2010 Annual Growth Report

Harford County Government
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This document is available in alternative format upon request.

The 2010 Annual Growth Report

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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, beginning in July 2010, local jurisdictions are also 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 2010 Harford County approved 51 subdivisions; 44 of which were residential. The residential subdivisions resulted in the creation of 1,228 lots, of which 1,019 were located within the County's designated growth areas. This is consistent with the Land Use Element Plan's goal of directing 80% of all new growth to the Development Envelope.

There were a total of 1,554 building permits issued by Harford County in 2010, of which 548 were for new residential structures. The municipalities of Aberdeen, Bel Air, and Havre de Grace issued 171 new residential permits collectively. Approximately 88% of the new construction residential permits were issued for projects within the designated growth areas.

The Transportation and Historic Preservation Element Plans were updated in 2010.

Harford County Public Schools:

Effective July 1, 2011 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, preliminary plans for major subdivisions (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, 31of 32 elementary schools and all 17 middle and high schools meet adequacy standards. The following school listed below does not meet the adequacy standards established.

Elementary Schools	Year	Actual / Projected Students	Utilization Rate
Dublin	2013/2014	327	110.85%

Beginning July 1, 2011, major subdivision plans within this attendance area will not be approved but will be reviewed and placed on a waiting list until capacity is available.

The Harford County Board of Education approved a comprehensive Elementary Redistricting Plan at its March 14, 2011 meeting. Updated enrollment projections based on the new attendance areas are included in this report (Tables 6, 7, and 8).

Harford County Water and Sewerage System:

Based on the Adequate Public Facilities Ordinance and the Harford County Water and Sewer Design Guidelines, preliminary plan approvals, 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 2010 was 12.1 MGD (Million Gallons Per Day), with a peak day demand of 17.1 MGD. The total maximum daily water treatment capacity is approximately 20.4 MGD. Per the Maryland Department of the Environment's Water Supply Capacity Management Plan the County has a maximum day drought demand of 18.7 MGD which leaves an excess capacity of 1.7 MGD for additional growth. Expansion of the existing Abingdon Water Treatment Plant is currently under construction and is anticipated to be completed by the end of 2011, bringing an additional 10 MGD of source capacity online.

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

Harford County 2010 Sewerage Capacity by Service Area in Million Gallons Per Day (MGD)			
Service Area	**Total Flow**	**System Capacity**	**Average Reserve**
Harford County-Sod Run	12.6	20.0	7.4
Joppatowne	0.76	0.95	0.19
Spring Meadows	0.01	0.01	0.00
Whiteford-Cardiff	0.024	0.12	0.09

The determination of water or sewerage capacity in a specific area of the County can be found in the "Water and Sewer 2010 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 analysis. 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 evaluated to accommodate expected peak flows through collectors, interceptors, pump stations, force mains, and wastewater treatment plants. Should a 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 generate 249 trips per day at the time of preliminary/site plan review. Proposed development located within the Chesapeake Science and Security Corridor will not be required to submit a Traffic Impact Analysis unless the proposed use will generate 1,500 trips per day at the time of preliminary/site plan review.

The adequacy standards for road intersections within the study area are based on the property's location within 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 standard. 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 from point of entrance of site to the second intersection of an arterial roadway or higher functional classification road, in all directions. 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 from point of entrance to first intersection of a major collector or higher functional classification road, in all directions.

The determination of existing and projected Levels of Service is calculated in the Traffic Impact Analysis, 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 Traffic Impact Analyses, 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 five signalized intersections and ten 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 24 / Maryland 924 / Tollgate Road
2. Maryland 24 and US 1
3. Maryland 152 and Singer Road
4. Maryland 22 and Thomas Run Road / Schucks Road
5. Maryland 24 and Bel Air South Parkway
6. Interstate 95 and Maryland 24 Ramp
7. Business U.S. 1 and Henderson Road
8. Maryland 147 and Connolly Road
9. Maryland 23 and Grafton Shop Road
10. Tollgate Road and MacPhail Road
11. US 1 and Reckord Road
12. Maryland 7 and Brass Mill Road
13. Maryland 7 and Joppa Farm Road
14. Maryland 155 and Earlton Road
15. Maryland 22 and Aldino-Stepney Road

Developments that impact these intersections will be required to mitigate their impacts to the intersection. The Interstate 95/MD 24 Improvement Project is currently under construction and is anticipated to improve the LOS at the Maryland 24/Maryland 924/Tollgate Road intersection and the Interstate 95 and Maryland 24 Ramp.

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 and to promote sustainable growth. As a result of Senate Bill 280 and House Bill 295, 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).

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 Priority Funding Areas 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 2010 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 7C 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 8,615 planned units remaining as of December 31, 2010.

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 of each building permit 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 §3.09 of Article 66B, enacted by Senate Bill 280 and House Bill 295 (2009), 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 Priority Funding Areas.

