita
Northern	178,100	64,300	0.36
Eastern	180,100	85,950	0.48
Western	152,400	90,950	0.60
Southern	60,500	20,750	0.34
Total	571,100	261,950	0.46

The projected GSF distribution in Table 1 validates the need for a new Glen Burnie Library as highlighted in the 2009 General Development Plan. This need has become more urgent as this building no longer meets basic suitability standards for a modern library.

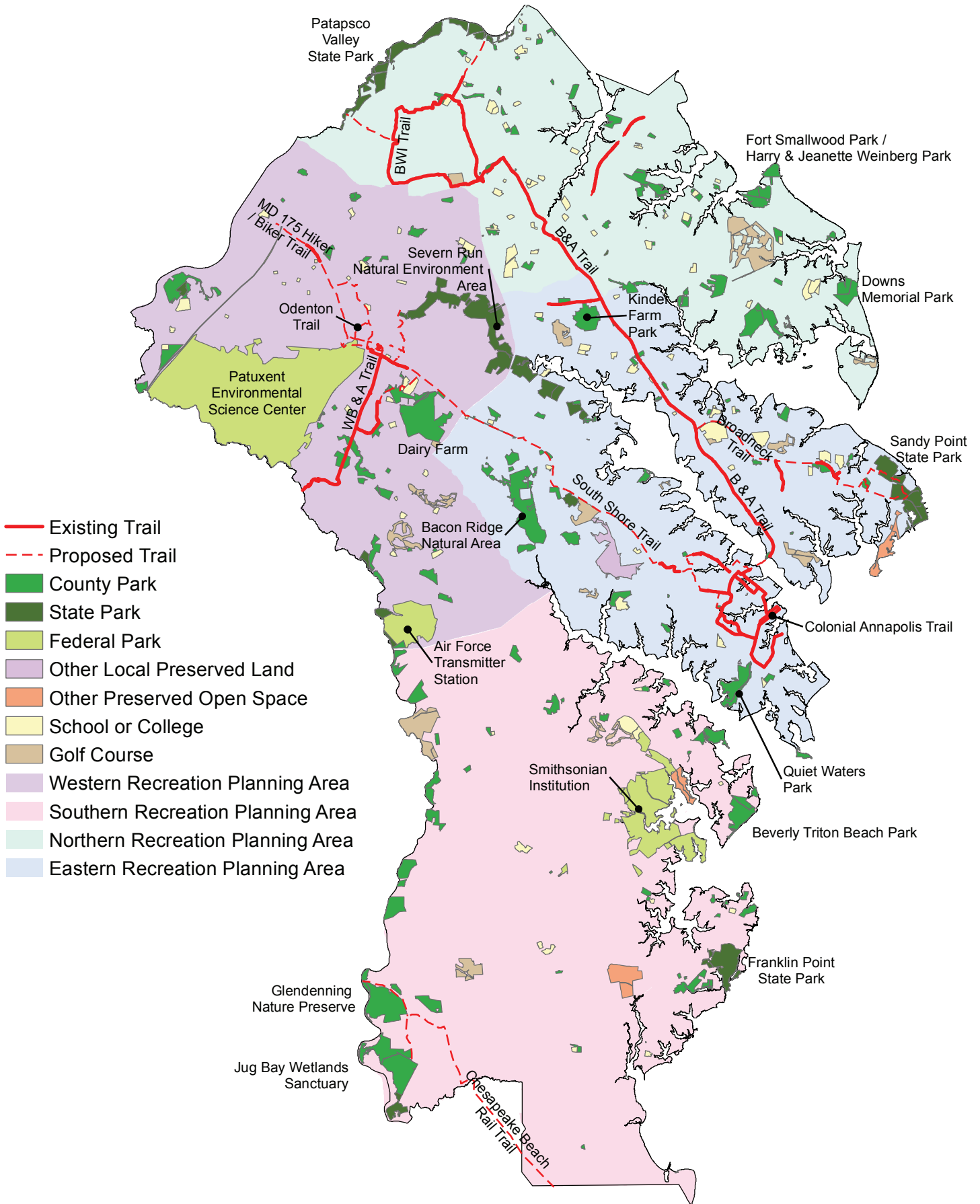
The *Facilities Master Plan Study* estimated Anne Arundel County will grow to a population of 584,400 by 2025, requiring an additional 59,470 gross square feet of space for adequate library services. The Library will undertake a logical, sustainable, and data-driven capital building plan to provide this space in time to meet the growing needs of the County.

Recreation and Parks

Recreation services are vital to the health and wellbeing of Anne Arundel County residents, as well as a factor in the strength of the County's overall economy. The Department of Recreation and Parks (DRP) offers a wide range of active and passive recreation opportunities to County citizens. With over 287 park and recreation areas encompassing 9,324 acres of land owned by the County, City of Annapolis or Board of Education and 5,462 acres of natural resource land under County or City of Annapolis ownership, local residents have many options for leisure activities. The County is divided into four recreation planning areas to allow a more detailed analysis of the County's recreation and open space need. Figure 5 shows the existing park and recreational facilities within each of the four recreation planning areas.

The County's recreational programs and facilities are designed and implemented to accomplish multiple goals. Primarily, they provide both active and passive recreation opportunities, but in many cases they also conserve open space, protect important natural resources, and preserve sensitive environmental areas and historic sites. In addition to the DRP, other County agencies conduct recreation and environmental activities within County parks. Those agencies include the Board of Education, the Department of Public Works, the Office of Planning and Zoning, the Department of Aging and Disabilities, as well as many local community organizations.

Figure 5: Park and Recreation Sites



The following sections of this report will describe the recreational facilities, services, and programs provided by the County to meet these goals; discuss the overall planning framework used to establish policies and programs; and identify existing needs to be addressed.

Facility Needs Analysis – Supply and Demand

The DRP prepares a Land Preservation, Parks and Recreation Plan (LPPRP) in accordance with State requirements every five years to provide a common benchmark to assist the State's evaluation of County land preservation and recreation programs and ensure a good return on public investment. The LPPRP uses current facility inventories, statistical data, demographic information, needs assessments, surveys, and proximity and equity analyses to address outdoor park and recreation planning issues and facility needs. In addition, the LPPRP implements park, recreation and land preservation goals adopted in the County's master plans. The most current LPPRP was adopted in 2018 and can be accessed at <https://www.aacounty.org/departments/recreation-parks/about-us/lpprp/index.html>.

Supply: Recreation and Park Facilities, Services, and Programs

Recreation and Resource Land Inventory

The County's inventory of parks and recreational lands falls under two categories: recreation land and natural resource land. Recreation land serves primarily for recreational activities and does not depend on the presence of natural resources. Most community parks and school recreation parks fall within this category. Resource land has a primary function of natural resource protection, conservation, or management, although it may also support passive recreation or other uses. The Oxbow Natural Area, Jug Bay Wetlands Sanctuary, Patuxent River Greenway, and Severn Run Natural Environment Area are all examples of resource lands. The total amount of recreation and resource land in the County, as of 2017, was over 36,527 acres including land under Federal, State, and local government ownership. A summary of this land by type and owner is shown in Table 2.

Table 2: Recreation and Resource Land by Owner

Owner	Acres		
	Recreation ⁽¹⁾	Resource ⁽²⁾	Total
Anne Arundel County	7,208	4,991	12,199
Subdivision Open Space ⁽³⁾		4,872	4,872
Board of Education ⁽⁴⁾	1,836	0	1,836
City of Annapolis	203	471	674
Town of Highland Beach	1	<1	1
<i>Subtotal: Local</i>	<i>9,248</i>	<i>10,334</i>	<i>19,582</i>
State	1,873	2,790	4,663
Federal	0	12,282	12,282
<i>Subtotal: State, Federal</i>	<i>1,863</i>	<i>15,072</i>	<i>16,945</i>
Grand Total	11,121	25,406	36,527

Notes:

1. Pursuant to the State's guidelines, recreation land is defined as land on which the primary recreational activities do not depend on the presence of natural resources. Totals reflect the closure of the Annapolis Roads golf course.
2. Pursuant to State guidelines, resource land is land and/or related water areas for which natural resource protection, conservation, or management is of primary importance. This land may support agricultural, recreational, economic, or other uses to the extent that they do not conflict with protection or preservation of the natural resource.
3. Includes land owned by Anne Arundel County and property owners associations.
4. Board of Education land has been calculated as 60 percent of gross site acreage, as permitted by the State's guidelines. Lands owned by private schools is not included, although these lands host substantial recreational activity. Source: 2017 Land Preservation, Parks and Recreation Plan

County and Municipal Land

The County together with the City of Annapolis and the Board of Education provides approximately 9,248 acres of local recreation land. This acreage comprises 7,208 acres of County parks and recreation areas, 1,836 acres of recreation land at schools (school recreation parks) and 203 acres in the City of Annapolis. Table 3 lists these parks and recreation areas by type.

Table 3: County, Municipal, and Board of Education Recreation Land by Type

Type	Number	Acres	Examples
Regional Park	4	1,221	Downs Park, Fort Smallwood Park/Harry & Jeanette Weinberg Park, Kinder Farm Park, Quiet Waters Park
Community Park	75	2,980	Cross Street Park, Jessup Dorsey Park, Sawmill Creek Park, Tick Neck Park
Minipark	24	4	Burnside Park, Dick Simms Park, First and Spa
Neighborhood Park	20	60	Cedar Morris Hill Park, Herald Harbor Park, Rose Haven Memorial Park

Other Public Land	1	2	Northern District Maintenance Shop
School Recreation Park	119	1,850	Annapolis High School, Bates Middle School, Broadneck High School, Germantown Elementary School, Hilltop Elementary School
Special Use Area	34	2,240	Glen Burnie Town Center Ice Rink, Jonas Green Park, North Arundel Aquatic Center, Shady Side Wharf, South County Recreation Center
Sports Complex	3	157	Annapolis Sports Complex, Bachman Sports Complex, Cannon Stadium
Undeveloped	7	810	Crownsville Area Park, Rockhold Creek Farm Park, Stoney Creek Park
Total	287	9,324	

1. *Regional parks* provide a wide variety of recreation opportunities including sports, picnic areas, water access, and trails. Anne Arundel County's four regional parks are located in the Northern and Eastern Planning Areas of the County and are focused on "passive" recreation, with sports and athletic facilities located at community parks and sports complexes.
2. *Community and neighborhood parks* serve similar functions, with community parks generally serving larger areas than neighborhood parks. Community parks are distributed throughout the County. Half of neighborhood parks are in the Northern Planning Area.
3. *Miniparks* are located throughout the City of Annapolis and serve as neighborhood parks for neighborhoods within the city. Miniparks are a type of neighborhood park, but smaller, generally less than a half-acre. They include street-end parks.
4. *School Recreation Parks* comprise land at facilities owned by the Board of Education. The County has use agreements with the Board permitting general public use of fields, gymnasiums, and other facilities at certain times. The 119 such parks are widely distributed and contribute significantly to recreation opportunities in the County.
5. *Other Recreation Sites* - in addition to the above, the County's recreation inventory includes two sports complexes, and 34 special use areas including the Glen Burnie Town Center Ice Rink, Jonas Green Park, and North Arundel Aquatic Center. The County also has 7 undeveloped park sites which will be for recreational use once in operation.
6. *Cultural and Historic Sites* - the County's land and property inventory includes 58 cultural / historic sites. Within those 58 sites are 13 historic structures or complexes of structures listed below:
 - A. Andover Equestrian Center – Hamilton House



The North Arundel Aquatic Center in Glen Burnie

- B. B & A Trail – Earleigh Heights Ranger Station
- C. Dairy Farm Park Complex
- D. Fort Smallwood Park Complex
- E. Hancock’s Resolution and the Cook Farm House
- F. Hot Sox Field at Wilson Park—Wilson Farm House
- G. Jug Bay Wetlands Sanctuary—Station Masters House
- H. Jug Bay Wetlands Sanctuary—Riggleman Complex
- I. Kinder Farm Park Complex
- J. Linthicum Walks
- K. London Town House and Gardens—William Brown House
- L. Patuxent River Greenway-Bayard—Queen Anne’s Bridge Road Suspension Bridge
- M. South Shore Trail—Childs Residence Cecil Avenue Rangers Station

State and Federal Land

State and Federal recreation and open space lands in Anne Arundel County total nearly 16,945 acres of which approximately 1,863 acres are recreation land and 15,072 acres are natural resource land (Table 2). The major State-owned recreation areas in the County are Sandy Point State Park, Patapsco Valley State Park, and the Anne Arundel County Fairgrounds site. Major State-owned natural resource areas include Severn Run Natural Environmental Area, House Creek Natural Resource Management Area, Patapsco Valley State Park, Franklin Point, and Globecom Wildlife Management Area (WMA).

