

2018 ANNUAL GROWTH REPORT



HARFORD COUNTY GOVERNMENT DEPARTMENT OF PLANNING AND ZONING

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"MARYLAND'S NEW CENTER OF OPPORTUNITY"

The 2018 Annual Growth Report

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INTRODUCTION

In accordance with State law, this report must provide information on development activity and planning programs to ensure that these activities are being completed in a manner consistent with the State's goals and visions. This report also addresses the implementation status of HarfordNEXT. The indicators required by the State are included in this report.

Starting in July 2010, Harford County was required to submit a report to the Maryland Department of Planning (MDP) on its Adequate Public Facilities (APF) provisions and any development restrictions within Priority Funding Areas (PFAs) that are the result of these provisions. Harford County provides this information annually to MDP.

The 2018 Annual Growth Report is an ongoing analysis of growth trends, facility capacity, and service performance. The report also contains information on updates to the County's Development Regulations and updates of all planning documents as required by the State. It addresses State requirements regarding planning consistency and opportunities for improving the planning process. This report is prepared by the Department of Planning and Zoning in coordination with the Department of Public Works and the Harford County Public Schools. This report provides information on the present development activity as well as past trends and future projections for Harford County and the region.

The information in this report will be used by public officials, citizens, and private developers for various purposes:

- To assess facility adequacy during the development review and approval process;
- To assess facility capacity in regard to zoning reclassification decisions;
- To support the evaluation of priority projects in the annual Capital Budget review; and
- To identify critical deficiencies which require prompt attention by the County.

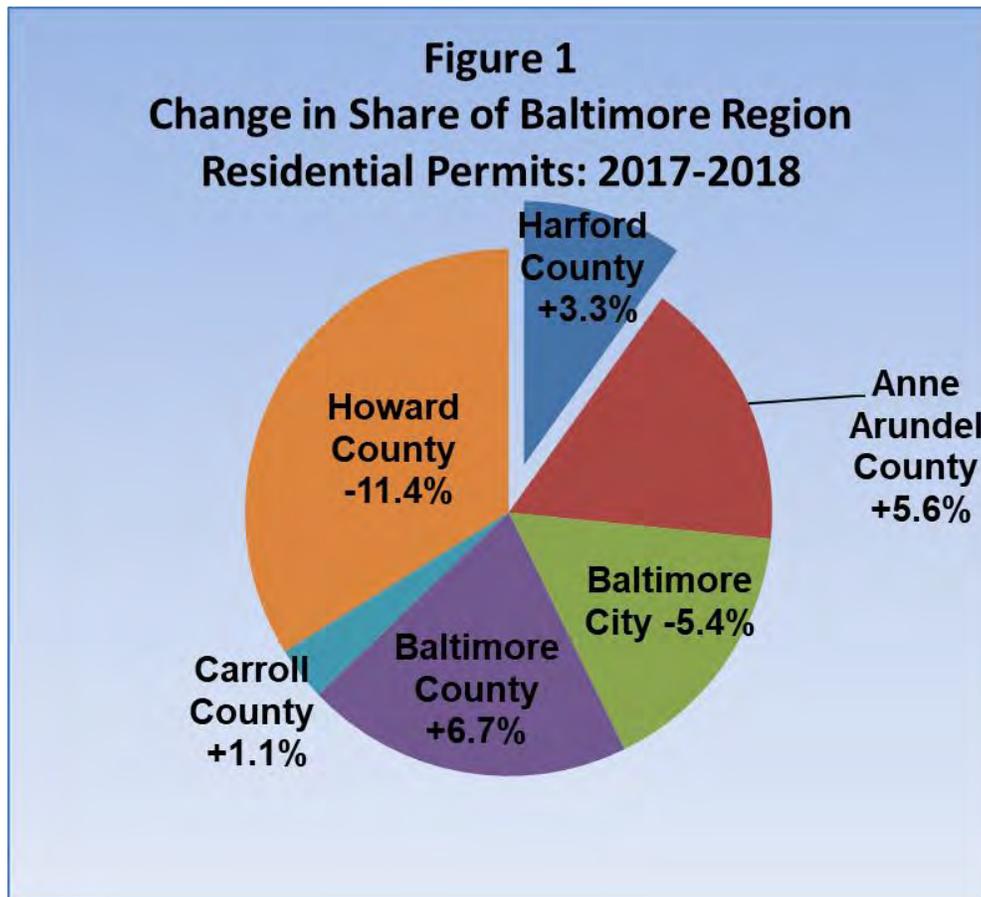
GROWTH TRENDS

Regional Data

In accordance with the Harford County Adequate Public Facilities provisions of the Harford County Code, the annual growth report must include data on growth trends for the previous one-year and five-year period, including comparisons with the other jurisdictions in the Baltimore region. Tables 1A – 5A (Appendix A) address the requirements specified in §267-126 A (2).

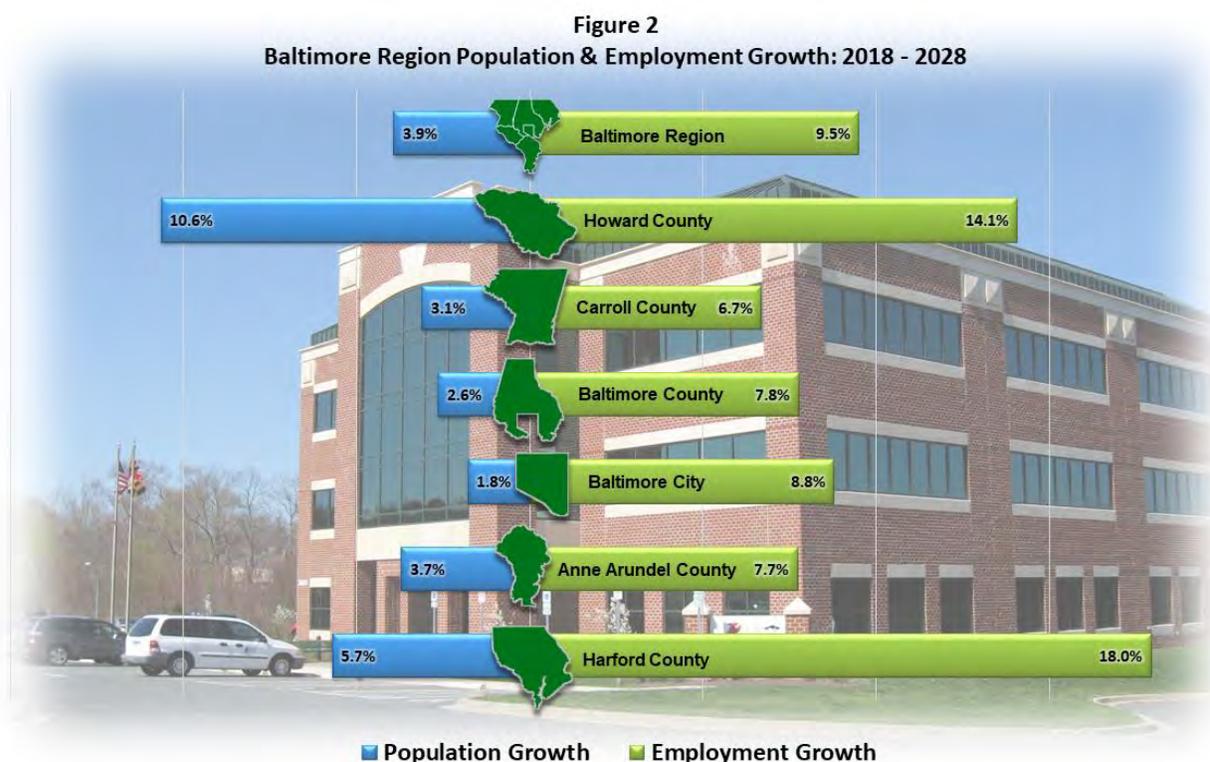
Baltimore Region Permit Activity

Harford County's share of the region's residential permits over the past five years represents 10% of the region's total permit activity. Harford County's share of the regional residential building permits activity increased 3.3% between 2017 and 2018 (Figure 1). See Table 1A in Appendix A for residential permit activity for the Baltimore Region for the 2014 to 2018 period.



Baltimore Region Population / Household Projections

Harford County's population is projected to grow by 14,507 residents over the next ten years from 254,560 in 2018 to 269,067 in 2028 (Figure 2). This represents a 5.7% increase in population growth and is slightly greater than the Baltimore region's projected growth rate of 3.9%. See Table 2A in the Appendix A for population and household projections for the Baltimore region for the 2018 to 2028 period.



Baltimore Region Employment Projections

Harford County's employment is projected to grow by over 21,813 jobs between 2018 and 2028, which represents a 18.0% increase in jobs over the next ten years. By contrast, the Baltimore region employment is projected to grow by 9.6% or 161,834 jobs between 2018 and 2028. According to the Bureau of Economic Analysis, Harford County employment grew by 1.9% per year versus 0.9% for the Baltimore region between 2010 and 2015.

Harford County is strategically located on I-95 in the heart of the East Coast and Mid-Atlantic markets. Harford's location, highly-skilled workforce, and progressive, business-friendly environment offers the ultimate setting to a wide range of prospective companies and industry sectors. See Table 3A in Appendix A for employment projections for the Baltimore region for the 2018 to 2028 period.

Harford County Development Activity

As required by State Land Use Article §1-207, Harford County is also required to prepare an annual report on development activity and planning programs. Reporting is required to be based on designated Priority Funding Areas (PFAs). PFA's coordinate state and local government efforts to support economic development and new growth. Funding for projects in municipalities, other existing communities, industrial areas and planned growth areas designated by counties receive priority for state funding over other projects. For reporting purposes it is important to note that the PFA approximates the Development Envelope, though is somewhat smaller because it excludes areas that are not currently included in the County's Water and Sewer Master Plan's ten-year service area.

New Subdivisions

In 2018, Harford County approved 16 residential subdivisions, totaling 112 acres. The residential subdivisions resulted in the creation of 25 single-family lots. Two of the subdivisions occurred within the County's designated PFA and yielded two units or 8% of the new lots/units approved (Figure 3). The number of units approved in 2018 represents a decrease from 95 units in 2017.

The remaining 14 residential subdivisions, located outside of the PFA, created 23 lots (Figure 3). Of these, 93% were two lots or less (five single-lot subdivisions, five two-lot subdivisions).

There were seven non-residential plans approved, all of which were located within the PFA. A list and map of the approved subdivisions located in Appendix E.

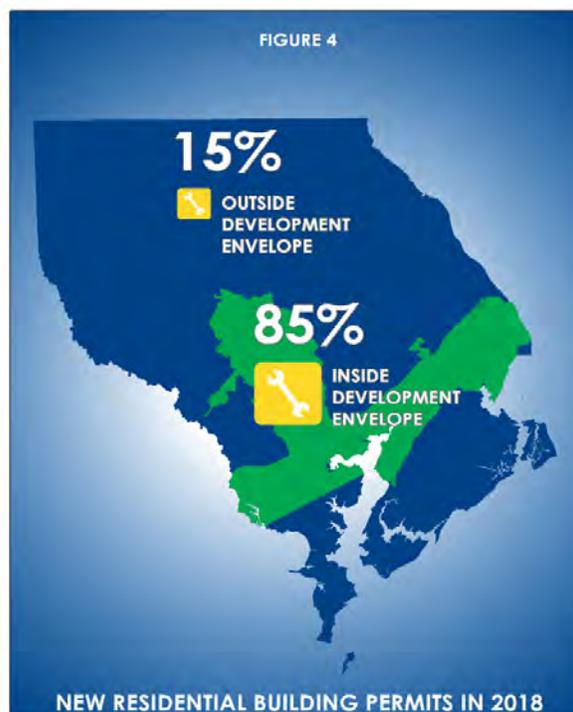


Permit Activity

A total of 2,025 building permits were issued by Harford County in 2018, which represents a 2.0% decrease over the 2017 permit total of 2,068. This number includes new construction residential, non-residential, and accessory structure permits.

New Residential Building Permits Issued

A total of 514 new residential permits were issued by Harford County in 2018, which represents a 9.9% decrease over the 2017 total of 571. The unit type breakdown includes 346 single family detached units, 167 townhouse units, and one mobile home. Additionally, the municipalities of Aberdeen, Bel Air, and Havre de Grace issued 192 new construction residential permits collectively. Approximately 85% of the 706 new residential permits were located within the County's Development Envelope (*Figure 4*).



New Non-Residential Building Permits Issued

The County issued a total of 78 permits for new non-residential construction for a range of commercial and industrial uses. Of these, the largest numbers of permits issued were for industrial at eight, including two modular/industrialized structures, four for storage/warehousing, and two industrial structures. The remaining 70 new non-residential permits were for a variety of commercial and other non-residential uses. An additional 1,433 non-residential permits were issued for a variety of uses including residential accessory structures such as sheds, swimming pools, garages, and other miscellaneous uses.

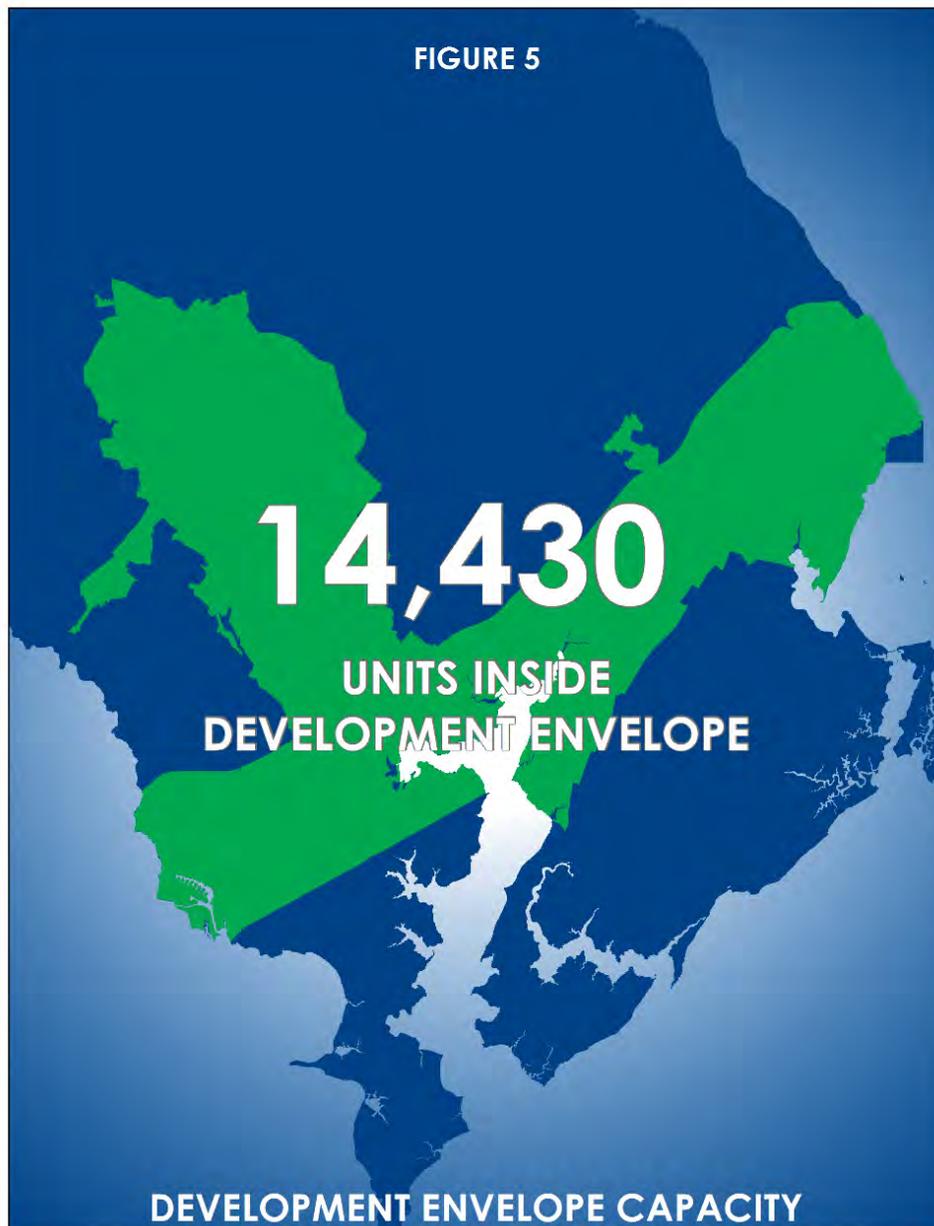
An analysis of 2018 larger-scale (projects valued at \$50,000 and over - including municipal) new non-residential permit activity showed there were five commercial permits totaling 46,824 square feet in 2018, representing an increase of three permits and 37,373 square feet over 2017.

Similarly for larger-scale (projects valued at \$50,000 and over) industrial permit activity there were four new industrial permit totaling 865,212 square feet in 2018, compared to 2017 when two one new permits of 663,880 square feet was issued. This represents an increase of 201,332 square feet over 2017.

Please reference Table 4B and Table 5B in Appendix A for a summary of non-residential permits for new as well as additions, alterations, and repairs valued at \$50,000 and over.

Development Capacity

The Department of Planning and Zoning routinely updates the inventory of residentially zoned land in the Development Envelope. This inventory provides a total residential land capacity and includes vacant undeveloped zoned land, preliminary and site plan approvals, vacant land capacity in the municipalities, and potential redevelopment/infill capacity. Based on this update, there is an estimated capacity of 14,430 units (Figure 5) in the Development Envelope, which includes 3,297 planned-approved unbuilt units in the Development Envelope as of December 31, 2018. There are an additional 433 planned units remaining outside of the Development Envelope as of December 31, 2018.



PLANNING DOCUMENT UPDATES

This section addresses state reporting requirements regarding code amendments and new or updated comprehensive plans and plan elements.

