2014 Annual Growth Report

Harford County Government
Department of Planning and Zoning

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"Maryland's New Center of Opportunity"

AMENDMENT TO 2014 ANNUAL GROWTH REPORT

Background:

In accordance with the Harford County Adequate Public Facilities provisions (Section 267-126) of the Harford County Code, testing for adequate school capacities shall occur on June 1 and December 1 of each year. Amendments to the 2014 Annual Growth Report are required and include updated enrollment figures and projections based on September 30, 2015 enrollment figures. Based on the adequacy standards outlined below, the Annual Growth Report is amended to reflect current enrollments and projections as of September 30, 2015.

Adequacy Standards:

The adopted adequacy standards for the Harford County Public School system are 110% of the rated capacity within 3 years for both elementary and secondary schools. Included with this amendment to the 2014 Annual Growth Report are, Tables 6, 7, and 8, the utilization charts for elementary, middle, and high schools. These tables identify current enrollment figures as of September 30, 2015, and include projections through the 2018/2019 school year. Preliminary plans for new subdivisions of greater than five lots cannot be approved in elementary or secondary school districts where full-time enrollment currently exceeds or is projected to exceed 110% of the capacity within three years.

Elementary Schools:

All 33 elementary schools in Harford County currently meet established adequacy standards.

Secondary Schools:

All 18 middle and high schools in Harford County currently meet adequacy standards.

The 2014 Annual Growth Report

TABLE OF CONTENTS

Executive Summary 1

Introduction 5

Growth Trends 6

- Population Projection Methodology 6
- Regional Data 6
- Harford County Development Activity 6
  - New Subdivisions 12
  - New Building Permits Issued 12
  - Development Capacity 12
  - Zoning Map Amendments 12

Planning Document Updates 13

- Zoning Code Amendments 13
- Comprehensive Plan and Element Plan Updates 13
- Senate Bill 236 – Sustainable Growth and Agricultural Preservation Act ……13

Adequate Public Facilities 14

- Public Schools 14
- Water and Sewerage 28
- Road System 35

Planning Consistency Review 42

Process Improvements 43

Ordinances and/or Regulations That Implement the State Planning Visions 45

Appendices

Appendix A	2014 Subdivision List and Map
Appendix B	2014 Zoning Code Amendments
Appendix C	School District Maps for Elementary, Middle, and High Schools
Appendix D	2012 Land Use Plan Map
Appendix E	Pupil Yield Factors

LIST OF TABLES

Table 1 - Harford County – Baltimore Region Residential Permit Activity

Table 2 - Harford County – Baltimore Region Population and Household Projections

Table 3 - Harford County – Baltimore Region Employment Projections

Table 4 - Harford County – Baltimore Region Non-Residential Permit Activity New Permits Valued at $50,000 and Over

Table 5 - Harford County – Baltimore Region Non-Residential Permit Activity Additions, Alterations, and Repairs Valued at $50,000 and Over

Table 6 - Harford County Elementary Schools Utilization Chart

Table 7 - Harford County Middle Schools Utilization Chart

Table 8 - Harford County High Schools Utilization Chart

Table 9 - Harford County Modified Elementary School Enrollment Projections

Table 10 - Harford County Modified Secondary School Enrollment Projections

Table 11 - Harford County Residential Building Permit Activity by Elementary School District

Table 12 - Harford County Residential Building Permit Activity by Middle School District

Table 13 - Harford County Residential Building Permit Activity by High School District

Table 14 - Harford County Population and Households by Elementary School District

Table 15 - Harford County Population and Households by Middle School District

Table 16 - Harford County Population and Households by High School District

Table 17- Water Consumption and Sewage Generations

Table 18 - Harford County System Water Production Projections

Table 19 - Harford County Present and Projected Sewerage Demands and Planned Capacities

Table 20 - 2014 Existing Water and Sewer Capital Projects

Table 21 - Signalized Intersection Capacity Analysis

Table 22 - Unsignalized Intersection Capacity Analysis

Table 23 - 48 Hour Average Weekday Daily Traffic Volume and Locations

Table 24 - List of Approved County Capital Projects Funded for Construction in FY15

Table 25 - List of Consolidated Transportation Program Projects Funded for Construction in FY15

EXECUTIVE SUMMARY

In accordance with the Harford County Adequate Public Facilities provisions (Section 267-126) of the Harford County Code, the Harford County Annual Growth Report must be updated annually to identify any facilities that are 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, and road intersections, and it addresses the requirements of the Smart, Green, and Growing legislative package adopted by the Maryland General Assembly in 2009.

This legislation requires local jurisdictions to provide an annual report on development activities and planning programs to ensure that these activities are being completed in a manner consistent with the visions established by the legislation. Every other year, since July 2010, local jurisdictions have been required to report on their Adequate Public Facilities ordinances and how these ordinances are influencing growth within the designated Priority Funding Areas.

Harford County Development Activity:

During calendar year 2014, Harford County approved 29 residential subdivisions. These subdivisions resulted in the creation of 621 lots/units, of which 556 were located within the County's designated Priority Funding Area. This is consistent with the 2012 Land Use Element Plan's goal of directing new growth to designated growth areas. The 2012 Land Use Plan Map is included in Appendix E of this report.

There were a total of 1,758 building permits issued by Harford County in 2014, of which 555 were for new residential structures. Additionally, the municipalities of Aberdeen, Bel Air, and Havre de Grace issued 185 new residential permits collectively. Approximately 92% of the new construction residential permits were issued for projects within the designated growth areas.

Harford County Public Schools:

Effective July 1, 2015 the adopted adequacy standards for the Public School system are:

Elementary Schools - 110 percent of rated capacity within 3 years.
Secondary Schools - 110 percent of rated capacity within 3 years.

Based on these standards, site plans, preliminary plans for subdivisions of greater than five lots cannot be approved in elementary and secondary school districts where the full-time enrollment currently exceeds, or is projected to exceed, 110 percent of the capacity within three years. Currently all 33 elementary schools and all 17 middle and high schools meet adequacy standards.

Harford County Water and Sewerage System:

Based on the Adequate Public Facilities Ordinance and the Harford County Water and Sewer Design Guidelines, site plans, preliminary plans, public works utility agreements, and building permits in areas served by public water and sewer systems can be approved only where adequate capacity exists in the water and wastewater treatment facilities and in distribution and collection lines serving the area.

The County water system's average daily usage in 2014 was 13.1 MGD (Million Gallons per Day), with a peak day demand of 15.4 MGD. With the completion of the Abingdon Water Treatment Plant (AWTP) expansion to 25 MGD in May of 2012, the total countywide permitted maximum daily water treatment capacity is approximately 30.4 MGD. The County has a maximum day drought demand of 19.75 MGD. Currently it is estimated that there is a need for 5.0 MGD for approved preliminary plans. With the recent expansion of the AWTP, there is adequate planning for the County's water service area.

In October, 2014, Harford County, the Town of Bel Air, and The Maryland-American Water Company (MAWC) agreed to the Amendment of the Water Service Contract (between Harford County and MAWC). Due to a deficit in supply from Winters Run, the Maryland Department of the Environment and the Harford County Health Department had stopped approving building permits within MAWC's service area. Through this Amendment, Harford County may provide an additional 40,000 gallons per day (GPD) to MAWC through the existing West MacPhail Road metering station, which could allow for up to 114 equivalent dwelling units (EDU's) to be developed within MWAC's service area. This Amendment is in effect until 2018 and is only meant to provide MAWC time to construct the ultimate solution of an impoundment to provide a safe and reliable water supply, sufficient for the entire approved service area.

The total average sewage flows, system capacity, and average reserve for the four service areas within Harford County are listed below.

Harford County 2014 Sewerage Capacity by Service Area in Million Gallons Per Day (MGD)			
Service Area	**Total Flow**	**System Capacity**	**Average Reserve**
Harford County-Sod Run	12.4	20.0	7.6
Joppatowne	0.83	0.95	0.12
Spring Meadows	0.008	0.01	0.002
Whiteford-Cardiff	0.031	0.12	0.089

The determination of water or sewerage capacity in a specific area of the County can be found in the "Water and Sewer 2014 Adequate Public Facilities Report" with appropriate guidance from the Department of Public Works. A determination of adequacy is made prior to preliminary plan approval, site plan approval, public works utility agreement execution, and building permit approval.

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.

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.

Harford County Road System:

To determine existing service levels at intersections and the impact of additional traffic, a Traffic Impact Analysis (TIA) must be submitted for developments that is projected to generate more than 249 trips per day at the time of preliminary/site plan review. Proposed developments located within the Chesapeake Science and Security Corridor (CSSC) will not be required to submit a TIA unless the proposed use is expected to generate 1,500 trips per day at the time of preliminary and/or site plan review.

The adequacy standards for road intersections within the study area are based on the property's location inside or outside the Development Envelope and are defined as follows:

> ***Inside the Development Envelopment*:** Level of Service (LOS) D.
> If existing LOS is E or F at an intersection within the Development Envelope, then the developer must mitigate the development's new trips.
>
> ***Outside the Development Envelope:*** Level of Service (LOS) C.
> If the existing LOS is D or lower, then the developer must mitigate the development's new trips.

A developer is required to provide improvements at intersections within the study area where trips generated by the development lower the LOS below the adopted standards. These improvements must bring the LOS to the adopted standards. If the TIA determines that the existing level of service does not meet the adopted standards, then the subdivider must mitigate the impact of the trips generated from the development site. The study area is defined for areas within and outside the development envelope as:

> ***Inside the Development Envelope*:** The TIA study area shall include all the 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 as defined by the Harford County Transportation Plan.

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.

Developments which generate 1,500 or more trips per day may be required to expand the study area. The determination of existing and projected Levels of Service (LOS) is calculated in the TIA, which is performed by the developer and reviewed by the Departments of Planning and Zoning and Public Works.

In addition to the review of individual TIA's, the Departments of Planning and Zoning and Public Works have studied a number of major roads and intersections to identify existing conditions. This list of roads represents a cross section of key intersections located inside, outside, and on the fringes of the Development Envelope.

There are two signalized intersections and eight unsignalized intersections with one or more movements operating at a LOS E (or D outside 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. The following intersections contain one or more movements that operate at an unacceptable LOS:

1. Maryland 22 and Thomas Run Road / Schucks Road
2. Maryland 7 and U.S. Route 40
3. Business US 1 and Henderson Road
4. Maryland 147 and Connolly Road
5. Maryland 23 and Grafton Shop Road
6. US 1 and Reckord Road
7. Maryland 7 and Brass Mill Road
8. Woodsdale Road and Box Hill Corporate Center Drive
9. Maryland 155 and Earlton Road
10. Maryland 22 and Aldino-Stepney Road

Developments that impact these intersections will be required to mitigate their impacts to the intersection.

INTRODUCTION

In 2009, the Maryland General Assembly enacted the Smart, Green, and Growing legislative package. This legislation was designed to protect Maryland's environment and natural resources as well as to promote sustainable growth. As a result of Senate Bill 280 and House Bill 295, a part of Smart, Green and Growing legislative package, Harford County is required to submit an annual report to the Maryland Department of Planning. 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 Smart, Green, and Growing goals and visions. The aforementioned bills require that reporting be based on designated Priority Funding Areas (See Appendix A). In addition, HB409 and SB671, which were enacted in 2013, require that this report address the implementation status of the County's Master Plan and Land Use Element Plan. The indicators required by this legislation are included in this report, and additional information about plan implementation is provided in the County's Annual Land Use and Element Plan Implementation Report, which is available on the Department's website.

Starting in July 2010, Harford County was required to submit a report to the Maryland Department of Planning on its Adequate Public Facilities Ordinances (APFOs) and any development restrictions within PFAs that are the result of these ordinances. This report must be submitted by July 1st and then every two years thereafter; however, Harford County includes this information annually. As a result of these regulations, Harford County's Annual Growth Report has been expanded to include the Smart, Green, and Growing requirements.

The 2014 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 - Water and Sewer and Engineering Divisions and the Board of Education. 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

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. The population projections for the five other jurisdictions in the Baltimore Region are based on an interpolation of the Baltimore Metropolitan Council's Round 8B population forecast.

The population/household projections are compared to the Residential Vacant Land Inventory and reallocated based on the availability of residential capacity. 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. There are 7,479 planned units remaining in the Development Envelope as of December 31, 2014. There are an additional 494 planned units remaining outside of the Development Envelope as of December 31, 2014.

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.

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 that has occurred during the previous year. Tables 1 - 5 address the requirements specified in §267-126 A. (2).

Harford County Development Activity

As required by Land Use Article §1-207, enacted by Senate Bill 671 and House Bill 409, Harford County is also required to prepare an annual report on development activity and planning programs as a means of ensuring consistency with the State’s Smart, Green, and Growing goals and visions. The bills require that reporting be based on designated PFAs.

Table 1
Harford County - Baltimore Region
Residential Permit Activity
2010 - 2014

Jurisdiction	2010	2011	2012	2013	2014	Total	Percentage of Baltimore Region
Harford County	545	681	588	737	740	3,291	10.5%
Anne Arundel County	1,720	2,365	1,657	1,853	2120	9,715	30.9%
Baltimore City	380	1,093	642	1,257	803	4,175	13.3%
Baltimore County	1,230	488	976	1,101	996	4,791	15.2%
Carroll County	190	183	315	429	356	1,473	4.7%
Howard County	1,421	1,178	1,657	2,288	1446	7,990	25.4%
Total	**5,486**	**5,988**	**5,835**	**7,665**	**6,461**	**31,435**	100.0%

Source: Baltimore Metropolitan Council, May 2015.