Table 1
Harford County - Baltimore Region
Residential Permit Activity
2006 - 2010

Jurisdiction	2006	2007	2008	2009	2010	Total	Percentage of Baltimore Region
Harford County	1,001	788	511	587	548	3,435	11.6%
Anne Arundel County	1,465	1,851	988	1,180	1,720	7,204	24.3%
Baltimore City	1,081	449	1,144	438	380	3,492	11.8%
Baltimore County	2,223	1,143	1,529	1,021	1,230	7,146	24.1%
Carroll County	515	310	198	180	190	1,393	4.7%
Howard County	1,699	1,390	1,054	1,473	1,421	7,037	23.7%
Total	**7,984**	**5,931**	**5,424**	**4,879**	**5,489**	**29,707**	**100.00%**

Source: Baltimore Metropolitan Council, May 2011

Note: Includes municipal permit activity.

Table 2
Harford County - Baltimore Region
Population and Household Projections
2010 - 2020

Jurisdiction	2010 Population	2010 Households	2015 Population	2015 Households	2020 Population	2020 Households
Harford County	244,826	90,218	258,800	98,400	268,500	103,600
Anne Arundel County	537,656	199,378	546,500	210,900	556,600	217,800
Baltimore City	620,961	249,903	674,900	276,700	683,600	282,200
Baltimore County	805,029	316,715	834,600	334,900	847,000	342,600
Carroll County	167,134	59,786	183,600	65,700	192,300	69,600
Howard County	287,085	104,749	298,800	117,700	312,200	125,600
Total	**2,662,691**	**1,020,749**	**2,797,200**	**1,104,300**	**2,860,200**	**1,141,400**

Source: U.S. Census Bureau, 2010 Census; Baltimore Metropolitan Council, Round 7C Forecast.

Table 3
Harford County - Baltimore Region
Employment Projections
2010 - 2020

Jurisdiction	2010 Employment	2015 Employment	2020 Employment
Harford County	129,700	142,300	151,200
Anne Arundel County	339,000	363,100	385,600
Baltimore City	451,100	461,700	471,300
Baltimore County	510,900	529,600	544,600
Carroll County	84,300	86,800	88,300
Howard County	195,400	214,500	230,900
Total	**1,710,400**	**1,798,000**	**1,871,900**

Source: Baltimore Metropolitan Council, Round 7C Forecast.

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

Permit Type	2006		2007		2008		2009		2010	
	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	21	237,953	23	219,660	22	436,289	18	376,243	13	469,461
Industrial	17	174,590	13	879,800	7	438,550	1	564	2	59,232
Institutional	33	342,869	23	42,186	20	497,894	10	151,389	1	42,144
Utilities	2	0	1	0	8	65,064	2	4,856	2	8,640
Other	2	161,000	1	82,620	1	13,000	0	0	4	11,991
Total	**75**	**916,412**	**61**	**1,224,266**	**58**	**1,450,797**	**31**	**533,052**	**22**	**591,468**

Source: Baltimore Metropolitan Council, May 2011.

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

Permit Type	2006		2007		2008		2009		2010	
	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	31	NA	34	NA	35	NA	16	NA	24	NA
Industrial	1	NA	1	NA	5	NA	3	NA	2	NA
Institutional	11	NA	10	NA	20	NA	16	NA	14	NA
Utilities	0	NA	2	NA	1	NA	3	NA	3	NA
Total	**43**	**NA**	**47**	NA	**61**	NA	**38**	NA	**43**	NA

NA: Data Not Available

Source: Baltimore Metropolitan Council, May 2011.

New Subdivisions

In 2010, Harford County approved 51 subdivisions, of which 44 were for residential plans and 7 were for non-residential plans involving a total of 1,534 acres. The residential subdivisions resulted in the creation of 1,228 lots involving approximately 1,368 acres (See Appendix A). While 12 of the subdivisions occurred within the County's designated Priority Funding Area, they yielded 1,019 lots or 83% of the new lots approved. This percentage is consistent with the 2004 Land Use Element Plan's intent of directing at least 80% of all new growth to designated growth areas. The data reflects no changes in development patterns.

The remaining 32 residential subdivisions, located outside of the designated growth area, created 209 lots. Of these, 59% were two lots or less (11 single lot subdivisions and eight two-lot subdivisions). For the non-residential plans five of the seven were located within the Priority Funding Area. A map of all the approved subdivisions is provided in Appendix A.