Zoning Code Amendments

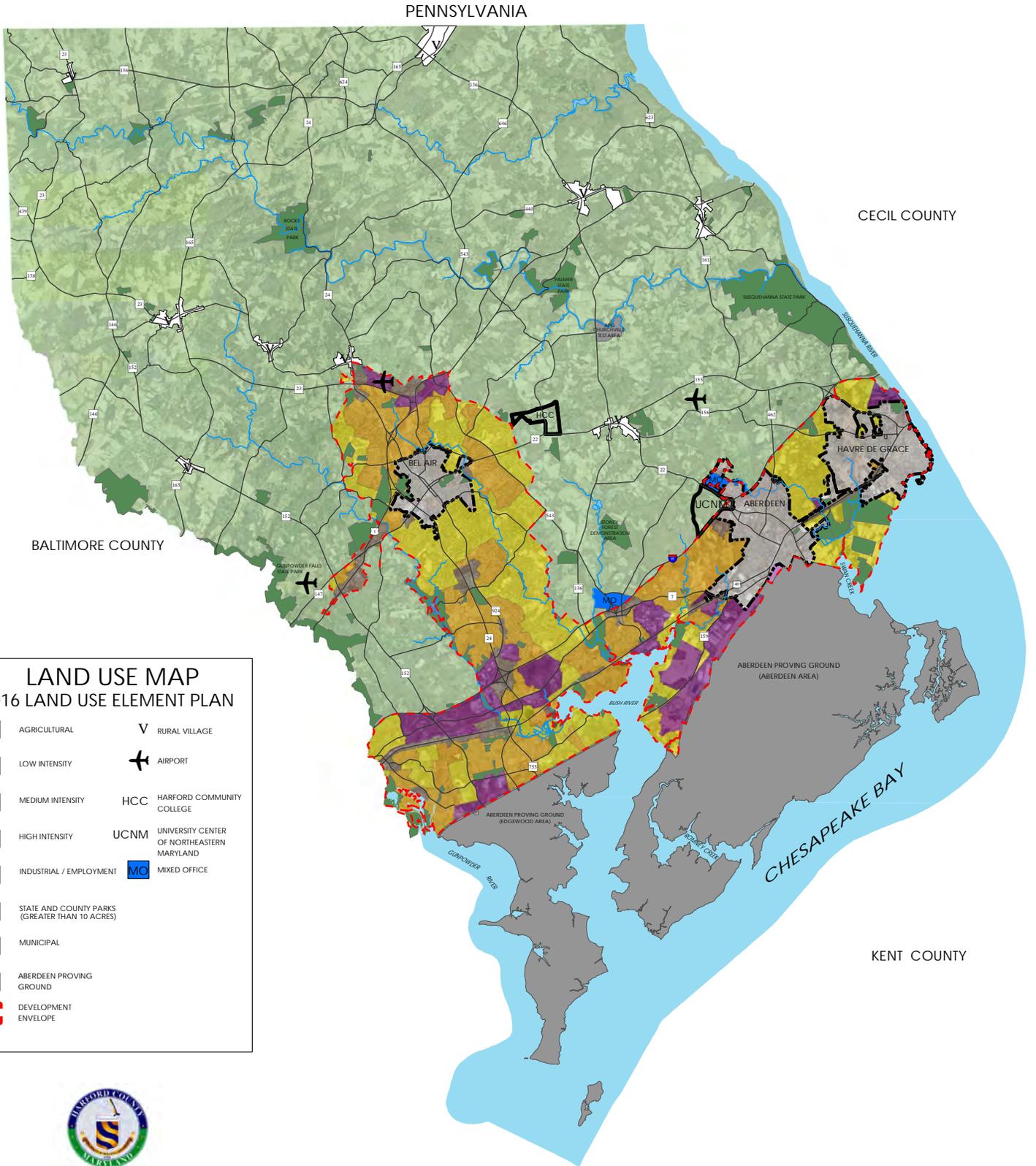
In 2018, the following bills were enacted that resulted in changes to the County's Zoning Code:

Effective Date	Bill	Description
6/18/18	18-04AA	267-28B(1) and H restricts future public events based on violations of Maryland's Controlled Dangerous Substances Act and requires 15 days prior for zoning certificate application or waives the right to the notice and hearing provisions of 267-8.
12/10/18	18-33	267-61D(3)(f) and (h) and E. - impervious surface wording; service uses included in 15% of overall project and residential uses not exceed 45% of overall project.
12/10/18	18-34	267-65.1 – Magnolia Neighborhood Overlay District (MNOD) regulations for opting out
12/10/18	18-35	267-88 – Reduce the special exception setback for Riding Stables to 50 feet from residential lots
12/10/18	18-36	Intermittent Stream and Perennial Stream definition changes to coincide with investigation methods of the Army Corps of Engineers 267-4.

Comprehensive Plan and Element Plan Updates

HarfordNEXT, the County Master Plan (Figure 6), was adopted and became effective September 12, 2016 by the Harford County Council.

FIGURE 6



LAND USE MAP
2016 LAND USE ELEMENT PLAN

- | | | | |
|--|------------------------------------------------|--|--------------------------------------------|
| | AGRICULTURAL | | RURAL VILLAGE |
| | LOW INTENSITY | | AIRPORT |
| | MEDIUM INTENSITY | | HARFORD COMMUNITY COLLEGE |
| | HIGH INTENSITY | | UNIVERSITY CENTER OF NORTHEASTERN MARYLAND |
| | INDUSTRIAL / EMPLOYMENT | | MIXED OFFICE |
| | STATE AND COUNTY PARKS (GREATER THAN 10 ACRES) | | |
| | MUNICIPAL | | |
| | ABERDEEN PROVING GROUND | | |
| | DEVELOPMENT ENVELOPE | | |



BARRY GLASSMAN
COUNTY EXECUTIVE

THIS IS A REPRESENTATION OF THE 2016 LAND USE MAP, PURSUANT TO THE PROVISIONS OF CHAPTER 169 OF THE HARFORD COUNTY CODE, AS ADOPTED BY COUNTY COUNCIL BILL 16-016, WHICH BECAME EFFECTIVE THE 12TH DAY OF SEPTEMBER, 2016.

THE MASTER PLAN INCLUDES BOTH MAP AND TEXT. BOTH COMPONENTS SHOULD BE CONSULTED FOR COMPLETE INFORMATION. ADDITIONAL INFORMATION MAY BE OBTAINED FROM:

HARFORD COUNTY DEPARTMENT OF PLANNING AND ZONING
220 SOUTH MAIN STREET
BEL AIR, MARYLAND 21014
(410) 638-3103

LAND USE MAP
HARFORD COUNTY, MARYLAND



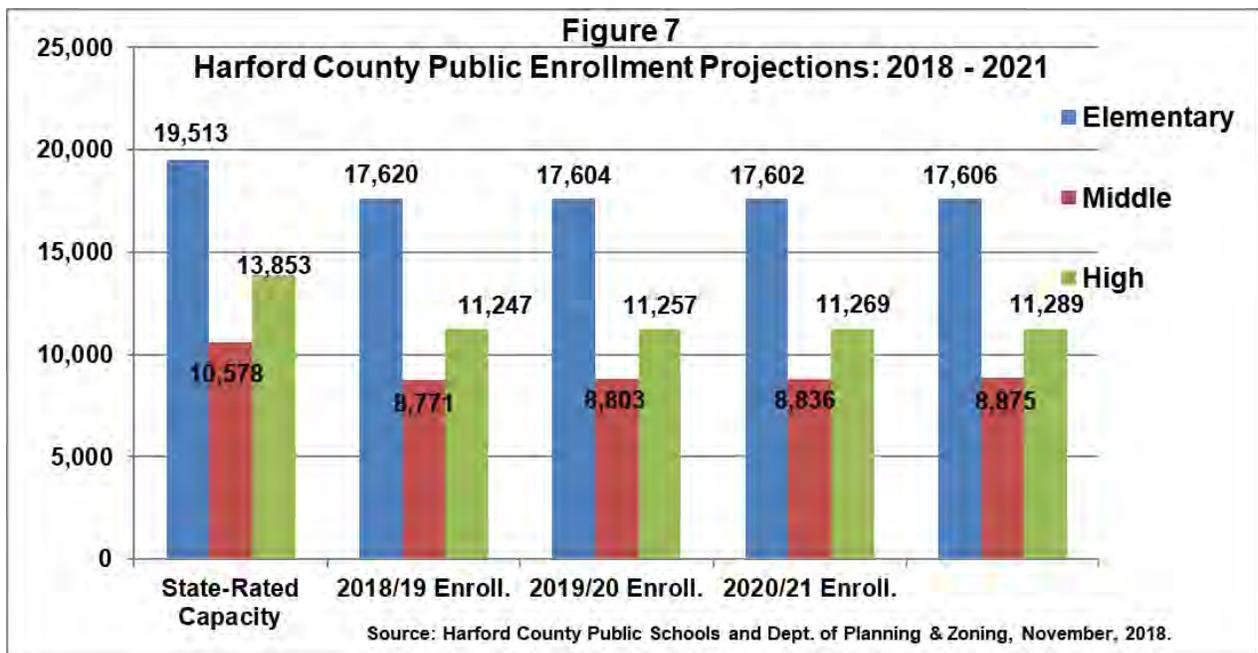
ADEQUATE PUBLIC FACILITIES

The County’s Annual Growth Report must be updated annually to identify any public facilities that are functioning below the County's adopted minimum standards. This year's Annual Growth Report includes information and analysis regarding public schools, the water and sewerage system, road intersections and government facilities.

This report also addresses State reporting requirements for Adequate Public Facilities provisions; including reporting requirements for roads, transportation facilities and schools as they relate to development patterns. In the report, Harford County must identify any restrictions that occur within a PFA because of APF restrictions, and the report must address how the restrictions will be resolved.

Public Schools

To assess current and future adequacy of the public school facilities, the capacities of existing schools, school utilization and future populations are analyzed. The data in this report regarding the public school system is aggregated by the elementary/middle/high school districts, and include school enrollments, State-rated capacities for each school facility, utilization of each school facility, and three-year projected school enrollments (*Tables 6B, 10B, and 14B in Appendix B*). Modified school enrollment projections are included and take into account planned units remaining and projected units from vacant residential zoned land (*Tables 7B, 11B, and 14B in Appendix B*). In addition, development information such as building permits issued by dwelling type (*Tables 8B, 12B, and 16B in Appendix B*) and population and household estimates (*Tables 9B, 13B, and 17B in Appendix B*) are included in this report. Figure 7 shows enrollment projections by grade level.



Analysis

Each school facility has been analyzed in terms of past growth trends, current conditions, and future enrollment projections. The information is based on factual data and is aggregated by current school districts. Based on the Adequate Public Facilities provisions of the County Code, the level of service standard for Public Schools is 110 percent of rated capacity within three years for elementary and secondary schools.

Adequacy Standards

Under current law, preliminary plans for subdivisions of greater than five lots cannot be approved in school districts where the full-time enrollment currently exceeds, or is projected to exceed, 110 percent of the capacity within three years. Currently, 29 of 33 elementary schools meet adequacy standards and all 18 middle and high schools meet adequacy standards. Currently, major subdivisions in the Emmorton, Homestead/Wakefield, Magnolia, and Red Pump Elementary School attendance areas will not be approved, but may be reviewed and placed on a waiting list until capacity is available.

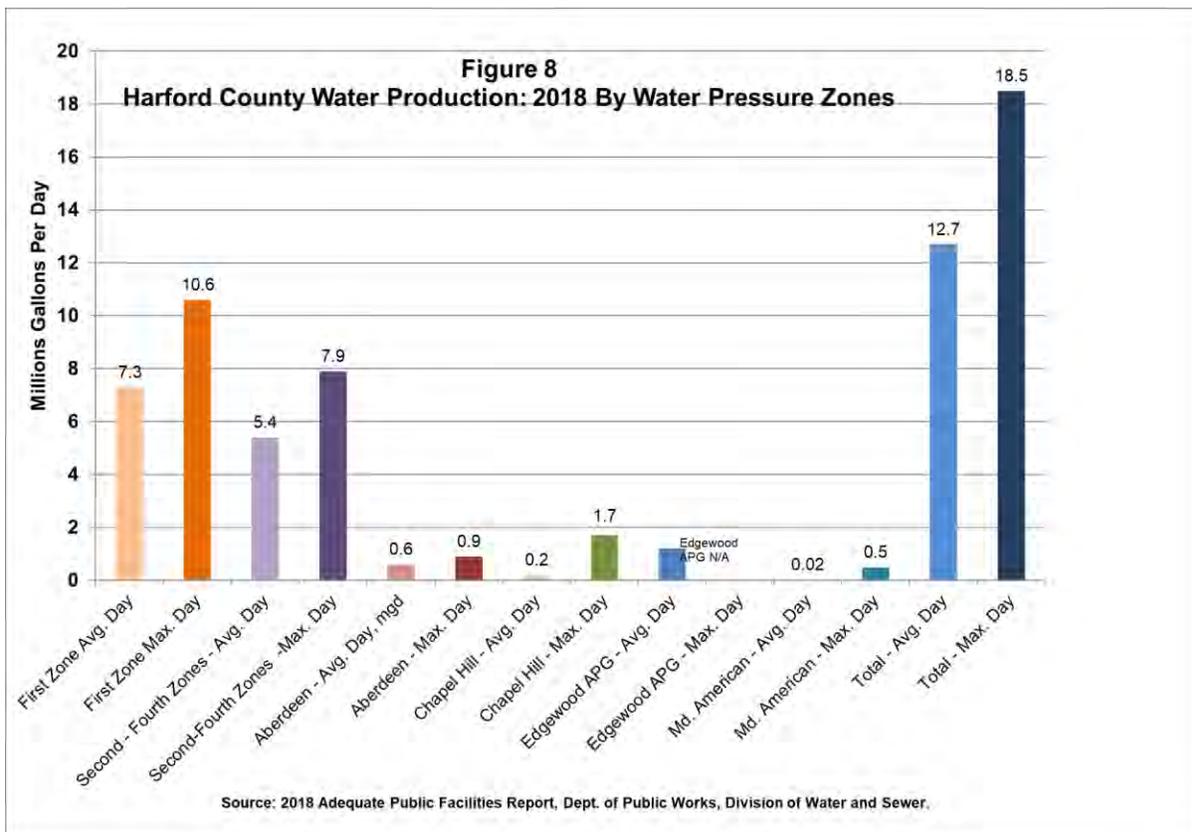
Water and Sewerage

The data included in this section for the water and sewerage system are aggregated by the water and sewer service area, which generally coincides with the Development Envelope, as defined in the 2016 Harford County Master Plan, HarfordNEXT. Additional information is included in this report on water/sewage usage for residential and non-residential uses, an inventory of existing water consumption/sewage flows, demand projections (including the basis for their computation), and a list of capital projects is contained in the County's Capital Improvements Program for expanding facilities, including project status (*Tables 18C - 21C in Appendix C*). This information is derived from the "2018 Water and Sewer Adequate Public Facilities Report," and is consistent with the County's Water Resources Element Plan.

Water

The County water system's average daily usage in 2018 was 12.7 MGD (Million Gallons Per Day), with a peak day demand of 18.5 MGD. With the completion of the Abingdon Water Treatment Plant (AWTP) in May 2012, the total countywide permitted maximum daily water treatment capacity is approximately 27.8 MGD. The County has a maximum day drought demand of 19.75 MGD. With the further expansion of the AWTP to 20 MGD the County's water service area is adequately planned. To keep pace with the projected growth, staged construction programs are established that distribute required capital costs for improvements and/or additions to the County's system over a period of years. Figure 8 illustrates water production by water pressure zones during 2018.

In July of 2018, Harford County, the Town of Bel Air, and The Maryland-American Water Company (MAWC) agreed to the Second Amendment of the Water Service Purchase Contract (between Harford County and MAWC). Due to a deficit of supply from Winters Run, the Maryland Department of the Environment and the Harford County Health Department could not approve building permits within MAWC’s service area. Through this amendment, Harford County may provide up to 30,000 gallons per day (GPD) temporary capacity in addition to the 40,000 GPD permanent capacity purchased by MAWC. In January of 2019, the MAWC completed construction of the impoundment, met the conditions of the MDE Consent Agreement and no longer requires temporary capacity from the County.



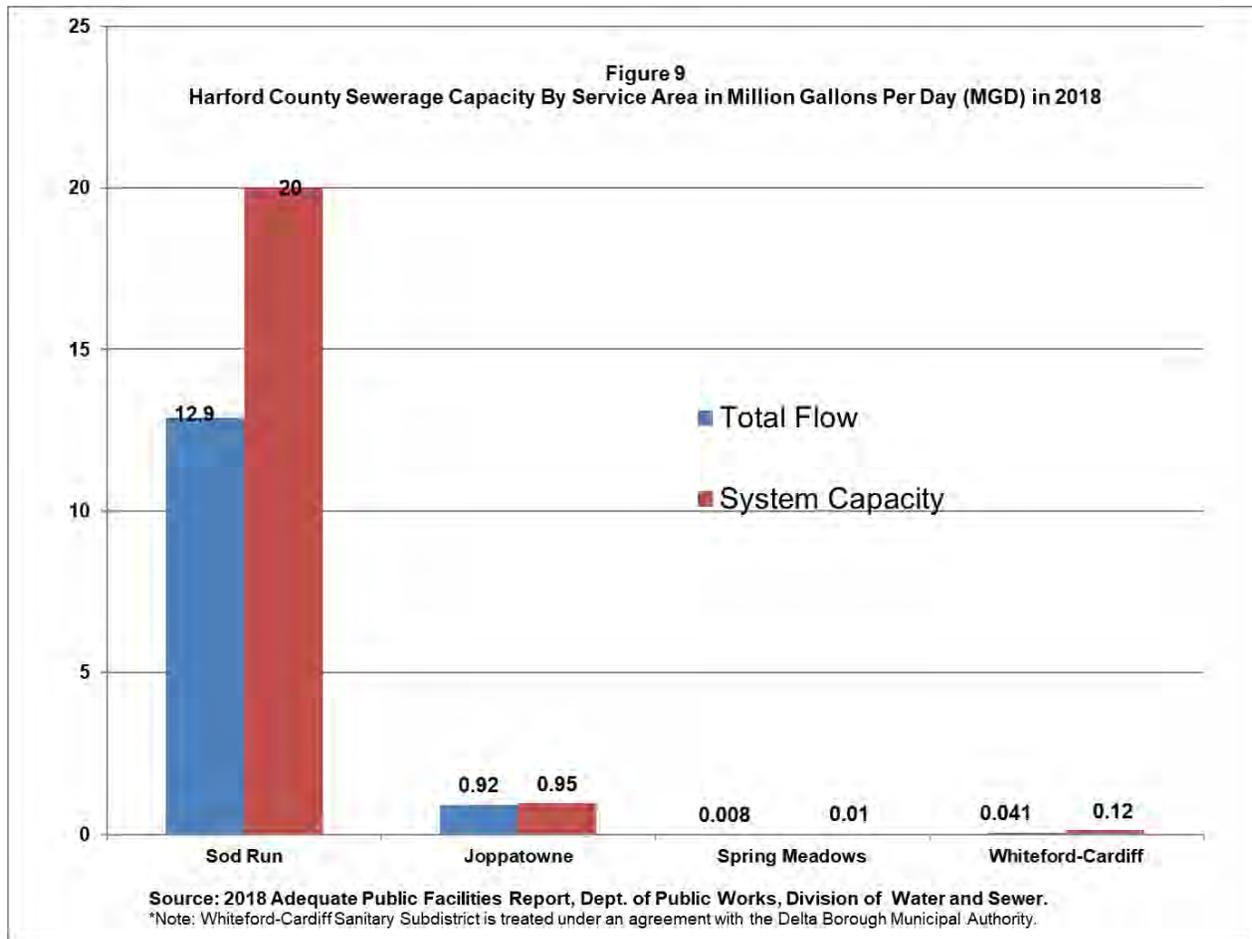
There are 16 community water systems that are not maintained or operated by Harford County, but are subject to the APF provision of the County Code. These private systems, which are monitored and evaluated by the Maryland Department of the Environment, are as follows:

- Maryland-American Water Co.
- Campus Hills Water Works Inc.
- Clear View Court Mobile Home Park
- Conowingo Power Plant
- Darlington
- Darlington Mobile Estates

- Fountain Green Mobile Home Park
- Greenridge Utilities Inc.
- Harford Community College
- Hart Heritage
- Lakeside Vista
- Queens Castle Mobile Home Park
- R & R Estates Mobile Home Park
- Susquehanna State Park
- Swan Harbor Mobile Home Park
- Williams Mobile Home Park

Sewerage

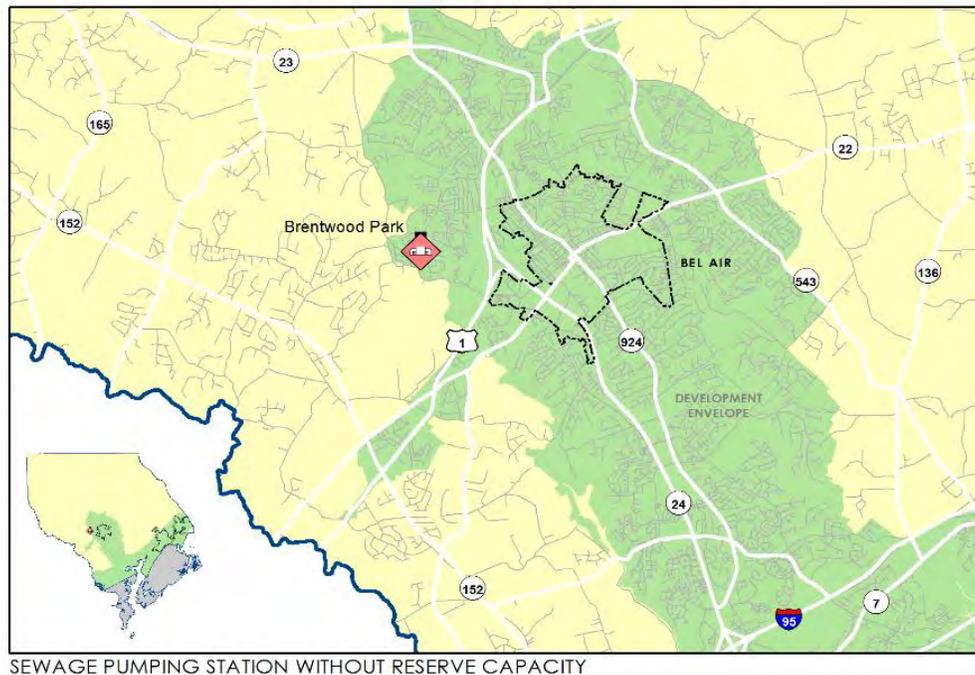
The average daily influent flow to the Sod Run WWTP in 2018 was approximately 12.9 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 2018 was approximately 0.92 MGD. The average daily influent flows for Spring Meadows and Whiteford-Cardiff in 2018 respectively were 0.008 MGD and 0.041 MGD's (*Figure 9*).