Note: Includes municipal permit activity.

Table 2
Harford County - Baltimore Region
Population and Household Projections
2014 - 2024

Jurisdiction	2014 Population	2014 Households	2019 Population	2019 Households	2024 Population	2024 Households
Harford County	248,800	92,655	257,333	97,133	270,235	100,930
Anne Arundel County	555,226	205,028	575,929	212,091	590,877	219,153
Baltimore City	633,570	255,504	645,170	260,480	654,508	264,355
Baltimore County	819,386	322,500	831,781	327,577	847,077	333,776
Carroll County	169,866	61,732	174,830	63,824	178,730	65,629
Howard County	304,674	110,679	328,015	121,532	346,194	130,455
Total	**2,731,522**	**1,048,097**	**2,813,057**	**1,082,638**	**2,887,621**	**1,114,298**

Source: Baltimore Metropolitan Council, Round 8B Forecast.

Table 3
Harford County - Baltimore Region
Employment Projections
2014 - 2024

Jurisdiction	2014 Employment	2019 Employment	2024 Employment
Harford County	113,384	123,944	133,828
Anne Arundel County	338,238	357,753	373,206
Baltimore City	387,275	399,757	413,284
Baltimore County	461,891	480,787	490,855
Carroll County	72,628	77,349	78,421
Howard County	193,381	208,381	223,381
Total	**1,566,797**	**1,647,971**	**1,712,975**

Source: Baltimore Metropolitan Council, Round 8B Forecast.

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

Permit Type	2010		2011		2012		2013		2014	
	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage
Commercial	13	469,461	11	78,641	24	576,114	6	113,272	9	150,235
Industrial	2	59,232	2	14,450	0	0	2	1,601,520	3	12,225
Institutional	1	42,144	5	30,779	5	71,992	5	90,238	6	103,598
Utilities	2	8,640	10	61,027	1	2,674	0	0	1	300
Other	4	11,991	3	3,130	2	16,911	0	0	2	1,970
Total	**22**	**591,468**	**31**	**188,027**	**32**	**667,691**	**13**	**1,805,030**	**21**	**268,328**

Source: Baltimore Metropolitan Council, May 2015.

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

Permit Type	2010		2011		2012		2013		2014	
	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage	Number of Permits	Square Footage
Commercial	24	NA	56	NA	50	NA	4	NA	29	NA
Industrial	2	NA	7	NA	1	NA	2	NA	5	NA
Institutional	14	NA	20	NA	26	NA	4	NA	11	NA
Utilities	3	NA	7	NA	5	NA	3	NA	11	NA
Total	**43**	NA	**90**	NA	**82**	NA	**13**	NA	**56**	NA

NA: Data Not Available

Source: Baltimore Metropolitan Council, May 2015.

New Subdivisions

In 2014, Harford County approved 29 residential subdivisions involving a total of 748 acres. The residential subdivisions resulted in the creation of 621 lots/units (See Appendix A). While only ten of the subdivisions occurred within the County's designated PFA, they yielded 556 units or 89% of the new lots/units approved. This percentage is consistent with the 2012 Land Use Element Plan's intent of directing new growth to designated growth areas. The data reflects no changes in development patterns.

The remaining 19 residential subdivisions, located outside of the designated growth area, created 65 lots. Of these, 74% were two lots or less (twelve single-lot subdivisions, two two-lot subdivisions). There were six non-residential plans approved. Of these, five were located in the PFA and one was located outside the PFA. A map of all the approved subdivisions is provided in Appendix A.

New Building Permits Issued

A total of 1,758 building permits were issued by Harford County in 2014. This is down slightly from 1,831 in 2013. This number includes new construction residential, non-residential, and accessory structure permits. Of these, 555 were for residential new construction dwelling units. Additionally, the municipalities of Aberdeen, Bel Air, and Havre de Grace issued 185 new construction residential permits collectively. Approximately 92% of the 740 new residential permits were located within the County's designated growth area. The County issued a total of 99 new construction non-residential permits. Of these, the largest numbers of permits issued were for industrial (80) with 33 being for new industrial structures, 25 being for storage/warehousing, and 22 for modular/industrialized structures. The remaining 919 non-residential permits were for a variety of commercial and industrial uses; permits were issued for accessory structures such as sheds, swimming pools, garages, and other miscellaneous uses. Harford County maintains a monthly data report for building permits.

Development Capacity

The Department of Planning and Zoning has updated the inventory of residentially zoned land in the Development Envelope. This inventory provides a total residential land capacity and includes vacant undeveloped 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 21,535 units in the Development Envelope.

Zoning Map Amendment(s)

For 2014, there were no zoning map amendments to report.

PLANNING DOCUMENT UPDATES

This section addresses state reporting requirements regarding code amendments and new or updated comprehensive plans and plan elements. During 2014, Harford County enacted five amendments to its Development Regulations, which were comprehensively revised in 2008. There were no new element plans developed, and in 2015 the County will undertake an update of its Master Plan.

Zoning Code Amendments

In 2014, three bills were enacted that resulted in changes to the County's Zoning Code; two bills amended the Subdivision Regulations. A list of the amendments is provided in Appendix B. Bill 14-1 addressed a series of housekeeping items. Bill 14-9 established a new County Landmark, and Bill 14-26AA changed the signage requirements for properties posted as part of the Comprehensive Zoning Review. The County's Subdivision Regulations were amended by Bill 14-26AA, which changed the requirement to include larger signs for the Development Advisory Committee (DAC) and CIM postings. Bill 14-33AA established specific items to be submitted by a developer prior to the submission of a plan for review through DAC.

Comprehensive Plan and Element Plan Updates

Harford County last updated its Master Plan and Land Use Element Plan in 2012. This update incorporated the requirements of the Smart, Green and Growing legislative package adopted by the Maryland General Assembly in 2009. The County's Water and Sewer Master Plan was updated in the spring and fall of 2014 as required.

During 2014, the Department of Public Works initiated work on the update of the Solid Waste Management Plan. It is anticipated that this document will be introduced as legislation in 2015.

In addition, an annual Implementation Report was prepared for the Land Use Element Plan and all other element plans under the purview of the Department of Planning and Zoning. This report details the percentage of strategies addressed and legislation and other initiatives undertaken to achieve the goals outlined in the plans. It also identifies any issues that impact the implementation of plan strategies. This report is presented to the Planning Advisory Board and the County Council. This report, combined with the Annual Growth Report, addresses the requirements of HB 409 and SB 671.

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, and Road Intersections.

This report also addresses State reporting requirements for Adequate Public Facilities Ordinances (APFO) including reporting requirements for roads, transportation facilities and schools as they relate to development patterns. Since July 1, 2010, local jurisdictions have been required to submit an APFO report to the Maryland Department of Planning with future reports being due every two years thereafter. In the report, Harford County must identify any restrictions that occur within a PFA as a result of APFO 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 are aggregated by the elementary/middle/high school districts, and include school enrollments, County-rated capacities for each school facility, utilization of each school facility, and three-year projected school enrollments (See Tables 6, 7, and 8). Modified school enrollment projections are included and take into account planned units remaining and projected units from vacant residential zoned land (See Tables 9 and 10). In addition, development information such as building permits issued by dwelling type (See Tables 11, 12, and 13) and population and household estimates (See Tables 14, 15, and 16) are included in this report. School maps and pupil yield factors by dwelling unit type are included in Appendices C and E, respectively.

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 provision of the County Code (Section 267-126), the level of service standard for Public Schools are:

Elementary – 110 percent of rated capacity within 3 years
Secondary – 110 percent of rated capacity within 3 years

Elementary Schools

Under current law, preliminary plans for subdivisions of greater than five lots cannot be approved in elementary school districts where the full-time enrollment currently exceeds, or is projected to exceed, 110 percent of the capacity within three years. Currently, all 33 elementary schools meet adequacy standards.

Secondary Schools

Under current law, preliminary plans for subdivisions of greater than five lots cannot be approved in secondary school districts where the full-time enrollment currently exceeds, or is projected to exceed, 110 percent of the capacity within three years. Currently, all 17 middle and high schools meet adequacy standards.

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:

1. Births in a given year which affect subsequent kindergarten and first grade enrollments.
2. Net migration of school age children.
3. Net transfer of children between public and private schools.
4. Non-promotion of children to the next grade level.
5. Dropouts in the later years of secondary school.
6. 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.

In order to ensure accurate projections, development monitoring is a key activity 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 factors are determined by researching the number of students from a particular community/subdivision based on the attendance area where the students reside. By dividing the number of students accounted for by the number of dwelling units, a pupil generation factor is determined. It is important to note that different pupil yield factors are generated depending on housing type (single family, townhouse, apartment, etc.) and school level (elementary, middle, and high). Surveys of sample subdivisions to assess an accurate yield factor are completed on a regular basis. (See Appendix E)

Modified School Enrollment Methodology

Utilizing our regional cooperative forecast methodology, a projection of housing units was determined for each school district. It is imperative to note that these projections are constrained by Countywide estimates. 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.

Table 6
Harford County Elementary Schools
Utilization Chart
2015

Elementary School	State-Rated Capacity	Actual 2015 - 2016 ENROLL	Actual 2015 - 2016 % UTIL.	Projected 2016 - 2017 ENROLL	Projected 2016 - 2017 % UTIL.	Projected 2017 - 2018 ENROLL	Projected 2017 - 2018 % UTIL.	Projected 2018 - 2019 ENROLL	Projected 2018 - 2019 % UTIL.
Abingdon	864	809	94%	812	94%	816	94%	819	95%
Bakerfield	500	415	83%	409	82%	402	80%	396	79%
Bel Air	500	477	95%	472	94%	468	94%	464	93%
Church Creek	793	800	101%	782	99%	761	96%	725	91%
Churchville	388	373	96%	375	97%	376	97%	378	97%
Darlington	157	122	78%	122	78%	122	78%	122	78%
Deerfield	816	799	98%	801	98%	803	98%	805	99%
Dublin	295	266	90%	270	92%	273	93%	277	94%
Edgewood	511	390	76%	391	77%	391	77%	392	77%
Emmorton	549	550	100%	538	98%	526	96%	514	94%
Forest Hill	581	474	82%	463	80%	452	78%	441	76%
Forest Lakes	546	460	84%	439	80%	418	77%	399	73%
Fountain Green	571	492	86%	473	83%	455	80%	438	77%
G. Lisby at Hillsdale	455	437	96%	446	98%	443	97%	441	97%
Hall's Cross Roads	562	519	92%	524	93%	515	92%	502	89%
Havre de Grace	566	450	80%	459	81%	469	83%	478	84%
Hickory	655	677	103%	674	103%	672	103%	669	102%
Homestead/Wakefield	907	949	105%	956	105%	963	106%	970	107%
Jarrettsville	548	441	80%	445	81%	450	82%	454	83%
Joppatowne	653	558	85%	561	86%	564	86%	567	87%
Magnolia	518	499	96%	498	96%	497	96%	496	96%
Meadowvale	568	524	92%	521	92%	519	91%	516	91%
Norrisville	252	183	73%	182	72%	181	72%	181	72%
North Bend	500	324	65%	314	63%	305	61%	296	59%
North Harford	500	405	81%	397	79%	389	78%	381	76%
Prospect Mill	680	587	86%	551	81%	518	76%	486	71%
Red Pump	696	675	97%	677	97%	679	98%	681	98%
Ring Factory	548	538	98%	544	99%	550	100%	556	101%
Riverside	522	458	88%	452	87%	446	85%	441	84%
Roye-Williams	683	551	81%	566	83%	572	84%	573	84%
Wm. Paca / Old Post Rd.	954	836	88%	819	86%	802	84%	785	82%
Wm. S. James	522	423	81%	415	80%	408	78%	401	77%
Youth's Benefit	958	997	104%	987	103%	977	102%	967	101%
TOTAL	19,318	17,458	90%	17,335	90%	17,181	89%	17,009	88%

Source: Harford County Public Schools & Dept. of Planning and Zoning, November 2015.

Table 7

Harford County Middle Schools

Utilization Chart

2015

Middle School	State-Rated Capacity	Actual 2015 - 2016 ENROLL	Actual 2015 - 2016 %UTIL	Projected 2016 - 2017 ENROLL	Projected 2016 - 2017 %UTIL	Projected 2017 - 2018 ENROLL	Projected 2017 - 2018 %UTIL	Projected 2018 - 2019 ENROLL	Projected 2018 - 2019 %UTIL
Aberdeen	1,444	1,183	82%	1,193	83%	1,204	83%	1,214	84%
Bel Air	1,318	1,257	95%	1,258	95%	1,260	96%	1,261	96%
Edgewood	1,370	1,062	78%	1,068	78%	1,073	78%	1,079	79%
Fallston	1,105	879	80%	876	79%	873	79%	869	79%
Havre de Grace	775	566	73%	561	72%	559	72%	549	71%
Magnolia	1,073	760	71%	759	71%	762	71%	740	69%
North Harford	1,243	966	78%	976	79%	965	78%	981	79%
Patterson Mill	711	699	98%	708	100%	712	100%	702	99%
Southampton	1,540	1,251	81%	1,245	81%	1,240	80%	1,234	80%
Total	10,579	8,623	82%	8,644	82%	8,647	82%	8,629	82%

Source: Harford County Public Schools & Dept. of Planning and Zoning, November 2015.