New Building Permits Issued

A total of 1,554 building permits were issued by Harford County in 2010 of which 377 were for new residential structures. This is down from 1,702 in 2009. This number includes residential, non-residential, and accessory structure permits. The municipalities of Aberdeen, Bel Air, and Havre de Grace issued 171 new residential permits collectively. Approximately 88% of the 547 new residential permits were located within the County's designated growth area. A total of 66 non-residential permits were also issued. Of these, the largest numbers of permits issued were for storage/warehousing (20) with 16 being for industrial, and 13 for office uses. The remaining non-residential permits were for a variety of commercial and industrial uses. The remaining 1,110 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

In preparation for the update of the 2012 Land Use Element Plan, 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 plan approvals, vacant land capacity in the municipalities, and potential redevelopment/infill capacity. Based on the analysis performed in this study, there is an estimated capacity of 24,179 units in the development envelope.

Zoning Map Amendments

For 2010, there are 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 2010, Harford County enacted six amendments to its Development Regulations, which were comprehensively revised in 2008. The County also completed required plan element updates and initiated data analysis in preparation for the update of the County's Master Plan and Land Use Element Plan that is scheduled for 2011. Details are provided below.

Zoning Code Amendments

Six bills were enacted in 2010 that resulted in changes to the County's Development Regulations. Two of these bills were introduced in 2009, but they were not adopted until 2010. Therefore they have been included in this report. Five of the bills resulted in amendments to the Zoning Code, and the other amended the Subdivision Regulations. A list of the amendments is provided in Appendix B. One of the bills (Bill 09-31) was adopted in January 2010 and addressed housekeeping items, corrections, and clarifications of items identified as a result of the overall Zoning Code update in 2008. Bill 09-33 aa, also adopted in January 2010, resulted in changes to the Adequate Public Facilities regulations for schools. Bill 10-03 under Special Exceptions for construction services/suppliers and lawn/landscaping services changed the minimum parcel size from one acre to a half acre. Bill 10-30 established two new County Landmarks, and Bill 10-32 aa clarified that buffers would not be required for certain agriculturally zoned properties. The County's Subdivision Regulations were amended by Bill 09-32 (Bill 09-32 became effective in January 2010) which extended preliminary plans to two years if APF requirements are met.

Comprehensive Plan and Element Plan Updates

In 2010 the Harford County Council adopted Bill 09-46 (Transportation Element Plan) and Bill 10-19 (Historic Preservation Element Plan). The Transportation Element Plan became effective April 26, 2010 and the Historic Preservation Element Plan became effective August 16, 2010. Bill 10-40 added a new chapter to the Solid Waste Management Plan. This bill provided for the planning and implementation of recycling within the publicly funded schools in Harford County. The bill became effective April 8, 2011. The Water and Sewer Master Plan was updated in the spring and fall as required.

Harford County will be updating its Master Plan and Land Use Element Plan during 2011. It is anticipated that the plan will be sent to the County Council for review and approval in early 2012. This plan update will address the requirements of the Smart, Green, and Growing legislative package adopted by the Maryland General Assembly in 2009.

ADEQUATE PUBLIC FACILITIES

The County's 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.

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. Beginning July 1, 2011, local jurisdictions are 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 Priority Funding Area 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 the existing schools, the utilization of the schools, 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 land zoned for residential purposes (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 Appendix C and D, 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 the current school districts. Based on the Adequate Public Facilities provision of the County Code (Section 267-126), the levels 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 major subdivisions (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, 31 of 32 elementary schools meet adequacy standards. The following schools listed below do not meet the adequacy standards established.

Elementary Schools	Year	Actual / Projected Students	Utilization Rate
Dublin	2013/2014	327	110.85%

Beginning July 1, 2011, major subdivision plans within this attendance area will not be approved but will be reviewed and placed on a waiting list until capacity is available.

The Harford County Board of Education approved a comprehensive Elementary Redistricting Plan at its March 14, 2011 meeting. Updated enrollment projections have been developed based on this plan and September 30, 2010 enrollment data. The County Geographic Information System (GIS) was used to geo-code students based on their place of residence in order to identify current and historical enrollment data by the new attendance areas. The updated enrollment projections are included in Tables 6, 7 and 8.

Secondary Schools

Under current law, preliminary plans for major subdivisions (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 2000 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 because 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 who are actually attending their home school. 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 D)

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. Once 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.