Since 1972, the County has prohibited any additional privately owned community or multi-use treatment plants with a peak capacity larger than 10,000 gallons per day (GPD) outside the Development Envelope. This encourages growth to remain within the growth corridor, maintains financial stability, and protects the environment.

The Division of Water and Sewer has identified the Brentwood Park Sewage Pumping Station (S.P.S.) (Figure 10) as being over capacity. Replacement of the station is included in the capital improvement program and the project is currently at 95% design stage and is expected to be bid for construction in late 2019.

FIGURE 10



In March 2019, the final report for the Fallston Sewer Capacity Study was completed. The study examined both the existing and build out conditions for the Fallston service area and identified the sewer improvements required. The improvements are included in the capital improvement program budget for the portion to be funded by the County and a Fallston Sewer Policy will be established for the portion of the improvements to be funded by future development. The study also performed preliminary downstream analysis of the Plumtree drainage basin which will require further study to identify the future required capital improvements.

In August 2018, the Hickory Collector Policy was approved which identified the future sewer improvements necessary for buildout of the Hickory drainage area and it established a funding mechanism by a surcharge for future connections. The capital improvements are planned to be implemented as necessary depending on how and when development progresses.

Road System

The intent of the APF Roads provisions of the County Code are to create a mechanism that requires proposed development to make appropriate and reasonable road improvements, based on the proposed development's impact to the road system.

The information for the APF Road System contained in this section includes the following: signalized and unsignalized intersection capacity analysis results (*Tables 22D and 23D*), average daily count locations (*Table 24D*), a list of approved County capital projects funded for construction in Fiscal Year 2019 (*Table 25D*), and a list of State Consolidated Transportation Program (CTP) projects funded for construction in Fiscal Year 2019 (*Table 26D*). This information will help identify existing deficiencies in the road system and guide both County and State capital project funding to the most critical road projects (*Tables 22D – 26D in Appendix D*).

Developments which generate 1,500 or more trips per day may be required to expand the study area. The determination of existing and projected Level-Of-Service (LOS) is calculated in the Traffic Impact Analysis (TIA), which is performed by the developer and reviewed by the Departments of Planning and Zoning, Public Works and the State Highway Administration. LOS is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience.

There are six established LOS – A through F – that measure the operational efficiency of a transportation facility. The following is a general definition of each level of service and Delay in Seconds:

LOS A (≤ 10) – free flow of traffic with no restriction of significant delay

LOS B (> 10 & ≤ 20) – stable flow of traffic with very little restriction or delay

LOS C (≥ 20 & ≤ 35) – stable flow of traffic with low to moderate restriction or delay.

LOS D (> 35 & ≤ 55) – approaching unstable flow of traffic with moderate to heavy restriction / delay.

LOS E (> 55 & ≤ 80) – unstable flow of traffic with significant restriction and delay.

LOS F (> 80) – forced flow or cases of “grid lock”. The flow rate drops significantly.

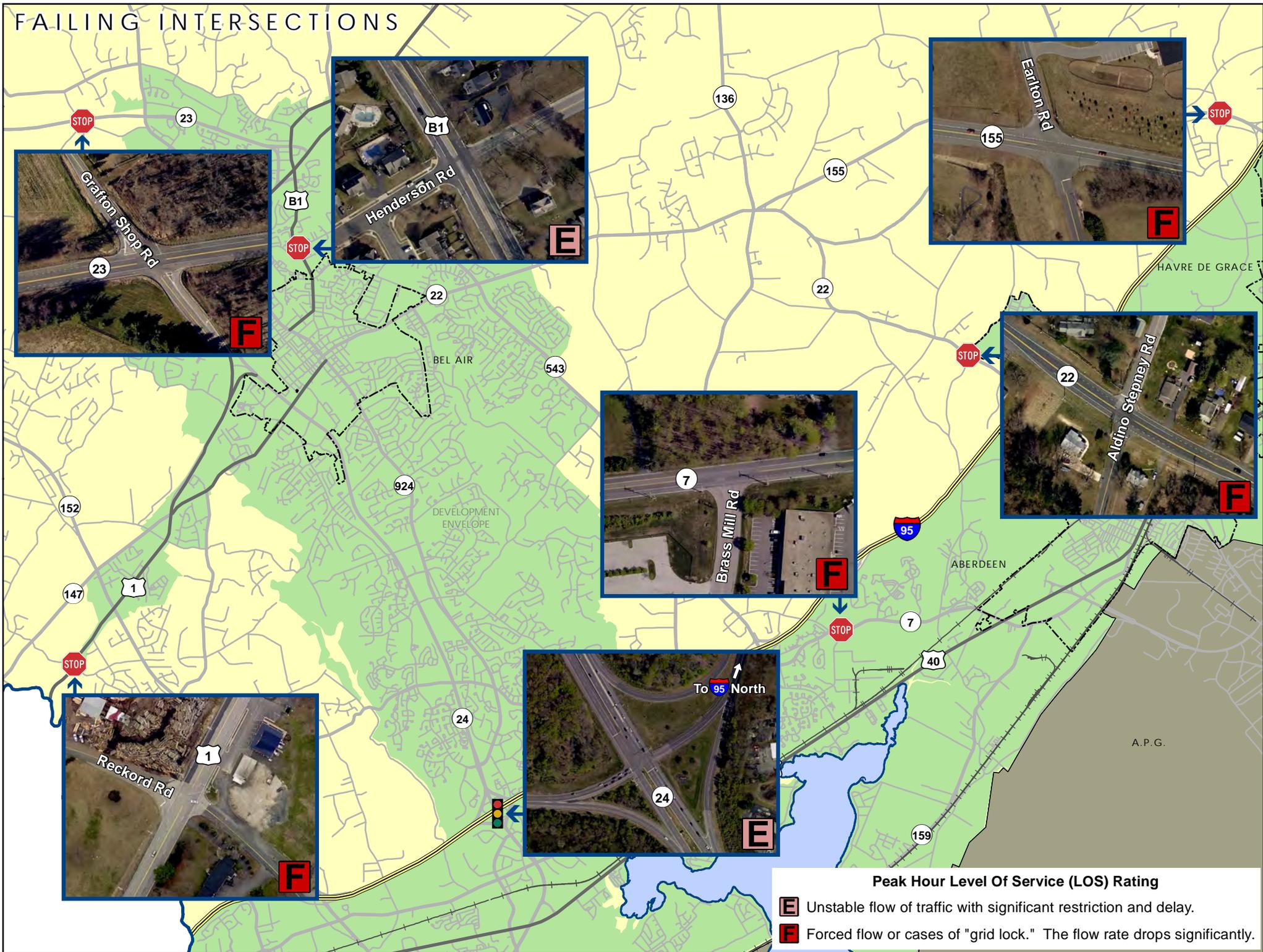
The standard for intersections within the Development Envelope is a LOS D. If the existing LOS is E or F at an intersection within the Development Envelope, then the developer must mitigate the impact of the development's new trips. The standard for intersections outside the Development Envelope is a LOS C. If the existing LOS is a D or lower, then the developer must mitigate the impact of the development's new trips.

In addition to the review of individual TIAs, the Departments of Planning and Zoning and Public Works have studied a number of major roads and intersections to identify existing conditions. This list represents a cross section of key intersections located inside, outside, and on the fringes of the Development Envelope that have been identified as failing or on the verge of failing based on the adopted LOS standards.

There are two signalized intersections and six un-signalized intersections with one or more movements operating at a LOS E (LOS D outside the Development Envelope) or lower during peak hours. The evaluation of the LOS is determined by performance of the intersection during one hour peak traffic periods in the a.m. and/or p.m. Figure 11 identifies intersections that contain one or more movements that **operate at an unacceptable LOS**. Developments that impact these intersections will be required to mitigate their impacts to the intersections.

FIGURE 11

FAILING INTERSECTIONS



Peak Hour Level Of Service (LOS) Rating

- E** Unstable flow of traffic with significant restriction and delay.
- F** Forced flow or cases of "grid lock." The flow rate drops significantly.

GOVERNMENT FACILITIES

The County's Annual Growth Report must include an analysis of the need for additional fire, library and public safety services and a list of approved capital projects contained in the capital improvement program (CIP) related to the below-mentioned facilities.

Fire/EMS Services

The Harford County Fire and EMS Services Master Plan that was completed in 2009 identified the need for four additional Fire Station Facilities. One of these facilities, the Patterson Mill Road Station, has been completed and turned over to Bel Air Volunteer Fire Company (VFC). There is still the need for three additional Fire/Emergency Medical Service facilities which are listed below:

- Riverside area on MD Route 543 just north of US Route 40
- On MD 543 (Fountain Green Road between Hickory and Fountain Green)
- Churchville near the intersection of MD Routes 22 and 136

The Fire and EMS Services Master Plan has estimated total cost for these stations to be \$11,000,000. These facilities are not currently funded in the current CIP.

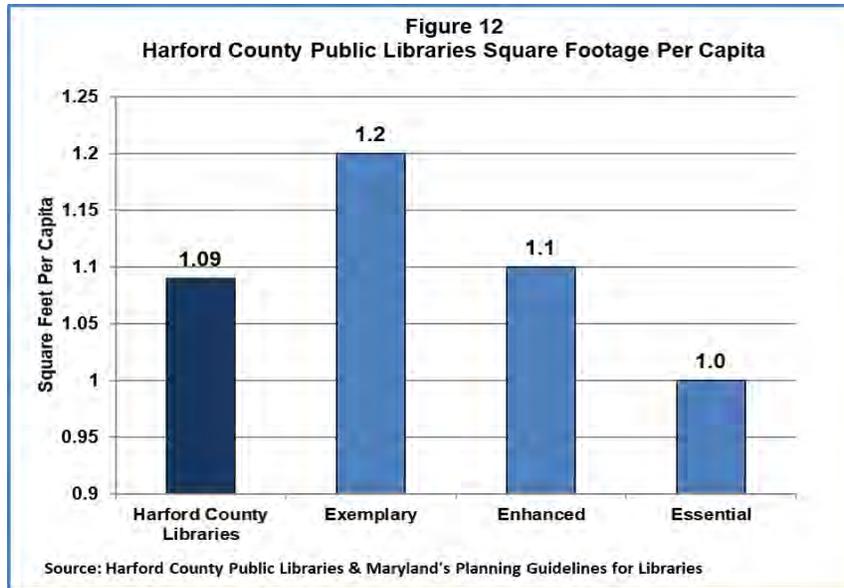
The approved FY 2019 Capital Budget includes \$250,000 for Self-contained Breathing Apparatus (SCBA) replacement account and \$460,000 for Volunteer Fire Company priority facility repairs. An additional \$350,000 is included in FY 2019 for renovation of the Whiteford VFC and \$540,000 for the expansion/renovation of the Joppa Magnolia Volunteer Fire Station

Library Services

The Maryland Department of Budget and Management require that libraries refer to "Maryland's Planning Guidelines for Libraries" in order to justify the need for expansion. Please reference the planning guidelines for square footage per capita below:

- Essential = 1.0 square feet per capita (nationally accepted minimum facility size)
- Enhanced = 1.1 square feet per capita
- Exemplary = 1.2 square feet per capita

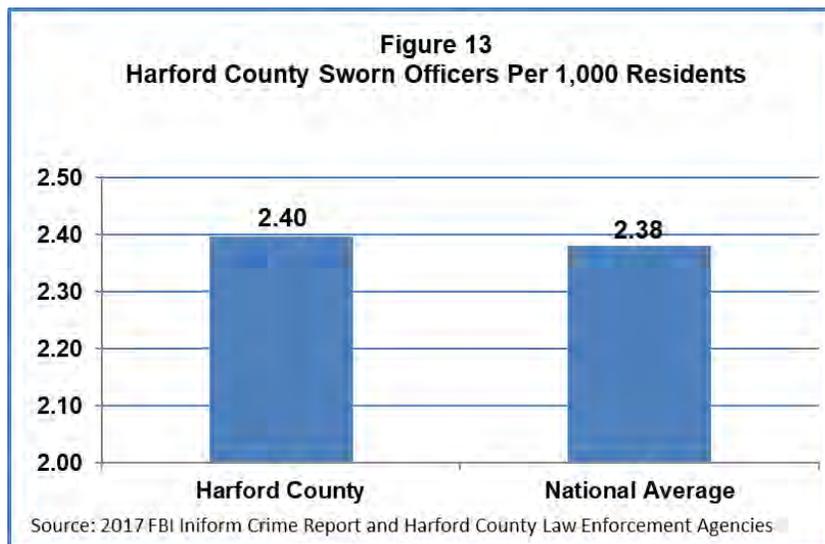
The total gross square footage of all Harford County Public Library branches totals 229,917. Based on a 2018 population figure of 254,560 the square footage per capita figure is 1.10, which exceeds the minimum accepted standard of 1.0 square feet per capita (*Figure 12*).



Law Enforcement

The 2017 Federal Bureau of Investigation Uniform Crime Report the nationwide rate of sworn officers was 2.40 per 1,000 residents. Based on staffing data obtained from the Harford County Sheriff's Office, the Maryland State Police, and the police departments of Aberdeen, Bel Air, and Havre de Grace the total sworn staff is 610. The rate of sworn officers is currently 2.4 per 1,000 residents. Based on a 2018 population figure of 254,560, Harford County is slightly greater than the nationwide rate of 2.38 per 1,000 residents (*Figure 13*).

The approved FY 2019 Capital Budget includes \$1,000,000 for the purchase of additional public service radios to complete county-wide radio replacement, pagers and replace Uninterruptable Power Supply units at nine tower locations.



PLANNING CONSISTENCY REVIEW

Harford County must submit an annual report that addresses specific smart growth measures and indicators that support the statewide land use goal of targeting development within designated Priority Funding Areas and minimizing development outside of these areas. Changes in development patterns occurring in 2018 that impact land use, transportation, community facilities patterns, zoning map amendments, and subdivision plats must be reported. Local jurisdictions, as part of their annual reporting, must determine if all of the changes in development patterns in 2018 reported are consistent with the following criteria:

- All changes must be consistent with each other;
- The recommendations of the last annual report;
- The adopted plans of the local jurisdictions;
- The adopted plans of all adjoining local jurisdictions; and
- The adopted plans of State and local jurisdictions that have responsibility for financing or constructing public improvements necessary to implement the local jurisdiction's plan.

Development Patterns / Consistency of Plans

All the development noted in this report has been determined to be consistent with the surrounding land uses. A review of consistency is part of the plan approval process. As recommended in previous reports, the County continues to direct the majority of new development and redevelopment (85% in 2018) to the Development Envelope. During 2018, all subdivisions approved in 2018 are consistent with the intent and policies of the 2016 Master Plan, the Water and Sewer Master Plan, and Adequate Public Facilities regulations. All roadway improvements are consistent with the State Consolidated Transportation Plan, and the Transportation Improvement Plan. Changes in development patterns, ordinances, and regulations were found to be consistent with the adopted plans of Harford County, as well as those of the state and all adjoining local jurisdictions. These changes furthered the Twelve Visions established in § 1-201 of the Land Use Article of the Annotated Code of Maryland.

Municipal Plan Coordination

Harford County coordinates with the Town of Bel Air and the cities of Aberdeen and Havre de Grace on the creation of their growth plans. State law requires municipal jurisdictions to develop a Municipal Growth Element (MGE) as part of their Comprehensive Plan. The MGE must identify future municipal growth areas outside of the existing corporate limits and be submitted to the County for review and comment. Proposed annexations must be consistent with those outlined in the Municipal Growth Element Plans, and permitted development on the annexed lands shall be in accordance with the County's zoning classification that is in place at the time of the annexation.

Implementation

Harford County uses many tools to achieve the Visions, including Adequate Public Facilities (APF) legislation to manage growth by tying development to the capacity of existing government services such as water and sewer, roads, and schools. The County has developed implementation strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.

The MD 22 Multimodal Corridor Study was completed in 2015 and the following improvements have been completed:

- New sidewalk installed along MD 22 from Shamrock Road to Hickory Avenue
- New Bus Shelter installed at the Courthouse
- MD 24 @ Marketplace Drive intersection improvement

Harford County continues to partner with the Health Department and Healthy Harford on implementation of health and safety programs.

The Department of Planning and Zoning tracks approved subdivisions located in the Priority Preservation Area Designation (Tier IV) under the Maryland Sustainable Growth and Preservation Act of 2012 (SB 236) that were approved prior to the enactment of the regulations and therefore grandfathered. In 2018, the Department tracked three grandfathered preliminary plans comprised of 71 lots. These grandfathered plans shall remain valid through the tenure of their approval.

Agricultural Preservation

Preservation efforts were continued through a variety of state and local programs. While participation in agricultural preservation programs is available to all property owners with agriculturally zoned land, the County's primary focus is protecting the Priority Preservation Area (PPA) (*Figure 14*). HarfordNEXT expanded the PPA boundary to include all lands north of the 2009 boundary and the Harford County portion of the Manor Rural Legacy Area. During 2018, 665 acres were preserved countywide, bringing the total protected land in the County to 51,758 acres. Of the acreage protected in 2018, approximately 612 acres were located in the County's PPA, bringing the total amount of protected land in the PPA to just over 46,880 acres.