Federally-owned land in the County includes the Patuxent Research Refuge, United States Air Force Globecom property (adjacent to, but separate from the County-owned WMA), the Smithsonian Environmental Research Center, and the United States Naval Academy Dairy Farm (currently leased by the County).

Anne Arundel County has entered into agreements with State agencies such as the Maryland Department of Natural Resources to lease State-owned land for local recreation use. One example of these agreements is Arden Park in the Crownsville area of the County.

Water Access

Anne Arundel County has 533 miles of shoreline along tidal waters, the sixth-most among Maryland counties, to serve an existing population of more than 564,000 — far more than other counties with longer shorelines. Water and access to the water are fundamental characteristics of life in Anne Arundel County. This includes water access for recreation — including boating, swimming, fishing, crabbing, and appreciation of water views. Many neighborhoods maintain community (i.e., restricted to neighborhood residents and their guests) beaches, piers, and boat ramps. In addition, there are 303 commercial and community marinas with nearly 12,035 boat slips in the County³. The County does not operate or manage these community and commercial facilities.

3. Source: Marina Inventory of Anne Arundel County (2018). <https://www.aacounty.org/departments/planning-and-zoning/research-and-gis/map-services/index.html>

Despite the importance of water access, the County has comparatively few public water access points to serve the general population, and specifically those who do not live in water-privileged communities. Public water access points in the County, described in detail below, include boat ramps, “car-top” boat launches, beaches, and parks and publicly accessible resource lands with water frontage.



The Fort Smallwood boat launch in Pasadena

DRP maintains a guide to canoe and kayak launch sites and fishing spots throughout the County – this guide is available on the County’s website. In addition to providing car top boat access, the County is working with the State of Maryland to identify and map potential “water trails” which connect numerous destinations along the Chesapeake Bay and its tributaries. The County is also evaluating the potential for primitive, paddle-in campsites within County land along the Patuxent River.

1. Public Boat Ramps - a major initiative of the County Executive and the DRP is to provide public boat ramps on all major rivers in Anne Arundel County. Currently, there are five public boat ramps (paved ramps intended for use by trailer-mounted boats) in the County, including:
 - A. Fort Smallwood Park
 - B. Discovery Village Shadyside
 - C. Sandy Point State Park (State of Maryland)
 - D. Truxtun Park (City of Annapolis)
 - E. Tucker Street Boat Ramp (City of Annapolis—restricted to City residents).
2. In addition to the five ramps above, the Solley Cove Park ramp on Curtis Creek northeast of Glen Burnie is being designed for construction in 2019.
3. Public Car-top Launches - the public boat ramps above also allow launching of smaller “car-top” vessels (i.e., canoes, kayaks, and other non-motorized watercraft that do not need a trailer). Public car-top boat launch sites are located at the following parks and resource lands:

A. Beachwood Park	B. Jonas Green Park
C. Carr’s Wharf	D. Mayo Beach Park
E. Davidsonville Park	F. Patuxent Wetlands Park
G. Discovery Village	H. Quiet Waters Park
I. Downs Park	J. Rose Haven Memorial Park
K. Fort Smallwood Park	L. Shadyside Park
M. Galesville Wharf	N. Solley’s Cove Park
O. Green Haven Wharf	P. Spriggs Farm Park
Q. Homeport Farm Park	R. Wooten’s Landing Park

4. Public Beaches - swimming and wading is a designated and intended activity at Sandy Point State Park, Fort Smallwood Park, and Mayo Beach Park. All of these locations have bathroom facilities, however, only Sandy Point State Park provides lifeguards; other sites are posted as “swim at your own risk” sites. The County Health Department monitors water quality conditions at more than 80 public and private beaches in the County where people swim, and provides alerts when poor water quality makes contact with the water potentially unsafe.
5. Public Lands with Water Frontage - developed and undeveloped County parks and resource lands with water frontage (including frontage accessible only by hiking) total over 7,600 acres. These lands include, for example, Beachwood Park, Homeport Farm Park, Shady Cove Natural Area, and Spriggs Farm Park on the Magothy. State Parks such as Patapsco Valley and Sandy Point offer additional opportunities⁴. Water viewing is also an important recreational activity. While a number of parks do not offer direct access to the water, many offer water views and/or have walking trails. Examples include, Broad Creek Park, Jug Bay Wetlands Sanctuary, Elizabeth Dixon Park, Lake Waterford Park, London Town House and Gardens, Patuxent River Greenway-Oxbow Natural Area, Quiet Waters Park, Shady Side Park, and Thomas Point Park.

County Trails

Anne Arundel County is home to multipurpose trails with national, regional, and local significance. Key recreational trails in the County are summarized below. Figure 6 shows the County’s existing and envisioned trails

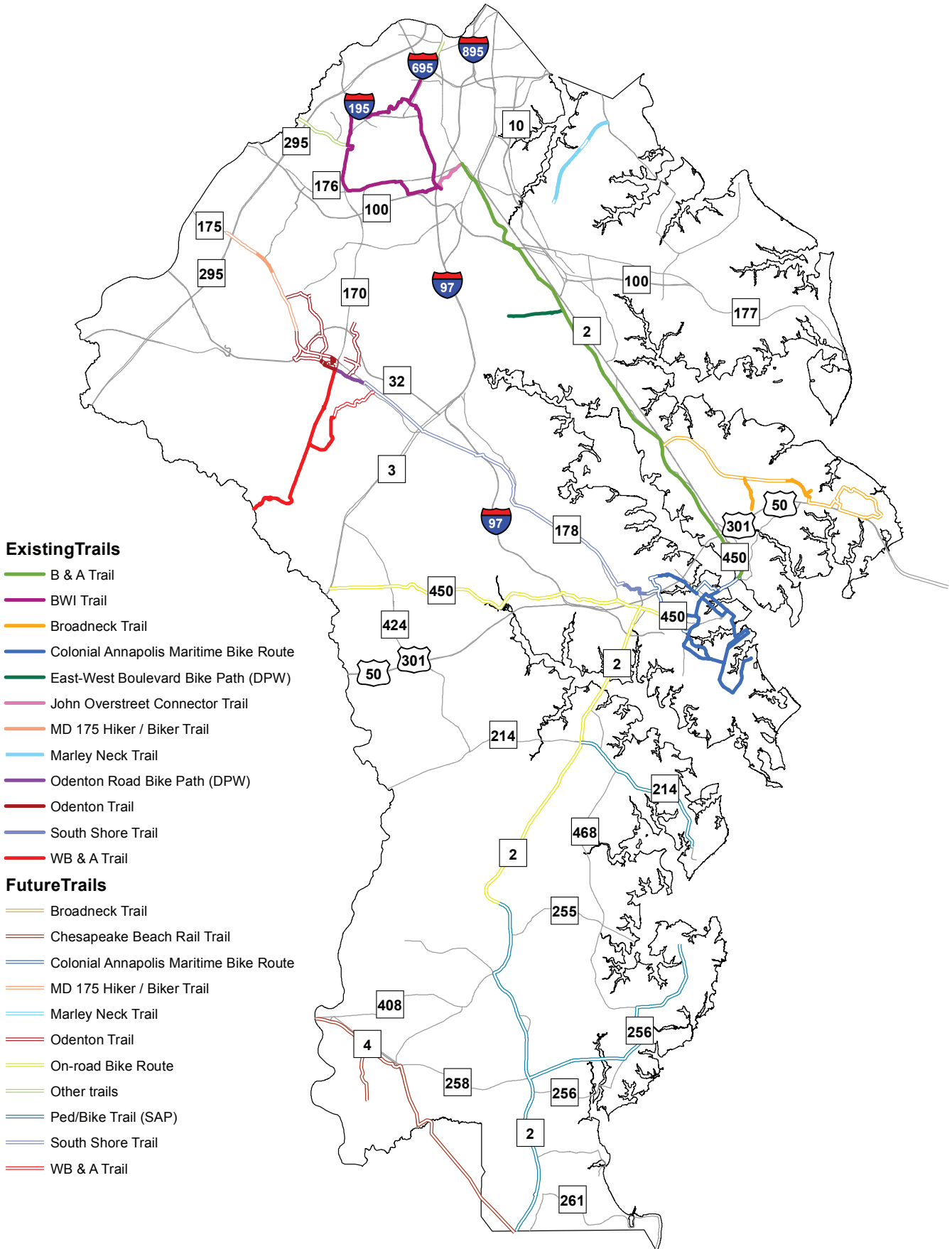
While the focus of this LPPRP is on the recreational function of trails, these facilities also serve important transportation functions, providing a mode of travel for individuals who do not have access to, or prefer not to use automobiles or public transit. To the degree that trails also facilitate non-motorized transportation, they also help the County achieve the air quality, environmental, and traffic congestion goals described in the GDP and elsewhere in County policy. These facilities will grow in importance as the County moves toward multi-modalism. This is especially crucial as bicycle use grows and motorized vehicle / bike conflicts increase.

1. *Baltimore & Annapolis Trail (B&A Trail)* is an established 13.3 mile recreational greenway that follows the route of the former B&A Railroad from Glen Burnie to Annapolis. The trail is owned and managed by the Department, is one of the premier recreational greenways in the State, and connects to the BWI Trail (see below). The B&A Trail greenway encompasses 147 acres within a 66-foot-wide, landscaped corridor. The trail has a 10-foot-wide, paved surface and is used by walkers, runners, bicyclists and equestrians. The trail also offers an exercise course for persons with disabilities. The trail is being repaved, starting at its northern terminus and heading south. By the end of 2016, a two-mile section from Dorsey Road to Norfolk Avenue was completed. The Department of Recreation and Parks has produced a series of manuals on the B&A Trail Park, including a park operation manual, maintenance manual and a park ranger manual, which includes a section in sign language.

BWI Trail is an existing 12.5-mile paved trail encircling much of the perimeter of Baltimore-Washington Thurgood Marshall International Airport (BWI). The trail connects scenic areas, recreational sites, communities, and transit facilities, and is co-managed by the Anne Arundel County Department of Recreation and Parks and the Maryland Aviation Administration. Spur

⁴. Department of Recreation and Parks Water Access Database

Figure 6: Existing and Future Trail Network



trails connect the BWI loop with the Linthicum Light Rail Station, the BWI Amtrak station, and with the northern terminus of the B&A Trail.