Table 6
Harford County Elementary Schools
Utilization Chart
2010

Elementary School	State-Rated Capacity	Actual* 2010 - 2011 ENROLL	Actual* 2010 - 2011 % UTIL.	Projected** 2011 - 2012 ENROLL	Projected** 2011 - 2012 % UTIL.	Projected** 2012 - 2013 ENROLL	Projected** 2012 - 2013 % UTIL.	Projected** 2013 - 2014 ENROLL	Projected** 2013 - 2014 % UTIL.
Abingdon	864	782	90%	819	95%	833	96%	819	95%
Bakerfield	500	427	85%	400	80%	415	83%	405	81%
Bel Air	500	492	98%	497	99%	518	104%	529	106%
Church Creek	793	766	97%	649	82%	655	83%	660	83%
Churchville	388	376	97%	315	81%	327	84%	319	82%
Darlington	192	123	64%	99	52%	96	50%	95	49%
Deerfield	816	620	76%	703	86%	714	88%	718	88%
Dublin	295	235	80%	317	107%	323	109%	**327**	**111%**
Edgewood	511	388	76%	384	75%	383	75%	380	74%
Emmorton**	549	732	133%	539	98%	545	99%	554	101%
Forest Hill	581	550	95%	542	93%	532	92%	535	92%
Forest Lakes**	546	681	125%	512	94%	506	93%	493	90%
Fountain Green	571	567	99%	567	99%	553	97%	545	95%
G. Lisby at Hillsdale	455	329	72%	418	92%	417	92%	428	94%
Hall's Cross Roads	562	457	81%	537	96%	569	101%	557	99%
Havre de Grace	566	405	72%	425	75%	431	76%	432	76%
Hickory	655	720	109.9%	656	100%	668	102%	665	102%
Homestead/Wakefield	907	913	101%	897	99%	906	100%	902	99%
Jarrettsville	548	434	79%	484	88%	501	91%	490	89%
Joppatowne	653	568	87%	584	89%	607	93%	600	92%
Magnolia	518	444	86%	489	94%	497	96%	498	96%
Meadowvale	568	495	87%	473	83%	461	81%	454	80%
Norrisville	252	181	72%	220	87%	216	86%	224	89%
North Bend	500	392	78%	370	74%	376	75%	377	75%
North Harford	500	432	86%	441	88%	449	90%	444	89%
Prospect Mill**	680	887	130%	619	91%	622	91%	612	90%
Red Pump**	696	N/A	N/A	633	91%	656	94%	657	94%
Ring Factory	548	511	93%	542	99%	560	102%	580	106%
Riverside	522	512	98%	433	83%	442	85%	441	84%
Roye-Williams	683	373	55%	372	54%	363	53%	367	54%
Wm. Paca / Old Post Rd.	954	805	84%	912	96%	913	96%	892	94%
Wm. S. James	522	521	100%	392	75%	393	75%	392	75%
Youth's Benefit	958	1,029	107%	999	104%	1,014	106%	1,008	105%
TOTAL	19,353	17,144	89%	17,239	89%	17,461	90%	17,399	90%

* 2010/11 enrollment figures reflect half-day pre-kindergarten classes.

** Enrollment Projections are based on Final Elementary School Redistricting Plan adopted by the Harford County Board of Education on March 14, 2011; Red Pump Elementary School is currently under construction and will open in August, 2011 and is planned to provide relief to Emmorton, Forest Lakes, and Prospect Mill Elementary Schools; Enrollment Projections are derived by geo-coding the student enrollment as of 9/30/2010 based on their place of residence.

Table 7

Harford County Middle Schools

Utilization Chart

2010

Middle School	State-Rated Capacity	Actual 2010 - 2011 ENROLL	Actual 2010 - 2011 %UTIL	Projected* 2011 - 2012 ENROLL**	Projected* 2011 - 2012 %UTIL	Projected* 2012 - 2013 ENROLL**	Projected* 2012 - 2013 %UTIL	Projected* 2013 - 2014 ENROLL**	Projected* 2013 - 2014 %UTIL
Aberdeen	1,444	1,087	75%	1,077	75%	983	68%	982	68%
Bel Air	1,318	1,291	98%	1,313	100%	1,313	100%	1,337	101%
Edgewood	1,370	1,024	75%	1,150	84%	1,154	84%	1,261	92%
Fallston	1,105	887	80%	906	82%	921	83%	863	78%
Havre de Grace	775	530	68%	527	68%	546	70%	586	76%
Magnolia	1,073	735	68%	716	67%	671	63%	718	67%
North Harford	1,243	1,056	85%	1,008	81%	999	80%	1,015	82%
Patterson Mill	711	753	106%	692	97%	658	93%	630	89%
Southampton	1,540	1,270	82%	1,253	81%	1,172	76%	1,151	75%
Alternative Education/RAACS	50	11							
Total	10,629	8,644	81%	8,642	82%	8,417	80%	8,543	81%

* Enrollment Projections are based on Final Elementary School Redistricting Plan adopted by the Harford County Board of Education on March 14, 2011; Enrollment projections are derived by geo-coding the student enrollment as of 9/30/2010 based on their place of residence.