Table 8

Harford County High Schools

Utilization Chart

2015

High School	State-Rated Capacity	Actual 2015 - 2016 ENROLL	Actual 2015 - 2016 %UTIL	Projected 2016 - 2017 ENROLL	Projected 2016 - 2017 %UTIL	Projected 2017 - 2018 ENROLL	Projected 2017 - 2018 %UTIL	Projected 2018 - 2019 ENROLL	Projected 2018 - 2019 %UTIL
Aberdeen	1,679	1,452	86%	1,451	86%	1,450	86%	1,448	86%
Bel Air	1,668	1,581	95%	1,585	95%	1,594	96%	1,592	95%
C. Milton Wright	1,678	1,447	86%	1,429	85%	1,410	84%	1,393	83%
Edgewood	1,743	1,311	75%	1,341	77%	1,371	79%	1,402	80%
Fallston	1,529	1,057	69%	1,048	69%	1,039	68%	1,035	68%
Harford Technical	920	1,018	111%	1,015	110%	1,012	110%	1,009	110%
Havre de Grace	850	605	71%	603	71%	613	72%	610	72%
Joppatowne	1,126	666	59%	675	60%	696	62%	709	63%
North Harford	1,603	1,219	76%	1,234	77%	1,274	79%	1,287	80%
Patterson Mill	924	833	90%	849	92%	858	93%	866	94%
Total	13,720	11,189	82%	11,229	82%	11,317	82%	11,351	83%

Source: Harford County Public Schools & Dept. of Planning and Zoning, November, 2015.

Table 9

Harford County
Modified Elementary School Enrollment Projections

School District	2014	2015	2016	2017	2018	2019	2020	2021
ABINGDON	845	842	838	826	821	820	818	817
modified	**845**	**842**	**841**	**832**	**830**	**832**	**833**	**882**
BAKERSFIELD	429	423	419	412	412	411	410	410
modified	**429**	**423**	**431**	**436**	**449**	**461**	**474**	**409**
BEL AIR	496	486	480	469	451	440	438	435
modified	**496**	**486**	**486**	**481**	**469**	**464**	**468**	**484**
CHURCH CREEK	786	763	759	755	752	747	746	745
modified	**786**	**763**	**788**	**814**	**842**	**870**	**902**	**745**
CHURCHVILLE	382	367	361	358	347	346	344	341
modified	**382**	**367**	**366**	**368**	**362**	**366**	**370**	**395**
DARLINGTON	133	129	123	120	119	120	119	118
modified	**133**	**129**	**125**	**124**	**125**	**128**	**129**	**115**
DEERFIELD	787	771	763	756	749	741	738	735
modified	**787**	**771**	**781**	**793**	**804**	**815**	**832**	**793**
DUBLIN	288	272	268	261	258	252	251	250
modified	**288**	**272**	**271**	**267**	**267**	**264**	**266**	**299**
EDGEWOOD	447	433	425	418	411	408	407	406
modified	**447**	**433**	**426**	**420**	**414**	**412**	**412**	**426**
EMMORTON	547	531	522	517	512	510	508	507
modified	**547**	**531**	**533**	**539**	**546**	**555**	**565**	**505**
FOREST HILL	470	467	466	464	463	462	462	462
modified	**470**	**467**	**468**	**468**	**469**	**470**	**472**	**507**
FOREST LAKES	462	442	434	428	427	425	424	422
modified	**462**	**442**	**435**	**430**	**430**	**429**	**429**	**483**
FOUNTAIN GREEN	477	460	451	446	436	429	428	428
modified	**477**	**460**	**452**	**448**	**439**	**433**	**433**	**513**
G. LISBY AT HILLSDALE	408	407	401	397	396	396	394	393
modified	**408**	**407**	**403**	**401**	**402**	**404**	**404**	**434**
HALLS CROSS ROADS	491	484	483	479	474	471	470	468
modified	**491**	**484**	**487**	**487**	**486**	**487**	**490**	**463**
HAVRE DE GRACE	431	424	420	418	416	413	413	412
modified	**431**	**424**	**446**	**472**	**499**	**527**	**560**	**421**
HICKORY	706	690	689	686	680	679	671	669
modified	**706**	**690**	**704**	**716**	**726**	**741**	**749**	**681**
HOMESTEAD/WAKEFIELD	938	924	914	901	886	875	869	860
modified	**938**	**924**	**932**	**938**	**941**	**949**	**962**	**897**
JARRETTSVILLE	452	449	448	441	440	439	438	438
modified	**452**	**449**	**455**	**455**	**461**	**468**	**474**	**480**
JOPPATOWNE	573	561	559	555	554	552	551	549
modified	**573**	**561**	**569**	**575**	**585**	**593**	**603**	**629**
MAGNOLIA	476	468	466	458	454	452	450	450
modified	**476**	**468**	**472**	**470**	**472**	**476**	**481**	**470**
MEADOWVALE	522	520	519	515	511	504	503	502
modified	**522**	**520**	**523**	**523**	**523**	**520**	**523**	**535**
NORRISVILLE	185	182	179	177	177	177	176	176
modified	**185**	**182**	**182**	**183**	**186**	**189**	**192**	**186**
NORTH BEND	338	333	324	320	319	316	315	315
modified	**338**	**333**	**329**	**330**	**334**	**337**	**341**	**378**
NORTH HARFORD	407	399	395	387	371	365	363	362
modified	**407**	**399**	**402**	**401**	**392**	**393**	**399**	**432**
PROSPECT MILL	580	575	571	565	563	555	549	548
modified	**580**	**575**	**575**	**573**	**575**	**571**	**569**	**612**
RED PUMP	**676**	**670**	**664**	**659**	**657**	**650**	**648**	**646**
modified	**676**	**670**	**676**	**683**	**694**	**699**	**710**	**669**
RING FACTORY	546	537	533	529	524	523	522	518
modified	**546**	**537**	**540**	**543**	**545**	**552**	**558**	**549**
RIVERSIDE	477	470	464	463	459	458	451	447
modified	**477**	**470**	**469**	**473**	**474**	**478**	**476**	**505**
ROYE-WILLIAMS	533	529	522	518	517	516	515	513
modified	**533**	**529**	**522**	**518**	**517**	**516**	**515**	**474**
WM PACA/OLD POST RD	827	821	819	816	812	810	809	808
modified	**827**	**821**	**838**	**854**	**870**	**889**	**908**	**766**
W.S. JAMES	403	392	383	378	376	370	368	367
modified	**403**	**392**	**384**	**380**	**379**	**374**	**373**	**451**
YOUTHS BENEFIT	990	984	968	944	940	938	937	936
modified	**990**	**984**	**981**	**970**	**980**	**991**	**1,004**	**973**
Total	17,508	17,205	17,030	16,836	16,684	16,570	16,505	16,453
Total - modified	**17,508**	**17,205**	**17,294**	**17,369**	**17,490**	**17,654**	**17,876**	**17,561**

Source: Harford County Dept. of Planning and Zoning, May 2015.

Table 10

Harford County
Modified Secondary School Enrollment Projections

Middle School

School District	2014	2015	2016	2017	2018	2019	2020	2021
Aberdeen	1,108	1,143	1,127	1,102	1,114	1,120	1,122	1,117
modified	**1,108**	**1,143**	**1,148**	**1,192**	**1,230**	**1,265**	**1,302**	**1,331**
Bel Air	1,251	1,262	1,268	1,268	1,263	1,260	1,264	1,265
modified	**1,251**	**1,262**	**1,282**	**1,296**	**1,305**	**1,317**	**1,335**	**1,351**
Edgewood	1,066	1,085	1,052	1,067	1,070	1,066	1,067	1,064
modified	**1,066**	**1,085**	**1,074**	**1,112**	**1,138**	**1,157**	**1,182**	**1,203**
Fallston	856	885	870	876	875	873	875	874
modified	**856**	**885**	**880**	**896**	**905**	**914**	**926**	**936**
Havre de Grace	544	541	550	544	549	550	548	548
modified	**544**	**541**	**565**	**574**	**595**	**613**	**627**	**644**
Magnolia	756	754	737	726	735	740	739	736
modified	**756**	**754**	**745**	**742**	**760**	**773**	**780**	**786**
North Harford	958	982	988	978	978	978	981	981
modified	**958**	**982**	**1,002**	**1,006**	**1,021**	**1,035**	**1,053**	**1,068**
Patterson Mill	**665**	**672**	**678**	**681**	**676**	**673**	**675**	676
modified	**665**	**672**	**685**	**695**	**697**	**701**	**711**	**719**
Southampton	1,213	1,212	1,192	1,221	1,215	1,208	1,209	1,209
modified	**1,213**	**1,212**	**1,203**	**1,243**	**1,248**	**1,252**	**1,265**	**1,276**
Total	8,417	8,536	8,462	8,463	8,475	8,469	8,480	8,471
Total - modified	**8,417**	**8,536**	**8,585**	**8,757**	**8,900**	**9,028**	**9,182**	**9,315**

High School

School District	2014	2015	2016	2017	2018	2019	2020	2021
Aberdeen	1,444	1,422	1,428	1,429	1,408	1,422	1,421	1,422
modified	**1,444**	**1,422**	**1,467**	**1,508**	**1,528**	**1,585**	**1,627**	**1,673**
Bel Air	1,670	1,620	1,631	1,625	1,618	1,630	1,625	1,627
modified	**1,670**	**1,620**	**1,648**	**1,659**	**1,669**	**1,699**	**1,712**	**1,732**
C. Milton Wright	1,425	1,429	1,415	1,436	1,410	1,422	1,419	1,420
modified	**1,425**	**1,429**	**1,428**	**1,462**	**1,449**	**1,475**	**1,485**	**1,500**
Edgewood	1,322	1,312	1,288	1,328	1,299	1,322	1,320	1,318
modified	**1,322**	**1,312**	**1,314**	**1,381**	**1,379**	**1,430**	**1,456**	**1,483**
Fallston	1,076	1,081	1,083	1,070	1,067	1,076	1,075	1,074
modified	**1,076**	**1,081**	**1,095**	**1,094**	**1,103**	**1,125**	**1,136**	**1,148**
Havre de Grace	582	577	566	581	574	576	575	574
modified	**582**	**577**	**584**	**618**	**630**	**652**	**671**	**691**
Joppatowne	696	695	684	688	696	690	689	688
modified	**696**	**695**	**694**	**708**	**727**	**731**	**741**	**750**
North Harford	1,298	1,248	1,266	1,288	1,287	1,290	1,284	1,285
modified	**1,298**	**1,248**	**1,283**	**1,322**	**1,338**	**1,359**	**1,371**	**1,390**
Patterson Mill	871	850	856	855	861	859	855	857
modified	**871**	**850**	**865**	**873**	**888**	**896**	**901**	**912**
Total	10,384	10,234	10,218	10,299	10,219	10,287	10,262	10,264
Total - modified	**10,384**	**10,234**	**10,379**	**10,626**	**10,711**	**10,951**	**11,100**	**11,279**

Source: Harford County Dept. of Planning and Zoning, May, 2015.

Table 11

Harford County Residential Building Permit Activity

by Elementary School District

2010 - 2014

	2010					2011					2012					2013					2014				
	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				
SCHOOL	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	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	32	208	0	243
Bakerfield	3	4	0	0	7	14	0	0	0	14	28	0	0	0	28	16	0	96	0	112	10	2	72	0	84
Bel Air	1	12	0	0	13	1	24	0	0	25	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
Church Creek	0	51	0	0	51	2	12	212	0	226	0	6	0	0	6	0	19	188	0	207	0	28	0	0	28
Churchville	5	0	0	1	6	4	0	0	0	4	4	0	0	0	4	2	0	0	2	4	3	0	0	0	3
Darlington	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	2	0	0	0	2
Deerfield	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dublin	2	0	0	1	3	5	0	0	1	6	12	0	0	1	13	4	0	0	0	4	6	0	0	1	7
Edgewood	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emmorton	2	94	0	0	96	1	36	12	0	49	0	36	24	0	60	0	29	0	0	29	2	18	0	0	20
Forest Hill	2	0	0	0	2	2	0	0	0	2	4	0	0	1	5	1	0	0	0	1	4	0	0	0	4
Forest Lakes	2	0	0	0	2	2	0	0	0	2	5	0	0	0	5	2	0	0	0	2	1	0	0	0	1
Fountain Green	0	0	0	0	0	4	0	0	0	4	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
G. Lisby at Hillsdale	2	18	0	0	20	20	23	0	0	43	17	33	0	0	50	17	30	0	0	47	26	35	0	0	61
Hall's Cross Roads	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	36	0	0	36
Havre de Grace	71	50	0	0	121	31	39	0	0	70	33	36	0	0	69	31	0	0	0	31	37	11	0	0	48
Hickory	15	0	0	0	15	2	0	0	0	2	29	27	21	0	77	42	13	0	0	55	19	15	0	0	34
Homestead/Wakefield	15	0	0	0	15	35	10	0	0	45	34	0	0	0	34	28	6	0	0	34	11	3	0	0	14
Jarrettsville	10	0	0	0	10	5	0	0	0	5	17	0	0	0	17	6	0	0	0	6	4	0	0	0	4
Joppatowne	6	0	0	0	6	5	0	0	0	5	2	0	0	0	2	4	0	0	0	4	1	0	0	0	1
Magnolia	2	22	0	0	24	1	20	0	0	21	1	37	0	0	38	2	23	0	0	25	10	25	0	0	35
Meadowvale	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	4	0	0	0	4	2	0	0	0	2
Norrisville	2	0	0	0	2	3	0	0	0	3	6	0	0	2	8	9	0	0	0	9	3	0	0	0	3
North Bend	10	0	0	1	11	4	0	0	0	4	22	0	0	1	23	8	0	0	0	8	4	0	0	1	5
North Harford	12	0	0	0	12	11	0	0	1	12	8	0	0	0	8	9	0	0	1	10	7	0	0	0	7
Prospect Mill	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	3	0	0	0	3
Red Pump	6	28	28	0	62	16	0	14	0	30	19	0	0	0	19	53	0	0	0	53	23	0	0	0	23
Ring Factory	3	0	0	0	3	5	0	0	0	5	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1
Riverside	20	0	0	0	20	17	0	0	0	17	8	0	0	0	8	0	0	0	0	0	1	0	0	0	1
Roye-Williams	0	0	0	1	1	5	0	0	4	9	7	0	0	0	7	11	0	0	0	11	14	0	0	0	14
Wm. Paca/Old Post Rd	10	0	0	0	10	23	10	0	0	33	16	6	0	0	22	23	0	0	0	23	4	0	0	0	4
Wm. S. James	1	3	0	0	4	1	10	0	0	11	1	7	0	0	8	0	0	0	0	0	1	0	0	0	1
Youth's Benefit	12	5	0	0	17	11	13	0	0	24	15	23	1	0	39	12	38	0	0	50	17	34	0	0	51
TOTAL	218	295	28	4	545	232	197	238	6	673	295	233	46	5	579	288	158	284	3	733	219	239	280	2	740

* Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2015.