2. *Marley Neck Trail* will provide circulation and recreation for the Marley Neck Boulevard corridor. The first section of trail is nearly one half mile long, adjacent to Creekside Village. Additional segments would be constructed (by developers) in conjunction with new development between Spencer Road and Fort Smallwood Road.
3. *MD 175 Trail* is a shared-use trail and is being developed cooperatively with the State Highway Administration (SHA). The first section was completed in 2015, and extends from Rockenbach Road to MacArthur Road. Two additional segments under construction and will extend the trail to Llewellyn Avenue in 2017. An existing trail system within the Parkside subdivision, west of Rockenbach Road, connects MD 175 to Parkside Boulevard. SHA continues to include right-of-way and trail designs in ongoing streetscape upgrades to the MD-175 corridor.
4. *Shady Side Trails* - With the support of the Shady Side community, the Department constructed a natural-surface trail system on existing road frontage along Idlewild Road and within the Shady Cove Natural Area. The trail provides a safe pedestrian corridor between residential communities, recreational opportunities, a school, and the water.
5. *Broadneck Peninsula Trail* is a partially-complete proposed 8.7-mile east-west trail, linking Sandy Point State Park with the B&A Trail in Arnold, generally following College Parkway and East College Parkway. The existing one-mile (Phase I) segment of the trail runs from East College Parkway to Green Holly Drive (providing a connection to Broadneck Park, the Broadneck Library, and Broadneck High School). The remainder of the trail will primarily use property within the right-of-way of College Parkway and will provide linkages to Anne Arundel Community College, schools, and communities along College Parkway. Construction of Phase II (Green Holly Drive to Bay Dale Drive) is planned to start in spring 2017, along with design of Phase III (Bay Dale Drive to Peninsula Farm Road) and initiation of an alignment study for Phase V (East College Parkway to Sandy Point State Park).
6. *Washington, Baltimore & Annapolis Trail (WB&A Trail)* is a partially complete multi-use rail trail that will extend into Anne Arundel County from Prince George's County, connecting to the planned South Shore Trail in Odenton (see below). This trail will use much of the former WB&A railroad corridor between Odenton and the Patuxent River, providing a trail connection to the MARC train station in Odenton. Phases I, II, and III are open, and consist of 5.5 miles of paved trail extending southward from Odenton and terminating near the Patuxent River. The design of the fully-funded bridge crossing over the Patuxent River kicked off in January 2017 with a public meeting held on March 28, 2017 to review concepts. This crossing would connect the Anne Arundel County portion of the trail to the Prince George's County portion, and thus to the East Coast Greenway and other major interstate trails in the Baltimore-Washington region.
7. *South Shore Trail* is a planned 10.3-mile multi-use rail trail that will utilize the portion of the former WB&A railroad right-of-way running between Odenton and Anne Arundel Medical Center in Annapolis. A small segment between AAMC and Bestgate Road has been completed. The remainder of the trail will stretch from Bestgate Road to the WB&A Trail in Odenton, which will connect to Prince George's County's WB&A Trail at the Patuxent River. Phase I of the trail was expected to be under construction by summer 2017.

8. *Patapsco Greenway Trail* is a conceptual multijurisdictional pedestrian and bicycle system for accessing Patapsco Valley State Park. The greenway will provide recreational as well as transportation opportunities by linking neighborhoods, businesses, and landmarks. The concept for this trail system was developed cooperatively with DNR, the Maryland Park Service, the Baltimore Metropolitan Council, the University of Maryland, Anne Arundel, Howard, Baltimore, and Carroll Counties and Baltimore City. The Anne Arundel County segment would connect the BWI Trail to the Grist Mill Trail in Howard County.
9. *South County Trail* - the County is in the process of studying potential alignments for a South County bike lane and trail system extending from the Mayo-Edgewater Area southward to the proposed Chesapeake Beach Trail which will connect to Calvert County. Unfortunately South County does not have the benefit of abandoned railroads such as the B&A Trail, the WB&A Trail and the South Shore Trail. The identification of right of way will require the willingness of private property owners to sell or donate right of way to the County, wherever existing road rights of way are not sufficient to accommodate an off road trail or bike lane.
10. *Water Trails* - the Patuxent River Commission, in partnership with a host of other agencies and partners in Maryland, designated an 80-mile paddling trail along the Patuxent River from Calvert County to Howard County. This trail is also coterminous with the water trail portion of the Star Spangled Banner National Historic Trail, as well as the Captain John Smith Chesapeake National Historic Trail. A number of boat launch sites are available including three in Anne Arundel County at Patuxent Wetlands Park, Wooten's Landing, and Davidsonville Park.
11. *The City of Annapolis* refers to its trails and pathways system as the Colonial Annapolis Maritime Trail. This system is designed for use by bicyclists and pedestrians, and comprises designated sidewalks, on-road sections, and off-road trails. The entire system within the City is approximately 19 miles, of which nearly 14 miles are complete, and 5 miles are in various stages of planning and development. The City adopted a Bicycle Master Plan in 2011. Its vision is to encourage more bicycling by developing and continually improving safe and accessible streets through programs like Safe Routes to School and off-road networks and amenities such as bicycle storage, signage, education, enforcement, and maps.
12. *National Trails* - three multi-state national trails intersect in Anne Arundel County. These trails use all or portions of the following local trails: WB&A, B&A, BWI, South Shore, Broadneck, and Colonial Annapolis Maritime trails and trail system. These multi-state trails will be mainly paved or hard surface trails and are designated primarily for recreation, although locally they also serve as alternative modes of transportation. These include:
 - A. The East Coast Greenway, a planned route from Florida to Maine that crosses through Maryland and Anne Arundel County.
 - B. The American Discovery Trail runs from Delaware to California.
 - C. The September 11 National Memorial Trail is a planned 1,300-mile system of trails and roadways linking the World Trade Center in New York, the Pentagon in Washington D.C and the Flight 93 Memorial in Shanksville, Pennsylvania.

Private Quasi-Public Land and Facilities

Private quasi-public lands make a significant contribution to public recreation in Anne Arundel County. These lands include neighborhood parks, mini-parks, marinas, indoor recreation centers and gyms, neighborhood pools and clubhouses, tennis clubs, and golf courses.

Fort George G. Meade comprises approximately 5,400 acres in western Anne Arundel County and is home to approximately 16,300 military personnel and about 39,000 civilian employees and contractors. Fort Meade operates a number of recreation facilities that are open to authorized personnel and their families and guests including an equestrian center, a track, and indoor and outdoor swimming pools. While these facilities reduce demand on County recreation facilities, they are not included in the recreation inventory, because they are not open to the general public.

A detailed inventory of all recreation and resource land and facilities with the exception of private facilities is detailed in Appendix A of the 2017 Land Preservation Parks and Recreation Plan (see <https://www.aacounty.org/departments/recreation-parks/about-us/lpprp/index.html>)

Demand for Recreation Land and Facilities

The identification of needs and public demand for recreation land and facilities determined in conjunction with the 2017 LPPRP included a Citizen Interest Survey, a Proximity Analysis, Park Equity Analysis, Draft LPPRP on-line review and comment period, commission and stakeholder discussions, and in-house data and experience.

Citizen Interest Survey

In late 2016, the DRP initiated an online survey about the County-operated parks and recreation facilities. The survey was conducted via the internet and respondents to the survey were self-selected. Over 2,200 responses were received providing valuable input into the LPPRP. The survey included questions regarding facility usage and condition, participation in County programs and land preservation. Findings from the survey are in Appendix B of the 2017 Land Preservation Parks and Recreation Plan (see <https://www.aacounty.org/departments/recreation-parks/about-us/lpprp/index.html>) are summarized as follows:

1. Facilities reported as having the highest usage levels include:
 - A. Trails (B&A, BWI, WB&A);
 - B. Regional parks (Quiet Waters, Kinder Farm, Downs and Fort Smallwood Parks);
 - C. Several beach parks; and
 - D. Two swim centers (Arundel Olympic Swim Center and North Arundel Aquatic Center)
2. The perceived condition of parks varies. The facilities with highest reported usage also have the highest ranking for condition, generally with over 85% of respondents stating that the facilities are in excellent or good condition.
3. Almost half (48%) of survey respondents reported using trails for walking, biking, jogging. The next highest level of participation was for aquatic activities (31% of respondents), followed by team and individual sports (27%), nature and environmental programs (25%) and boating (25%).

4. Many respondents use facilities in neighboring counties, generally only a few times per year. The most frequent reason given was to access programs or facilities not available in the County.
5. 5% of respondents do not live in Anne Arundel County; most either work in the County or visit to use recreation facilities or parks within the County.
6. Perceptions of the need for certain facilities are shown in Table 4. Key findings include:
 - A. The facilities for which the greatest immediate need is expressed are trails, boat ramps, nature centers, dog parks, fishing piers, swimming beaches and tennis, especially indoor courts.
 - B. Generally, the survey reports the greatest need for more parks that provide the opportunity to connect with nature: trails, water access, nature centers, swimming beaches, gardens.
 - C. For facilities related to sports, the greatest need is for tennis courts, specifically all-weather indoor courts. The County has 161 outdoor tennis courts (most at the high schools) but only one, publicly accessible indoor court. Although the overall number of outdoor tennis courts is high, these courts are widely spread across the County, and many are at schools, which may have access limitations. Moreover, the increase in popularity of tennis leagues has increased demand for concentrations of multiple tennis courts in discrete locations, specifically within public parks or recreation facilities (rather than school facilities).
 - D. A high proportion of respondents have a family member participating in team sports, but fewer respondents noted a need for additional facilities, indicating that leagues are currently able to schedule the fields that they need. County Staff is aware of a need for facilities that can host tournaments. The needs analysis in the following section of this plan also indicates that additional fields will be necessary as the County's population grows.
 - E. A high proportion of respondents (27%) noted a need for additional dog parks. These facilities have grown in popularity since the 2013 LPPRP.

Table 4: Department Survey Responses: Facility Needs

Response ⁽¹⁾	More Facilities Needed Now		More Facilities Needed In Future	
	# of responses	% of respondents	# of responses	% of respondents
Trails (walking/biking)	446	21%	236	11%
Water access – non motorized	438	20%	134	6%
Water Access – motorized or sail (i.e., Boat Ramps)	339	16%	151	7%
Nature Centers	316	15%	275	13%
Fitness trail	312	15%	270	13%
Dog park	279	13%	242	11%
Fishing (from pier)	267	12%	177	8%
Swimming (beach)	263	12%	150	7%
Tennis (indoor)	240	11%	74	3%
Dog beach	235	11%	152	7%
Tennis (outdoor)	235	11%	114	5%
Mountain bike trails	233	11%	185	9%
Gardens (gazebos, plantings, fences/paths)	219	10%	222	10%
Swimming (outdoor)	215	10%	154	7%
Community/recreation center	211	10%	231	11%
Swimming (indoor)	198	9%	157	7%
Restrooms at recreation facilities and parks	197	9%	109	5%
Facilities for the disabled	176	8%	209	10%
Water park with water slides, lazy river etc	173	8%	152	7%
Indoor gymnasium (basketball, volleyball)	167	8%	159	7%
Open fields (casual use, non-programmed)	166	8%	206	10%
Playgrounds, tot lots	161	8%	181	8%
Multi-purpose fields, (lacrosse, soccer, football)	154	7%	190	9%
Multi-purpose fields with field lights	153	7%	176	8%
Picnic areas	140	7%	216	10%

Note: (1) A total of 2,442 survey responses were received; not all respondents provided answers to questions about facility needs.

Proximity and Equity Analyses

The 2017 LPPRP included a new State requirement to perform a Proximity Analysis and a Park Equity Analysis. These methods of determining the need for additional park and recreation facilities are detailed below.

Proximity Analysis - the Proximity Analysis is a geospatial analysis that compares the location of the County's park and recreation facilities to the distribution of its population. The intent of the Proximity Analysis is "to generally determine where the public can readily access these amenities and where they cannot" (2017 LPPRP State Guidelines). As per the State guidelines, the County mapped a series of "catchment areas" for its parks and recreation facilities, specifically:

1. Catchment areas for parks and recreation facilities in the South Planning Area were assigned 5-mile catchment areas.
2. Catchment areas for all other parks and recreation facilities in the County were ½ mile, except in cases described below.
3. Proximity Analysis maps that are available in the 2017 Land Preservation Parks and Recreation Plan include:
 - A. Half-mile and five-mile service area for each park;
 - B. Half-mile and five-mile service area for County water access areas;
 - C. Half-mile and five-mile service area for County trails;
 - D. Half-mile and five-mile service area for parks with picnic facilities; and
 - E. Five- mile service area for athletic fields.

The Proximity Analysis maps suggest the following conclusions about the County's recreation and park system:

1. A substantial portion of the County citizens are within a half mile of a park or recreation facility.
2. Notable gaps requiring additional park facilities are:
 - A. North of Fort Meade
 - B. Hanover and Harmans
3. Most of the County is within five miles of water access facilities and regional trails - that distance is narrowing as new facilities are constructed.
4. Clustering of fields and indoor facilities reveals gaps in the Northern and Western Planning Areas.