Table 8

Harford County High Schools

Utilization Chart

2010

High School	State-Rated Capacity	Actual		Projected*					
		2010 - 2011		2011 - 2012		2012 - 2013		2013 - 2014	
		ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL	ENROLL	%UTIL
Aberdeen	1,679	1,462	87%	1,375	82%	1,379	82%	1,307	78%
Bel Air	1,668	1,574	94%	1,651	99%	1,683	101%	1,669	100%
C. Milton Wright	1,678	1,555	93%	1,539	92%	1,596	95%	1,554	93%
Edgewood	1,743	1,226	70%	1,227	70%	1,253	72%	1,198	69%
Fallston	1,529	1,113	73%	1,123	73%	1,101	72%	1,138	74%
Harford Technical	920	1,024	111%	1,045	114%	1,035	113%	1,031	112%
Havre de Grace	850	746	88%	713	84%	671	79%	611	72%
Joppatowne	1,126	945	84%	924	82%	903	80%	839	75%
North Harford	1,603	1,383	86%	1,413	88%	1,333	83%	1,260	79%
Patterson Mill	924	965	104%	933	101%	888	96%	851	92%
Alternative Education	200	103							
Total	13,920	12,096	87%	11,943	87%	11,842	86%	11,458	84%

* Enrollment Projections are based on Final Elementary School Redistricting Plan adopted by the Harford County Board of Education on March 14, 2011; Enrollment Projections are derived by geo-coding the student enrollment as of 9/30/2010 based on their place of residence.

Source: Harford County Public Schools & Dept. of Planning and Zoning, May, 2011.

Table 9

Harford County
Modified Elementary School Enrollment Projections

School District	2010	2011	2012	2013	2014	2015	2016	2017	2018
ABINGDON	787	819	833	819	831	829	829	820	821
modified	**787**	**819**	**836**	**825**	**840**	**841**	**844**	**838**	**842**
BAKERSFIELD	386	400	415	405	402	411	414	409	407
modified	**386**	**400**	**412**	**414**	**423**	**445**	**461**	**469**	**481**
BEL AIR	470	497	518	529	538	536	541	533	534
modified	**470**	**497**	**495**	**511**	**526**	**530**	**541**	**539**	**546**
CHURCH CREEK	713	649	655	660	654	657	650	649	650
modified	**713**	**649**	**751**	**789**	**817**	**857**	**886**	**924**	**967**
CHURCHVILLE	356	315	327	319	318	319	325	354	353
modified	**356**	**315**	**375**	**372**	**376**	**383**	**397**	**438**	**443**
DARLINGTON	103	99	96	95	90	93	93	103	103
modified	**103**	**99**	**102**	**103**	**100**	**105**	**108**	**121**	**124**
DEERFIELD	740	703	714	718	715	710	699	759	759
modified	**740**	**703**	**770**	**794**	**811**	**825**	**834**	**925**	**947**
DUBLIN	294	317	323	327	333	322	327	321	321
modified	**294**	**317**	**302**	**309**	**317**	**310**	**317**	**315**	**317**
EDGEWOOD	386	384	383	380	376	370	370	367	367
modified	**386**	**384**	**386**	**383**	**380**	**375**	**376**	**374**	**375**
EMMORTON	529	539	545	554	555	555	547	539	539
modified	**529**	**539**	**546**	**565**	**578**	**589**	**592**	**596**	**608**
FOREST HILL	551	542	532	535	510	521	531	522	522
modified	**551**	**542**	**543**	**548**	**525**	**538**	**550**	**543**	**545**
FOREST LAKES	518	512	506	493	487	497	514	504	504
modified	**518**	**512**	**512**	**499**	**493**	**503**	**520**	**510**	**510**
FOUNTAIN GREEN	572	567	553	545	539	547	569	561	560
modified	**572**	**567**	**559**	**552**	**547**	**556**	**579**	**572**	**572**
G. LISBY AT HILLSDALE	406	418	417	428	418	418	412	407	407
modified	**406**	**418**	**407**	**420**	**412**	**414**	**410**	**407**	**409**
HALLS CROSS ROADS	510	537	569	557	558	565	568	559	559
modified	**510**	**537**	**543**	**536**	**541**	**551**	**558**	**553**	**557**
HAVRE DE GRACE	398	425	431	432	442	441	432	424	424
modified	**398**	**425**	**428**	**454**	**492**	**519**	**540**	**563**	**598**
HICKORY	638	656	668	665	659	660	646	639	639
modified	**638**	**656**	**664**	**676**	**685**	**702**	**703**	**712**	**729**
HOMESTEAD/WAKEFIELD	882	897	906	902	913	904	908	895	894
modified	**882**	**897**	**908**	**922**	**952**	**961**	**985**	**991**	**1,009**
JARRETTSVILLE	465	484	501	490	490	501	500	492	491
modified	**465**	**484**	**488**	**484**	**491**	**509**	**515**	**514**	**520**
JOPPATOWNE	547	584	607	600	594	598	598	590	590
modified	**547**	**584**	**578**	**581**	**584**	**598**	**608**	**610**	**621**
MAGNOLIA	479	489	497	498	485	491	495	490	490
modified	**479**	**489**	**492**	**499**	**492**	**504**	**514**	**516**	**522**
MEADOWVALE	516	473	461	454	450	440	454	494	494
modified	**516**	**473**	**507**	**504**	**504**	**498**	**518**	**568**	**572**
NORRISVILLE	225	220	216	224	221	227	228	225	225
modified	**225**	**220**	**224**	**235**	**235**	**245**	**249**	**249**	**253**
NORTH BEND	363	370	376	377	362	370	376	371	370
modified	**363**	**370**	**374**	**380**	**370**	**383**	**394**	**394**	**399**
NORTH HARFORD	444	441	449	444	439	440	451	445	445
modified	**444**	**441**	**459**	**461**	**463**	**472**	**491**	**492**	**500**
PROSPECT MILL	610	619	622	612	601	606	629	621	620
modified	**610**	**619**	**616**	**610**	**604**	**613**	**640**	**636**	**639**
RED PUMP	**631**	**633**	**656**	**657**	**653**	**652**	**651**	**641**	**642**
modified	**631**	**633**	**665**	**679**	**687**	**699**	**710**	**713**	**727**
RING FACTORY	535	542	560	580	586	575	582	574	574
modified	**535**	**542**	**559**	**586**	**599**	**595**	**610**	**609**	**616**
RIVERSIDE	446	433	442	441	443	434	436	473	473
modified	**446**	**433**	**460**	**464**	**472**	**468**	**475**	**521**	**526**
ROYE-WILLIAMS	378	372	363	367	365	361	374	371	371
modified	**378**	**372**	**368**	**372**	**370**	**366**	**380**	**376**	**376**
WM PACA/OLD POST RD	893	912	913	892	895	904	911	901	900
modified	**893**	**912**	**914**	**913**	**936**	**967**	**995**	**1,006**	**1,028**
W.S. JAMES	392	392	393	392	386	382	402	438	437
modified	**392**	**392**	**394**	**394**	**389**	**386**	**407**	**445**	**445**
YOUTHS BENEFIT	978	999	1,014	1,008	1,022	1,027	1,023	1,008	1,008
modified	**978**	**999**	**1,005**	**1,012**	**1,039**	**1,057**	**1,067**	**1,065**	**1,079**
Total	17,138	17,239	17,461	17,399	17,330	17,363	17,485	17,499	17,493
Total - modified	**17,138**	**17,239**	**17,643**	**17,848**	**18,051**	**18,365**	**18,776**	**19,104**	**19,401**