Table 12

Harford County Residential Building Permit Activity

by Middle School District

2010 - 2014

	2010					2011					2012					2013					2014				
	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				
SCHOOL	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	5	88	0	1	94	41	51	212	4	308	52	78	0	0	130	45	49	284	0	378	50	101	72	0	223
Bel Air	26	134	28	0	188	27	63	26	0	116	59	36	45	0	140	105	29	0	0	134	44	18	0	0	62
Edgewood	13	8	0	0	21	23	10	0	0	33	17	6	0	0	23	22	0	0	0	22	5	32	208	0	245
Fallston	21	5	0	0	26	30	13	0	0	43	34	23	1	1	59	19	38	0	0	57	18	34	0	0	52
Havre de Grace	75	35	0	0	110	33	23	0	0	56	37	19	0	0	56	36	0	0	1	37	41	11	0	0	52
Magnolia	28	22	0	0	50	20	20	0	0	40	9	37	0	0	46	3	23	0	0	26	12	25	0	0	37
North Harford	33	0	0	1	34	27	0	0	2	29	59	0	0	3	62	34	0	0	1	35	25	0	0	1	26
Patterson Mill	14	3	0	0	17	22	17	0	0	39	19	7	0	0	26	17	6	0	0	23	10	3	0	0	13
Southampton	3	0	0	2	5	9	0	0	0	9	9	27	0	1	37	7	13	0	1	21	14	15	0	1	30
TOTAL	218	295	28	4	545	232	197	238	6	673	295	233	46	5	579	288	158	284	3	733	219	239	280	2	740

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2015.

KEY:

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

Table 13

Harford County Residential Building Permit Activity

by High School District

2010-2014

	2010					2011					2012					2013					2014				
	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				
SCHOOL	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	5	88	0	1	94	41	51	212	4	308	52	78	0	0	130	45	49	284	0	378	50	101	72	0	223
Bel Air	26	134	28	0	188	27	63	26	0	116	59	36	45	0	140	105	29	0	0	134	44	18	0	0	62
C.M. Wright	3	0	0	2	5	9	0	0	0	9	9	27	0	1	37	7	13	0	1	21	14	15	0	1	30
Edgewood	13	8	0	0	21	23	10	0	0	33	17	6	0	0	23	22	0	0	0	22	5	32	208	0	245
Fallston	21	5	0	0	26	30	13	0	0	43	34	23	1	1	59	19	38	0	0	57	18	34	0	0	52
Havre de Grace	75	35	0	0	110	33	23	0	0	56	37	19	0	0	56	36	0	0	1	37	41	11	0	0	52
Joppatowne	28	22	0	0	50	20	20	0	0	40	9	37	0	0	46	3	23	0	0	26	12	25	0	0	37
North Harford	33	0	0	1	34	27	0	0	2	29	59	0	0	3	62	34	0	0	1	35	25	0	0	1	26
Patterson Mill	14	3	0	0	17	22	17	0	0	39	19	7	0	0	26	17	6	0	0	23	10	3	0	0	13
TOTAL	218	295	28	4	545	232	197	238	6	673	295	233	46	5	579	288	158	284	3	733	219	239	280	2	740

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2015.

KEY:

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

Table 14
Harford County Population and Households
by Elementary School District*

2010 - 2014

SCHOOL	2010*		2011*		2012*		2013*		2014*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Abingdon	4,781	11,593	4,781	12,933	4,781	12,906	4,782	12,875	4,782	12,841
Bakerfield	2,274	5,581	2,281	6,170	2,294	6,193	2,321	6,249	2,428	6,521
Bel Air	3,013	7,731	3,025	8,184	3,049	8,231	3,049	8,210	3,051	8,193
Church Creek	3,538	9,248	3,587	9,703	3,802	10,263	3,808	10,252	4,007	10,759
Churchville	2,463	6,808	2,469	6,678	2,473	6,675	2,476	6,667	2,480	6,660
Darlington	1,007	2,646	1,007	2,724	1,009	2,724	1,009	2,716	1,010	2,712
Deerfield	3,263	9,506	3,265	8,832	3,265	8,814	3,265	8,791	3,265	8,767
Dublin	1,658	4,490	1,661	4,493	1,667	4,499	1,679	4,521	1,683	4,519
Edgewood	1,248	3,523	1,256	3,397	1,256	3,390	1,256	3,381	1,256	3,372
Emmorton	2,274	6,159	2,366	6,400	2,412	6,512	2,470	6,650	2,498	6,707
Forest Hill	2,409	7,004	2,411	6,522	2,413	6,513	2,418	6,509	2,419	6,494
Forest Lakes	2,837	7,785	2,839	7,680	2,841	7,669	2,846	7,662	2,848	7,646
Fountain Green	1,892	5,742	1,892	5,118	1,896	5,118	1,899	5,112	1,899	5,098
G. Lisby at Hillsdale	2,264	5,693	2,283	6,176	2,329	6,287	2,377	6,399	2,422	6,503
Hall's Cross Roads	1,951	5,350	1,951	5,278	1,951	5,267	1,972	5,310	1,972	5,295
Havre de Grace	3,388	7,890	3,504	9,478	3,572	9,643	3,638	9,796	3,668	9,850
Hickory	2,761	7,994	2,775	7,508	2,777	7,497	2,851	7,676	2,904	7,798
Homestead/Wakefield	5,287	14,411	5,301	14,341	5,344	14,427	5,377	14,476	5,409	14,526
Jarrettsville	2,738	7,730	2,748	7,432	2,752	7,430	2,769	7,454	2,774	7,450
Joppatowne	3,843	9,801	3,849	10,411	3,853	10,403	3,855	10,380	3,859	10,363
Magnolia	1,639	4,670	1,662	4,496	1,682	4,540	1,726	4,647	1,750	4,699
Meadowvale	2,622	6,963	2,624	7,098	2,625	7,086	2,625	7,067	2,629	7,059
Norrisville	1,258	3,496	1,260	3,408	1,263	3,409	1,270	3,421	1,279	3,435
North Bend	2,226	6,214	2,237	6,050	2,240	6,048	2,262	6,091	2,270	6,096
North Harford	2,316	6,599	2,327	6,296	2,339	6,314	2,347	6,318	2,356	6,327
Prospect Mill	2,858	7,418	2,858	7,731	2,858	7,715	2,860	7,700	2,861	7,682
Red Pump	3,776	10,127	3,835	10,375	3,864	10,430	3,882	10,452	3,933	10,561
Ring Factory	2,712	7,349	2,715	7,344	2,720	7,342	2,721	7,325	2,721	7,305
Riverside	2,454	6,532	2,473	6,690	2,489	6,720	2,497	6,723	2,497	6,705
Roye-Williams	1,844	5,901	1,845	4,991	1,854	5,004	1,860	5,009	1,871	5,024
Wm. Paca/Old Post Rd	4,528	12,516	4,538	12,275	4,569	12,334	4,590	12,358	4,612	12,385
Wm. S. James	1,950	5,712	1,954	5,285	1,964	5,303	1,973	5,312	1,973	5,298
Youth's Benefit	5,146	14,644	5,162	13,965	5,185	13,997	5,222	14,061	5,271	14,153
TOTAL	90,218	244,826	90,739	245,460	91,387	246,700	91,951	247,570	92,655	248,800

* 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 2015.

Table 15
Harford County Population and Households
by Middle School District

2010 - 2014

SCHOOL	2010*		2011*		2012*		2013*		2014*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	12,456	33,298	12,546	33,938	12,844	34,671	12,968	34,916	13,331	35,798
Bel Air	13,594	35,055	13,774	37,259	13,884	37,480	14,018	37,743	14,147	37,988
Edgewood	13,809	37,068	13,829	37,408	13,860	37,415	13,882	37,376	13,903	37,333
Fallston	8,826	25,102	8,851	23,943	8,892	24,004	8,948	24,093	9,003	24,176
Havre de Grace	7,271	18,129	7,376	19,954	7,433	20,064	7,486	20,156	7,522	20,198
Magnolia	7,827	21,071	7,875	21,303	7,913	21,361	7,965	21,444	7,990	21,454
North Harford	10,313	29,368	10,346	27,987	10,373	28,003	10,433	28,090	10,466	28,105
Patterson Mill	6,170	17,460	6,187	16,736	6,224	16,801	6,250	16,828	6,272	16,841
Southampton	9,952	28,275	9,956	26,933	9,965	26,901	10,000	26,925	10,021	26,908
TOTAL	90,218	244,826	90,739	245,460	91,387	246,700	91,951	247,570	92,655	248,800

* 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 2015.

Table 16
Harford County Population and Households
by High School District

2010 - 2014

SCHOOL	2010*		2011*		2012*		2013*		2014*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	12,456	33,298	12,546	33,938	12,844	34,671	12,968	34,916	13,331	35,798
Bel Air	13,594	35,055	13,774	37,259	13,884	37,480	14,018	37,743	14,147	37,988
C. Milton Wright	9,952	28,275	9,956	26,933	9,965	26,901	10,000	26,925	10,021	26,908
Edgewood	13,809	37,068	13,829	37,408	13,860	37,415	13,882	37,376	13,903	37,333
Fallston	8,826	25,102	8,851	23,943	8,892	24,004	8,948	24,093	9,003	24,176
Havre de Grace	7,271	18,129	7,376	19,954	7,433	20,064	7,486	20,156	7,522	20,198
Joppatowne	7,827	21,071	7,875	21,303	7,913	21,361	7,965	21,444	7,990	21,454
North Harford	10,313	29,368	10,346	27,987	10,373	28,003	10,433	28,090	10,466	28,105
Patterson Mill	6,170	17,460	6,187	16,736	6,224	16,801	6,250	16,828	6,272	16,841
TOTAL	90,218	244,826	90,739	245,460	91,387	246,700	91,951	247,570	92,655	248,800

* 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 2015.

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 essentially reflects the Development Envelope as defined in the 2012 Harford County Land Use Element Plan. 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 (See Tables 17-20). This information is extracted from the "2014 Water and Sewer Adequate Public Facilities Report," and is consistent with the County's Water Resources Element Plan.

Water and Sewer Facility Projection Methodology

Water:

The Harford County water service area is divided into four pressure zones because of 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 County water system's average daily usage in 2014 was 13.1 MGD (Million Gallons Per Day), with a peak day demand of 15.4 MGD. With the completion of the Abingdon Water Treatment Plant (AWTP) in May of 2012, the total countywide permitted maximum daily water treatment capacity is approximately 30.4 MGD. The County has a maximum day drought demand of 19.75 MGD. Currently it is estimated that there is a need for 5.0 MGD for approved preliminary plans. With the further expansion of the AWTP to 25 MGD the County's water service area is adequately planned for. 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.

There are 13 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:

1) Maryland-American Water Co.
2) Campus Hills Water Works Inc.
3) Clear View Court Mobile Home Park
4) Darlington
5) Darlington Mobile Estates
6) Fountain Green Mobile Home Park
7) Greenridge Utilities Inc.
8) Hart Heritage
9) Lakeside Vista
10) Queens Castle Mobile Home Park
11) R & R Estates Mobile Home Park

12) Swan Harbor Mobile Home Park
13) Williams Mobile Home Park

In October, 2014, Harford County, the Town of Bel Air, and The Maryland-American Water Company (MAWC) agreed to the First Amendment of the Water Service 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 stopped approving building permits within MAWC's service area. Through this amendment, Harford County may provide an additional 40,000 gallons per day (GPD) to MAWC through the existing West MacPhail Road metering station, which could allow for up to 114 equivalent dwelling units (EDUs) to be developed within MAWC's service area. This amendment is in effect until 2018. It is only meant to provide MAWC time to construct the ultimate solution of an impoundment to provide a safe and reliable water supply, sufficient for the entire approved service area.