PROCESS IMPROVEMENTS

As part of the annual report, local jurisdictions must identify any changes that will improve the planning and development review process, in addition to zoning ordinances or regulations that have been adopted during the reporting period that specifically address the planning visions of the Land Use Article.

In 2018, Harford County continued implementation of the Harford County Phase II Watershed Implementation Plan (WIP) for the Chesapeake Bay Total Maximum Daily Load (TMDL). This Plan was completed in 2012 by County, Municipal, State, and Federal staff with expertise in the various nutrient source sectors; agriculture, septic systems, urban stormwater, and wastewater treatment plants, to meet the nutrient reduction goals that were assigned to Harford County for the Chesapeake Bay TMDL. Strategies to meet these goals by 2025 were presented in the Plan, with two-year milestones identified to track progress. This past year, the County has been coordinating with the State of Maryland in the development of the Phase III WIP. Harford County staff will continue to work with the State to document implementation of Chesapeake Bay 2025 water quality restoration targets. A final Draft of the Phase III WIP is currently scheduled to be released in August of 2019.

The County does not anticipate making any changes to the development review process in the immediate future, and will continue to direct development to the designated growth areas and encourage redevelopment. In order to provide citizens with more information and better access to development review activities, the Department has implemented an interactive web based portal that includes several applications. The first, "Track-It", provides up to date information on development activities within the County. A second application "Open GIS" allows citizens access to a range of geographic data layers. WebGIS, is a user-friendly mapping application that provides access to GIS data layers and the ability to print maps easily. The County will be implementing online permitting for various permits and licenses by the end of 2019.

ORDINANCES AND/OR REGULATIONS THAT IMPLEMENT THE STATE PLANNING VISIONS

Harford County's Master Plan, HarfordNEXT, was adopted in June 2016 and is consistent with the 12 State Planning Visions. The various element plans, including the Land Use Element Plan, Natural Resources and Water Resources Element Plan, Historic Preservation Element Plan, and Transportation Element Plan have been incorporated into the 2016 Master Plan. The Land Preservation, Parks, and Recreation Element Plan is also consistent with the planning visions contained in the Land Use Article of the Maryland Code. The plans also include strategies that address these visions. The County's Chesapeake Bay Critical Area Program and its Bicycle and Pedestrian Master Plan are also consistent with the visions.

METHODOLOGY

Population Projection Methodology

Yearly estimates of population and households in Harford County for the Annual Growth Report are determined from the 2010 Census. This data is adjusted to reflect a number of variables including building permits, average household size, and household vacancy rates. The five and ten year projections are based on these estimates, with a growth factor applied to determine the rate and quantity of growth in the County. This growth factor is based on the number of building permits anticipated to be issued each year. It is important to note that projections are based on past trends and land availability. A component of the residential land inventory is the number of net planned units remaining. The total planned units remaining is calculated by subtracting the total new residential building permits issued from the total preliminary plan approved units. Subdivision plans with six or more units remaining and approved municipality plans are included.

The 2010 Census information at the census block level is utilized for specific analysis of each facility regarding area maps and demographic information. Building permits are identified by facility areas and by subdivision name and/or address for each year. This provides the needed information on growth trends by facility service area. The population projections for the five other jurisdictions in the Baltimore Region are based on an interpolation of the Baltimore Metropolitan Council's Round 9 population forecast.

School Enrollment Projection Methodology

The methodology for projecting students utilizes historical data for live births and the number of children enrolled in public schools. Using these data, a series of ratios that reflect grade cohort survival are developed. These ratios include consideration of a number of factors:

- Births in a given year which affect subsequent kindergarten and first grade enrollments.
- Net migration of school age children.
- Net transfer of children between public and private schools.
- Non-promotion of children to the next grade level.
- Dropouts in the later years of secondary school.
- Shifts between regular grade and upgraded groups other than special education.

This technique of establishing a ratio is used for each successive grade. For example, a ratio is developed between the number of children actually in first grade in a given year and the number in second grade the following year. The ratio, therefore, represents the number of first graders who advance to second grade. If significant variations exist, such as a rapid increase in home building, then factors such as pupil yields for subdivision activity and development trends must be measured.

Development monitoring is a key activity to ensure accurate projections since housing expansion periods have a direct impact on school enrollments. A primary means of calculating projected student enrollment due to a housing expansion period is by using pupil yield factors for new developments.

Pupil yield is a term which describes the number of pupils generated per dwelling. The pupil yield factor is used to assist in identifying the impact of residential development on the Harford County Public Schools (HCPS) system. To calculate pupil yield factors, 52 subdivisions were selected from various geographic locations throughout Harford County, to include single family, townhouse, apartments, condominium, and mobile home dwelling units. The subdivisions selected represent newly constructed and established subdivisions. Additionally, subdivisions were selected from a broad range of attendance areas across the County. A count was made of each student who resided in each of the 52 subdivisions studied. The data were tabulated by unit type, and the specific pupil yields were calculated for each subdivision in the elementary, middle, and high schools. Table 1 below provides a summary of the pupil yield factors by grade level.

Table 1 - Pupil Yield Factors

Unit Type	Grade Level		
	K - 5	6 - 8	9 - 12
Single-Family	0.23	0.13	0.19
Townhome	0.25	0.12	0.14
Apartments	0.11	0.05	0.06
Condominiums	0.02	0.01	0.02
Mobile Home	0.16	0.07	0.08

Source: Harford County Department of Planning and Zoning, 2015 Harford County Pupil Yield Study

The following example is included to illustrate how pupil yield factors are used to estimate new students generated by proposed residential development. In this example, it is estimated that 55 new students would be generated by a proposed 100 unit Single-Family detached (SFD) subdivision.

Table 2 - Estimating New Students Using Pupil Yield Factors (Proposed 100 SFD Subdivision)

Grade Level	Yield Factor	X	# of Dwelling Units (Single-family)	=	New Students
K- 5	0.23	X	100	=	23
6 - 8	0.13	X	100	=	13
9 - 12	0.19	X	100	=	19
TOTAL	0.55	X	100	=	55

Modified School Enrollment Methodology

Utilizing our regional cooperative Round 9 forecast, a projection of housing units was determined for each school district. The number and type of units were based on the existing zoning. After the number and type of units were determined and projected by year, a pupil yield factor was applied to determine the total number of new pupils by school district.

The methodology for determining a growth factor included a multi-step process. The process included utilization of the existing grade cohort succession methodology and the pupil yield factor. A factor was applied to the existing grade cohort succession ratio per school if the pupil yield factor identified an increase in the average number of students. In order to maintain a consistent application, all calculations were based on the Harford County Public School system's definition of "unadjusted" enrollment projections. No assumptions were made in terms of school capacities or utilization of existing facilities.

The actual enrollment of Harford County Public Schools (HCPS) is retained as base enrollment for the modified enrollment projections. HCPS first-year projected enrollment figures are also retained as they have been shown to be historically accurate.

Water and Sewer Facility Projection Methodology

Water:

The Harford County water service area is divided into four pressure zones due to varying topography within the Development Envelope. To provide an adequate supply of water, the transmission lines, and pumping and storage facilities for all zones must be sized for estimated future demands.

The water system is evaluated for adequacy for providing flows during the maximum day demand, while maintaining system pressures required to deliver fire flows. Water booster stations and/or transmission lines, service mains, storage tanks, and water treatment plants are evaluated. Areas within the Harford County Development Envelope that exist at the highest elevations of the water pressure zones are evaluated for adequacy on a case-by-case basis. The anticipated growth within the County is accommodated through a combination of developer funded projects and the County Capital Improvement Program.

Sewerage:

The sewerage system is similarly evaluated for adequacy to accommodate expected peak flows through collectors, interceptors, pump stations, force mains, and wastewater treatment plants. Should a capacity problem exist in a collector sewer, it is the developer's responsibility to resolve the inadequacy. Inadequacies at major pumping

stations and wastewater treatment plants are resolved by programmed capital projects or by projects cooperatively supported by a group of developers.

The sewage flows to Harford County's existing Sod Run and Joppatowne Wastewater Treatment Plants (WWTP) originate from a portion of the Development Envelope. The area between the municipalities of Aberdeen and Havre de Grace, as well as the cities themselves, are within the Development Envelope and are served by the municipal sewerage facilities. A complete "Sewer System Capacity Analysis" is included in the "2018 Water and Sewer Adequate Public Facilities Report."

The determination of future wastewater flows to wastewater treatment plants is made by using population and household projections developed by the Harford County Department of Planning and Zoning for the years 2000 through 2035. The projections were distributed by transportation analysis zones (TAZs) by aggregating the ultimate development in terms of equivalent dwelling units into sewerage drainage areas. In order to keep pace with projected growth, the expansion of the Sod Run Wastewater Treatment Plant from 12 MGD in 1995 to 20 MGD was completed in 2000. A sanitary sewer collection system has also been established in Whiteford-Cardiff, which serves the properties within an established sanitary subdistrict. This system was made operational in 2001 with 172 mandatory hook-ups completed in 2002. Treatment for this subdistrict is provided by Delta Borough, Pennsylvania, with a current permitted average flow of 0.12 MGD.

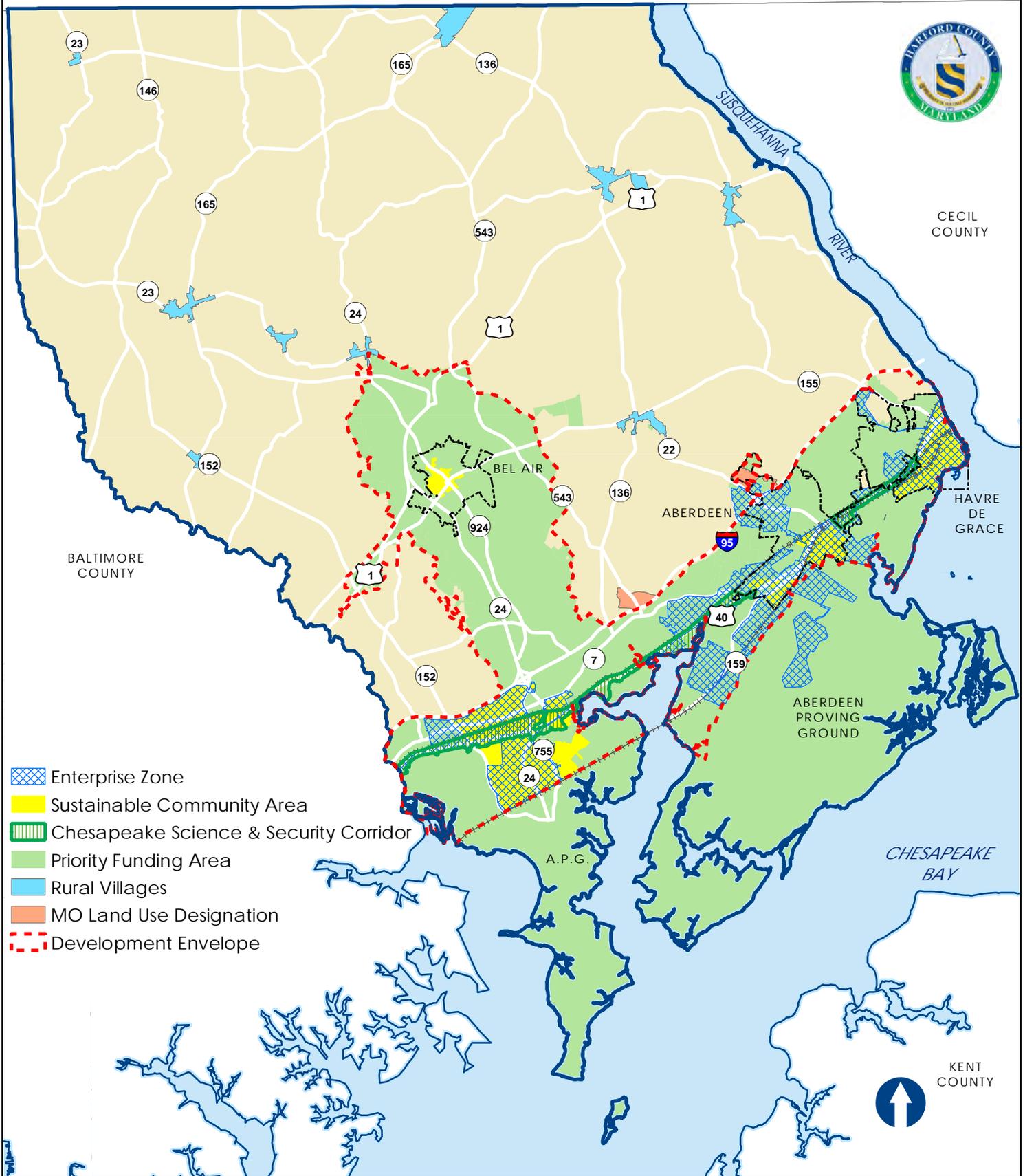
In addition to the major publicly owned wastewater treatment plants, there are multiple private wastewater treatment systems, including mobile home parks and other commercial/community establishments, plus a larger population on private individual septic systems outside the Development Envelope. In addition, many of the schools outside the public sewerage service area are on publicly owned multi-use wastewater treatment systems.

Road Intersection Analysis Methodology

A key feature of the APF Road Intersection regulations is the requirement for preparation of a Traffic Impact Analysis (TIA) for residential and non-residential uses that are projected to generate more than 249 trips per day. Proposed development located within the Chesapeake Science and Security Corridor (CSSC) (Figure 15) will not be required to submit a TIA unless the proposed use is expected to generate 1,500 trips per day. The TIA provides information regarding the impact of generated trips from proposed land uses on traffic safety and traffic operation within a designated area, and recommends solutions to mitigate the impact. The method of conducting a TIA is outlined in the "Harford County Traffic Impact Analysis Guidelines".

FIGURE 15

Priority Redevelopment Areas



Inside the Development Envelope:

The TIA shall include all existing County and state roads in all directions, from each point of entrance of site through the intersection with the first arterial roadway to the next intersecting collector or higher functional classification road. Developments which generate 1,500 or more trips per day may be required to expand the study area.

Outside the Development Envelope:

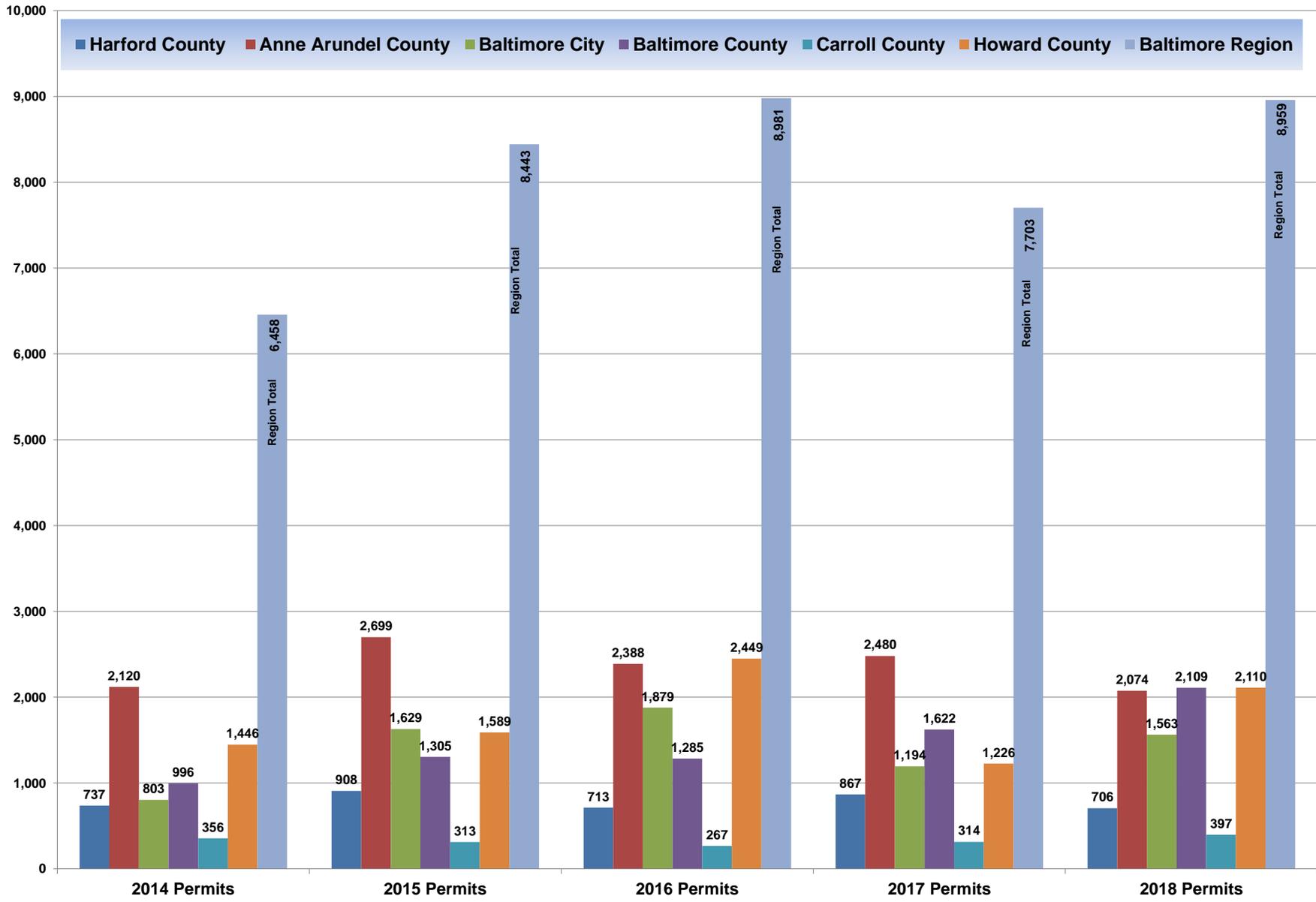
The TIA study area shall include all existing County and state roads in all directions from each point of entrance of the site to the first intersection of a major collector or higher functional classification road as defined by the Harford County Transportation Plan.

All TIA's shall include:

- An analysis of existing conditions including traffic counts, lane configuration, and signal timings.
- An analysis of background conditions without site development, including growth in background traffic, future traffic generated by nearby proposed developments and the determination of Level-of-Service (LOS) with any approved/funded State and County Capital projects.
- An analysis of the projected conditions with site development, including the traffic being generated by the proposed development and background traffic.
- An explanation of the results with recommended improvements as necessary.