Source: Harford County Dept. of Planning and Zoning, May 2011.

Table 10

Harford County
Modified Secondary School Enrollment Projections

Middle School

School District	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aberdeen	1,095	1,070	983	982	905	930	914	942	952
modified	**1,087**	**1,061**	**1,018**	**1,050**	**1,005**	**1,067**	**1,086**	**1,157**	**1,208**
Bel Air	1,267	1,267	1,313	1,337	1,313	1,342	1,344	1,403	1,405
modified	**1,291**	**1,341**	**1,327**	**1,365**	**1,355**	**1,399**	**1,416**	**1,492**	**1,509**
Edgewood	1,046	993	1,154	1,261	1,252	1,276	1,249	1,242	1,237
modified	**1,024**	**1,049**	**1,176**	**1,305**	**1,319**	**1,367**	**1,362**	**1,379**	**1,398**
Fallston	892	908	921	863	854	887	880	933	944
modified	**887**	**905**	**931**	**883**	**884**	**928**	**931**	**998**	**1,020**
Havre de Grace	584	546	546	586	589	586	571	534	531
modified	**530**	**536**	**560**	**616**	**635**	**648**	**648**	**624**	**639**
Magnolia	795	754	671	718	749	780	773	753	750
modified	**735**	**717**	**680**	**735**	**774**	**814**	**815**	**803**	**808**
North Harford	1,113	1,078	999	1,015	1,035	1,032	1,011	1,021	1,041
modified	**1,056**	**1,026**	**1,013**	**1,043**	**1,078**	**1,089**	**1,082**	**1,108**	**1,145**
Patterson Mill	**775**	**769**	**658**	**630**	**614**	**662**	**673**	**677**	661
modified	**753**	**743**	**665**	**644**	**635**	**692**	**711**	**722**	**713**
Southampton	1,256	1,267	1,172	1,151	1,136	1,151	1,095	1,110	1,120
modified	**1,270**	**1,290**	**1,184**	**1,174**	**1,170**	**1,197**	**1,150**	**1,178**	**1,200**
Total	8,823	8,652	8,417	8,543	8,447	8,646	8,510	8,615	8,641
Total - modified	**8,633**	**8,668**	**8,554**	**8,816**	**8,856**	**9,202**	**9,203**	**9,460**	**9,638**