Park Equity Analysis - The Park Equity Analysis evaluates the degree to which parks and recreation facilities are accessible to populations that are typically underserved by such resources, including areas of high population density, high concentrations of poverty, and high concentrations of children. The State Department of Natural Resources prepared an Equity Analysis GIS dataset which can be found in the County's 2017 LPPRP. Areas shown as having the greatest need for park and recreation facilities (i.e., the areas of High and Medium-High Need) include:

1. Annapolis-Parole
2. Ferndale-Brooklyn Park

3. Areas north of Fort Meade
4. Glen Burnie and areas to the south
5. Laurel-Maryland City
6. Waugh Chapel, north of Crofton

These areas are generally home to the County's highest population density and lowest-income residents. This is consistent with the Proximity Analysis, which also showed gaps for certain kinds of facilities (i.e., athletic fields, water access) in this area. Many of the County's priorities for recreation and park facility development respond to the gaps identified in the Proximity Analysis.

Age is also an important equity consideration in the County's recreational facilities and programming. Athletic fields and restrooms at new and retrofitted facilities are accessible by paved pathways with gradual slopes. The DRP offers numerous senior recreation programs at swim centers and indoor recreation facilities. The DRP is pursuing both a new indoor-outdoor tennis center and a program to provide more pickle ball courts, both of which are frequently requested by older residents. The County's extensive trail system is a great resource, helping to address the walking, jogging, and biking needs of the senior community.

The highest volume of support during the on-line draft of the 2017 LPPRP review period was for indoor ice rinks, indoor and outdoor tennis, water access, adaptive boating, track and field facilities and swimming pools.

Policy Considerations

Policy considerations play an important role in determining how the results of the needs analysis should be expressed in the County's priority capital project recommendations. The 2017 LPPRP establishes the following policies to guide capital project recommendations:

1. Make the maintenance and rehabilitation of existing parks a priority over the development of new parks. Many of the County's parks are 30 to 40 years old, and have deteriorated to the point where routine maintenance cannot make them serviceable. As part of this effort facilities in poor or even derelict condition will be reviewed and repaired, removed, or potentially repurposed (converted to other uses).
2. Fixing parking deficiencies at existing parks and recreation facilities is a priority. This includes adding new parking if vehicle parking is negatively impacting neighborhoods near parks.
3. Increase facilities supply by enhancing existing assets rather than developing new assets. This means emphasizing projects like synthetic turf fields, lights, and drainage that allow existing facilities to be used more frequently or for longer periods of time.
4. Prioritize the development of indoor sports facilities to meet the demand for indoor basketball and other indoor/court sports. This could include enhancement of facilities at existing schools (i.e., constructing separate access and restrooms, so gymnasiums can be used without affecting school staffing or functions) or, where fiscally justified, construction of new community recreation centers.

The 2017 LPPRP includes the DRP's 15-year Capital Improvement Program. The overall program has an estimated cost of approximately \$426 million. Over the 15-year period to 2031, the total program cost averages \$28.4 million per year. By comparison, the approved FY17 and FY18 County Recreation

and Parks capital budgets have averaged \$26.22 million over those two years; therefore this program is realistic from a funding perspective. The 15-year program is a tool to guide the DRP in the preparation of annual capital budgets. As public demand changes, the DRP will make adjustments to the 15-Year Program accordingly. The 15-Year Program was based on:

1. The results of the supply and demand analysis (including public input).
2. Policy considerations shown above.
3. Efforts to ensure that all areas of the County are adequately served.
4. Specific needs in the City of Annapolis.
5. Efficiency of recreation service delivery with respect to location and use.
6. Potential for meeting recreational facility needs through joint use, especially at public schools.
7. The relationship of projects to State and County goals.

For more detail on the specific priorities for land acquisition, development and rehabilitation recommendations of park and recreational capital improvements, see Table III-14 of the 2017 LPPRP.

Aging and Disabilities Services

Since the signing of the Older Americans Act in 1965, The Department of Aging and Disabilities (DOAD) has existed in numerous forms and expanded over the years to accommodate the growing older population. The average American lifespan in 1965 was 70 years old, while today it is 79 years old. Nationwide, there are 10,000 people who turn 65 every day. In Anne Arundel County, the older adult population is estimated to double in the next 15 years. As the County's population ages, the percentage of residents with disabilities also increases. Currently, according to the American Communities Survey, 9.6% of the County's population has a disability. Likewise, as the number of older adults and people with disabilities increases, so does the number of family caregivers. To keep up with the rising needs of older adults, adults with disabilities, caregivers and anyone interested in planning for their future, the DOAD provides a one stop shop with programs and services to assist residents to age in place as long as possible.

The DOAD operates seven senior centers located throughout the County and serves the public at two customer service locations. In addition to the Heritage Complex office in Annapolis, the Department opened a second customer service center in Spring 2017 at 7320 Ritchie Highway in Glen Burnie to improve access to services for the growing North County population.

The mission of the Department of Aging and Disabilities is to:

1. Improve the quality of life of our citizens by providing options and resources to older adults and adults with disabilities to enable them to live independent and meaningful lives.
2. Empower navigation of nutrition, transportation, education, socialization, affordable housing, and other supportive services that meet individualized needs.
3. Coordinate long-term care support to promote a healthy independent life in the community.
4. Streamline human services support through a single point of access.
5. Enrich the lives of active older adults through programs offered at senior activity centers.

6. Ensure compliance with the Americans with Disabilities Act.
7. Advocate and protect individual rights that are self-directed.

Strategic Planning

The DOAD's GDP goals are used to help guide the Departmental Strategic Planning Process, as well as the involvement in the development of the Transportation Functional Master Plan and with the Countywide Americans with Disabilities Act Self-Evaluation Update. In addition, as an Area Agency on Aging designated by the Maryland Department of Aging, the Older Americans Act requires that the DOAD develop an Area Plan on Aging every four years, which will reflect the goals set forth for the Department in the General Development Plan.

The *2009 General Development Plan* included a long term planning goal of providing services and opportunities for older adults and persons with disabilities to lead healthy, independent, and fulfilling lifestyles. In relation to this goal, the GDP established policies to locate senior housing options near health, EMS, transportation, and retail services; and to provide for the needs of persons with disabilities in housing, transportation, and public services planning. Specific actions that were recommended to address the needs of older adults and/or adults with disabilities included:

1. Identifying sites with development or redevelopment potential for senior housing that are located near needed amenities;
2. Working with private developers to provide a range of housing options for older adults including assisted living facilities, retirement communities, affordable independent living communities, and continuing care communities;
3. Addressing additional space needs at the Brooklyn Park Senior Center;
4. Completing a planned expansion of the Pasadena Senior Center;
5. Ensuring that new development and redevelopment conforms to current Americans with Disabilities Act and Fair Housing Act regulations;
6. Providing public transit services that accommodate the needs of persons with disabilities;
7. Promoting affordable accessible housing units for persons with disabilities; and
8. Providing administrative relief through the regulatory process for unique issues related to accommodating accessibility to structures and pedestrian systems for older adults and persons with disabilities

The following sections will describe the services and programs currently in place, as well as actions the County has taken recently to address the above recommendations.

Services and Programs

The Department currently offers 22 programs in 24 locations throughout the County. The programs are organized into bureaus as follows:

Aging and Disability Resource Center (ADRC) Bureau

The Older Americans Act as reauthorized in 2006 stipulates that each jurisdiction should have an Aging and Disability Resource Center (ADRC) to provide seamless access to services for older adults,

people with disabilities and caregivers. The ADRC in Maryland is branded as the Maryland Access Point (MAP). The MAP Customer Service Center can assist in finding the most valuable information in accordance with an individual's needs. This may include information on Medicare, assisted living facilities, nursing homes, rehabilitation facilities, in-home care, and long-term care. Trained professionals from the Information and Assistance program are available to help clarify an individual's specific needs and find the perfect fit. In addition to Information and Assistance, the ADRC Bureau includes the following programs and services:

1. Options Counseling to help individuals plan for the future, identifying supports and resources for quality of life and independence as they age;
2. Education and referrals on topics such as Social Security, Medicare, Medicaid, retirement benefits, credit counseling, guardianship issues, housing, and long term care needs;
3. Support for family caregivers and grandparents raising grandchildren, including education, respite care and supplemental services;
4. Senior Housing information on facilities, locations, costs and eligibility requirements for a wide range of senior living options including assisted living facilities, nursing homes, subsidized independent living apartments, congregate housing, retirement apartment communities, apartments with discounts to older adults, retirement communities, and continuing care retirement communities;
5. Technical assistance and monitoring of small (4-16 bed) assisted living homes to promote quality and regulatory compliance;
6. Advocacy for residents of assisted living and nursing facilities; and
7. Adult public guardianship for County residents 65 and older when the court determines they need a guardian of person and there is no family or friend who can act in that capacity.

The DOAD has also made full use of the Internet in assisting older adults, people with disabilities and caregivers with finding the services they need. With the advent of modern technology, a myriad of resources are made available to older adults, including a comprehensive online database of services. This database includes searches for health care providers, services for people with disabilities, housing, legal matters, financial assistance, and consumer issues.

Senior Center/Nutrition Bureau

All seven centers are multi-purpose centers focused on serving active adults at least 55 years of age. Centers enrich the lives of active, older adults by providing social, educational, volunteer and recreational opportunities so that older adults can remain independent as long as possible. Also in partnership with the Anne Arundel Community College, the Department offers classes at six of the senior centers. Average attendance at centers ranges from 100- 300 participants a day. Program offerings can vary among the seven centers but the range of offerings is fairly extensive. Members can participate in educational programs, recreational activities, arts and crafts classes, dance and exercise classes, computer classes, social events, bus trips and picnics.

The Senior Center / Nutrition Bureau also includes the nutrition program through which it provides congregate dining nutrition services at 20 locations throughout the County, including the seven senior centers, several senior housing facilities and community centers. The nutrition program also includes

Home Delivered Meals, SHOP 'N EAT and the Senior Farmers' Market Nutrition program. The SHOP 'N EAT program provides nutrition education at each senior center to empower older adults in making healthy selections while grocery shopping. The Senior Farmers' Market Nutrition Program (SFMNP) provides low-income older adults with coupons that can be exchanged for eligible foods (fruits, vegetables, honey, and fresh-cut herbs) at farmers' markets, roadside stands, and community supported agriculture programs.



The Brooklyn Park Senior Center

Long-Term Care Bureau

The programs under the Long-Term Care Bureau are designed to help older adults and individuals with disabilities remain in the community for as long as possible. These programs include:

1. Evidenced-Based Programs, which are educational workshops that teach participants tools to prevent falls or manage chronic conditions and improve quality of life. These programs also have proven to reduce hospital re-admissions. Workshops include: Chronic Disease Self-Management Program (CDSMP), Diabetes Self-Management Program (DSMP), Living Well with Hypertension, Stepping On and Stepping Up Your Nutrition. The Stepping On Program is proven to reduce falls by 31% in seniors over the age of 65. In FY 2017, Anne Arundel County Department of Aging and Disabilities reached 279 seniors through evidence based programming.
2. The Senior Care Program, authorized by Article 70-B, Section 4H of the Annotated Code of Maryland. This program provides a comprehensive assessment of needs, a case manager, and some funding for qualified individuals 65 years of age and older. Senior Care maintains clients in the community for an average of 50.7 months at a cost of about \$325 per month as opposed to an average of \$6,000 per month in a nursing facility. Senior Care keeps 300 clients safely in the community for the same amount of money it costs the State to keep 9 clients in a nursing home.
3. In-Home Aide Service Program (IHAS) is a Department of Social Services Program, administered by the DOAD. The purpose of IHAS is to provide individuals 18 years or older assistance with Activities of Daily Living (ADL's). This program will provide income eligible clients assistance with Personal Care (PC), Chore and Respite to help them live safely in their own home.
4. Senior Center Plus (SC+), a fee-for-service activity day program offering a level of care between independent and the more restrictive Adult Day Care (ADC) option. It provides social engagement for clients with assistance from a Certified Nursing Assistant (CNA) while they attend one of the County's senior centers. This program also offers much needed respite to family caregivers at the very affordable rate of \$20.00 per day. Senior Center Plus participants can also take advantage of the lunch program at the senior center which does not have a fee, only a requested donation. Currently this program is available in only a few senior centers but the program may expand to additional senior centers in the near future.

5. Supports Planning Agency (SPA) programs including Community First Choice (CFC), Community Options Waiver (COW), and Community Personal Assistance Services (CPAS). These programs provide supports planning coordination of in-home services to individuals with disabilities and special needs and older adults who want to remain in the community or who are in a Nursing Home and want to return to the community.