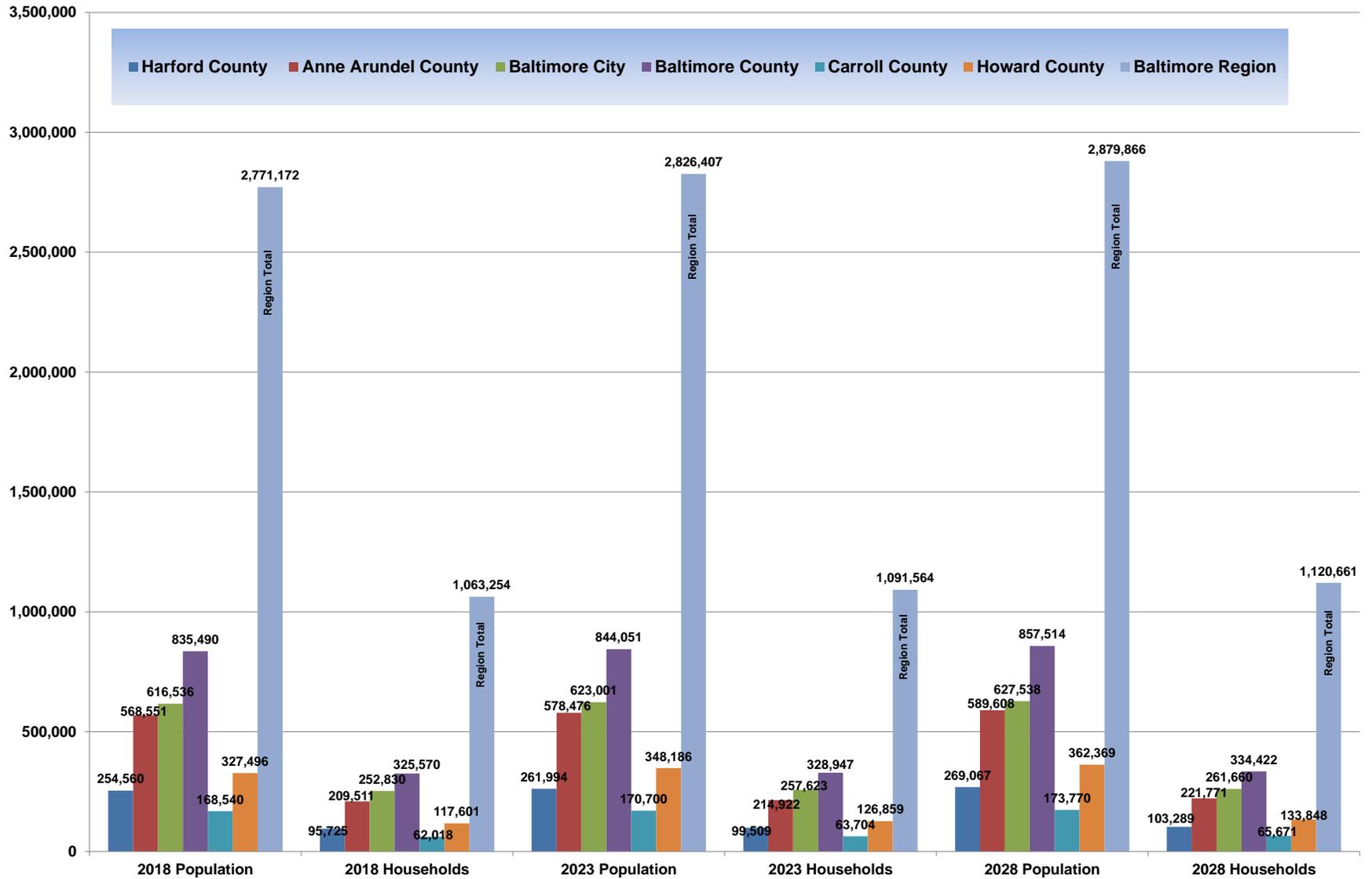
APPENDIX A

Table 1A
Harford County-Baltimore Region Residential Permit Activity: 2014 - 2018



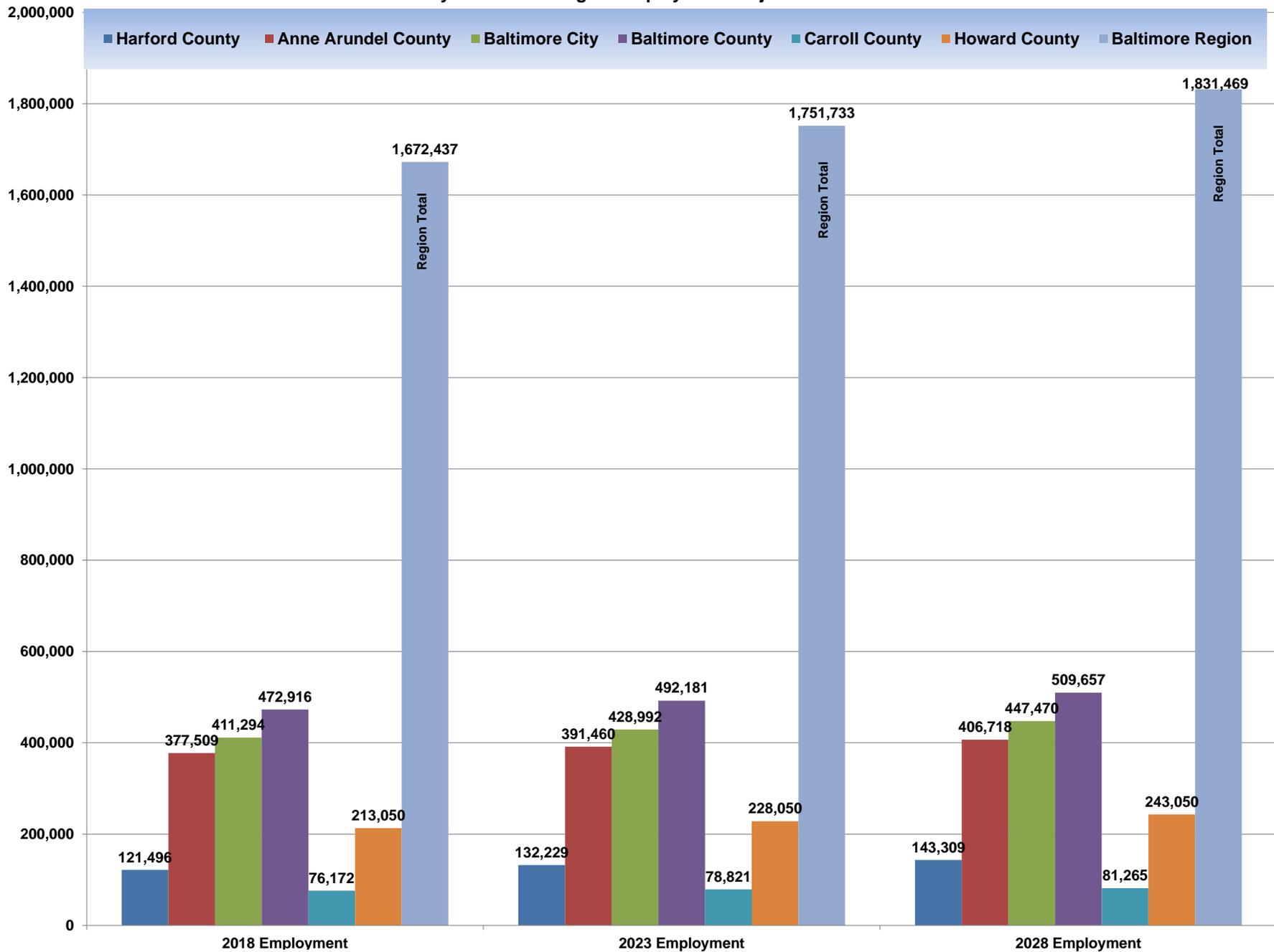
Source: Baltimore Metropolitan Council, May, 2019.

Table 2A
Harford County - Baltimore Region Population and Household Projections: 2018 - 2028



Source: Baltimore Metropolitan Council, May, 2019.

**Table 3A
Harford County - Baltimore Region Employment Projections: 2018 - 2028**



Source: Baltimore Metropolitan Council, May, 2019.

Table 4A
Harford County Non-Residential Permit Activity
New Permits Valued \$50,000 and Over

Permit Type	2014		2015		2016		2017		2018	
	# of Permits	Square Footage								
Commercial	9	150,235	14	221,386	8	78,246	2	16,091	5	46,824
Industrial	3	12,225	0	0	1	12,000	2	663,880	4	865,212
Institutional	6	103,598	4	35,296	0	0	0	0	1	250,111
Utilities	1	300	0	0	0	0	0	0	0	0
Other	2	1,970	0	0	0	0	0	0	0	0
Total	21	268,328	18	256,682	9	90,246	4	679,971	10	1,162,147

Source: Baltimore Metropolitan Council, May 2019.

Table 5A
Harford County Non-Residential Permit Activity
Additions, Alterations, and Repairs Valued \$50,000 and Over

Permit Type	2014		2015		2016		2017		2018	
	# of Permits	Square Footage								
Commercial	29	NA	28	NA	29	NA	23	NA	23	NA
Industrial	5	NA	17	NA	9	NA	3	NA	5	NA
Institutional	11	NA	16	NA	8	NA	2	NA	5	NA
Utilities	11	NA	9	NA	0	NA	0	NA	6	NA
Total	56	NA	70	NA	46	NA	28	NA	39	NA

NA: Data Not Available

Source: Baltimore Metropolitan Council, May 2019.

APPENDIX B

FIGURE 1B

Elementary School Districts

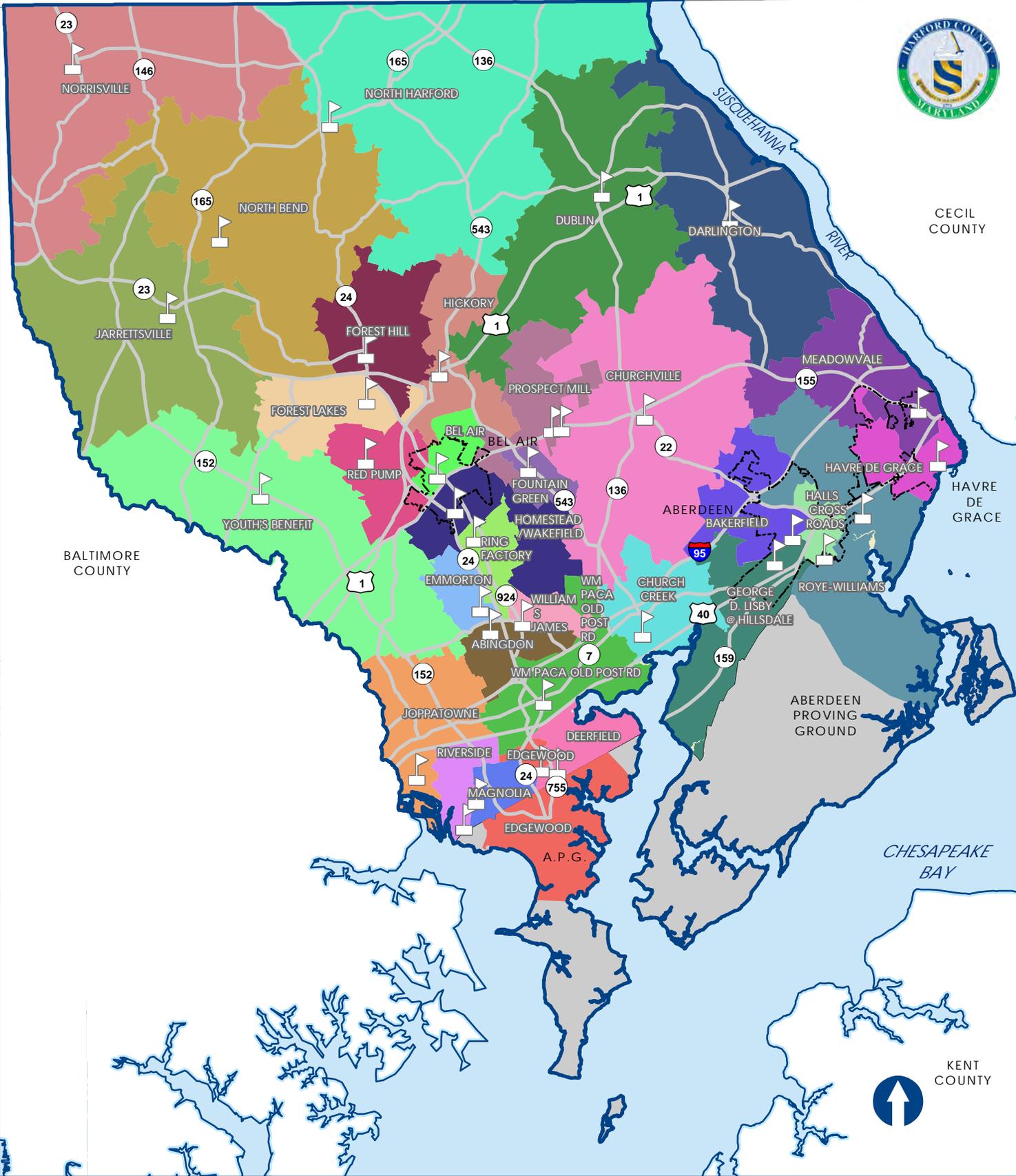


Table 6B

Harford County Elementary Schools 2018 Utilization Chart									
Elementary School	State-Rated Capacity	Actual		Projected		2020 - 2021		2021 - 2022	
		2018 - 2019	2019 - 2020	2018 - 2019	2019 - 2020	ENROLL	% UTIL.	ENROLL	% UTIL.
Abingdon	864	775	90%	765	89%	754	87%	744	86%
Bakerfield	500	427	85%	435	87%	443	89%	451	90%
Bel Air	500	507	101%	510	102%	513	103%	517	103%
Church Creek	793	738	93%	729	92%	720	91%	711	90%
Churchville	388	393	101%	396	102%	399	103%	402	104%
Darlington	157	106	68%	104	66%	102	65%	100	64%
Deerfield	816	765	94%	761	93%	756	93%	752	92%
Dublin	295	238	81%	232	79%	226	77%	220	75%
Edgewood	511	381	75%	373	73%	364	71%	356	70%
Emmorton*	549	610	111%	615	112%	620	113%	625	114%
Forest Hill	568	508	89%	502	88%	496	87%	490	86%
Forest Lakes	546	427	78%	416	76%	406	74%	396	73%
Fountain Green	571	498	87%	490	86%	482	84%	474	83%
G. Lisby at Hillsdale	455	406	89%	404	89%	401	88%	399	88%
Hall's Cross Roads	562	502	89%	506	90%	511	91%	516	92%
Havre de Grace	566	512	90%	523	92%	535	95%	547	97%
Hickory	681	663	97%	665	98%	667	98%	668	98%
Homestead/Wakefield*	907	1,003	111%	1,003	111%	1,010	111%	1,022	113%
Jarrettsville	548	442	81%	438	80%	435	79%	432	79%
Joppatowne	653	594	91%	594	91%	594	91%	594	91%
Magnolia*	518	568	109.7%	577	111%	586	113%	595	115%
Meadowvale	568	520	92%	518	91%	517	91%	515	91%
Norrisville	252	212	84%	214	85%	217	86%	219	87%
North Bend	500	380	76%	382	76%	384	77%	386	77%
North Harford	500	344	69%	337	67%	330	66%	324	65%
Prospect Mill	680	565	83%	567	83%	568	84%	570	84%
Red Pump*	696	753	108%	761	109%	770	111%	775	111%
Ring Factory	548	517	94%	514	94%	510	93%	507	93%
Riverside	522	483	93%	481	92%	479	92%	477	91%
Roye-Williams	703	521	74%	535	76%	549	78%	563	80%
Wm. Paca / Old Post Rd.	954	803	84%	803	84%	803	84%	803	84%
Wm. S. James	522	442	85%	434	83%	432	83%	430	82%
Youth's Benefit	1,120	1,017	91%	1,020	91%	1,023	91%	1,026	92%
TOTAL	19,513	17,620	90%	17,604	90%	17,602	90%	17,606	90%

*Note: preliminary subdivisions and residential site plans of greater than five lots/units will not be approved in attendance areas that are shaded.

Source: Harford County Public Schools & Dept. of Planning and Zoning, November 2018.

Table 7B

Harford County Modified Elementary School Enrollment Projections								
School District	2018	2019	2020	2021	2022	2023	2024	2025
Abingdon	775	765	773	786	805	829	860	898
Bakerfield	427	435	422	407	391	372	352	331
Bel Air	507	510	534	557	577	595	612	626
Church Creek	738	729	754	782	813	849	889	934
Churchville	393	396	419	445	473	505	541	582
Darlington	106	104	91	77	63	51	41	32
Deerfield	765	761	768	775	781	787	793	799
Dublin	238	232	211	192	174	157	142	128
Edgewood	381	373	364	352	338	321	304	285
Emmorton	610	615	681	758	848	955	1,080	1,228
Forest Hill	508	502	538	573	603	630	653	670
Forest Lakes	427	416	387	355	319	283	247	212
Fountain Green	498	490	479	461	435	406	371	333
G. Lisby at Hillsdale	406	404	392	392	404	430	472	534
Hall's Cross Roads	502	506	502	500	500	502	507	514
Havre de Grace	512	523	605	715	862	1,060	1,330	1,707
Hickory	663	665	679	691	700	708	712	713
Homestead/Wakefield	1,003	1,003	1,051	1,107	1,174	1,252	1,343	1,448
Jarrettsville	442	438	426	411	393	374	354	332
Joppatowne	594	594	593	590	586	580	573	564
Magnolia	568	577	611	663	739	844	988	1,189
Meadowvale	520	518	516	515	515	515	516	517
Norrisville	212	214	261	331	432	583	814	1,173
North Bend	380	382	441	495	539	570	587	587
North Harford	344	337	298	260	224	190	159	131
Prospect Mill	565	567	533	494	451	406	360	314
Red Pump	753	761	826	909	1,014	1,145	1,311	1,520
Ring Factory	517	514	547	585	630	683	745	817
Riverside	483	481	498	509	514	512	502	487
Roye-Williams	521	535	538	562	609	687	805	980
Wm. Paca / Old Post Rd.	803	803	815	832	852	877	907	942
Wm. S. James	442	434	412	384	351	314	276	238
Youth's Benefit	1,017	1,020	1,033	1,043	1,048	1,049	1,046	1,039
Total	19,638	19,623	20,019	20,527	21,181	22,044	23,214	24,827

Source: Harford County Dept. of Planning and Zoning, May 2019.