Sewerage:

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 "2014 Water and Sewer Adequate Public Facilities Report."

The average daily influent flow to the Sod Run WWTP in 2014 was approximately 12.8 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 2014 was approximately 0.83 MGD. The average daily influent flow for Spring Meadows in 2014 was 0.008 MGD. 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 2025. 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. 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 sewage pumping stations that do not have any additional reserve capacity and that may impact future development in the vicinity of these pumping stations. These pumping stations include:

- Brentwood Park Sewage Pumping Station (S.P.S.)
- Dembytowne/Hanson Road Petition S.P.S. (2)
- Forest Greens S.P.S.
- Harford Square S.P.S.

The non-inclusive listings of the sewage pumping stations above have no available capacity. This listing does not preclude the possibility of finding adequate capacity in other sewage pumping stations should a development request approval, for more flow capacity than that available, before programmed improvements are completed. It is imperative to note that mechanisms exist to cure such APFO problem areas. Such remedies may include an upgrade to the pumping station by a development entity or by development of a recoupment\surcharge policy which specifies design, construction, and financial responsibilities.

There are sanitary sewers within the Bynum Ridge subdivision that do not have adequate capacity as defined by the APFO. This will affect development in the Bynum Run Collector Sewer drainage area north of Bynum Ridge Road. The Division of Water and Sewer has implemented a policy for a project to handle the increase in capacity that is needed in this area. Until improvements are made, new building permits, preliminary and site plans which utilize this sewer may not be approved.

Table 17
JANUARY - DECEMBER 2014
WATER CONSUMPTION & SEWAGE GENERATIONS

This table reflects the total number of water and sewer customers and the water consumption and sewage generations for residential and commercial/industrial users.

	2014
Total Number of Connections*	42,950
WATER	
Total Number of Connections**	40,928
Average Water Production	13.1 MGD
Maximum Day Water Production	15.4 MGD
Average Water Usage per Connection (gal/day)	337
Residential Unit Water Usage (gal/day)	151
Average Commercial/Industrial Water Usage (gal/day)	5,483
SEWAGE	
Total Number of Sewer Connections***	41,173
Average Sewage Flows	13.2 MGD
Maximum Day Sewage Flows	30.6 MGD
Average Sewage per Connection (gal/day)	320
Residential Sewage Generation (gal/day)	151
Average Commercial/Industrial Sewage Generation (gal/day)	5,483

- MGD = Million Gallons per Day

Notes: * Includes Water/Sewer service, Water service only, and Sewer service only
** Includes Water/Sewer service and Water service only
*** Includes Water/Sewer service and Sewer service only

Source: 2014 Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer.

Table 18

HARFORD COUNTY SYSTEM WATER PRODUCTION PROJECTIONS

SYSTEM WIDE RESIDENTIAL/ COMMERCIAL INDUSTRIAL	YEAR																								
WATER DEMAND	**1993**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2020**	**2025**	**2030**	**2035**
First Zone																										
Avg. Day, mgd	3.2	4.1	4.05	4.5	4.5	4.6	3.5	5.1	5.7	3.6	3.8	4.2	3.6	4.2	5.3	5.3	5.7	5.8	6.5	6.0	6.1	7.6	8.9	9.5	10.5	11.5
Max. Day, mgd	4.6	6	4.8	6.5	6.6	6.5	4.6	9.1	7.8	4.7	4.8	5.9	4.9	5.8	6.9	7.26	9.1	9.3	8.4	7.4	6.7	11.7	11.7	13.1	14.1	14.9
Total of Second, Third and Fourth Zones																										
Avg. Day, mgd	3.5	3.8	4.5	5	5	5.7	5.9	6.4	5.8	7.5	7.5	7.7	8.0	7.8	6.8	6.0	6.0	5.8	6.0	6.1	6.1	7.3	8	9	9.6	10.1
Max. Day, mgd	3.9	5.6	5.9	6.8	6.9	7.3	6.9	7.1	8.1	8.2	8.2	8.5	9.1	8.8	7.5	6.8	8.0	6.2	7.7	7.4	7.8	10.2	12.5	13.3	14.5	15.8
Aberdeen																										
Avg. Day, mgd	0	0.5	0.05	0.03	0.01	0.3	0.26	0.26	0.47	0.5	0.21	0.2	0.2	0.5	0.2	0.2	0.4	0.3	0.3	0.3	0.66	0.6	0.6	0.6	0.6	0.6
* Max. Day, mgd	0	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.54	0.6*	0.6*	0.9*	0.9*	0.72	0.9*	0.9	0.9	0.9	0.9
Chapel Hill																										
Avg. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.15	0.20	0.2	0.0	0.0	0.0	0.0
* Max. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	1.5*	1.5*	1.0 A	1.5*	1.5*	1.5*	1.5*	1.7*	1.7*	0.2	1.7*	0.0	0.0	0.0	0.0
Edgewood - APG																										
Avg. Day, mgd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.0	1.0	1.0	1.0
Max. Day, mgd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.5	1.5	1.5	1.5
Maryland-American Water Co.																										
Avg. Day, mgd	0	0	0	0.07	0.01	0.01	0.19	0.01	0.16	0.001	0.02	0.03	0.03	0.4 A	0.01	0.03	0.0	0.0	0.0	0.01	0.01	0.3	0.35	0.35	0.35	0.35
* Max. Day, mgd	0	0	0	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.01	0.5*	0.5	0.5	0.5	0.5
Total																										
Avg. Day, mgd	6.7	8.4	8.6	9.6	9.5	10.6	9.9	11.8	12.1	11.6	11.6	12.1	11.8	12.9	12.3	11.5	12.1	12.1	13.0	12.6	13.1	16.0	18.8	20.5	22.0	23.6
Max. Day, mgd	8.5	12.1	11.2	14.3	14.5	14.8	12.5	17.2	16.9	14.9	14.0	15.4	15.0	16.6	15.4	15.1	17.1	15.5	16.1	14.8	15.4	21.7	27.1	29.3	31.5	33.6

NOTE - For the years 2013 and previous, demands from Harford County, Aberdeen, Chapel Hill, and Maryland -American were added to produce the total demands; for 2014 and future years, the demands from Aberdeen, Chapel Hill, Edgewood-APG and Maryland-American were subtracted from their respective zones.

*-Maximum flow based on service agreements.

Source: 2014 Harford County Adequate Public Facilities Report, Dept. of Public Works, Water and Sewer Division.

Table 19

Harford County Present and Projected Sewerage Demands and Planned Capacities in Million Gallons Per Day (MGD)

SERVICE AREA	PLANNING YEAR	NUMBER OF CONNECTIONS	DOMESTIC FLOW (ADF)	COMMERCIAL & INDUSTRIAL FLOW (ADF)	INFILTRATION / INFLOW (ADF)	TOTAL FLOW	SYSTEM CAPACITY
SOD RUN	1993	17,684	7.7	0.4	1	9.1	10
	1995	22,050	7.7	0.5	1.4	9.6	12
	2000	27,561	9.3	0.6	1.7	11.6	20
	2010	37,000	8.1	1.7	2.8	12.6	20
	2011	37,261	8.1	1.7	3.6	13.4	20
	2012	37,711	8.2	1.7	1.9	11.7	20
	2013	37,711	8.2	1.7	2.1	12.0	20
	2014	37,903	8.4	1.9	2.1	12.4	20
	2025	47,517	10.8	3.5	2.4	16.7	20
	2030	50,180	11.5	3.8	2.5	17.8	20
	2035	52,844	12.2	4.2	2.7	19.1	20
JOPPATOWNE	1993	2,607	0.59	0	0.19	0.78	0.75
	1995	2,607	0.56	0	0.19	0.75	0.75
	2000	3,107	0.65	0	0.19	0.84	0.95
	2010	3,209	0.64	0.04	0.08	0.76	0.95
	2011	3,224	0.66	0.04	0.02	0.90	0.95
	2012	3,242	0.55	0.04	0.2	0.79**	0.95
	2013	3,242	0.52	0.04	0.2	0.76	0.95
	2014	3,270	0.59	0.04	0.2	0.83	0.95
	2025	3,418	0.61	0.04	0.2	0.85	0.95
	2030	3,484	0.66	0.04	0.2	0.90	0.95
	2035	3,550	0.70	0.05	0.2	0.95	0.95
SPRING MEADOWS	1993	51	0.01	0	NC	0.01	0.01
	1995	51	0.01	0	NC	0.01	0.01
	2000	52	0.01	0	NC	0.01	0.01
	2010	53	0.01	0	NC	0.01	0.01
	2011	53	0.01	0	NC	0.01	0.01
	2012	53	0.008	0	NC	0.008	0.01
	2013	53	0.008	0	NC	0.008	0.01
	2014	53	0.008	0	NC	0.008	0.01
	2025	53	0.008	0	NC	0.008	0.01
	2030	53	0.008	0	NC	0.009	0.01
	2035	53	0.008	0	NC	0.01	0.01
WHITEFORD-CARDIFF	2004	178	0.02	0	0.01	0.03	0.12
	2010	179	0.023	0	0.01	0.03	0.12
	2011	179	0.023	0	0.014	0.024	0.12
	2012	178	0.022	0	0.005	0.027	0.12
	2013	179	0.022	0	0.002	0.024	0.12
	2014	179	0.029	0	0.002	0.031	0.12
	2025	179	0.03	0.015	0.004	0.049	0.12
	2030	179	0.05	0.024	0.006	0.080	0.12
	2035	179	0.06	0.032	0.008	0.10	0.12

NC = Not Computed

** Due to ENR construction project at Joppatowne WWTP, Pump Station 47 was sending some flow to Harford County Sod Run for treatment.

Source: 2014 Harford County Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer.

Table 20
2014 EXISTING WATER & SEWER CAPITAL PROJECTS

The Capital Improvement Program establishes projects for expanding and improving water and sewer facilities. This list of 2014 Capital Projects includes the project status.

PROJECT NO.	PROJECT NAME	PROJECT STATUS
6440	Infiltration/Inflow	Preparing Rehabilitation Schedule
6632	Harford Estates SPS Abandonment	Project Complete
6637	Sod Run ENR	Project Complete
6665	Joppa Farm Road Pump Station # 47 Parallel Sewer	P.S. Design – 95% Design Complete
6687	Abingdon Road Water Main	Design Phase Completed / Easement Acquisition / Permitting Phase
6692 A	Bush Creek Pump Station Force Main Replacement	Bid Phase
6703	Bynum Run Parallel Phase 6 & 7	Finalizing Bid Documents for Phase 7 Finalizing Easement Acquisition
6707	Infiltration / Inflow in Bynum Run Drainage Area	Preparing Implementation Phase and recommended improvements
6692 A	Ph. 1 - Bush Creek Pump Station Improvements Ph. 2 - Bush Creek Force Main and Interceptor Ph. 3 – Bush Creek Force Main Rehabilitation	Ph. 1 - Construction Complete Ph. 2 - Under Construction Ph. 3 - 95% Design Complete
6707	Infiltration / Inflow in Bynum Run Drainage Area	Preparing Implementation Phase and Recommended Improvements
6712	Edgewood Interceptor Parallel	Design Phase
6713	Greenridge Pump Station Replacement	Construction Complete
6715	Bill Bass Outfall Sewer Replacement	Construction Complete
6730	Bill Bass Pump Station Force Main Parallel / Replacement	Scope of Services Phase
6737	Towne Center Drive Pump Station	Scope of Services Phase

Road System

The information for the APFO Road System contained in this section includes the following: signalized and unsignalized intersection capacity analysis results - existing conditions (Tables 21 and 22), average daily count locations (Table 23), a list of approved County capital projects funded for construction in FY 15 (Table 24)**,** and a list of State Consolidated Transportation Program (CTP) projects funded for construction in FY 15 (Table 25). 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.

The intent of the APF Roads provisions of the County Code is 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.

Road Intersection Analysis Methodology

A key feature of the APFO 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) will not be required to submit a TIA unless the proposed use is expected to generate 1,500 trips per day at the time of preliminary/site plan review. 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."

Inside the Development Envelope:

The TIA shall include all the 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.

- 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 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.

Developments which generate 1,500 or more trips per day may be required to expand the study area. The determination of existing and projected LOS is calculated in the TIA Analysis, which is performed by the developer and reviewed by the Departments of Planning and Zoning and Public Works.

The developer is required to provide improvements where the trips generated by the development reduce the LOS from adequate to a LOS below the standard. The standard for intersections within the Development Envelope will be 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 will be 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. There are two signalized intersections and eight unsignalized 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. The following intersections contain one or more movements that operate at an unacceptable LOS:

1. Maryland 22 and Thomas Run Road / Schucks Road
2. Maryland 7 and U.S. Route 40
3. Business US 1 and Henderson Road
4. Maryland 147 and Connolly Road
5. Maryland 23 and Grafton Shop Road
6. US 1 and Reckord Road
7. Maryland 7 and Brass Mill Road
8. Woodsdale Road and Box Hill Corporate Center Drive
9. Maryland 155 and Earlton Road
10. Maryland 22 and Aldino-Stepney Road

Developments that impact these intersections will be required to mitigate their impacts to the intersection.