The Senior Triage Team is a joint program of the Long-Term Care Bureau and the Disability and Community Services Bureau which provides short-term case management to help prevent hospital readmissions.

Disability and Community Services Bureau

This bureau houses the County's Americans with Disabilities Act (ADA) Coordinator who provides technical assistance and education to anyone with questions or concerns regarding accessibility as covered in the federal law passed in 1990. The ADA Office ensures accessibility in County programs, services, and activities, as well as, is a resource to the public about the ADA and disability issues. The ADA Office also is the County liaison to the Commission on Disability Issues.

The Anne Arundel County Commission on Disability Issues promotes and enhances the quality of life for persons with disabilities by advising County Government on the coordination and development of government policies, programs, services, and allocation of resources for persons with disabilities and by proposing the means to meet the needs of persons with disabilities.

The ADA Coordinator is currently leading Countywide ADA Self-Evaluation Update that will identify existing barriers and provide recommendations for each County Department to increase accessibility of County facilities, as well as, programs, services, activities offered by County Government.

The DOAD provides services to people with disabilities in many programs outside this bureau, most notably through the Maryland Access Point (MAP) and the Medicaid Waiver Programs. Citizens can contact the MAP to learn about and connect to existing resources available to people with disabilities and their caregivers. As part of the Department's Aging and Disability Resource Center model, it partners with the local Center for Independent Living (CIL), Accessible Resources for Independence, to have one of the CIL's staff members at the Department two days per week. The Waiver Program supports people with disabilities in their communities by providing case management services. The DOAD also partners with the local Center for Independent Living and other community organizations to seamlessly connect residents with disabilities to appropriate services. While there are many services available, there are some gaps that exist now and will only continue to grow as the population grows. These gaps are opportunities for the Department to partner with other County agencies and private organizations to increase available services for individuals with disabilities of all ages.

Inclusion of people with disabilities into typical programs and services is the ideal opportunity for participation by people with disabilities. Many people with disabilities do not want nor require programs and services separate or different from people who do not have disabilities. Inclusion, under the Americans with Disabilities Act, requires providers of programs, services, and activities to provide reasonable accommodations for participation. This may include physical site accessibility and/or auxiliary aides and services to help with participation for someone who cannot hear or see. While the passing of the Americans with Disabilities Act in 1990 aimed to eliminate barriers for people with disabilities, they continue to exist. Future development of all public and private buildings needs to

ensure full ADA compliance for inclusion of people with disabilities. Programs, services, and activities need to be equipped with auxiliary aides, services, and assistive technology to ensure inclusion of people with disabilities.

Services unique to people with disabilities can be the preference or need of some individuals. In Anne Arundel County, unique disability services are primarily provided by private sector providers with public funding. Public funding for services is limited throughout the State and does not provide for all the individuals who want or require the services. It is primarily a needs based system with limited funding. As parents of adults with disabilities age, the need for increased funding will exist to support these adults whose parents cannot take care of them anymore. Deinstitutionalization has been effective but many individuals need support to live in the community. Private insurance does not fund this type of support and the cost of the support can exceed individual assets to pay for it.

Self-direction and sustainability are critical to a person's ability to live independently or with supports in the community. Housing, employment, transportation, recreation, and access to health care are barriers to people with disabilities. Technology will play a role in helping to overcome some of these barriers.

Communications/Emergency Preparedness

The Public Information Officer (PIO) communicates and promotes departmental activities through press releases, newsletters, radio, television and social media to ensure that County residents are made aware of the assistance available to them through the Department.

Community outreach events, including staffing and logistics, are communicated and coordinated by the PIO. Thousands of older adults, people with disabilities and caregivers are reached each year through the Department's participation in health fairs/senior fairs, homeless resource days, disability awareness events, as well as events geared toward caregivers, limited English speaking populations and other specific groups.

The Department's PIO works with staff from each of the above bureaus as well as the Office of Emergency Management (OEM) to lead emergency preparedness efforts. Policies and procedures that affect the County's vulnerable population are continually updated with OEM. The Department supports older adults and people with disabilities before, during and after storms and other emergencies. The Department provides education on emergency planning and keeps in close contact with assisted living facilities, nursing facilities, and homebound clients regarding power outages to ensure resident safety.

Transportation

Under a planned shift of responsibilities, the transportation services formerly provided by the Department of Aging and Disabilities transitioned to a separate County Office of Transportation as of July 2017. The Department of Aging and Disabilities continues to participate on the County Executive's Commission on Transportation.

Capital Program

The County's senior centers are well used by residents who often attend multiple centers based on programming interests. Recent and current capital projects include the Pasadena Senior Center

expansion (proposed in the 2009 GDP, now complete) and the Brooklyn Park Senior Center expansion which is in progress. Once complete, the Brooklyn Park Senior Center expansion will add 2,000 square feet of programmatic space to the center. The South County Senior Center is also being evaluated for space utilization.

Health Services

Public health services are an important component in the wide array of community services provided to the residents of Anne Arundel County. Public health includes both community and environmental health, and services are provided primarily through the Anne Arundel County Department of Health and its partner agencies. The inclusion of public health in comprehensive planning ensures there are links between land use and transportation policy and chronic disease prevention and safety. The built environment can have a direct impact on public health issues, including adult and childhood obesity, inactivity, cancer and respiratory problems.

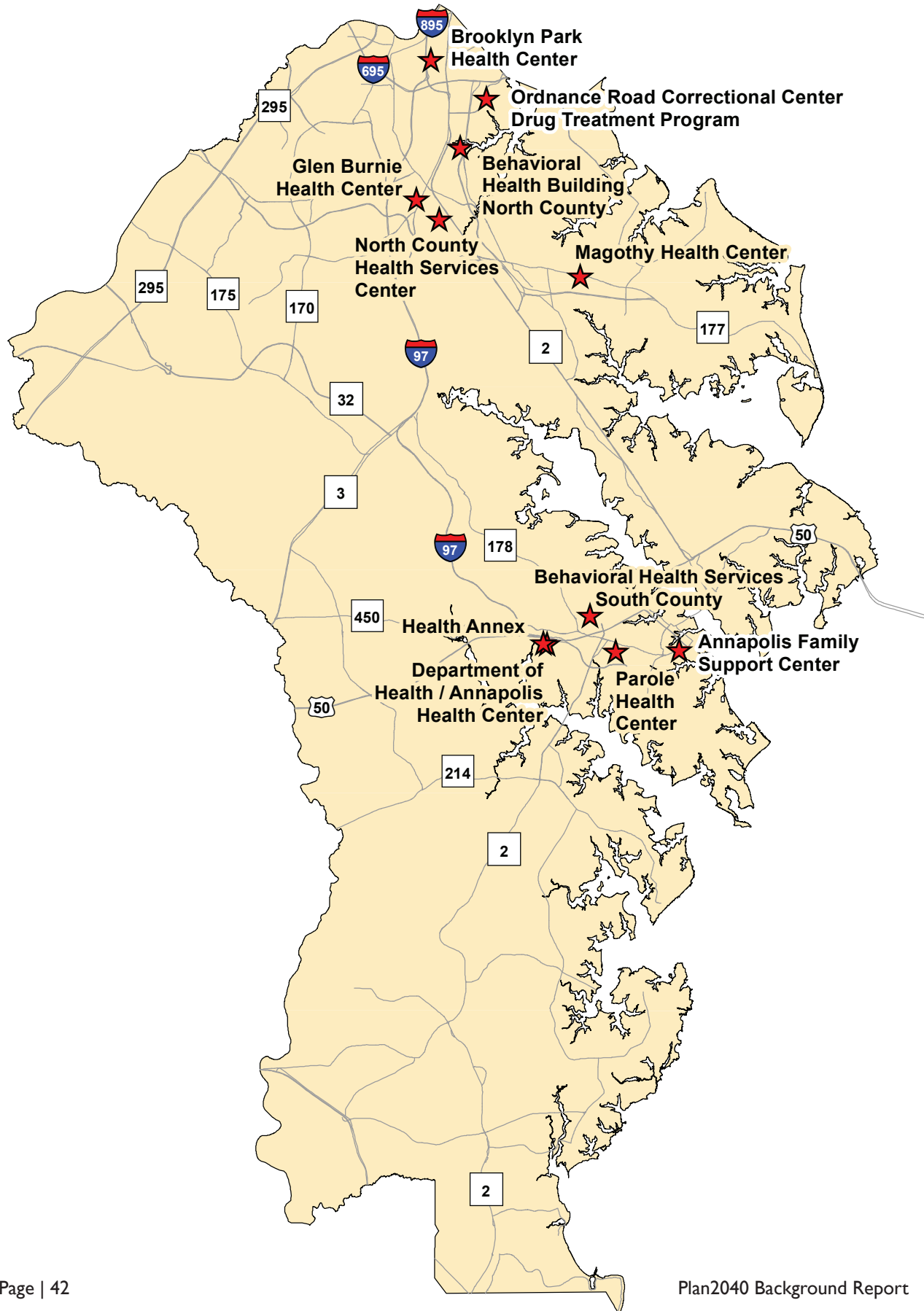
The Anne Arundel County Department of Health (DOH) is a local health department and is responsible for improving the health of Anne Arundel County with a vision of a vibrant county with healthy people in healthy communities. The Department's mission is to preserve, promote and protect the health of all people who live, work and play in Anne Arundel County. Critical to achieving the DOH vision and mission are strong, sustainable partnerships with individual residents, public sector agencies, community-based organizations, health care providers and insurers, academic institutions, businesses and other private sector agencies.

The DOH is a division of the Maryland Department of Health (MDH). As such, it is held accountable for enforcing certain Federal, State and County laws, regulations, guidelines and standards of care. In addition to regulatory and enforcement work, the DOH directly provides mandated, delegated and locally-initiated public health services. The Anne Arundel County Council serves as the County Board of Health. This Board along with the Conquer Cancer Advisory Council; the Healthy Anne Arundel Coalition, which includes the Obesity Prevention Subcommittee; and several other advisory councils help advise the DOH in its work. The DOH serves over 568,000 residents and has served the health needs of residents in the County since 1930. Nearly 700 DOH employees – physicians, nurses, social workers, sanitarians, counselors, health educators, nutritionists, therapists and other allied health and support personnel – bring compassion and commitment to their work and concern for continually improving the quality of these services.

Existing Facilities, Locations

The DOH is headquartered in Annapolis and operates 11 sites throughout the County (Figure 7). Some of the facilities are County-owned while others are leased. These sites include the Annapolis Family Support Center, Anne Arundel County Department of Health Headquarters/Annapolis Health Center, Behavioral Health Building-North, Behavioral Health Services-South, Brooklyn Park Health Center, Glen Burnie Health Center, Health Annex, Magothy Health Center, North County Health Services Center, Ordnance Road Correctional Center Drug Treatment Program and the Parole Health Center. In addition, the DOH has staff that work in 126 public schools, the court system and two detention facilities located in the County.