Table 8B

Harford County Residential Building Permit Activity By Elementary School District: 2014 - 2018																									
ELEMENTARY SCHOOL	2014					2015					2016					2017					2018				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL
Abingdon	3	32	208	0	243	3	0	84	0	87	1	0	0	0	1	12	11	138	0	161	9	0	0	0	9
Bakerfield	10	2	72	0	84	22	0	32	0	54	26	0	0	0	26	0	0	0	0	0	2	0	0	0	2
Bel Air	0	0	0	0	0	4	0	0	0	4	2	0	0	0	2	3	0	0	0	3	1	0	0	0	1
Church Creek	0	28	0	0	28	1	8	0	0	9	0	16	0	0	16	1	0	0	0	1	1	0	0	0	1
Churchville	3	0	0	0	3	6	0	0	0	6	5	0	0	0	5	4	0	0	0	4	3	0	0	0	3
Darlington	2	0	0	0	2	1	0	0	0	1	1	0	0	0	1	3	0	0	1	4	2	0	0	0	2
Deerfield	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	1
Dublin	6	0	0	1	7	7	0	0	0	7	7	0	0	1	8	8	0	0	1	9	5	0	0	0	5
Edgewood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emmorton	2	18	0	0	20	7	38	72	0	117	9	0	126	0	135	21	0	0	0	21	39	0	0	0	39
Forest Hill	4	0	0	0	4	12	0	0	0	12	12	0	0	0	12	23	0	0	0	23	18	0	0	0	18
Forest Lakes	1	0	0	0	1	1	0	0	0	1	6	0	0	0	6	3	0	0	0	3	3	0	0	0	3
Fountain Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. Lisby at Hillsdale	26	35	0	0	61	24	15	0	0	39	3	0	0	0	3	9	0	0	0	9	33	6	0	0	39
Hall's Cross Roads	0	36	0	0	36	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
Havre de Grace	37	11	0	0	48	37	4	0	0	41	30	34	0	0	64	49	65	0	0	114	81	40	0	0	121
Hickory	19	15	0	0	34	30	11	0	0	41	22	30	0	0	52	11	0	0	0	11	23	0	0	0	23
Homestead/Wakefield	11	3	0	0	14	6	9	38	0	53	24	46	37	0	107	20	37	0	0	57	30	51	0	0	81
Jarrettsville	4	0	0	0	4	10	0	0	1	11	5	0	0	0	5	7	0	0	1	8	11	0	0	0	11
Joppatowne	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Magnolia	10	25	0	0	35	6	0	0	0	6	31	0	0	0	31	33	0	0	0	33	10	48	0	0	58
Meadowvale	1	0	0	0	1	2	0	0	1	3	0	0	0	1	1	5	0	0	0	5	0	0	0	0	0
Norrisville	3	0	0	0	3	5	0	0	0	5	3	0	0	0	3	12	0	0	0	12	10	0	0	0	10
North Bend	4	0	0	1	5	10	0	0	1	11	18	0	0	1	19	27	0	0	1	28	14	0	0	1	15
North Harford	7	0	0	0	7	12	0	0	0	12	10	0	0	1	11	16	0	0	0	16	18	0	0	0	18
Prospect Mill	3	0	0	0	3	2	0	0	0	2	1	0	0	0	1	0	12	0	0	12	9	58	0	0	67
Red Pump	22	0	0	0	22	23	0	288	0	311	31	0	0	0	31	11	0	0	0	11	17	0	37	0	54
Ring Factory	1	0	0	0	1	1	0	0	0	1	5	0	0	0	5	4	0	0	1	5	1	0	0	0	1
Riverside	1	0	0	0	1	0	0	0	0	0	5	5	0	0	10	1	9	0	0	10	1	0	0	0	1
Roye-Williams	14	0	0	0	14	21	0	0	0	21	21	0	48	0	69	20	0	144	0	164	4	3	0	0	7
Wm. Paca/Old Post Rd	4	0	0	0	4	5	0	0	0	5	6	0	0	0	6	4	11	0	0	15	12	22	0	0	34
Wm. S. James	1	0	0	0	1	3	4	0	0	7	13	16	0	0	29	18	28	0	0	46	23	8	0	0	31
Youth's Benefit	16	34	0	0	50	11	28	0	1	40	9	44	0	0	53	46	33	0	0	79	48	0	0	0	48
TOTAL	216	239	280	2	737	273	117	514	4	908	307	191	211	4	713	374	206	282	5	867	432	236	37	1	706

* Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2019.

KEY: SF = Single Family Dwelling; TH = Townhouse; APT/CO = Apartment/Condominium; MH = Mobile Home

Table 9B

Harford County Population and Households By Elementary School District: 2014 - 2018										
Elementary School	2014*		2015*		2016*		2017*		2018*	
	Households	Population								
Abingdon	4,782	12,841	5,014	13,427	5,096	13,612	5,097	13,568	5,250	13,961
Bakerfield	2,428	6,521	2,509	6,718	2,560	6,837	2,585	6,880	2,585	6,873
Bel Air	3,051	8,193	3,051	8,171	3,055	8,160	3,057	8,137	3,060	8,137
Church Creek	4,007	10,759	4,033	10,802	4,042	10,795	4,057	10,800	4,058	10,791
Churchville	2,480	6,660	2,483	6,650	2,489	6,647	2,494	6,638	2,497	6,641
Darlington	1,010	2,712	1,012	2,710	1,013	2,705	1,014	2,698	1,017	2,706
Deerfield	3,265	8,767	3,265	8,744	3,266	8,723	3,267	8,696	3,268	8,690
Dublin	1,683	4,519	1,690	4,525	1,696	4,530	1,704	4,535	1,712	4,554
Edgewood	1,256	3,372	1,256	3,363	1,256	3,354	1,256	3,342	1,256	3,339
Emmorton	2,498	6,707	2,517	6,740	2,613	6,979	2,741	7,296	2,761	7,342
Forest Hill	2,419	6,494	2,422	6,487	2,434	6,500	2,445	6,509	2,467	6,560
Forest Lakes	2,848	7,646	2,848	7,629	2,849	7,611	2,855	7,600	2,858	7,600
Fountain Green	1,899	5,098	1,899	5,085	1,899	5,071	1,899	5,054	1,899	5,049
G. Lisby at Hillsdale	2,422	6,503	2,480	6,642	2,517	6,723	2,520	6,708	2,528	6,724
Hall's Cross Roads	1,972	5,295	2,006	5,373	2,006	5,359	2,006	5,341	2,008	5,341
Havre de Grace	3,668	9,850	3,713	9,944	3,752	10,021	3,813	10,149	3,921	10,427
Hickory	2,904	7,798	2,936	7,864	2,975	7,947	3,025	8,051	3,035	8,071
Homestead/Wakefield	5,409	14,526	5,423	14,523	5,488	14,659	5,590	14,880	5,648	15,020
Jarrettsville	2,774	7,450	2,778	7,440	2,789	7,448	2,793	7,436	2,801	7,449
Joppatowne	3,859	10,363	3,860	10,338	3,860	10,310	3,860	10,276	3,860	10,265
Magnolia	1,750	4,699	1,783	4,776	1,789	4,779	1,819	4,841	1,850	4,919
Meadowvale	2,629	7,059	2,631	7,045	2,633	7,034	2,634	7,013	2,639	7,018
Norrisville	1,279	3,435	1,282	3,433	1,287	3,437	1,290	3,433	1,301	3,460
North Bend	2,270	6,096	2,275	6,092	2,285	6,104	2,303	6,131	2,330	6,196
North Harford	2,356	6,327	2,363	6,328	2,374	6,341	2,385	6,348	2,400	6,382
Prospect Mill	2,861	7,682	2,864	7,669	2,866	7,654	2,867	7,631	2,878	7,653
Red Pump	3,933	10,561	3,954	10,589	4,250	11,350	4,279	11,390	4,289	11,407
Ring Factory	2,721	7,305	2,722	7,289	2,722	7,272	2,727	7,260	2,732	7,265
Riverside	2,497	6,705	2,498	6,690	2,498	6,672	2,507	6,675	2,517	6,693
Roye-Williams	1,871	5,024	1,884	5,046	1,904	5,086	1,970	5,243	2,125	5,652
Wm. Paca/Old Post Rd	4,612	12,385	4,616	12,362	4,621	12,342	4,626	12,315	4,641	12,341
Wm. S. James	1,973	5,298	1,974	5,286	1,981	5,290	2,008	5,345	2,052	5,456
Youth's Benefit	5,271	14,153	5,319	14,245	5,357	14,309	5,407	14,394	5,482	14,579
TOTAL	92,655	248,800	93,358	250,025	94,221	251,660	94,898	252,615	95,725	254,560

* Note: Population and household figures have been revised to reflect 2010 Census data (April 1 of each year).

Source: Harford County Dept. of Planning & Zoning, May 2019.

FIGURE 2B

Middle School Districts

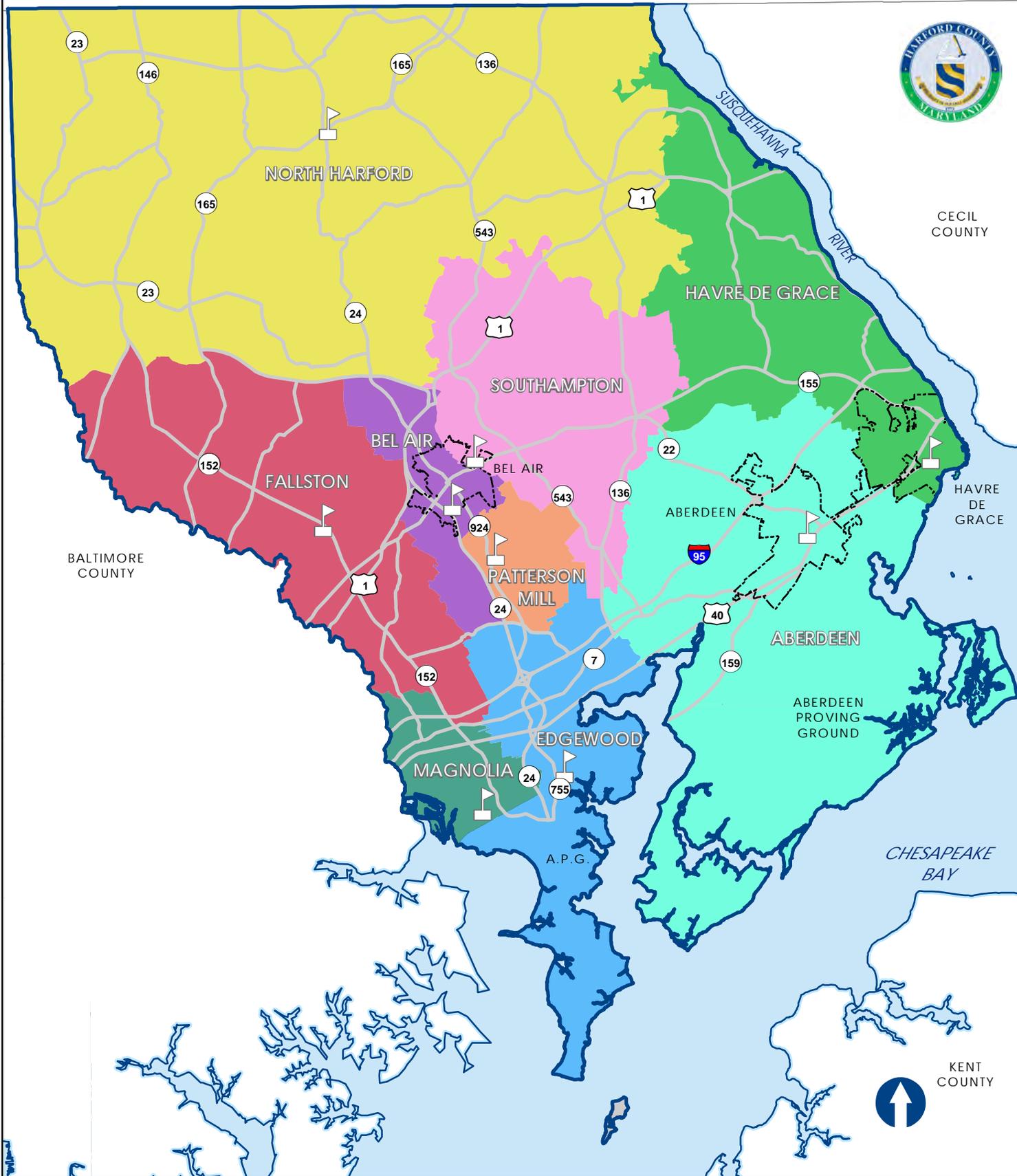


Table 10B

Harford County Middle Schools 2018 Utilization Chart									
Middle School	State-Rated Capacity	Actual				Projected			
		2018 - 2019		2019 - 2020		2020 - 2021		2021 - 2022	
		ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL
Aberdeen	1,444	1,144	79%	1,160	80%	1,177	82%	1,193	83%
Bel Air	1,318	1,373	104%	1,385	105%	1,397	106%	1,409	107%
Edgewood	1,370	1,118	82%	1,125	82%	1,132	83%	1,139	83%
Fallston	1,105	950	86%	954	86%	957	87%	961	87%
Havre de Grace	775	569	73%	575	74%	582	75%	588	76%
Magnolia	1,073	765	71%	774	72%	782	73%	791	74%
North Harford	1,243	895	72%	879	71%	863	69%	855	69%
Patterson Mill	710	738	104%	739	104%	741	104%	742	105%
Southampton	1,540	1,219	79%	1,212	79%	1,205	78%	1,197	78%
Total	10,578	8,771	83%	8,803	83%	8,836	84%	8,875	84%

Source: Harford County Public Schools & Dept. of Planning and Zoning, November 2018.

Table 11B

Harford County Modified Middle School Enrollment Projections								
School District	2018	2019	2020	2021	2022	2023	2024	2025
Aberdeen	1,144	1,133	1,150	1,167	1,184	1,201	1,219	1,237
Bel Air	1,373	1,378	1,402	1,426	1,452	1,477	1,503	1,529
Edgewood	1,118	1,099	1,128	1,157	1,187	1,216	1,247	1,278
Fallston	950	939	955	971	986	1,003	1,018	1,034
Havre de Grace	569	561	573	585	596	609	620	633
Magnolia	765	732	738	744	750	756	762	769
North Harford	895	898	895	892	890	887	885	882
Patterson Mill	738	708	708	708	708	708	708	708
Southampton	1,219	1,223	1,234	1,245	1,256	1,267	1,279	1,291
Total	8,771	8,671	8,783	8,896	9,009	9,124	9,243	9,361

Source: Harford County Dept. of Planning and Zoning, May, 2019.

Table 12B

Harford County Residential Building Permit Activity By Middle School District: 2014 - 2018																									
MIDDLE SCHOOL	2014					2015					2016					2017					2018				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL
Aberdeen	50	101	72	0	223	68	23	32	0	123	51	16	48	0	115	32	0	144	0	176	39	6	0	0	45
Bel Air	43	18	0	0	61	48	44	72	0	164	62	36	126	0	224	37	33	0	0	70	71	49	37	0	157
Edgewood	5	32	208	0	245	8	0	84	0	92	8	0	0	0	8	18	22	138	0	178	21	22	0	0	43
Fallston	17	34	0	0	51	16	28	288	1	333	16	44	0	0	60	48	33	0	1	82	64	0	0	0	64
Havre de Grace	40	11	0	0	51	40	4	0	1	45	32	34	0	1	67	56	65	0	1	122	83	43	0	0	126
Magnolia	12	25	0	0	37	6	0	0	0	6	36	5	0	0	41	34	9	0	0	43	13	48	0	0	61
North Harford	25	0	0	1	26	49	0	0	2	51	56	0	0	3	59	91	0	0	2	93	69	0	0	1	70
Patterson Mill	10	3	0	0	13	8	7	38	0	53	29	26	37	0	92	40	32	0	1	73	36	10	0	0	46
Southampton	14	15	0	1	30	30	11	0	0	41	17	30	0	0	47	18	12	0	0	30	36	58	0	0	94
TOTAL	216	239	280	2	737	273	117	514	4	908	307	191	211	4	713	374	206	282	5	867	432	236	37	1	706

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2019.

KEY: SF = Single Family Dwelling; TH = Townhouse; APT/CO = Apartment/Condominium; MH = Mobile Home

Table 13B

Harford County Population and Households By Middle School District: 2014 - 2018										
SCHOOL	2014*		2015*		2016*		2017*		2018*	
	Households	Population								
Aberdeen	13,331	35,798	13,544	36,272	13,665	36,498	13,774	36,665	13,941	37,073
Bel Air	14,147	37,988	14,205	38,043	14,361	38,357	14,574	38,794	14,640	38,932
Edgewood	13,903	37,333	14,137	37,860	14,224	37,992	14,232	37,884	14,401	38,295
Fallston	9,003	24,176	9,053	24,244	9,369	25,025	9,426	25,092	9,504	25,274
Havre de Grace	7,522	20,198	7,570	20,274	7,609	20,324	7,673	20,425	7,789	20,712
Magnolia	7,990	21,454	8,025	21,492	8,031	21,450	8,070	21,481	8,110	21,568
North Harford	10,466	28,105	10,491	28,097	10,540	28,151	10,596	28,205	10,684	28,412
Patterson Mill	6,272	16,841	6,284	16,830	6,334	16,919	6,422	17,095	6,495	17,271
Southampton	10,021	26,908	10,049	26,913	10,088	26,945	10,133	26,973	10,161	27,022
TOTAL	92,655	248,800	93,358	250,025	94,221	251,660	94,898	252,615	95,725	254,560

* Note: Population and household figures have been revised to reflect 2010 Census data (April 1 of each year).

Source: Harford County Dept. of Planning and Zoning, May 2019.

FIGURE 3B

High School Districts

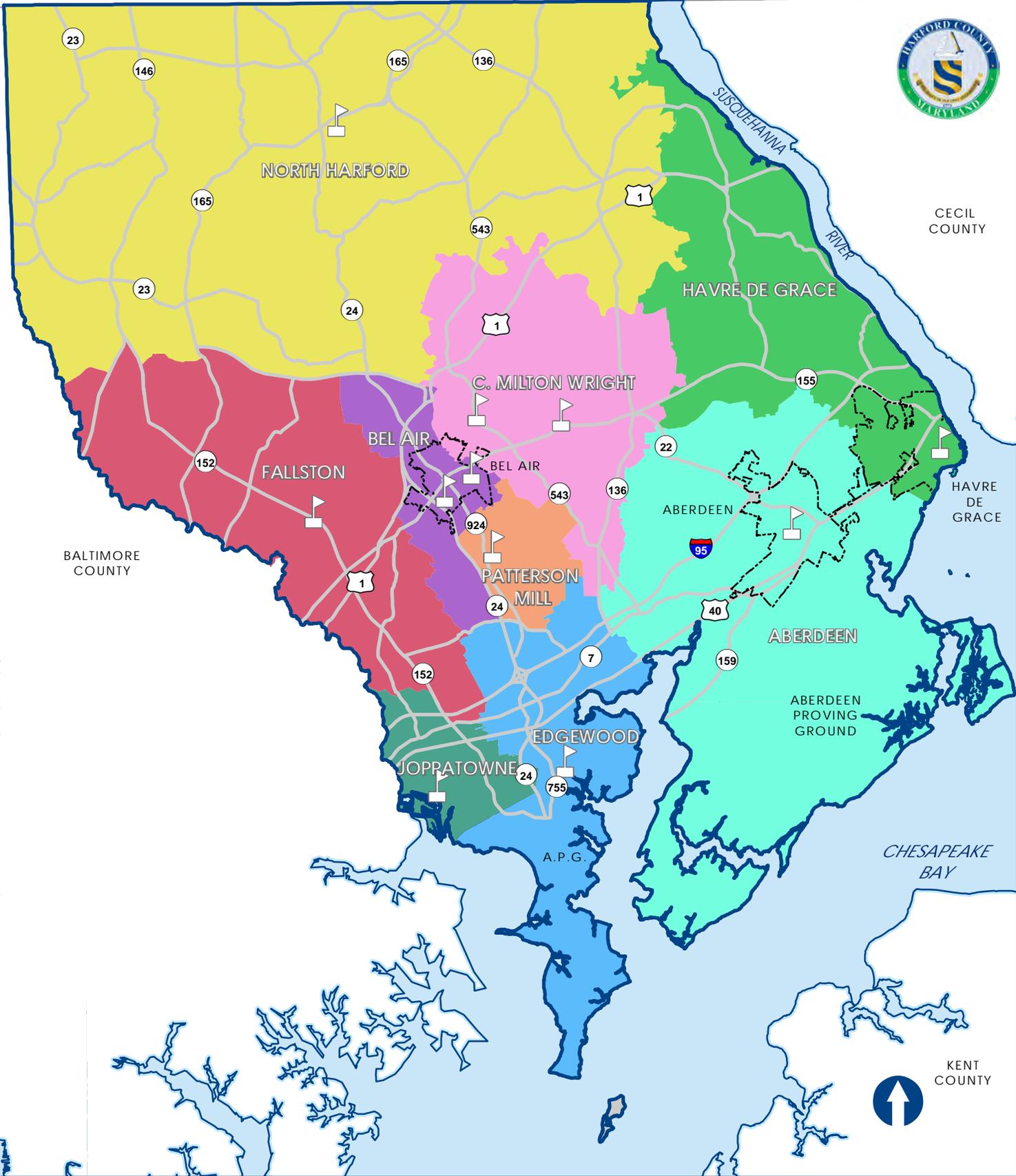


Table 14B

Harford County High Schools 2018 Utilization Chart									
High School	State-Rated Capacity	Actual				Projected			
		2018 - 2019		2019 - 2020		2020 - 2021		2021 - 2022	
		ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL
Aberdeen	1,679	1,459	87%	1,466	87%	1,473	88%	1,480	88%
Bel Air	1,668	1,544	93%	1,532	92%	1,520	91%	1,508	90%
C. Milton Wright	1,678	1,421	85%	1,412	84%	1,403	84%	1,394	83%
Edgewood	1,743	1,388	80%	1,416	81%	1,444	83%	1,473	85%
Fallston	1,573	985	63%	971	62%	960	61%	955	61%
Harford Technical	920	1,009	110%	1,009	110%	1,009	110%	1,009	110%
Havre de Grace	850	639	75%	651	77%	663	78%	675	79%
Joppatowne	1,126	763	68%	765	68%	766	68%	768	68%
North Harford	1,603	1,212	76%	1,210	75%	1,208	75%	1,206	75%
Patterson Mill	1,013	827	82%	825	81%	823	81%	821	81%
Total	13,853	11,247	81%	11,257	81%	11,269	81%	11,289	81%

Source: Harford County Public Schools & Dept. of Planning and Zoning, November, 2018.