Table 21

Signalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2011 - 2014

Intersection	2011 Peak Hour Level Of Service / Delay In Seconds	2012 Peak Hour Level Of Service / Delay In Seconds	2013 Peak Hour Level Of Service / Delay In Seconds	2014 Peak Hour Level Of Service / Delay In Seconds
Maryland Route 24 @ I-95 Northbound On/Off Ramp*		D / 45.1		D / 51.7
Maryland Route 24 @ I-95 Southbound Off Ramp*		B / 18.2		B / 10.9
Maryland Route 7 and U.S. Route 40**		D / 52.6		E / 63.2
Maryland Route 924 and Moores Mill Road		C / 22.0		C / 29.2
Maryland Route 24 and Trimble Road		C / 27.4		C / 27.2
Maryland Route 152 and U.S. Route 1		D / 45.3		D / 37.9
Maryland Route 24 and U.S. Route 1		D / 43.4		D / 36.6
Maryland Route 152 and Trimble Road		D / 36.2		D / 39.9
Maryland Route 24 and Jarrettsville Road		C / 22.9		C / 24.8
Maryland Route 152 and Hanson Road		C / 27.2		B / 19.8
Maryland Route 152 and Singer Road		C / 31.6		C / 32.2
Maryland 22 and Thomas Run Road/Schucks Road		D / 48.8		D / 37.1
Maryland 715 and Old Philadelphia Road**		F / 279.0		B / 16.4
Maryland Route 22 and Brier Hill Road	C / 24.7		B / 11.4	
Maryland Route 22 and Maryland Route 136	C / 31.9		C / 28.9	
Maryland Route 24 and Bel Air South Parkway	D / 40.7		D /39.2	
Maryland Route 24 and Forest Valley Drive	B / 18.0		C / 24.0	
Maryland Route 24 and Plumtree Road	C / 26.4		C /32.3	
Maryland Route 24 and Ring Factory Road	C / 28.5		D / 41.7	
MD 924 @ MD 24 North Bound Ramp	C / 28.6		D / 53.0	
Tollgate Rd @ MD 24 Southbound Ramp	C / 20.1		C /20.1	
Maryland Route 543 and U.S. Route 1	D / 35.7		C / 24.5	
Maryland Route 543 and Maryland Route 22	C / 34.1		D / 38.5	
Maryland Route 924 and Abingdon Road ***	D / 47.1		B / 18.4	

* Major interchange improvements for the I-95 / MD 24 / MD 924 interchange completed in November, 2011.

** SHA improvement at this intersection

*** Improvement funded by developer at this intersection

Source: Harford County Dept. of Planning and Zoning, May 2015

Table 22

Unsignalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2011- 2014

Intersection	2011 Peak Hour Level Of Service / Delay In Seconds	2012 Peak Hour Level Of Service / Delay In Seconds	2013 Peak Hour Level Of Service / Delay In Seconds	2014 Peak Hour Level Of Service / Delay In Seconds
Business US 1 and Henderson Road		E / 35.6		E / 48.6
Maryland 147 and Connolly Road		F / 165.5		F / 84.7
Maryland 23 and Grafton Shop Road		F / 138.9		E / 39.6
Tollgate Road and MacPhail Road*		E / 35.2		B / 10.7
US 1 and Reckord Road		F / 128.9		F / 130.4
Maryland 7 and Brass Mill Road		F / 83.1		E / 58.3
Woodsdale Road and Box Hill Corporate Center Drive		D / 29.3		F / 50.8
Maryland Route 7 and Maryland Route 159	B / 12.4		C / 16.9	
Maryland Route 7 and Joppa Farm Road	E / 38.5		D / 27.2	
Maryland Route 159 and Spesutia Road	C / 15.2		B / 12.4	
Maryland 155 and Earlton Road	E / 40.0		D / 33.6	
Maryland 543 and Henderson Road **	F / 56.8		D / 28.8	
Tollgate Road and Ring Factory Road	A / 7.8		A / 7.5	
Maryland 22 and Aldino-Stepney Road **	F / 56.9		E / 48.6	
Macphail and Ring Factory Road	B / 12.3		B / 14.8	

* Count taken prior to Roundabout completion.
** Improvements funded by developers at these intersections.

Source: Harford County Dept. of Planning and Zoning, May 2015.

Table 23

48 Hour Average Weekday Daily Traffic Volume And Locations

2011 - 2014

Road Name	Location	2011 Average Daily Count	2012 Average Daily Count	2013 Average Daily Count	2014 Average Daily Count
Beards Hill Road	North of Churchville Road		12,538		13,161
Carrs Mill Road	North of Maryland Route 152		9,783		10,250
Chapel Road	North of Interstate 95		2,588		2,766
Jarrettsville Road	East of Maryland Route 24		6,273		6,187
Jarrettsville Road	West of Maryland Route 24		5,259		5,035
Maryland Route 7	West of Maryland Route 24		7,230		7,222
Moores Mill Road	West of Coconut Court		9,726		8,965
Moores Mill Road	West of Old English Court		7,781		8,078
Pleasantville Road	North of Putnam Road		3,547		3,048
U.S. Route 1	North of Maryland Route 152		26,552		28,911
U.S. Route 40	North of Maryland Route 24		22,802		22,909
Abingdon Road	North of Interstate 95	13,217		12,394	
Hanson Road	South of Silverbell Road	2,714		2,493	
Hanson Road	West of Maryland Route 24	10,425		10,693	
Maryland Route 24	North of Singer Road	39,821		39,900	
Maryland Route 152	South of U.S. Route 1	24,701		23,330	
Maryland Route 543	South of Maryland Route 22	17,670		17,572	
Plumtree Road	East of Maryland Route 24	7,229		7,651	
Ring Factory Road	West of Maryland Route 24	3,603		4,469	
Ring Factory Road	East of Maryland Route 24	8,700		9,288	
Singer Road	West of Maryland Route 24	10,576		11,541	
Singer Road	East of Maryland Route 24	9,837		10,429	
Trimble Road	East of Maryland Route 24	7,152		6,975	
Trimble Road	West of Maryland Route 24	8,917		9,971	
Vale Road	West of U.S. Route 1 Overpass	8,555		8,718	

Source: Harford County Dept. of Planning and Zoning, May 2015.

Table 24

List of Approved County Capital Projects

Funded for Construction in FY 15

Bridge and Road Scours	**Repairs**
Bridge Rehabilitation	**Repairs**
Carrs Mill Road Bridge #216	**Replacement**
Green Road Bridge #122	**Replacement**
Harford Creamery Road Bridge #104	**Replacement**
Jericho Road Bridge #3	**Improve / Maintain**
Robinson Mill Road Bridge #154	**Replacement**
Md 152 / Oakmont Road / Port Lane	**Intersection Improvements**
Abingdon Road Bridge #169 over CSX	**Replacement**
Watervale Road Bridge #63	**Replacement**
Hess Road Bridge #82	**Replacement**
Macton Road Bridge #145	**Replacement**
Moores Mill Road – MD 924 to Southampton MS	**Upgrade**
Road Reconstruction and Rehabilitation*	**Reconstruct and rehabilitate**
Roadways Resurfacing*	**Resurfacing**
Landis Circle – Foxborough Farms	**Convert to Public Road**

***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 25

List of State Consolidated Transportation Program

Funded for Construction in FY 15

MD 7, Philadelphia Road Bridge over James Run	**Replacement**
MD 22, Aberdeen Thruway at Old Post Road	**Interchange Improvements**
US 40 at MD 7 / MD 159 in Aberdeen	**Construction Underway**
MD 24 – From Deer Creek Bridge to 1,800 feet south of the bridge	**Reconstruction / Resurfacing**
US 40, Long Bar Harbor to Spesutia Road	**Safety / Resurfacing**
MD 24, East of MD 924 to West MacPhail Road construction	**Guardrail Installation**
US 40, MD 132 to Robinson Avenue	**Resurfacing**
MD 755, Willoughby Beach Road to MARC Station	**Pedestrian Safety & Drainage Improvements**
Various Locations in Harford County, East and West of US 1	**Resurfacing**

PLANNING CONSISTENCY REVIEW

Maryland's Smart, Green and Growing regulations require that local jurisdictions, as part of their annual report, must determine if all of the changes in development patterns reported are consistent with several factors. The changes must be in line with each other, the recommendations from the previous report, and the adopted plans of the jurisdiction and the adjoining jurisdictions. They must also be consistent with state and local jurisdiction plans that are responsible for financing or constructing public improvements that are necessary for the local plan implementation. The following section is being provided to address this requirement.

All of 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 (92 % in 2014) to the designated growth areas.

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). During 2014, 1,046 acres were preserved countywide, bringing the total protected land in the County to 48,799 acres. Of the acreage protected in 2014, 633 acres were located in the County's PPA, bringing the total amount of protected land in the PPA to just over 35,200 acres.

The subdivisions noted in Appendix A are consistent with the intent and policies of the 2012 Land Use Element Plan, the Water and Sewer Master Plan, and Adequate Public Facilities regulations. All roadway improvements are consistent with the State Consolidated Transportation Plan, the Transportation Improvement Plan, and the County's Transportation Element Plan.

The Department continues to track plans grandfathered through SB 236. In 2014, the Department continued to track nine grandfathered preliminary plans comprised of 146 lots. Of these, three were approved in 2014, but only one lot has been recorded. The Department continues to track three projects that were approved but not recorded prior to the enactment of the SB 236 requirements. Of these two were recorded in 2014.

During 2014, the County continued its coordination with the Town of Bel Air on the initiation of the second phase of the MD Route 22 study. This phase encompasses the section of the MD Route 22 corridor between MD Route 543 and Tollgate Road. It will also include a portion of US Business 1 through the Town of Bel Air.

Harford County continues to partner with the Health Department and Healthy Harford on implementation of the programs established by the Local Health Coalition and the Obesity Task Force. The Department of Planning and Zoning partnered with the Board of Education on two Safe Routes to School grants while maintaining an ongoing partnership with Emmorton Elementary to address walkability issues.

PROCESS IMPROVEMENTS

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

In 2014, implementation of the Harford County Phase II Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL (Total Maximum Daily Load) progressed. This Plan was completed in 2012 by a Core Team of 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. In 2014, a final report for the 2012-2013 milestones was submitted, along with a new set of two-year milestones for 2014-2015. In addition, Planning and Zoning staff continued working with FEMA on the development of state-of-the-art floodplain mapping.

During 2014, no changes were made to the County's 2012 Master Plan. However, an update to the Master Plan and Land Use Element Plan is being undertaken for 2015. As part of this update, the Department intends to consolidate all of the element plans under its purview into a single Comprehensive Plan. This update will incorporate the Tier map as required by SB 236. Prior to the completion of this update, the County anticipates adopting an update to the Solid Waste Management Plan.

The County does not anticipate making any changes to the development review process in the immediate future, and will continue to direct the majority of development and redevelopment to the designated growth areas. In order to provide citizens with more information and better access to development review activities, the Department launched an interactive website in March 2015 that will provide up to date information on all development activities associated with a specific property.

In February 2013, Harford County Planning and Zoning; Public Works; Inspections, Licenses, and Permits; and Information Systems Departments began implementation of Tyler Technologies' ***EnerGov Permitting and Land Management*** software suite.
The ***EnerGov*** solution will modernize the County's permitting, subdivision review, and plan management systems. Disparate departments, agencies, and citizens will access a central "location-based" system utilizing the County's extensive Geographic Information System.

Code enforcement, permit inspections, and construction management systems will all utilize the ***EnerGov*** solution to streamline and automate many time-consuming processes including intake, citizen requests, pre-applications, fee calculations and plan and permit reviews, and field inspection routing. This will create a completely paperless and fully automated regulatory environment.

The County anticipates this centralized system will significantly improve the life cycle of land management throughout the County and will provide enhanced services to citizens and to construction and service professionals. The ***EnerGov*** project is proceeding on schedule and is expected to be fully implemented in 2015.

ORDINANCES AND/OR REGULATIONS THAT IMPLEMENT THE STATE PLANNING VISIONS

Harford County's Master Plan and several of its element plans (Land Use Element Plan; Natural Resources and Water Resources Element Plan; Historic Preservation Element Plan; Transportation Element Plan; the Land Preservation, Parks, and Recreation Element Plan; and the in-process Solid Waste Management Plan) include 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.