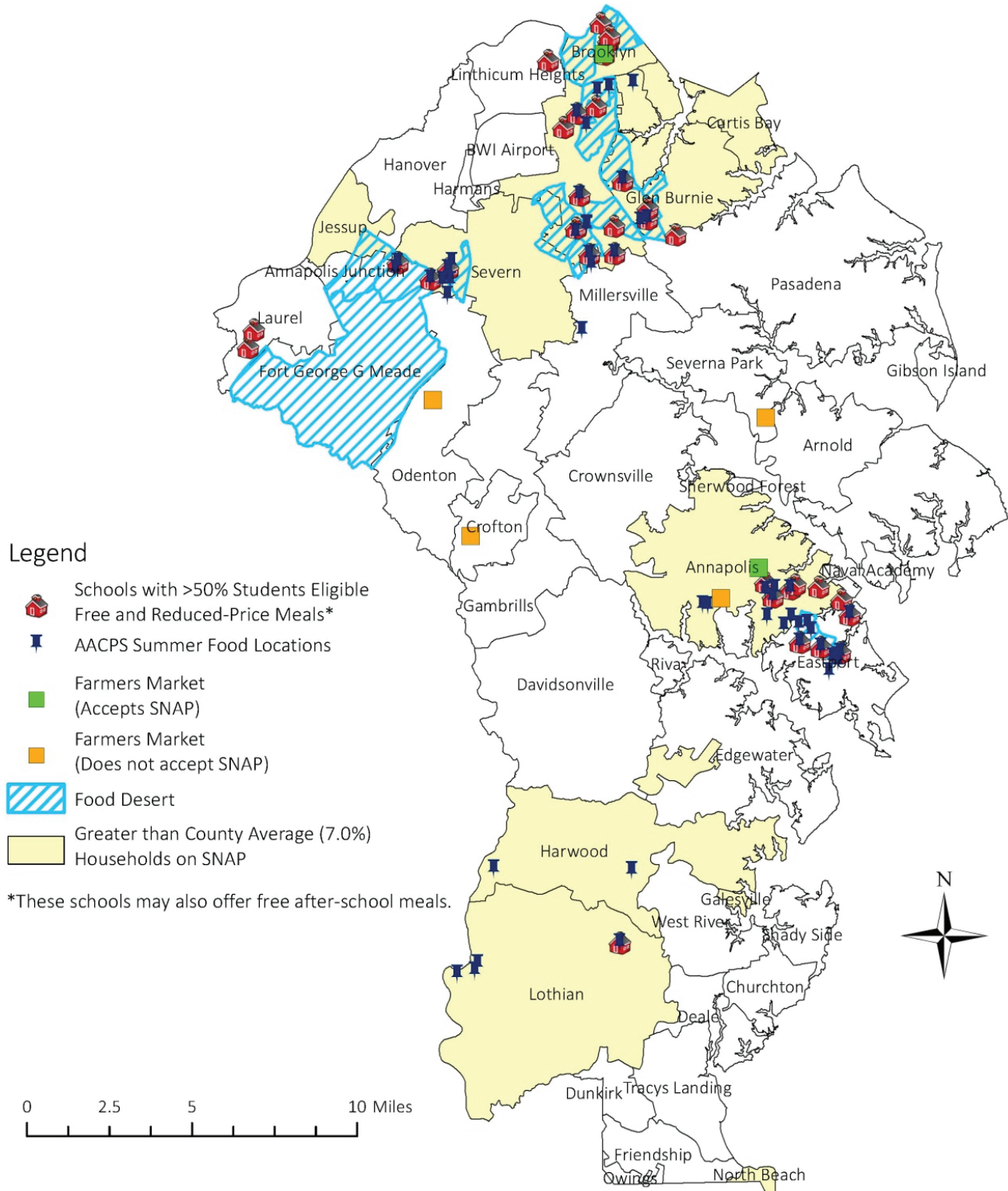
Figure 7: Anne Arundel County Department of Health Clinic Locations



At these facilities and other locations, the DOH is committed to providing a high level of quality services that are accessible to all County citizens. DOH services fall under the five programmatic bureaus which are described below:

1. The *Bureau of Behavioral Health* assesses mental health and substance abuse problems, needs and resources of the County; promotes behavioral health through education, prevention and treatment; and provides leadership in organizing effective public and private strategies to meet the needs of County residents affected by mental illness, substance abuse and violence. Programs include child and adolescent mental health, adolescent addiction services, substance abuse prevention services, adult addiction services, community case management and recovery support services.
2. Behavioral Health is a major focus for the County. In 2015, County Executive Steve Schuh declared a Countywide heroin public health emergency. In an effort to address the increase in substance use disorders, specifically prescription opioid and heroin use, the new South County Addictions Clinic in Annapolis was opened in 2016. This involved the expansion of the Adult Addictions program and helped the DOH provide a much-needed service to South County residents.
3. The *Bureau of Disease Prevention and Management*, in partnership with the community, provides comprehensive health outreach activities in order to promote good health and healthy lifestyles, prevent disease and protect the health of County residents through the Infectious Disease Prevention and Control program, the HIV/STI Prevention and Care program, the Office of Emergency Preparedness and Response, Community Education and Health Equity program and Cancer Screening Services – Breast and Cervical Cancer program.
4. The *Bureau of Environmental Health* includes programs that focus on regulation, inspection and compliance in the areas of community housing, food protection, private septic systems and wells and recreational waters. Programs and services include food facility inspections, licenses and permitting, rabies control, rodent investigations, radium testing and monitoring of well water, recreational water quality monitoring and advisories, and a sanitary engineering program that approves the installation of private septic systems and wells. The Bureau of Environmental Health also administers Bay Restoration Fund State grant monies that are used to upgrade private septic systems with nitrogen-reducing pretreatment systems and/or convert private wells to public sewer connections.
5. The *Bureau of Family Health Services* is responsible for preserving, promoting and protecting the health of Anne Arundel County residents through programs that provide health care services and linkages to health care resources for those who are uninsured or underinsured. These programs include Medical Assistance for Families/Maryland Children's Health Program, Medical Assistance Transportation, REACH, Administrative Care Coordination/Ombudsman, Adult Evaluation and Review Services, Healthy Start, Fetal Infant Mortality Review, Child Fatality Review, WIC, and Dental Health Services.
6. *School Health Services* preserves, promotes and protects the health of school-aged children, thereby strengthening and improving academic performance. They are committed to providing services that are directed to each student to develop his or her potential for physical, mental and emotional well-being. The nearly 300 employees of the School Health Services Bureau provide State and Federally-mandated services including medication administration, nursing treatments, first aid, and acute illness care to over 84,100 children in 126 health rooms in the public schools. School nurses

Figure 8: Food Environment, Anne Arundel County 2018



Data Sources: Supplemental Nutrition Assistance Program (SNAP) Participation: 2012-2016 American Community Survey (ACS), 5-Year Estimates; Farmers' Market: Maryland Farmers Market Association, 2018; Summer Food Service Program and Free and Reduced-Price Meal Eligibility: Anne Arundel County Public Schools, 2018; Food Deserts: United States Department of Agriculture (USDA), Food Access Research Atlas. NOTE: Food desert definition is presented as low income and low access measured at 1/2 mile and 10 miles, respectively.

also provide health education and promotion, health screenings, and case management of students with chronic health conditions. School nurses assist families in accessing community resources and navigating through the increasingly complex health care system.

Food Environment

Approximately 75,000 (13.2 %) County residents live in an area categorized as a food desert, which is an urban neighborhood or rural town without ready access to fresh, healthy and affordable food. Lack of access to healthy foods can contribute to a poor diet and can lead to higher levels of obesity, diabetes and heart disease. Approximately 294,000 residents (68.2 % of adult population) over 18 years are overweight or obese and almost 47,000 residents (10.7 % of adult population) over 18 years have diabetes⁵. An estimated 17.3 % of children and adolescents ages 2 to 19 years are obese and another 15.1 % are overweight⁶. Table 5 shows the prevalence of chronic obesity-related health conditions among County adults (18 years and over), 2016⁷.

Table 5: Prevalence of Chronic Obesity-Related Health Conditions Among Adults, 2016

Health Condition	Prevalence %	Estimated Population
Elevated cholesterol level*	37.1%	159,344
High blood pressure	36.4%	131,837
Diabetes	10.7%	46,985
Suffered heart attack	3.8%	16,694
Suffered stroke	3.3%	14,350
Angina or coronary disease	4.3%	19,045

Source: BRFSS, 2013-2016*

Figure 8 depicts the Food Environment within Anne Arundel County.

Capital Program

The DOH has diverse sources for financing, including federal, State and local funding, grant funding, as well as revenue generated from fees and third-party billing. The Department's budget is comprised of 51 % County funds, 36 % State and Federal Grant Funds and 13 % Fees Revenue.

The FY2019 – FY2024 Capital Budget and Program has allocated over \$42 million over the next six years for capital projects associated with the DOH's Central Services Program and the Bureau of Environmental Health. A portion of this funding has been programmed for renovation and/or relocation of County offices to meet current demands. This money will be used to cover relocation, furniture, equipment, planning, engineering, moving costs and space utilization studies. A large portion of the money has been programmed for Environmental Health projects that are necessary to meet health and safety regulations to improve health and protect the environment. Funds will be used to address hazards and nuisances related to building codes, subsidize the cost of failed sewage and private

5. Maryland Behavioral Risk Factor Surveillance System, 2016

6. Anne Arundel County Department of Health, Provider-based County Survey of Children and Adolescents, 2012

7. Maryland Behavioral Risk Factor Surveillance System, 2016

wells in cases of financial hardship and provide subsidies to property owners to upgrade their sewage disposal systems.

Solid Waste

The Resources Conservation and Recovery Act of 1976, and subsequent amendments, provide Federal standards for the environmentally sound reuse, handling and disposal of solid waste. The U.S. Environmental Protection Agency (EPA) delegates the implementation of these guidelines and standards to the State and local level for implementation.

The mission of the Anne Arundel County Department of Public Works' Bureau of Waste Management Services (Bureau) is to manage the collection, processing, and recycling of solid waste. The Bureau functions as an Enterprise, focused on providing services to the residential sector from which the majority of its user fees are derived. Local businesses may choose to use the Millersville Landfill and Resource Recovery Facility, according to charges established in the County Code, or alternatively they may rely on the robust network of private sector businesses that provide waste collection, transfer, recycling, and disposal services in the region.

According to the most recently published State records, Figure 9 shows the total amount of solid waste generated within Anne Arundel County, and the proportion of that waste which is managed by Anne Arundel County Government (28%) and the private sector (72%).

Within this context, the Bureau strives to remain a service organization. It is critical to understand that the State of Maryland regulates solid waste operations through delegated Federal authority. As such, the Bureau is able to leverage the talents and capabilities of the private sector especially in the areas of waste collection, single stream recycling, and organics diversion.

Anne Arundel County has invested significantly in its recycling programs for residents over the past decades. Programs have embraced recycling a myriad of material types, always with a clear goal of avoiding disposal costs, preserving landfill disposal capacity, developing new sources of revenue, and ensuring that user fees for the services we provide remain low and affordable.

The Bureau has integrated numerous Zero Waste strategies into its operations to best manage residential sector waste. These include:

1. Conducting a source reduction outreach campaign
2. Providing source reduction technical assistance to businesses
3. Increasing water conservation (through the Bureau of Utility Operations)
4. Implementing State multi-family recycling requirements
5. Encouraging away-from-home and event recycling
6. Establishing recycling goals in excess of State mandates
7. Operating a yard waste composting facility, and producing salable products
8. Conducting an outreach campaign targeted at organics
9. Eliminating landfill disposal of sewage sludge at the County landfill
10. Conducting waste sorts and identifying recycling opportunities for residents

- 11. Recycling valuable electronics
- 12. Operating a prescription drug take-back program (through the Anne Arundel County Police Department)
- 13. Operating a recycling area adjacent to the landfill disposal area for recyclables
- 14. Conducting outreach at schools
- 15. Conducting business recycling assistance
- 16. Eliminating plastic bag usage for yard waste collection

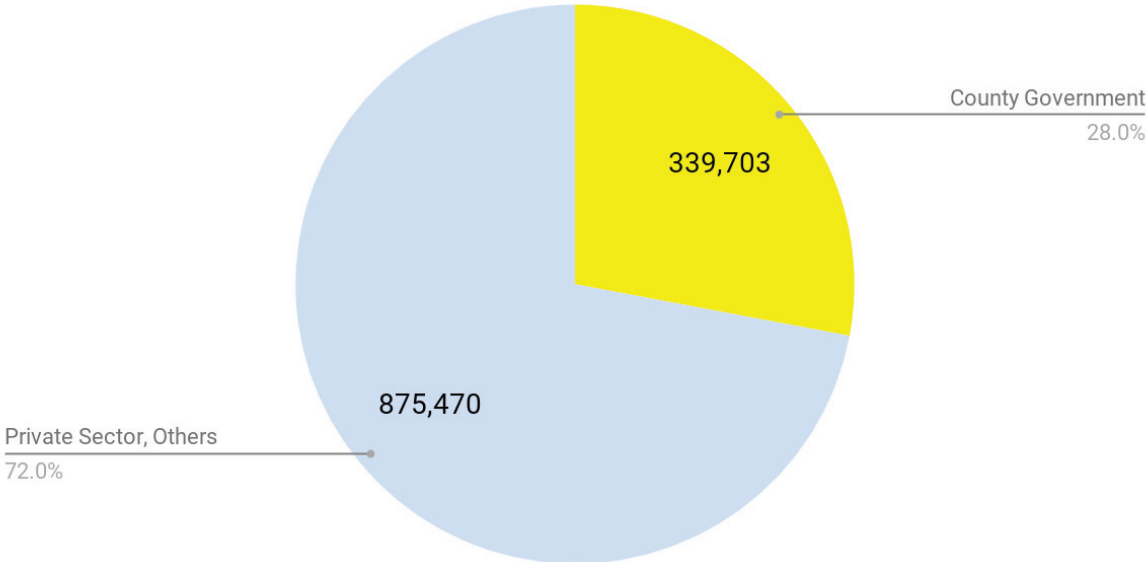
Functions

Municipal solid waste is generated by the activities of County residents, businesses, industries, and institutions. Other types of waste include rubble, controlled hazardous substances, animal carcasses, bulky or special wastes, vehicle tires, wastewater treatment plant biosolids, and septage. Residential waste is either collected by means of curbside collection or is self-hauled to waste management facilities and is either disposed or recycled. Most commercial and industrial solid waste goes to privately owned and operated facilities as illustrated in Figure 9.