Table 15B

Harford County Modified High School Enrollment Projections								
School District	2018	2019	2020	2021	2022	2023	2024	2025
Aberdeen	1459	1466	1467	1468	1469	1470	1471	1472
Bel Air	1544	1532	1533	1534	1535	1536	1537	1538
C. Milton Wright	1421	1412	1413	1414	1415	1416	1417	1418
Edgewood	1388	1416	1417	1418	1419	1420	1421	1422
Fallston	985	971	972	973	974	975	976	977
Havre de Grace	639	651	652	653	654	655	656	657
Joppatowne	763	765	766	767	768	769	770	771
North Harford	1212	1210	1211	1212	1213	1214	1215	1216
Patterson Mill	827	825	826	827	828	829	830	831
Total	12,256	12,267	12,277	12,287	12,297	12,307	12,317	12,327

Source: Harford County Dept. of Planning and Zoning, May, 2019.

Table 16B

Harford County Residential Building Permit Activity By High School District: 2014 -2018																									
HIGH SCHOOL	2014					2015					2016					2017					2018				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL	SF	TH	APT/CO	MH	TOTAL
Aberdeen	50	101	72	0	223	68	23	32	0	123	52	16	48	0	116	33	0	144	0	177	38	6	0	0	44
Bel Air	43	18	0	0	61	48	44	72	0	164	62	36	126	0	224	37	33	0	0	70	71	49	37	0	157
C.M. Wright	14	15	0	1	30	30	11	0	0	41	17	30	0	0	47	18	12	0	0	30	36	58	0	0	94
Edgewood	5	32	208	0	245	8	0	84	0	92	8	0	0	0	8	18	22	138	0	178	22	22	0	0	44
Fallston	17	34	0	0	51	16	28	288	1	333	16	44	0	0	60	48	33	0	1	82	64	0	0	0	64
Havre de Grace	40	11	0	0	51	40	4	0	1	45	32	34	0	1	67	59	64	0	1	124	83	43	0	0	126
Joppatowne	12	25	0	0	37	6	0	0	0	6	36	5	0	0	41	34	9	0	0	43	13	48	0	0	61
North Harford	25	0	0	1	26	49	0	0	2	51	56	0	0	3	59	91	0	0	2	93	69	0	0	1	70
Patterson Mill	10	3	0	0	13	8	7	38	0	53	29	26	37	0	92	40	32	0	1	73	36	10	0	0	46
TOTAL	216	239	280	2	737	273	117	514	4	908	308	191	211	4	714	378	205	282	5	870	432	236	37	1	706

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2019.

KEY: SF = Single Family Dwelling; TH = Townhouse; APT/CO = Apartment/Condominium; MH = Mobile Home

Table 17B

Harford County Population and Households By High School District: 201 - 2018										
SCHOOL	2014*		2015*		2016*		2017*		2018*	
	Households	Population								
Aberdeen	12,968	34,916	13,331	35,798	13,544	36,272	13,665	36,498	13,941	37,073
Bel Air	14,018	37,743	14,147	37,988	14,205	38,043	14,361	38,357	14,640	38,932
C. Milton Wright	10,000	26,925	10,021	26,908	10,049	26,913	10,088	26,945	10,161	27,021
Edgewood	13,882	37,376	13,903	37,333	14,137	37,860	14,224	37,992	14,401	38,295
Fallston	8,948	24,093	9,003	24,176	9,053	24,244	9,369	25,025	9,504	25,274
Havre de Grace	7,486	20,156	7,522	20,198	7,570	20,274	7,609	20,324	7,789	20,712
Joppatowne	7,965	21,444	7,990	21,454	8,025	21,492	8,031	21,450	8,110	21,568
North Harford	10,433	28,090	10,466	28,105	10,491	28,097	10,540	28,151	10,684	28,412
Patterson Mill	6,250	16,828	6,272	16,841	6,284	16,830	6,334	16,919	6,495	17,272
TOTAL	91,951	247,570	92,655	248,800	93,358	250,025	94,221	251,660	95,725	254,560

* Note: Population and household figures have been revised to reflect 2010 Census data (April 1 of each year).

Source: Harford County Dept. of Planning and Zoning, May 2019.

APPENDIX C

Table 18C

JANUARY - DECEMBER 2018			
WATER CONSUMPTION & SEWAGE GENERATION			
Total Number of Accounts	Retail	Water and Sewer	40,163
		Water Only	1,611
		Sewer Only	3,168
	Wholesale	Water Only	17
		Sewer Only	3
	Total	Water and Sewer	44,962
WATER			
Total Number of Water Accounts (VBA)	Retail	Water	41,774
	Wholesale	Water	17
Average Daily Water Production Total Retail and Wholesale Customers	12.7 MGD		
Maximum Day Water Production Total Retail and Wholesale Customers	18.5 MGD		
Average Water Usage per Account – All Retail Accounts	202 GPD		
Average Residential Water Usage per Account – Retail Accounts	167 GPD		
Average Commercial / Industrial Water Usage per Account – Retail Accounts	1,545 GPD		
SEWAGE			
Total Number of Sewer Accounts	Retail	Sewer	43,331
	Wholesale	Sewer	3
Average Treated Sewage Flow – Total Retail and Wholesale Customers	13.8 MGD		
Maximum Day Treated Sewage Flow – Total Retail and Wholesale Customers	26.3 MGD		
Average Sewage Generation per Account – All Retail Accounts	202 GPD		
Average Residential Sewage Generation per Account – Retail Accounts	167 GPD		
Average Commercial / Industrial Sewage Generation per Account – Retail Accounts	1,545 GPD		

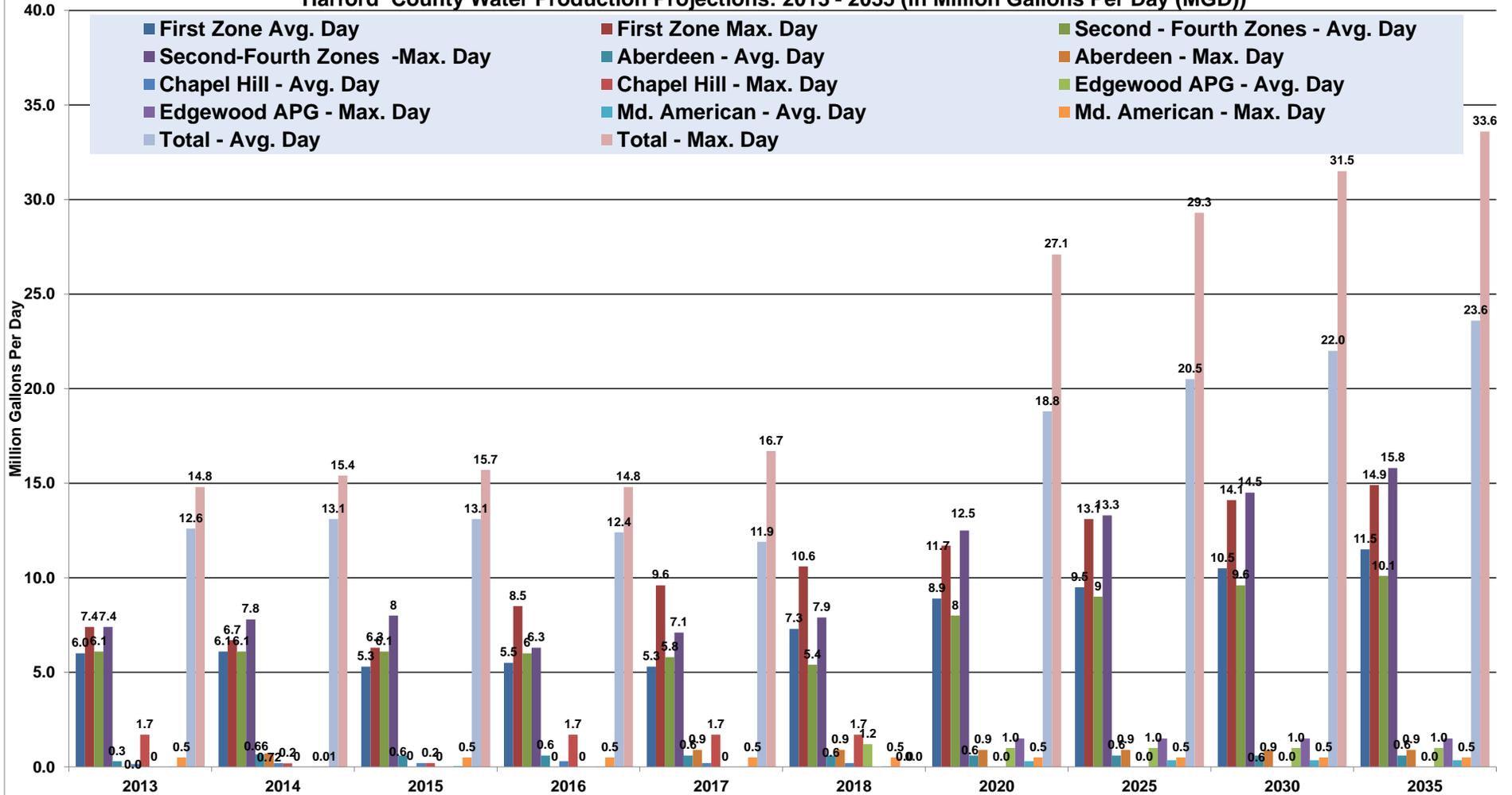
Note: MGD = Million Gallons per Day, GPD = Gallons per Day

Valued Billing Accounts (VBA) - Includes all active valid billing accounts during the selected calendar year.

Valid Consumption Records (VCR) - Includes all valid active billing accounts (VBA) with consumption during the selected calendar year.

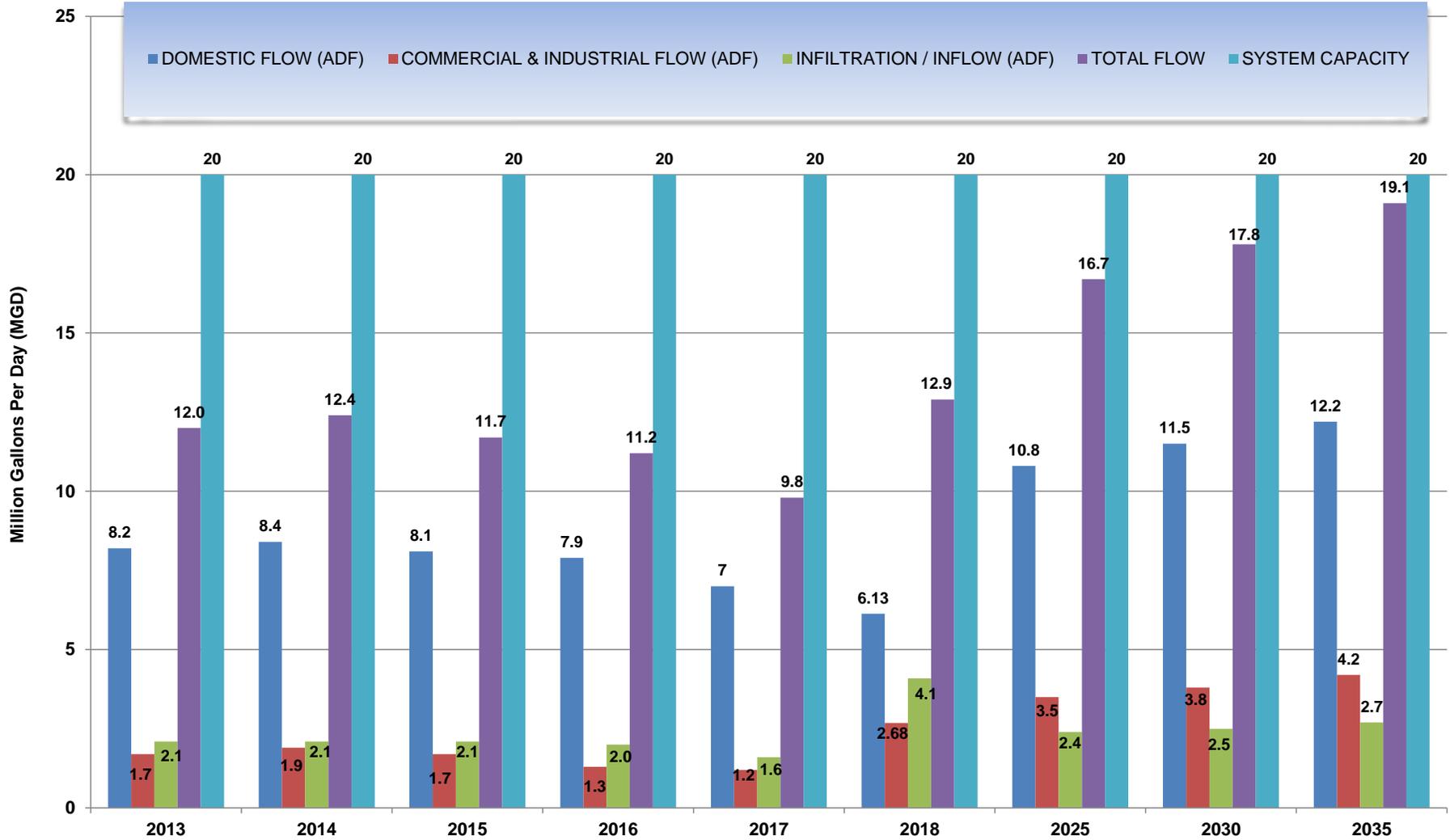
Source: 2018 Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer

Table 19C
Harford County Water Production Projections: 2013 - 2035 (in Million Gallons Per Day (MGD))



Source: 2018 Harford County Adequate Public Facilities Report, Dept. of Public Works, Water and Sewer Division.

Table 20C
Harford County Present and Projected Sewerage Demands and Planned Capacities in Million Gallons Per Day (MGD): 2013 - 2035



Source: 2018 Harford County Adequate Public Facilities Report, Dept. of Public Works, Water and Sewer Division.

Table 21C

2018 EXISTING WATER & SEWER CAPITAL PROJECTS

The Capital Improvement Program establishes projects for expanding and improving water and sewer facilities. This list of 2018 Capital Projects includes the project status.

<u>PROJECT NO.</u>	<u>PROJECT NAME</u>	<u>PROJECT STATUS</u>
6018	Water Model Update and System Evaluation	Zone 1 Complete, Scope Development for Other Zones
6152	Water Tank Design and Construction	Future Project
6492	Replacement of Water Booster SCADA	95% Design Complete
6660	Water Zone Improvements	On-going
6687	Abingdon Road Water Main	Design Phase Completed
6703	Bynum Run Parallel Phase 6 & 7	Phase 7 Construction Complete Phase 6 Design is a Future project
6707	Infiltration / Inflow in Bynum Run Drainage Area	Scope Development Phase
6712	Edgewood Interceptor Parallel	Project on Hold, Awaiting Modeling
6714	Infiltration/Inflow	Scope and Contract Development
6021	Fallston Area Sewer System Improvements	Preliminary Design Phase
6057	Brentwood Park P.S. Upgrade	95% Design Phase
6190	Frey's Road Sewer Petition	Preliminary Design Phase
6211	Hickory Area Collector Sewer Improvements	Planning
FY20 New Project	Plumtree Collector Sewer Replacement	Future Project
FY20 New Project	Plumtree P.S. Replacement	Future Project
FY20 New Project	Magnolia Road Sewer Petition	Planning
FY20 New Project	Woodridge Manor Area Sewer Petition	Planning
6730	Bill Bass P.S. Force Main Parallel / Replacement	50% Design Complete
6737	Towne Center Drive Pump Station	100% Design Complete
6709	Magnolia Water Booster Station Improvements - Hydro-Pneumatic Tank Replacement	100% Design Complete

APPENDIX D

Table 22D
Signalized Intersection Capacity Analyses
Level Of Service And Delay In Seconds: 2015 - 2018

Intersection	Peak Hour Level Of Service (LOS) Rating					
	A	B	C	D	E	F
Maryland Route 24 @ I-95 Northbound On/Off Ramp	2018					
Maryland Route 24 @ I-95 Southbound Off Ramp	2016					
Maryland Route 7 and U.S. Route 40*	2018					
Maryland Route 924 and Moores Mill Road	2016					
Maryland Route 24 and Trimble Road	2016					
Maryland Route 152 and U.S. Route 1	2016					
Maryland Route 24 and U.S. Route 1	2016					
Maryland Route 152 and Trimble Road	2016					
Maryland Route 24 and Jarrettsville Road	2016					
Maryland Route 152 and Hanson Road	2016					
Maryland Route 152 and Singer Road	2016					
Maryland 22 and Thomas Run Road/Schucks Road	2016					
Maryland 715 and Old Philadelphia Road	2016					
Maryland Route 22 and Brier Hill Road	2015					
Maryland Route 22 and Maryland Route 136	2015					
Maryland Route 24 and Bel Air South Parkway	2015					
Maryland Route 24 and Forest Valley Drive	2015					
Maryland Route 24 and Plumtree Road	2015					
Maryland Route 24 and Ring Factory Road	2015					
MD 924 @ MD 24 North Bound Ramp	2015					
Tollgate Rd @ MD 24 Southbound Ramp	2015					
Maryland Route 543 and U.S. Route 1	2015					
Maryland Route 543 and Maryland Route 22	2015					
Maryland Route 924 and Abingdon Road **	2015					

General Definition of Level Of Service Ratings
LOS A – free flow of traffic with no restriction of significant delay (<= 10 seconds).
LOS B – stable flow of traffic with very little restriction or delay (> 10 & <= 20 seconds).
LOS C – stable flow of traffic with low to moderate restriction or delay (>=20 & <= 35 seconds).
LOS D – approaching unstable flow of traffic with moderate to heavy restriction and delay (> 35 & <= 55 seconds).
LOS E – unstable flow of traffic with significant restriction and delay (>55 & <= 80 seconds).
LOS F – forced flow or cases of “grid lock”. The flow rate drops significantly (> 80 seconds).