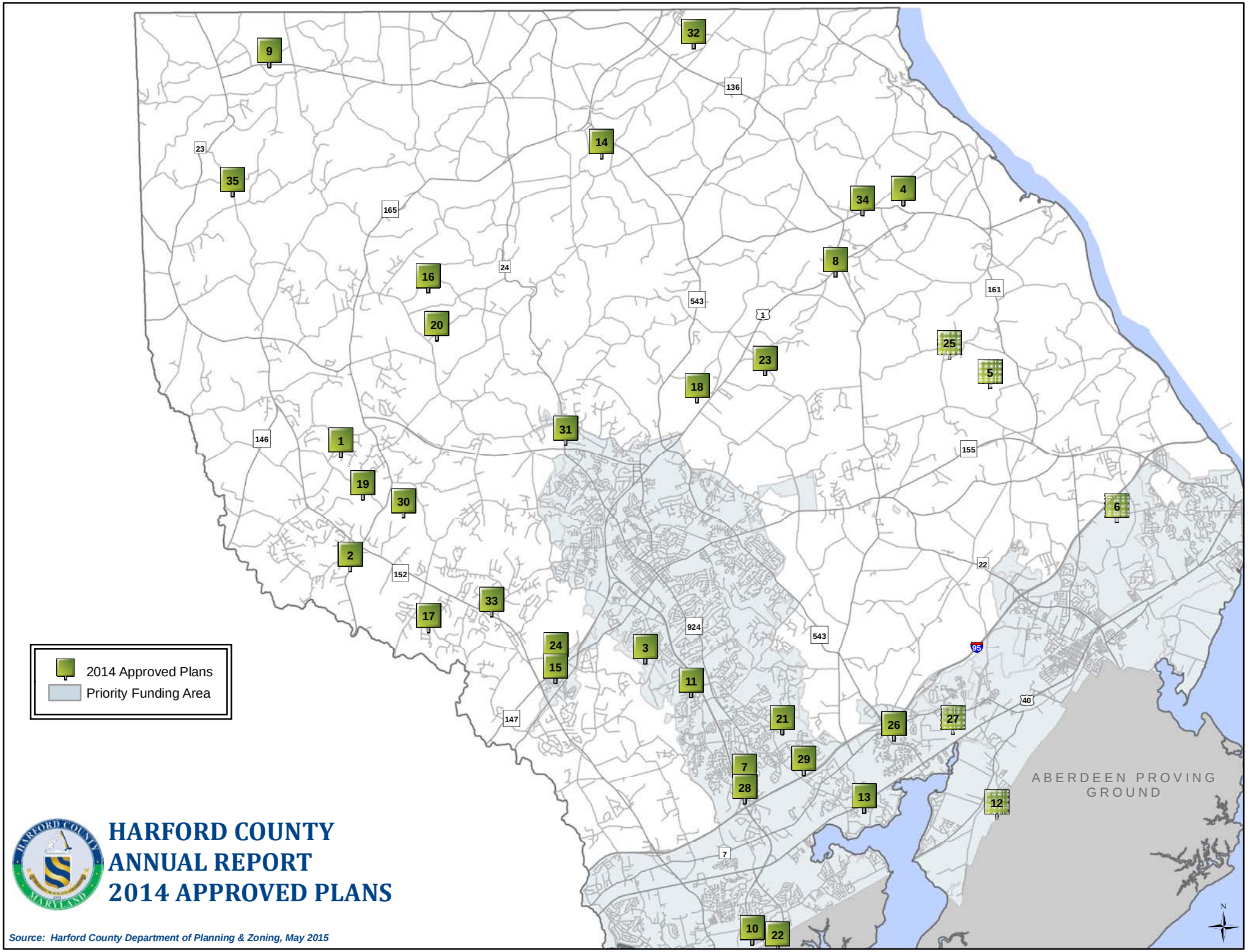
APPENDIX A

Appendix A

HARFORD COUNTY
APPROVED
SUBDIVISION PLANS: 2014

MAP #	PLAN NAME	ACREAGE	LOT ACREAGE	TOTAL UNITS	SF UNITS	TH UNITS	APT UNITS	CONDO UNITS	TYPE OF USE	PFA	ZONING
1	2016 DURHAM ROAD	56.282	56.282	4	4	0	0	NO	RESIDENTIAL	NO	AG
2	ADDIE ESTATES	28.607	28.607	7	7	0	0	NO	RESIDENTIAL	NO	AG/VB
3	APPLE TREE ORCHARD	24.408	24.408	32	1	31	0	YES	RESIDENTIAL	YES	R2-COS
4	BLACK BROTHERS, LDS OF - LOT 3	2.129	2.129	1	1	0	0	NO	RESIDENTIAL	NO	AG
5	BONITA FARM - LOT 4 (AG PRES)	29.58	2	1	1	0	0	NO	RESIDENTIAL	NO	AG
6	COEN, LAND OF ESTHER & RALPH	11.932	11.932	2	2	0	0	YES	RESIDENTIAL	YES	AG
7	CONSTANT FRIENDSHIP BUSINESS PARK - LOT 4A	18.15	18.15	0	0	0	0	YES	NON RESIDENTIAL	YES	CI
8	DOLLAR GENERAL IN DUBLIN	1.89	1.89	0	0	0	0	NO	NON RESIDENTIAL	NO	B3
9	DUNCAN, LANDS OF EVERETT	14.677	14.677	1	1	0	0	NO	RESIDENTIAL	NO	AG
10	ENCLAVE AT TRIMBLE, THE	1.8	1.8	5	5	0	0	YES	RESIDENTIAL	YES	B3
11	EVERGREEN WOODS APARTMENTS	17.54	17.54	198	0	0	198	YES	RESIDENTIAL	YES	R1/R3
12	FB INVESTMENTS XI, LLC AT PERRYMAN - LOTS 2 & 3	74.96	37.6612	0	0	0	0	YES	NON RESDIENTIAL	YES	GI
13	FINBAR PLACE	4.502	4.502	16	16	0	0	YES	RESIDENTIAL	YES	R3
14	GOLDEN SPRING - SECTION TWO	33.337	33.337	3	3	0	0	NO	RESIDENTIAL	NO	AG
15	HAMILTON RESERVE TWO	6.459	6.459	16	16	0	0	YES	RESIDENTIAL	YES	R2
16	HARRIS, LANDS OF	18.897	18.897	2	2	0	0	NO	RESIDENTIAL	NO	AG
17	HEWITT PROPERTY, LOTS 1 & 5	6.667	6.667	1	1	0	0	NO	RESIDENTIAL	NO	AG
18	HOOPES, LAND OF LOT 3	29.534	2.595	1	1	0	0	NO	RESIDENTIAL	NO	AG
19	KAMINKOW, LANDS OF	37.87	15.138	1	1	0	0	NO	RESIDENTIAL	NO	AG
20	KNOPP, LDS OF PAULINE C. - LOT 10	23.456	11.728	1	1	0	0	NO	RESIDENTIAL	NO	AG
21	LAUREL RIDGE	107.652	107.652	171	115	56	0	YES	RESIDENTIAL	YES	R1/AG
22	LEE COURT APARTMENTS	15.997	16.997	56	0	0	56	YES	RESIDENTIAL	YES	R4
23	MCCOY FARMS LLC, LANDS OF	2	2	1	1	0	0	NO	RESIDENTIAL	NO	AG
24	MILTON AVENUE COMMERCIAL NORTH - LOTS 1-3	1.42	1.42	0	0	0	0	YES	NON RESIDENTIAL	YES	B3
25	MULLER-THYME, LANDS OF - LOT 3	3.75	3.75	1	1	0	0	NO	RESIDENTIAL	NO	AG
26	RESERVE AT RIVERSIDE-PHASE III	1.93	1.93	16	0	0	16	YES	RESIDENTIAL	YES	B3
27	RIVERSIDE EAST BUSINESS PARK - LOT 4	174.92	174.92	0	0	0	0	YES	NON RESIDENTIAL	YES	CI
28	RIVERWOODS AT TOLLGATE	15.54	15.54	0	0	0	0	YES	NON RESIDENTIAL	YES	CI
29	SPENCER WOODS	13.9	13.9	21	21	0	0	YES	RESIDENTIAL	YES	R1
30	UP HILL FARM	323.97	46.41	31	31	0	0	NO	RESIDENTIAL	NO	AG
31	WARD PROPERTY	11.65	11.65	25	25	0	0	YES	RESIDENTIAL	YES	VR
32	WHITEFORD LAND ASSOCIATES LLC - LOT 7	157.963	2	1	1	0	0	NO	RESIDENTIAL	NO	AG
33	WILLIG, LANDS OF JOHN, LOTS 2-5	22.572	22.572	4	4	0	0	NO	RESIDENTIAL	NO	AG
34	WOODS, THE (LOT 4)	8.888	8.888	1	1	0	0	NO	RESIDENTIAL	NO	AG
35	WRIGHT PURCHASE - LOT 12	11.17	2.244	1	1	0	0	NO	RESIDENTIAL	NO	AG
		1,316	**748**	**621**	**264**	**87**	**270**	**0**			

Source: Harford County Dept. of Planning and Zoning, May 2015.



HARFORD COUNTY ANNUAL REPORT 2014 APPROVED PLANS

Source: Harford County Department of Planning & Zoning, May 2015

APPENDIX B

Appendix B

DEVELOPMENT REGULATIONS – LIST OF AMENDMENTS

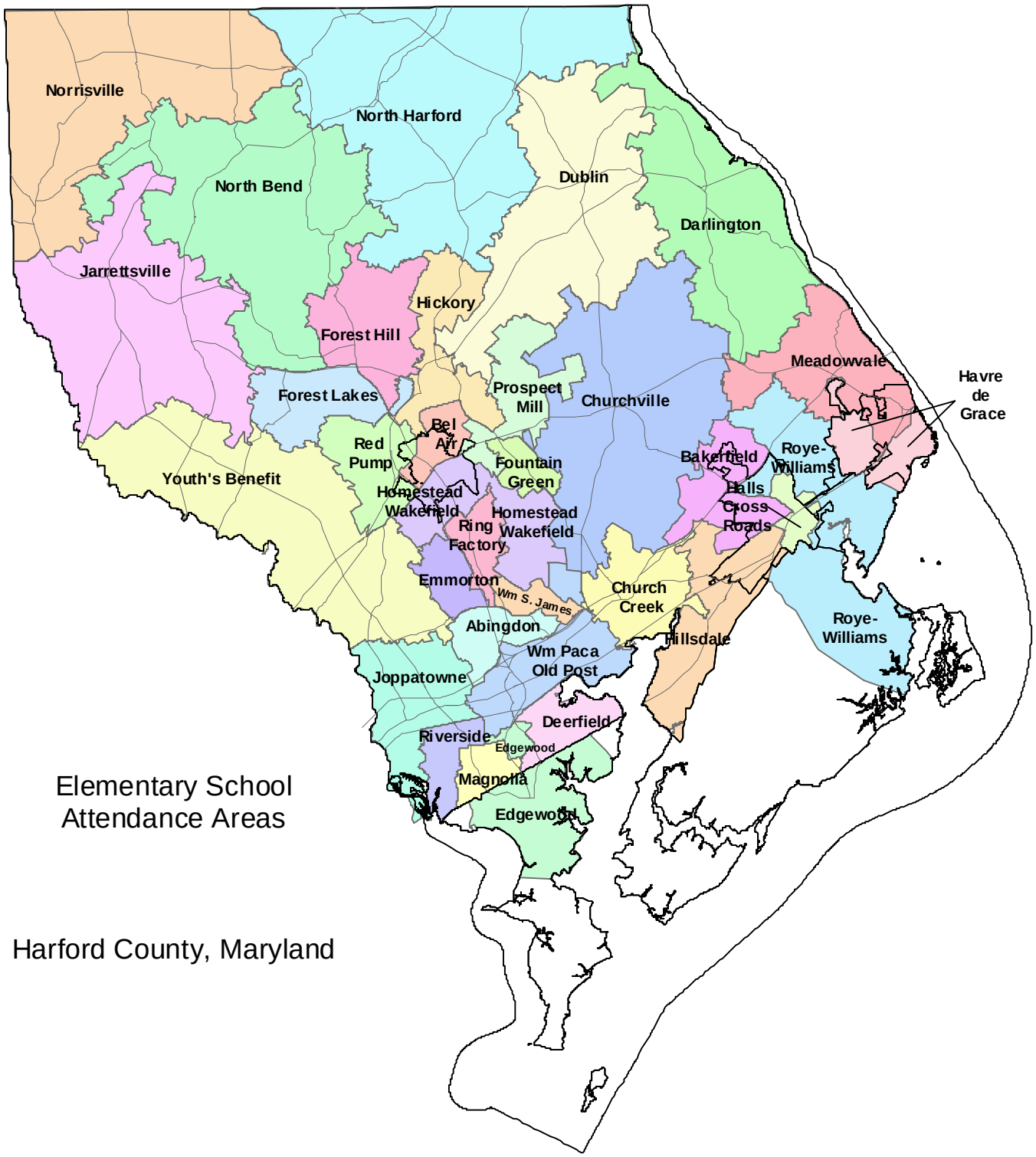
Zoning Code

Effective	Bill	Description
4/22/14	14-1	Housekeeping items/corrections and clarifications of the definition of domestic animals, livestock and multi-family dwellings; clarify separate lot requirements; drainage and recorded utility easements for accessory structure location; restructure cottage housing requirements; remove posting requirement and add conversion plan requirement; modify recreational buffer standards; clarify maximum number of temporary signs per year; remove standard for permitted temporary uses; modify clearing or grading limits related to Forest/Tree conservation and retention and afforestation; and add specific trees/shrubs and waiver provision.
7/11/14	14-9	Add Historic Landmark – Orthodox Friends Meeting House and Caretaker's House.
8/25/14	14-26AA	Change requirement to include larger sign for posting.