The County is organized into fourteen (14) service areas for curbside collection of waste. The County contracts with a private hauler for each discrete service area. Contracts provide for once weekly collection of recyclables, yard waste and trash.

In addition, the County offers three full-service residential drop-off Recycling Centers located in Glen Burnie, Severn and Deale. In addition, customers can drop off at the Millersville Landfill and Resource Recovery Facility (MLFRRF). Each facility will accept all manner of recyclables, including hard-to-handle items like waste oil, antifreeze, cooking oil, lead-acid batteries, as well as the single stream recyclables, yard wastes, and household trash. Facilities also sponsor special household hazardous waste

Figure 9: Management of Solid Waste



Source: Total Solid Waste is from Calendar Year 2016 Maryland Waste Diversion Rates & Tonnages, MDE

events throughout the year. This provides opportunity for residents to properly discard chemicals, cleaners, and other items best handled separately from household trash.

Other notable solid waste facilities within Anne Arundel County include the Annapolis Junction Transfer Station and the Curtis Creek Transfer Station, which are privately owned and operated. Rubble waste that is not recycled is disposed of at the Tolson Rubble Landfill and facilities outside of the County with the exception of a small amount that is disposed at the MLFRRF. There is an additional proposed rubble landfill facility within the County, which could provide increased market competition, thereby lowering prices for disposal and providing an alternative outlet for commercial customers within Anne Arundel County.

Programs

The major services offered to residents by Anne Arundel County Government include:

1. Curbside Collection
2. Recycling Centers
3. Millersville Landfill and Resource Recovery Facility
4. Recycling and Waste Reduction Programs

Each of these is summarized in the remainder of this section.

Curbside Collection

The County currently provides its curbside customers with the following basic services:

1. Once weekly collection of a wide variety of recyclables (single stream), including certain bulky rigid plastic items;
2. Once weekly collection of yard waste (grass, leaves, brush, branches);
3. Once weekly collection of trash, including bulky furniture items; and
4. Bulk metal collection scheduled upon request which includes items requiring special handling like liquid refrigerant removal from air conditioners, refrigerators, and capacitor removal.

Recycling Centers

Operated with the intent of providing a convenient location for residential customers' use, the County owns and operates the Northern, Central and Southern Recycling Centers located in Glen Burnie, Severn, and Deale, respectively. Residents of the County may transport recyclables, yard waste and trash as well as bulky and certain liquid waste items to these facilities. Items recycled include:

1. Single stream (paper, plastic, metal and glass) materials
2. Cardboard
3. Rigid plastics
4. Automotive, marine and rechargeable batteries
5. Motor oil and antifreeze

6. Cooking Oil
7. Electronics
8. Clothing and other textiles
9. Scrap Metal
10. Oyster shells
11. Vinyl siding

Recycling options expand according to the availability of end markets for recovered commodities.

Landfill and Resource Recovery Facility Operation

The County owns and has operated the Millersville Landfill and Resource Recovery Facility since 1975. County residents and businesses are able to utilize the landfill to manage their recycling and disposal needs. Fees for use of the facility are set in Article 13 of the Anne Arundel County Code.

Recycling

Recycling and waste reduction is threaded throughout all of our programs. To meet the objectives of reduction, reuse and recycling of solid waste, Anne Arundel County developed a new recycling outreach initiative in 2008 that focused on increasing the residential recycling rate from 31% to 50%, decreasing waste generation, improving the ratio of recycling to disposal, and reducing collection and processing costs. In 2017, the County's residential curbside recycling rate improved to 43%. The recycling rate including the solid waste managed at County facilities was 42%. The County continues to implement multiple outreach initiatives designed to keep the public educated and motivated to recycle all that our program allows.



County recycling containers

Existing Facilities, Locations

Anne Arundel County hosts both County-owned and privately held facilities which exist to accept, process, and transfer solid waste including recyclables. In addition, there exist two landfill disposal facilities; the Millersville Landfill and Resource Recovery Facility in Severn, and the Tolson and Associates Rubble Landfill in Crofton.

County Solid Waste Facilities

The Anne Arundel County Department of Public Works' Bureau of Waste Management Services operates a state-of-the-art resource recovery facility and landfill for both residents and County businesses, and three full-service residential drop-off facilities.

Millersville Landfill and Resource Recovery Facility and Central Recycling Center, Severn

The Millersville Landfill and Resource Recovery Facility and Central Recycling Center are co-located on the five hundred sixty seven (567) acre campus at 389 Burns Crossing Road in Severn.

The operation includes a scale house and truck scales, a building for receiving and baling cardboard, a warehouse, vehicle maintenance shop, facility for treating liquid waste pumped from the landfill, recycling area for landfill customers, disposal area, and landfill gas-to-electricity facility. The Millersville Landfill is projected to have waste disposal capacity until 2043. Additional reliance on out-of-County disposal outlets beyond 2023, and increases in residential recycling, could push this date further into the future.

The Central Recycling Center is a drop-off facility designed to serve the needs of County residents as outlined under the Programs section.

Northern Recycling Center and closed Glen Burnie Landfill, Glen Burnie

The Northern Recycling Center is located at the entrance of the closed Glen Burnie Landfill at 100 Dover Road, Glen Burnie, and provides a location for North County residents to bring their recyclables, yard waste and trash. All of the material that comes to the Recycling Center is transported by truck for recycling, processing or disposal at other facilities. Most materials accepted for recycling are handled through contracts with private sector service providers.

Southern Recycling Center and closed Sudley Road Landfill, Deale

The Southern Recycling Center is located at the entrance of the closed Sudley Landfill at 5400 Nutwell-Sudley Road, Deale, and provides a location for South County residents to bring their recyclables, yard waste, and trash. All of the material that comes to the Recycling Center is transported by truck for recycling, processing or disposal at other facilities. Most materials accepted for recycling are handled through contracts with private sector service providers.

Private Solid Waste Facilities

Privately owned and operated solid waste management facilities must meet local zoning requirements, but operate under permits issued by the State of Maryland. The three primary facilities are discussed in the remainder of this section.

Annapolis Junction Transfer Station, Jessup

The Annapolis Junction Processing Facility and Transfer Station (Annapolis Junction) opened in March, 1997 and is privately owned and operated by Garnet of Maryland, Inc. (dba Waste Management). The Facility is permitted to accept and transfer 3,000 tons per day on a 6-day workweek average of non-hazardous residential, commercial, municipal, industrial, agricultural, silvicultural, construction, demolition and other waste material as allowed in the facility's Refuse Disposal Permit.

Curtis Creek Processing Facility and Transfer Station, Baltimore

The Curtis Creek Processing Facility and Transfer Station (Curtis Creek) opened on May 19, 1999, and is owned and operated by Curtis Creek Recovery Systems, Inc. (Co/ Ameriwaste, LLC). The Curtis Creek Facility has a permitted capacity of 3,000 tons per day on a 6-day workweek average of

non-hazardous residential, commercial, municipal, industrial, agricultural, silvicultural, construction, demolition and other waste material as allowed in the facility's Refuse Disposal Permit. Spot recycling and segregation of recyclable materials also occurs at the Curtis Creek Facility. Such materials include: ferrous and non-ferrous metals, glass, plastics, construction and demolition materials, and all grades of paper.

Tolson & Associates Rubble Landfill, Crofton

The Tolson & Associates Rubble Landfill opened in December of 2016 and is privately owned by Tolson & Associates, LLC. The facility is located off MD 3 at the end of Capitol Raceway Road, Crofton.

This rubble landfill is a modern constructed landfill which includes a state-of-the-art liner system, leachate collection system, gas and groundwater monitoring systems and is permitted by the Maryland Department of the Environment Refuse Disposal Permit 2003-WRF-0580. The facility encompasses a 72.38 acre fill area on a 184.25 acre site including an active landfill, recycling, natural wood waste, and yard waste processing and composting areas.

The landfill facility includes a scale and scale house, maintenance and storage building, leachate storage tank, and mulching and composting area. Co-located with the landfill is a sand and gravel mining and processing operation which operates under separate permits issued by MDE and Anne Arundel County.

The facility is permitted to accept land clearing, construction and demolition debris and other waste material as allowed in the facility's Refuse Disposal Permit. No hazardous waste is accepted. Recovery, management and processing of recyclables including, but not limited to, natural wood waste (mulch), yard waste (compost), metals, concrete, and cardboard occurs at Tolson. In accordance with the goals and objectives of Anne Arundel County, Tolson may also utilize other technologies, processes and equipment to reduce, reuse and recycle acceptable solid waste. The service life of this facility extends well beyond the ten (10) year planning period.

Biomedical Waste Services, Baltimore Biomedical Waste Services' facility operation involves the acceptance, processing and transfer of special medical waste. The processing component involves the use of an autoclave for the purpose of sterilization and compaction of the medical waste prior to transfer.

K&K Tires, Inc., Linthicum K&K Tires sells automobile tires, used tires, and also recycles scrap tires. The property was granted a special exception in 2005 to allow a recyclables recovery facility. K&K Tires has held a Scrap Tire Recycler license from the Maryland Department of the Environment since 2005.

Facilities Planning

Growth in the number of households provided with solid waste-related services is largely a function of residential development. New residential developments which are compatible with the manner of collection offered through contracts administered by the Bureau are added to the roles. The Solid Waste Service Charge authorized under §13-4-105 of the Anne Arundel County Code is assessed as collection services are extended to new communities. Table 6 shows growth in the number of households served as of Fiscal Year 2017.

Table 6: Households Receiving County-provided Curbside Collection Service

Fiscal Year	2013	2014	2015	2016	2017
Households (#)	153,097	155,163	156,868	158,190	159,840

The 10-Year Solid Waste Management Plan as well as regulations within the County Code help shape the County's solid waste program.

County 10-Year Solid Waste Management Plan

The Code of Maryland Regulations (COMAR) Title 16, Subtitle 3 requires each County to maintain a current, comprehensive, solid waste plan which covers at least a 10-year period. The current Plan is for 2013 - 2023. The Plan must follow the prescriptive requirements set forth in COMAR. The Maryland Department of the Environment (MDE) is responsible for enforcing the regulations to ensure that solid waste is handled properly in Maryland. MDE also issues permits for the various types of waste facilities such as municipal solid waste landfills, rubble landfills, processing facilities, transfer stations, compost facilities, incinerators and industrial and hazardous waste landfills.

County Code Regulations

The Anne Arundel County Code has regulations governing the provision of solid waste-related services within the County. Article 13, Title 4 (Public Works, Solid Waste Collection) addresses collection service areas, collection practices, container removal, commercial recycling, County-owned or operated landfills and solid waste disposal facilities, solid waste service charges and the need for a solid waste financial assurance fund. Complementary ordinances exist in the Construction and Property Maintenance Code. Article 15, Title 4 addresses enforcement, condition of premises, refuse containers, and maintenance of trash receptacles, storage of materials, inspection and removal of refuse.

The County controls the development of solid waste facilities within its boundaries through application of the Zoning Article. Article 18 identifies requirements for composting facilities, land-clearing debris landfills, natural wood waste recycling facilities, recyclables recovery facilities, rubble processing facilities, rubble landfills, and solid waste transfer stations including where such facilities may be located. Federal and State regulations govern solid waste operations.