High School

School District	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aberdeen	1,464	1,375	1,379	1,307	1,304	1,180	1,148	1,126	1,057
modified	**1,464**	**1,375**	**1,416**	**1,379**	**1,413**	**1,325**	**1,334**	**1,355**	**1,322**
Bel Air	1,431	1,651	1,683	1,669	1,697	1,693	1,723	1,746	1,738
modified	**1,431**	**1,651**	**1,700**	**1,703**	**1,748**	**1,762**	**1,811**	**1,852**	**1,862**
C. Milton Wright	1,591	1,539	1,596	1,554	1,490	1,446	1,405	1,380	1,363
modified	**1,591**	**1,539**	**1,609**	**1,580**	**1,528**	**1,497**	**1,468**	**1,456**	**1,452**
Edgewood	1,194	1,227	1,253	1,198	1,206	1,261	1,314	1,335	1,363
modified	**1,194**	**1,227**	**1,278**	**1,250**	**1,285**	**1,371**	**1,455**	**1,507**	**1,567**
Fallston	1,209	1,123	1,101	1,138	1,106	1,093	1,104	1,031	1,036
modified	**1,209**	**1,123**	**1,113**	**1,162**	**1,142**	**1,141**	**1,165**	**1,102**	**1,120**
Havre de Grace	775	713	671	611	598	621	639	656	673
modified	**775**	**713**	**690**	**649**	**654**	**699**	**739**	**778**	**819**
Joppatowne	952	924	903	839	770	760	763	792	816
modified	**952**	**924**	**913**	**859**	**800**	**800**	**814**	**855**	**891**
North Harford	1,393	1,413	1,333	1,260	1,213	1,160	1,173	1,213	1,192
modified	**1,393**	**1,413**	**1,351**	**1,295**	**1,265**	**1,228**	**1,260**	**1,321**	**1,317**
Patterson Mill	949	933	888	851	799	761	730	722	749
modified	**949**	**933**	**897**	**870**	**826**	**797**	**774**	**775**	**814**
Total	10,958	10,898	10,807	10,427	10,183	9,975	9,999	10,001	9,987
Total - modified	**10,958**	**10,898**	**10,967**	**10,747**	**10,663**	**10,620**	**10,820**	**11,001**	**11,164**

Source: Harford County Dept. of Planning and Zoning, May 2011.

Table 11

Harford County Residential Building Permit Activity

by Elementary School District

2006 - 2010

	2006					2007					2008					2009					2010				
	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	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bakerfield	2	0	0	1	3	2	0	12	0	14	2	2	0	0	4	3	0	0	0	3	3	4	0	0	7
Bel Air	3	2	12	0	17	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	1	12	0	0	13
Church Creek	3	27	12	0	42	0	126	12	0	138	1	79	14	0	94	1	62	0	0	63	0	51	0	0	51
Churchville	11	0	0	0	11	10	0	0	0	10	7	0	0	0	7	7	0	0	0	7	5	0	0	1	6
Darlington	2	0	0	1	3	3	0	0	0	3	3	0	0	1	4	2	0	0	0	2	0	0	0	0	0
Deerfield	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	1	0	0	0	1	2	0	0	0	2
Dublin	10	0	0	0	10	8	0	0	0	8	7	0	0	0	7	2	0	0	2	4	2	0	0	1	3
Edgewood	0	24	0	0	24	0	24	0	0	24	0	4	0	0	4	0	4	0	0	4	0	8	0	0	8
Emmorton	25	54	16	0	95	7	50	0	0	57	13	6	28	0	47	3	30	0	0	33	2	94	0	0	96
Forest Hill	13	8	0	0	21	4	0	0	0	4	1	12	0	0	13	1	0	0	0	1	2	0	0	0	2
Forest Lakes	4	0	0	0	4	6	0	0	0	6	1	0	0	0	1	3	0	0	0	3	2	0	0	0	2
Fountain Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G. Lisby at Hillsdale	6	0	0	0	6	4	0	0	0	4	9	0	0	0	9	2	0	0	0	2	2	18	0	0	20
Hall's Cross Roads	3	14	0	0	17	1	18	0	0	19	1	17	0	0	18	1	0	0	0	1	0	0	0	0	0
Havre de Grace	95	148	60	0	303	25	73	48	0	146	22	44	0	0	66	55	40	0	0	95	71	50	0	0	121
Hickory	35	0	0	0	35	5	0	0	1	6	2	0	0	0	2	3	0	0	0	3	15	0	0	0	15
Homestead/Wakefield	27	10	40	0	77	19	11	0	0	30	15	4	0	0	19	17	0	0	0	17	16	0	0	0	16
Jarrettsville	46	0	0	2	48	18	0	0	1	19	14	0	0	0	14	14	0	0	0	14	11	0	0	0	11
Joppatowne	36	0	48	0	84	9	0	0	0	9	9	0	0	0	9	3	0	84	0	87	6	0	0	0	6
Magnolia	0	0	0	0	0	5	28	0	0	33	3	16	0	0	19	0	0	0	0	0	2	22	0	0	24
Meadowvale	7	0	0	0	7	2	11	0	0	13	1	0	0	0	1	2	0	0	0	2	2	0	0	0	2
Norrisville	21	0	0	1	22	10	0	0	0	10	2	0	0	1	3	3	0	0	0	3	2	0	0	0	2
North Bend	12	0	0	2	14	7	0	0	0	7	6	0	0	0	6	8	0	0	0	8	10	0	0	2	12
North Harford	17	0	0	0	17	16	0	0	0	16	12	0	0	3	15	10	0	0	1	11	12	0	0	0	12
Prospect Mill	1	0	0	0	1	0	0	31	0	31	0	0	30	0	30	0	0	16	0	16	0	0	0	0	0
Red Pump	18	39	0	0	57	12	41	0	0	53	7	51	0	0	58	11	71	28	0	110	6	28	28	0	62
Ring Factory	4	0	0	0	4	34	0	0	0	34	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3
Riverside	16	4	0	0	20	2	0	0	0	2	1	0	0	0	1	25	0	0	0	25	20	0	0	0	20
Roye-Williams	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Wm. Paca/Old Post Rd	13	0	0	0	13	6	45	0	0	51	19	22	0	0	41	24	26	0	0	50	10	0	0	0	10
Wm. S. James	5	15	0	0	20	4	15	0	0	19	1	6	0	0	7	0	3	0	0	3	1	3	0	0	4
Youth's Benefit	26	0	0	0	26	17	0	0	0	17	8	0	0	1	9	16	0	0	0	16	12	5	0	0	17
TOTAL	461	345	188	7	1,001	241	442	103	2	788	170	263	72	6	511	220	236	128	3	587	220	295	28	5	548