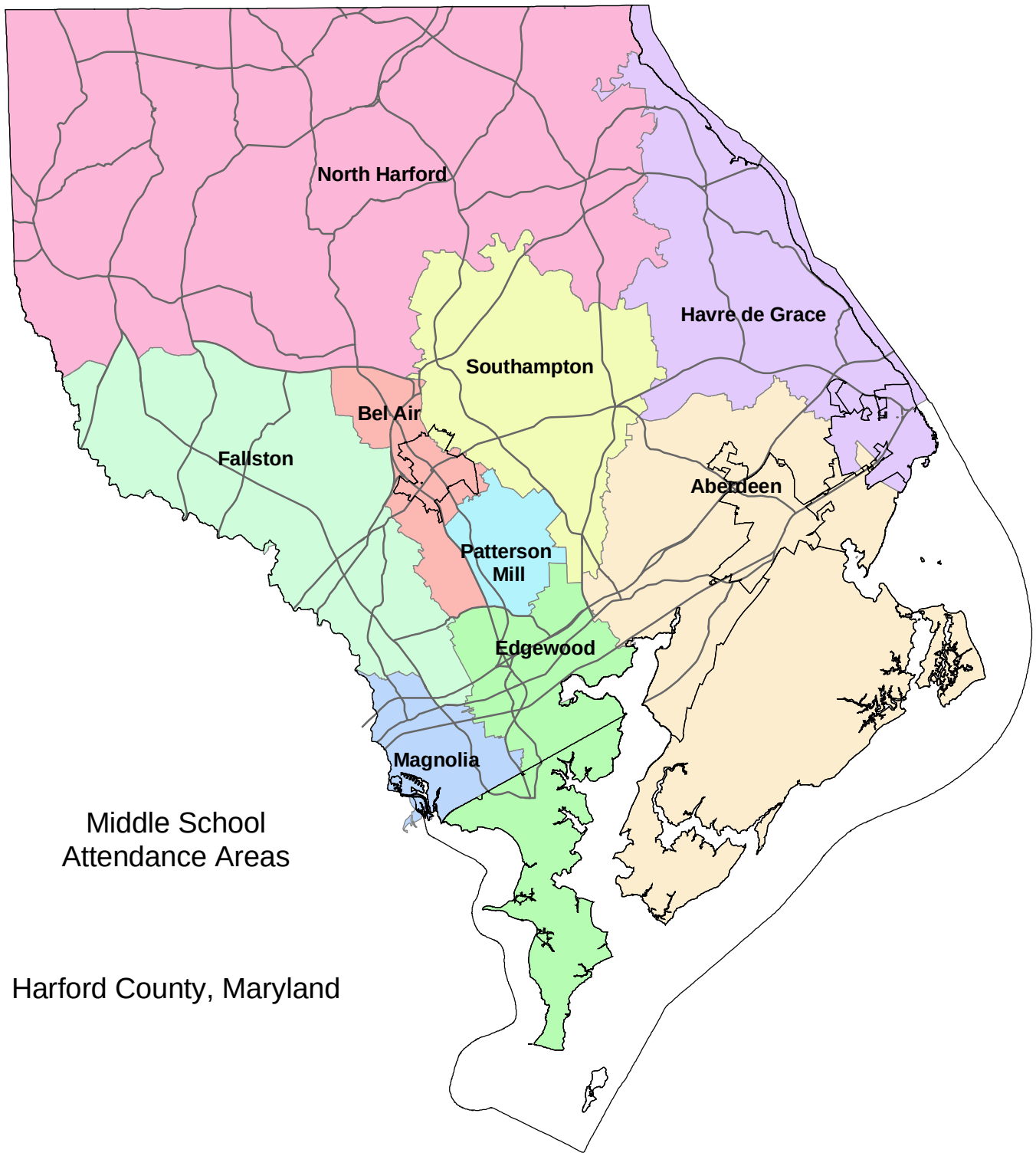
Subdivision Regulations

Effective	Bill	Description
8/25/14	14-26AA	Change the requirement to include larger signs for DAC and CIM postings.
12/26/14	14-33AA	Scheduling of CIM meeting restrictions and requirements after the meeting.

APPENDIX C



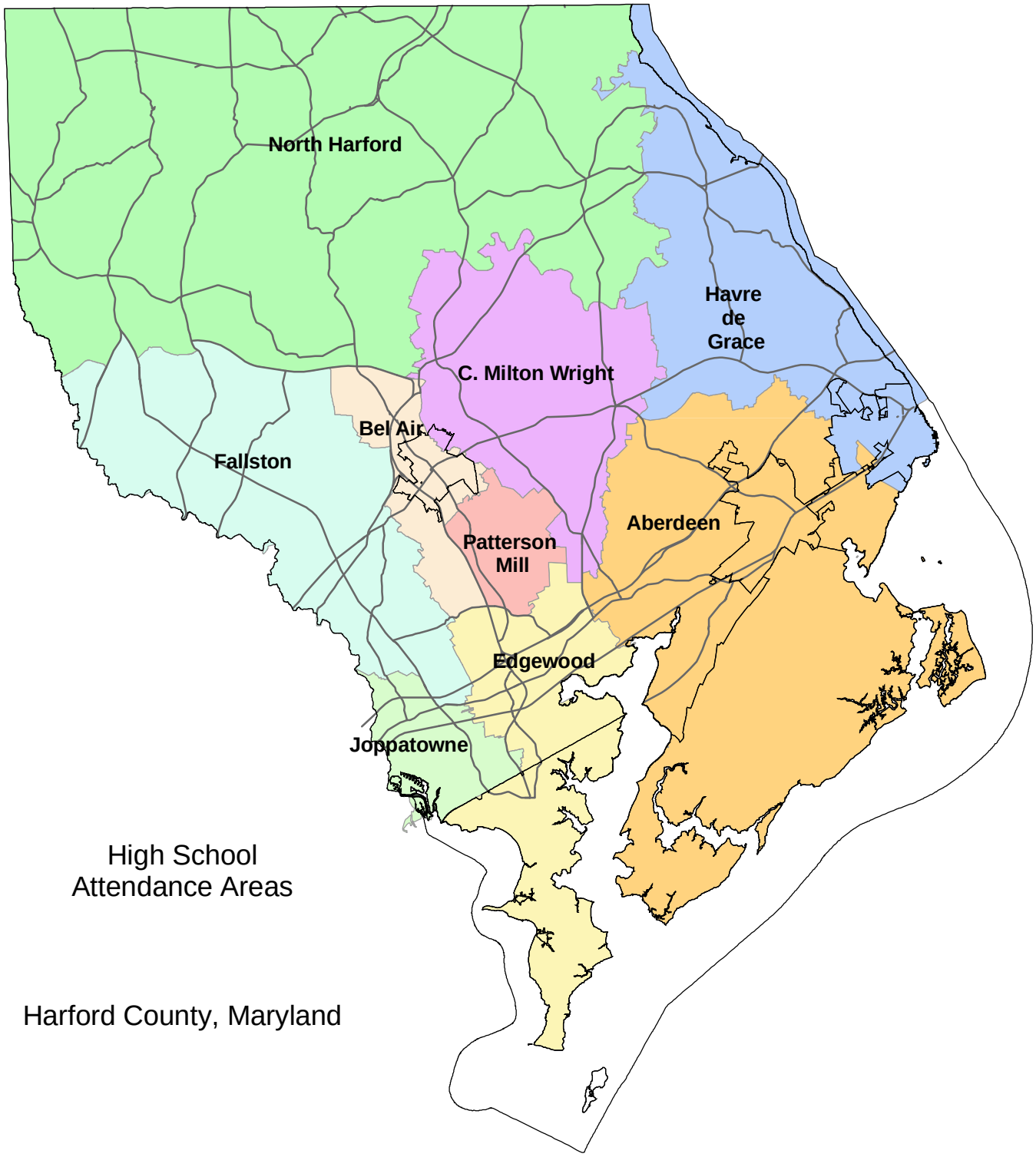
SOURCE: Harford County Public Schools, March 2011.



Middle School Attendance Areas

Harford County, Maryland

SOURCE: Harford County Public Schools, September 2006.

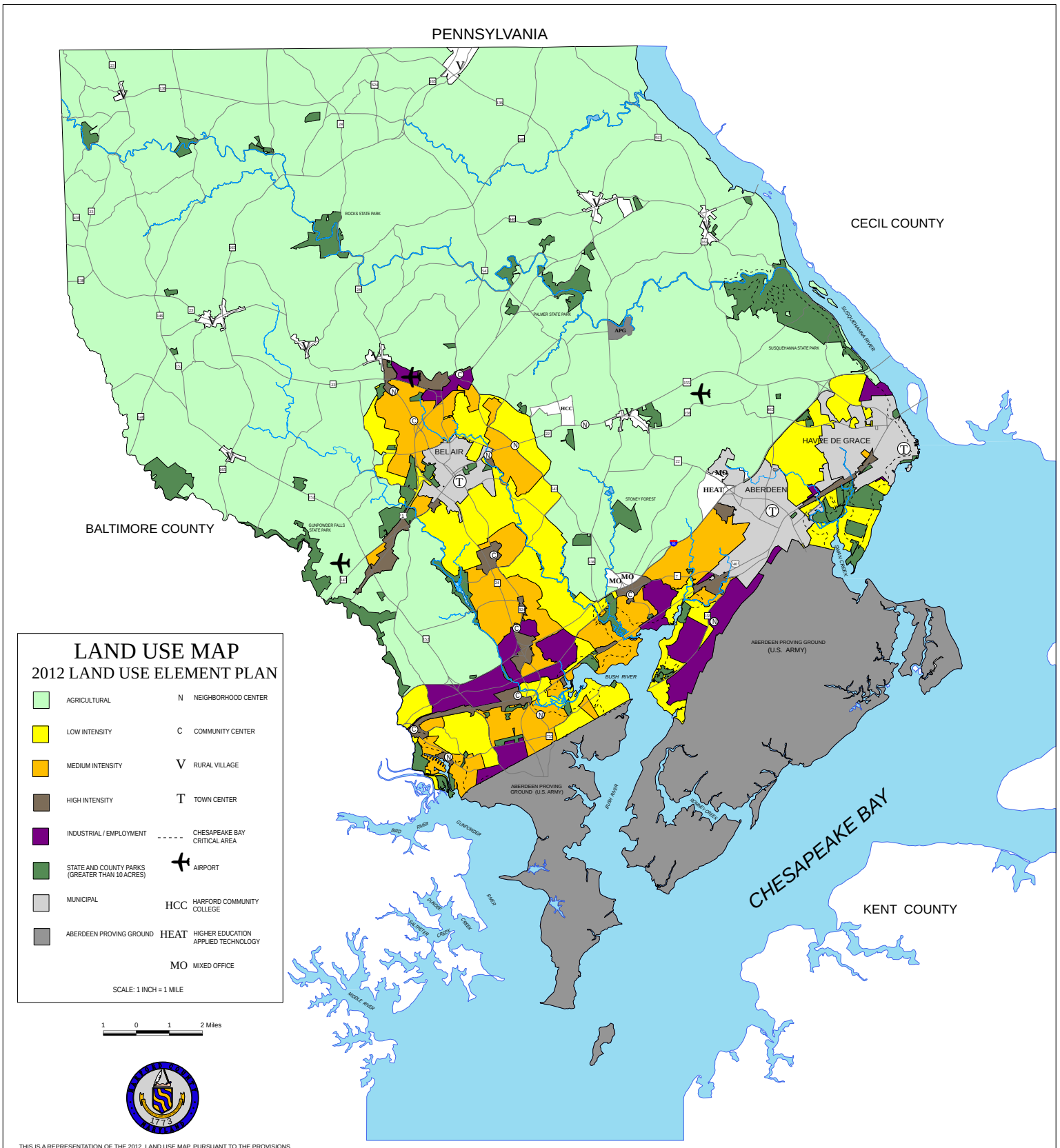


High School Attendance Areas

Harford County, Maryland

SOURCE: Harford County Public Schools, September 2006.

APPENDIX D



LAND USE MAP
2012 LAND USE ELEMENT PLAN

	AGRICULTURAL	N	NEIGHBORHOOD CENTER
	LOW INTENSITY	C	COMMUNITY CENTER
	MEDIUM INTENSITY	V	RURAL VILLAGE
	HIGH INTENSITY	T	TOWN CENTER
	INDUSTRIAL / EMPLOYMENT	- - - - -	CHESAPEAKE BAY CRITICAL AREA
	STATE AND COUNTY PARKS (GREATER THAN 10 ACRES)	✈	AIRPORT
	MUNICIPAL	HCC	HARFORD COMMUNITY COLLEGE
	ABERDEEN PROVING GROUND	HEAT	HIGHER EDUCATION APPLIED TECHNOLOGY
		MO	MIXED OFFICE

SCALE: 1 INCH = 1 MILE

1 0 1 2 Miles

THIS IS A REPRESENTATION OF THE 2012 LAND USE MAP, PURSUANT TO THE PROVISIONS OF CHAPTER 169 SUBSECTION C OF THE HARFORD COUNTY CHARTER ADOPTED BY COUNTY COUNCIL BILL 12-01 AS AMENDED, THE SIXTH DAY OF MARCH, 2012.

THE LAND USE ELEMENT 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

APPENDIX E

PUPIL YIELD FACTORS

To calculate pupil yield factors, forty-eight subdivisions were selected from various geographic locations throughout Harford County, to include single family dwellings, townhouse units, apartments/condominium units, and mobile home units. The subdivisions selected represent newly constructed and established subdivisions ranging in size from 22 units to 2,240 units. Additionally, subdivisions were selected to provide a broad range of attendance areas across the County. A count was made of each student who resided in each of the forty-eight 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.

	GRADES		
UNIT TYPE	**K-5**	**6-8**	**9-12**
Single Family	.28	.15	.19
Townhome	.25	.12	.14
Apartments (2 Bdrms)	.04	.01	.02
Condo (2+ Bdrms)	.04	.01	.02
Mobile Home	.16	.07	.06