Since 2013, the following private solid waste management facilities have been constructed and are operational within Anne Arundel County's borders.

1. Tolson and Associates Rubble Landfill, a private rubble landfill in Crofton;
2. K&K Tire, Inc., a vehicle tire installer, tire reseller, and scrap tire recycler in Linthicum; and
3. Biomedical Waste Services, Inc., a medical waste autoclave and transfer facility in Baltimore.

All three facilities are included in the current 10-Year Solid Waste Plan, or amendments to the Plan that have been adopted through the legislative process.

To increase recycling opportunities, more recycling-related businesses are needed within the County. There are currently no large-scale recyclables recovery facilities located within Anne Arundel County. However, the Tolson and Associates Rubble Landfill is required to recycle 30% of the material it receives each year under §18-11-131 of the County Code.

The 10-Year Solid Waste Management Plan has identified that the establishment of additional recyclables recovery facilities within the County would conserve landfill space, increase recovery of recyclable materials, increase recycling rates, be cost-beneficial to the County and lessen the dependence on the Millersville Landfill facility.

Current Capital Program

The approved FY19 Capital Improvement Program for Solid Waste-related projects, referred to as the N-Class projects, includes five (5) critically important projects:

1. MLFRRF Cell 8 Closure - Provides for closure cap construction in accordance with Federal and State law and regulation. The Cell 8 landfill disposal area was the active waste disposal area between 1992 and 2017. Capping, which consists of constructing several layers of soils and synthetic materials, designed to prevent precipitation from the entering the mass of buried waste, is expected to be completed during 2018.
2. MLFRRF Cell 567 Replace Cap - Installed in the early 1990s, the County is undertaking a project to repair roughly seven (7) acres of the landfill cap which was used to close Cells 5, 6, and 7 at the Millersville Landfill. These landfill cells were active in the 1980s. Settlement within the capped landfill has led to standing water and landfill gas collection system concerns which must be corrected.
3. MLFRRF Compost Pad Phase 2 - A project to expand the County's yard waste composting capabilities was completed in 2017. Even with the additional composting pad area, the County will continue to rely on private sector service providers for the yard waste it collects from curbside and at its facilities.
4. MLFRRF Subcell 9.2 - The first phase of the Cell 9 landfill disposal area, referred to as Subcell 9.1, was completed and became operational in January 2017. Funding is approved for the design and construction of the second phase of Cell 9 development, referred to as Subcell 9.2.
5. Solid Waste Renovations - This recurring project is used to renovate existing Bureau of Waste Management Services infrastructure and includes items such as major building systems (e.g., roofs, roll-up doors, lighting, HVAC, plumbing, and other mechanical systems), pavements (e.g., roads, sidewalks, pedestrian ramps, curbs, and pavement markings), and other utilities and infrastructure (e.g., pump stations, storage tanks, stormwater management facilities, among others).

Challenges and Future Needs

As development of the County occurs and population increases, the need for community services will continue to increase. The ability to provide an adequate level of services is an ongoing challenge and typically requires a range of growth management tools, including regular updates to the comprehensive plan and the capital budget and program as well as the County Code. The County will continue to monitor future development patterns in order to help assess future demand for all of the community services it provides. County providers of these services will need to continually explore ways to increase efficiency, consolidate services where feasible, and develop partnerships with other non-County providers in order to maintain acceptable levels of service and to promote a high quality of life for local citizens.

Anne Arundel County Public Schools

Demands placed upon the Anne Arundel County Public School system facilities are constant, and it is nearly impossible for every facility needs to be met simultaneously. AACPS will continue to address existing building deficiencies and meet the challenges of an ever-changing educational curriculum. Utilization rates at each of the schools will continue to be addressed through a combination of ways including redistricting; additions and renovations to existing schools; replacement of existing schools; and construction of new schools. Enrollment forecasts will need to be monitored for changes in demographic and development trends, especially household size. In addition, the need for land to accommodate new schools will continue to be a challenge and must be addressed aggressively and through comprehensive planning. The County's Adequate Public Facilities Ordinance will need to be further evaluated in order to address impacts from new developments in combination with existing households.

Anne Arundel Community College

Anne Arundel Community College will continue requesting funding for systemic renewal projects and improvements to sidewalks, parking, and roadways as well as designated funds for emergency projects and miscellaneous needed repairs. In addition, AACC has identified the following needs based on the 2016 Facilities Master Plan as well as the Facilities Condition Assessment:

1. A partial renovation to the Careers building at the Arnold campus to retrofit the current Biology labs once they have been relocated to the new Health Sciences and Biology building.
2. A renovation and expansion of the Child Development Center currently located within the Math building which will include a new lab for teacher education.
3. A renovation and addition to the existing Dragun Science building to create additional physical sciences labs and rejuvenate the existing facility.
4. A renovation of the Florestano building to allow for the relocation and expansions of the School of Business and Law and the School for Continuing Workforce Development (CEWD).
5. Raze the Johnson building and complete the relocation of Ring Road to provide for added pedestrian safety on campus.
6. Renovate and expand the Student Services Center to allow for continued growth in advising and counseling services.
7. Renovate the Student Union Dining Hall with new systems that allow the campus to accommodate student needs.

Recreation and Parks

Current County priorities for meeting recreation and park needs are the result of State and County Goals set forth in adopted master plans; results of the supply and demand survey conducted as part of the 2017 Land Preservation, Park and Recreation Plan; Countywide needs versus relative needs in the different park and recreation planning areas, including the need to ensure that all areas of the County are adequately served; efficiency of recreation service delivery with respect to location and use; and the potential for meeting recreational facility needs through joint use, especially at public schools. The priorities will focus on:

1. Parkland acquisition and the preservation of open space, greenways, and sensitive natural resource areas;
2. Development or completion of regional parks, community parks, and athletic fields and related park facilities;
3. Development of an expanded trail network;
4. Development of additional water access facilities and boat ramps;
5. Investment in park and recreation facilities for underserved communities such as Jessup, Brooklyn Park, Glen Burnie, Fort Meade, Maryland City, Marley Neck;
6. Park renovations including the Eisenhower Golf Course, and over 100 County parks and specialized facilities;
7. Indoor recreation facilities, additional swim centers and recreation centers as funding allows.

Library Services

The Anne Arundel County Public Library System will meet the growing needs of the County by utilizing the Library Facilities Master Plan to undertake a logical, sustainable, and data-driven capital building plan to provide this space in time to meet the growing needs of the County.

Aging and Disabilities Services

Due to the projected increases in the County's aging and disabled population, the Department of Aging and Disabilities is facing a number of challenges and needs including:

1. Growing waiting lists for all of the Long-Term Care Bureau programs, the assisted living subsidy program and the caregiver support programs;
2. Growing number of clients exhibiting signs of serious mental health conditions, Alzheimer's and other dementias and the ability for services to keep pace with the needs; also, the Department's SHIP Medicare counseling program frequently receives urgent calls and visits from clients facing challenges related to insurance coverage of opioid addiction treatment medications;
3. Fewer family caregivers per older adult than previous generations who are increasingly faced with performing complex medical tasks and struggling to shoulder the financial and emotional costs of caregiving and balance it with employment, child care, etc.;
4. Growing workforce needs to provide long-term care services to older adults and people with disabilities;
5. Education about incentives and partnerships with employers, as well as additional partnerships to enhance employment opportunities and expanded incentives for employers;
6. Limited availability of affordable and accessible housing: the current inventory within the County is approximately 10 retirement apartment communities, 15 apartment communities with senior discounts, three retirement communities and two continuing care retirement communities;
7. Limited transportation and paratransit resources, and accessible public transportation, especially in certain areas (i.e., South County);

8. Access to healthcare and limited health care professionals, especially psychiatrists specialized in working with these populations which telehealth and telemedicine may help in providing opportunities;
9. Limited recreational programs for adults ages 22-54 with disabilities; and
10. Space utilization and aging infrastructure at each of the County's senior activity centers; each of the senior activity center buildings are more than 10 years old. Two were built into historic sites: a high school built in 1932 and an elementary school built in 1922. Three other centers are between 26 and 38 years old. The South County Senior Center is also being evaluated for space utilization. In addition, the senior centers have only two staff (one director and one office support), neither of whom is a licensed behavioral health clinician.

Public Health Services

Challenges faced by the Department of Health include the decrease or elimination of funding paralleled with increased demand for services and current or emerging health priorities which are significant, complex and underfunded.

The impact of opioid use disorder continues to be a top priority of response in Anne Arundel County. In 2017, Anne Arundel County police reported almost 1,100 opioid-related overdoses occurring within the County, a count that has increased 171 percent since 2014. With the rise in mental health and substance use issues and lack of appropriate services and service providers located within the County, DOH's long-term planning goals are to continue to develop a robust behavioral health system. This will include the goals of decreasing the morbidity and mortality associated with behavioral health conditions and increasing the number of individuals in long-term recovery by establishing a care coordination system for treatment and recovery from substance use or co-occurring disorders.

There are many factors that play a role in health, including lifestyle access to healthy foods, surrounding environment, genetics and certain diseases. Community-level changes, such as implementing policy, are more sustainable, have proven to impact infrastructure and aid in shifting social norms. Education of individuals and families alone is not a viable change strategy because other environmental and societal factors impede its success, including physical access or affordability. In addition, access to transportation, especially for low-income residents and seniors can positively affect access to health care, employment opportunities, social services, access to healthy food and other factors which impact health. Examples of Evidence-based Programs:

1. Anne Arundel County Public Schools (AACPS) Free and Reduced-Price Meal Program and AACPS Summer Food Service Program (including Mobile Meals);
2. Farmers' Markets that accept SNAP, WIC Farmers' Market Nutrition Program (FMNP) and Fruit and Vegetable Checks (FVC);
3. City of Annapolis and Anne Arundel County Pedestrian and Bike Master Plans;
4. Healthy Food Access in Local Organizations; and
5. Food Policy Council or Multi-sector Food Coalition

In an effort to support people who live, work and play in the County to achieve a healthy weight, the DOH will continue to identify areas of need in the County and support evidence-based initiatives or

programs that will help residents access healthy and affordable food. This will include working with farmers and farmers markets in the County and proposing policy recommendations related to obesity prevention to local policymakers.

The DOH currently tests water from more than 80 County beaches where people swim or engage in activities for enterococci, a bacteria that comes from the intestines of all warm-blooded animals and are associated with fecal contamination. Funding for this program comes from a grant administered through Maryland Department of the Environment from the Environmental Protection Agency. As Federal budgets continue to be reduced or eliminated, this water monitoring program is at risk of elimination which will in turn put residents using recreational waters at increased health risks.

Solid Waste Services

Although source reduction, recycling and resource recovery can significantly reduce the need for waste disposal, it will not eliminate the need for waste disposal options. Even though the MLFRRF has a disposal capacity that is projected to meet annual needs for decades, the County continues to pursue viable alternatives. For example, expanded recycling programs, diverting waste to out-of-County landfills via transfer stations, and implementation of operational efficiencies such as higher compaction rates, minimization of soil for cover, increased material recovery rates and reuse of materials help ensure the longevity of the MLFRRF.

The Waste Management Bureau will continue to look for programmatic improvements to enhance its affordable, comprehensive solid waste management system that promotes waste reduction, encourages the reuse of discarded materials, maximizes source separation and recycling of materials, minimizes the need to dispose of materials as waste, and conserves valuable landfill space.

To help plan for future needs, the Bureau developed the 10-Year Solid Waste Management Plan which provides a roadmap for the planning period and establishes twelve priorities to protect public health and the environment, and support the goals, objectives and policies of the Plan. The twelve priorities are:

1. Integrated System Management
2. Public Health and Environmental Protection
3. Regional Partnerships
4. Recycling, Waste Diversion and Landfill Preservation
5. Collection and Management of Recyclables and Solid Waste
6. Technology Enhancements and Alternatives
7. Future Landfill Life and Capacity
8. Constituent Communication and Outreach
9. Revenue and Beneficial Use
10. Rates and Fees
11. Future Strategic Plans
12. Future Disposal Facilities