* SHA improvement at this intersection

** Improvement funded by developer at this intersection

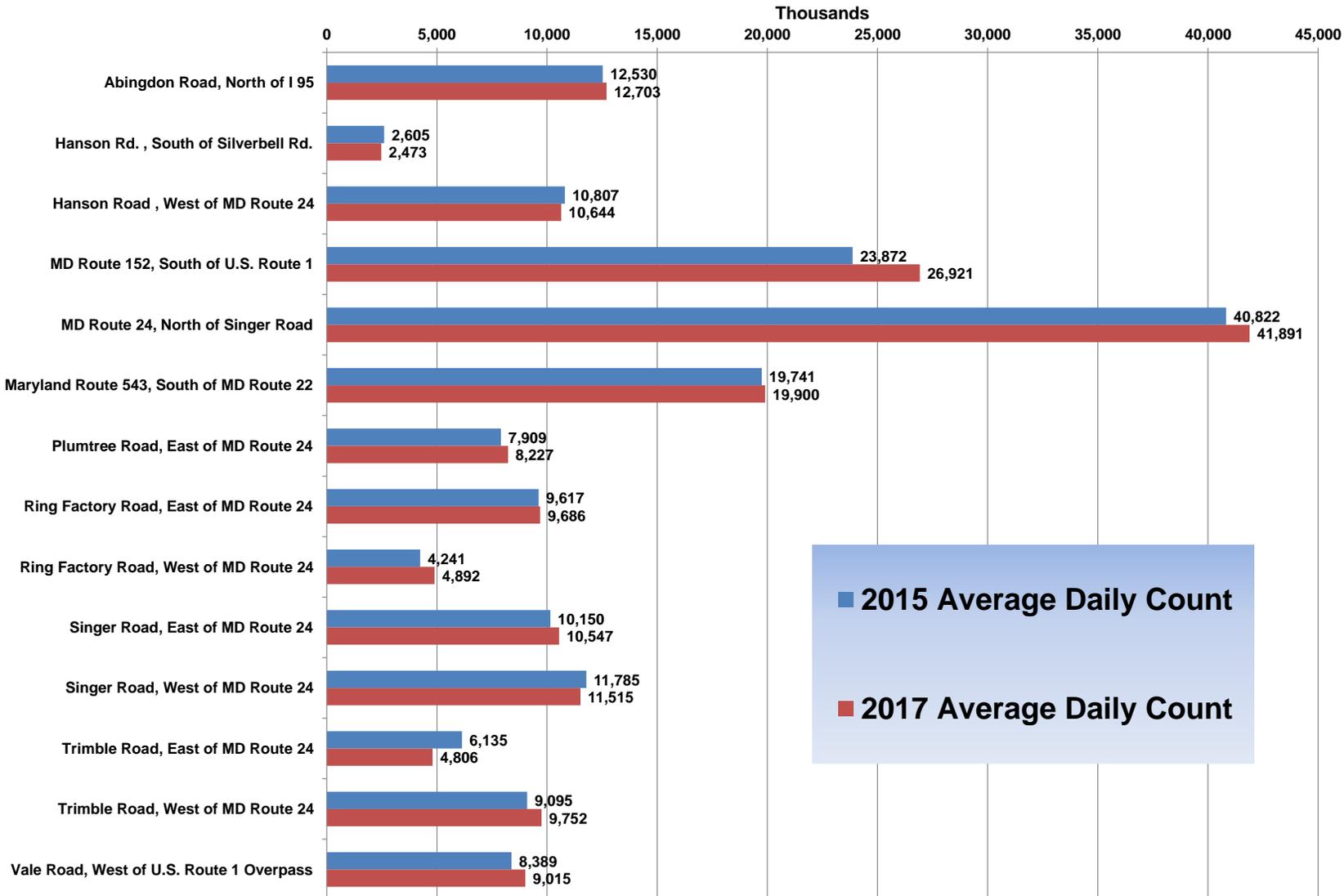
**Table 23D
Unsignalized Intersection Capacity Analyses
Level Of Service And Delay In Seconds: 2015 - 2018**

Intersection	Peak Hour Level Of Service (LOS) Rating					
	A	B	C	D	E	F
Business US 1 and Henderson Road	2016					
	2018					
Maryland 147 and Connolly Road *	2016					
	2018					
Maryland 23 and Grafton Shop Road **	2016					
	2018					
Tollgate Road and MacPhail Road	2016					
	2018					
US 1 and Reckord Road*	2016					
	2018					
Maryland 7 and Brass Mill Road ***	2016					
	2018					
Woodsdale Road and Box Hill Corporate Center Drive	2016					
	2018					
Maryland Route 7 and Maryland Route 159	2015					
	2017					
Maryland Route 7 and Joppa Farm Road	2015					
	2018					
Maryland Route 159 and Spesutia Road	2015					
	2017					
Maryland 155 and Earleton Road	2015					
	2017					
Maryland 543 and Henderson Road	2015					
	2017					
Tollgate Road and Ring Factory Road	2015					
	2017					
Maryland 22 and Aldino-Stepney Road *	2015					
	2017					
Macphail and Ring Factory Road	2015					
	2017					

General Definition of Level Of Service Ratings
LOS A – free flow of traffic with no restriction of significant delay (<= 10 seconds).
LOS B – stable flow of traffic with very little restriction or delay (> 10 & <= 20 seconds).
LOS C – stable flow of traffic with low to moderate restriction or delay (>=20 & <= 35 seconds).
LOS D – approaching unstable flow of traffic with moderate to heavy restriction and delay (> 35 & <= 55 seconds).
LOS E – unstable flow of traffic with significant restriction and delay (>55 & <= 80 seconds).
LOS F – forced flow or cases of “grid lock”. The flow rate drops significantly (> 80 seconds).

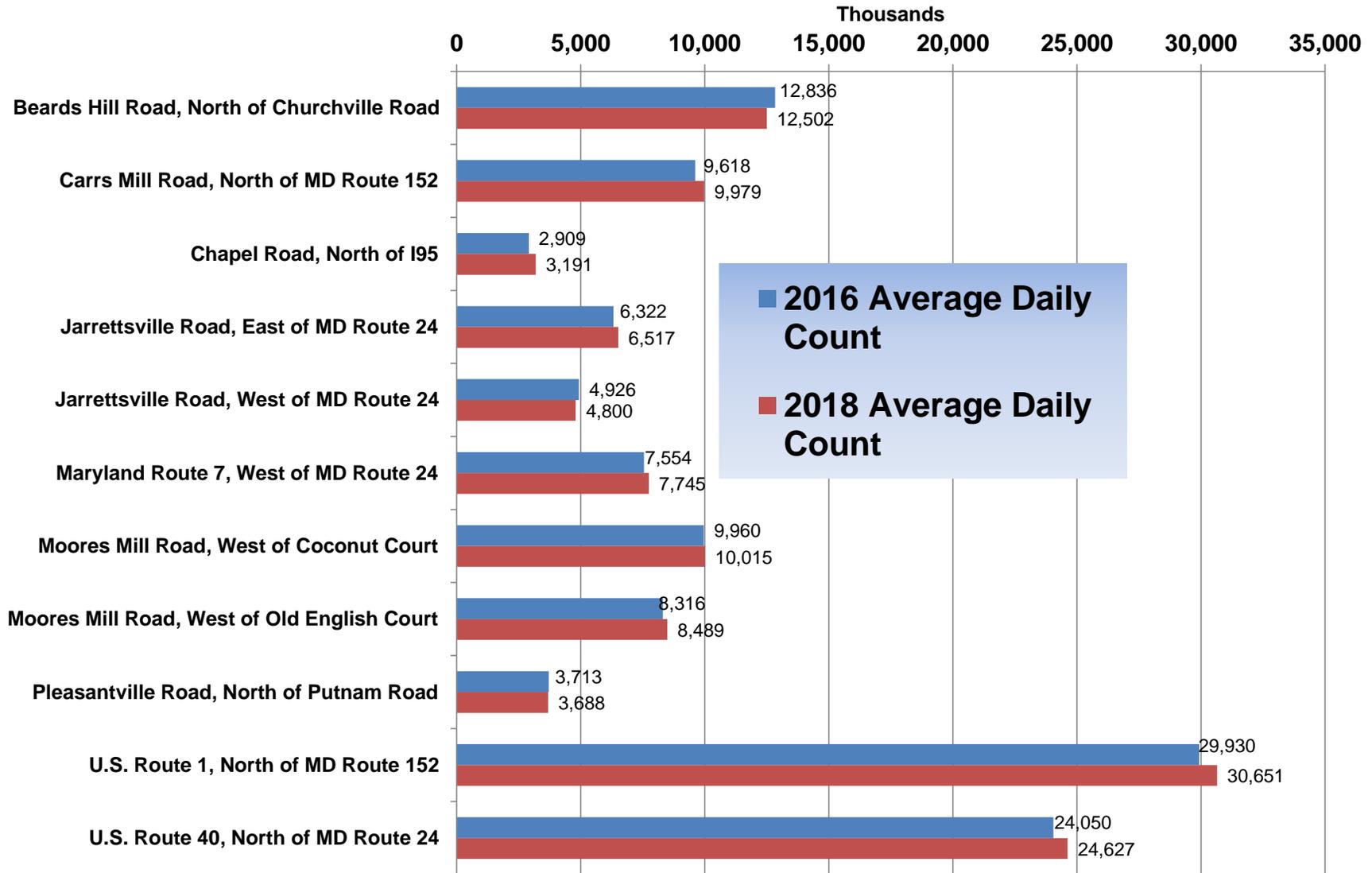
* Improvements completed in 2017.
 ** State Highway Administration funded improvement.
 *** Improvement funded by developer
 Source: Harford County Dept. of Planning and Zoning, May 2019.

**Table 24D.1
48 Hour Average Weekday Daily Traffic Volume: 2015 and 2017**



Source: Harford County Dept. of Planning and Zoning, May, 2019.

**Table 24D.2
48 Hour Average Weekday Daily Traffic Volume: 2016 and 2018**



Source: Harford County Dept. of Planning and Zoning, May, 2019.

Table 25D
List of Approved County Capital Projects Funded for Construction in
Fiscal Year 2019

Project Name	Project Type
Chapel Road Improvements	Upgrade
Water Tower Way and Granary Road	Intersection Improvement Completed
Road Reconstruction and Rehabilitation*	Reconstruct and rehabilitate
Bridge Rehabilitation	Repairs
Bridge and Road Scours	Repairs
Abingdon Road Bridge #169 over CSX	Replacement
Carrs Mill Road Bridge #216	Replacement
Glen Cove Road Bridge # 156	Replacement
Green Road Bridges #119 and #122	Replacement
Chestnut Hill Bridge #40	Replacement
New Park Road Bridge #125	Replacement
Phillips Mill Road Bridge #70	Replacement
Pleasantville Road Bridge #60	Improve & Maintain
Robinson Mill Road Bridge #154	Replacement
Snake Lane Bridge #31	Replacement
Roadways Resurfacing*	Resurfacing
Intersection Improvements*	Safety/Capacity Improvements
Moore's Mill Road – US 1 Business to MD 924 (Phase 3)	Upgrade
Tollgate Road West Ring Factory Road to Plumtree Road	Upgrade

*Note: These are ongoing county-wide project activities that include repairs, upgrades, and resurfacing of roads and bridges selected each spring dependent upon severity of roadway problems and cost for repairs.

Table 26D
List of State Consolidated Transportation Program Funded for
Construction in Fiscal Year 2019

Project Name	Project Type
MD 22, Aberdeen Thruway at Beard's Hill Road	Construction Underway
MD 22, Aberdeen Thruway at Paradise Road	Completed
US 40 at MD 7 / MD 159 in Aberdeen (Phase2)	Construction Underway
MD 755; Willoughby Beach Road to MARC Station	Pedestrian Safety and Drainage Improvements Completed
MD 7; MD 24 to Abingdon Road	Safety/Resurfacing Completed
MD 23; At Grafton Shop Road Intersection	Safety Improvement Completed
MD 147: At Connolly Road	Widening / Resurfacing Completed

Source: Harford County Dept. of Planning and Zoning, May 2019.

APPENDIX E

FIGURE 1E

Approved Subdivision Plans

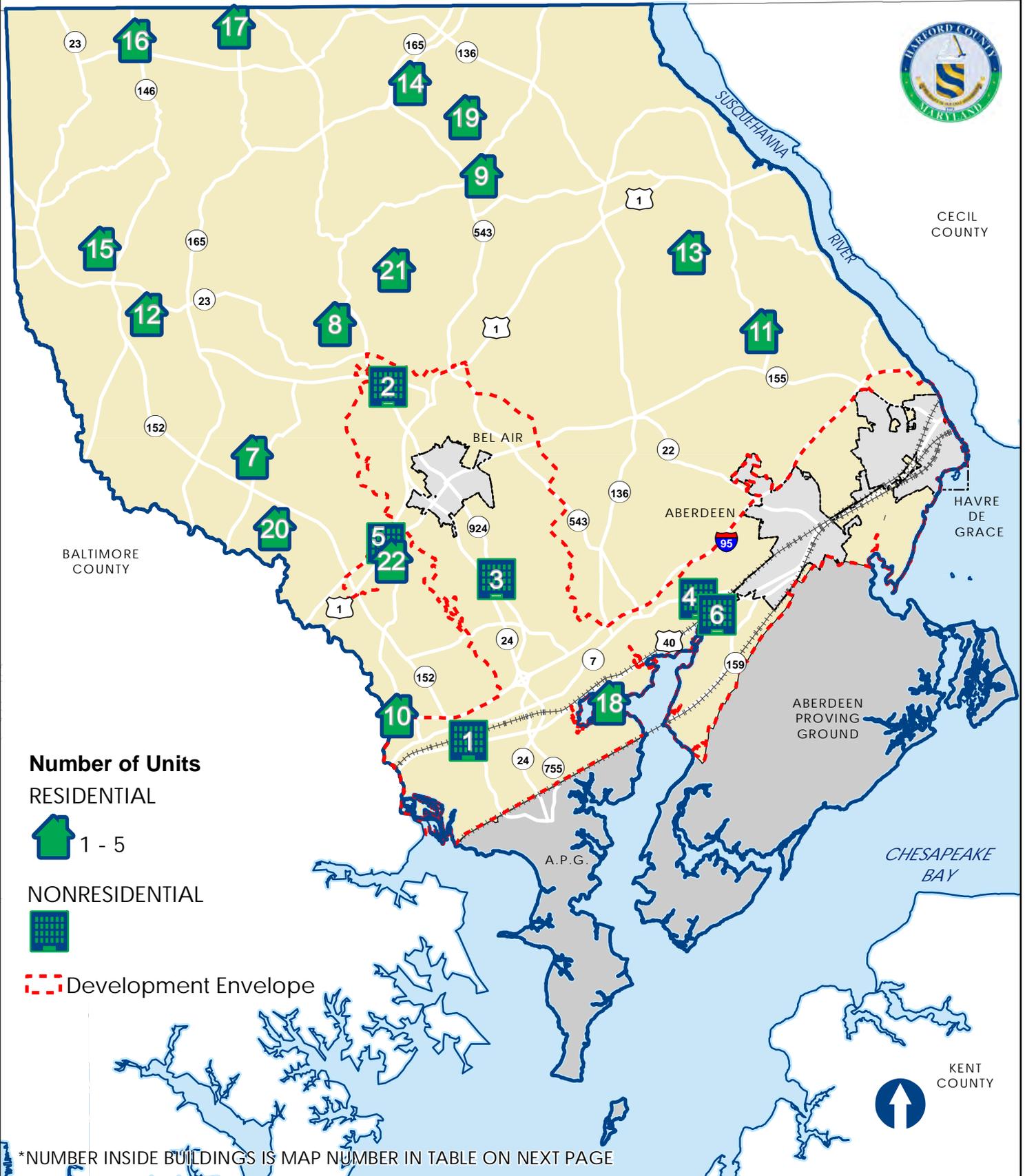


Table 27E

HARFORD COUNTY APPROVED SUBDIVISION PLANS: 2018											
MAP #	PLAN NAME	ACREAGE	LOT ACREAGE	TOTAL UNITS	SF UNITS	TH UNITS	APT UNITS	CONDO UNITS	TYPE OF USE	PFA	ZONING
1	ROYAL FARMS STORE #294	3.5	3.5	1	0	0	0	0	NON RESIDENTIAL	YES	B3
2	HART HERITAGE LLP	6.71	6.71	0	0	0	0	0	NONRESIDENTIAL	YES	R2/B2
3	PRIMROSE DAYCARE	2.1	2.1	1	0	0	0	0	NONRESIDENTIAL	YES	RO
4	RIVERSIDE AUTO AUCTION PHASE TWO	12.28	12.28	0	0	0	0	0	NONRESIDENTIAL	YES	CI
5	ROLLING HILLS SUBDIVISION	10.608	10.608	0	0	0	0	0	NONRESIDENTIAL	YES	B3
6	US 40 FRESH MEAT MARKET	1.238	1.238	0	0	0	0	0	NONRESIDENTIAL	YES	CI
7	AMOSS, LAND OF	2	2	1	1	0	0	0	RESIDENTIAL	NO	AG
8	BUTTON, LANDS OF DAVID B.	1.96	1.96	1	1	0	0	0	RESIDENTIAL	NO	AG
9	DELMARVA POWER AND LIGHT COMPANY	2	2	1	1	0	0	0	RESIDENTIAL	NO	AG
10	DUGAN, LAND OF	28.76	10	2	2	0	0	0	RESIDENTIAL	NO	AG
11	GOOD, SAMUEL & KATHERINE, LANDS OF LOT 2	5.06	5.06	1	1	0	0	0	RESIDENTIAL	NO	AG
12	HOBELMANN HURLEY, ET AL, LANDS OF	2.106	2.106	1	1	0	0	0	RESIDENTIAL	NO	AG
13	HOPKINS FARM - LOTS 1-5	10	10	5	5	0	0	0	RESIDENTIAL	NO	AG
14	KUSER, LAND OF LOTS 1 AND 2	20.68	20.68	2	2	0	0	0	RESIDENTIAL	NO	AG
15	MILLER, VIRGINIA	8.467	4.311	1	1	0	0	0	RESIDENTIAL	NO	AG
16	NESTLING WIND LOTS 7 & 7A	11.47	11.47	2	2	0	0	0	RESIDENTIAL	NO	AG
17	ONION, LANDS OF - LOTS 3 & 4	21.44	21.44	2	2	0	0	0	RESIDENTIAL	NO	AG
18	OTTER POINT LOTS 61-64	0.379	0.379	1	1	0	0	0	RESIDENTIAL	YES	R2
19	PINE HILL FARM	55.976	6.418	1	1	0	0	0	RESIDENTIAL	NO	AG
20	SCHWEIGER	8.292	8.292	2	2	0	0	0	RESIDENTIAL	NO	AG
21	WHITELEY, LAND OF HERBERT LEROY JR.	5.104	5.104	1	1	0	0	0	RESIDENTIAL	NO	AG
22	WOODRIDGE MANOR LOT 21	0.49	0.49	1	1	0	0	0	RESIDENTIAL	YES	RR
TOTAL		221	148	27	25	0	0	0			

KEY:	1 -10 Units	Nonresidential
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