Note: Permit totals include municipal permits and are revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2011

KEY:

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

Table 12

Harford County Residential Building Permit Activity

by Middle School District

2006 - 2010

	2006					2007					2008					2009					2010				
	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	16	70	40	1	127	7	168	48	0	223	14	117	14	0	145	8	62	0	0	70	5	88	0	1	94
Bel Air	60	98	28	0	186	10	84	0	0	94	14	45	28	0	87	10	87	28	0	125	26	134	28	0	188
Edgewood	15	24	0	0	39	15	69	0	0	84	21	26	0	0	47	25	30	0	0	55	13	8	0	0	21
Fallston	89	0	48	0	137	55	7	0	0	62	27	12	0	1	40	38	14	0	0	52	22	5	0	0	27
Havre de Grace	110	103	48	1	262	30	53	32	0	115	26	25	0	1	52	60	40	0	0	100	75	35	0	0	110
Magnolia	40	4	0	0	44	9	28	0	0	37	13	16	0	0	29	28	0	84	0	112	28	22	0	0	50
North Harford	87	8	0	5	100	48	0	0	1	49	32	12	0	4	48	29	0	0	3	32	33	0	0	2	35
Patterson Mill	34	22	40	0	96	53	26	0	0	79	15	10	0	0	25	15	3	0	0	18	15	3	0	0	18
Southampton	10	0	0	0	10	13	0	31	1	45	8	0	30	0	38	7	0	16	0	23	3	0	0	2	5
TOTAL	461	329	204	7	1,001	240	435	111	2	788	170	263	72	6	511	220	236	128	3	587	220	295	28	5	548

Note: Permit totals include municipal permits and are revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2011.

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

2006-2010

	2006					2007					2008					2009					2010				
	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	16	70	40	1	127	7	168	48	0	223	14	117	14	0	145	8	62	0	0	70	5	88	0	1	94
Bel Air	60	98	28	0	186	10	84	0	0	94	14	45	28	0	87	10	87	28	0	125	26	134	28	0	188
C.M. Wright	10	0	0	0	10	13	0	31	1	45	8	0	30	0	38	7	0	16	0	23	3	0	0	2	5
Edgewood	15	24	0	0	39	15	69	0	0	84	21	26	0	0	47	25	30	0	0	55	13	8	0	0	21
Fallston	89	0	48	0	137	55	7	0	0	62	27	12	0	1	40	38	14	0	0	52	22	5	0	0	27
Havre de Grace	110	103	48	1	262	30	53	32	0	115	26	25	0	1	52	60	40	0	0	100	75	35	0	0	110
Joppatowne	40	4	0	0	44	9	28	0	0	37	13	16	0	0	29	28	0	84	0	112	28	22	0	0	50
North Harford	87	8	0	5	100	48	0	0	1	49	32	12	0	4	48	29	0	0	3	32	33	0	0	2	35
Patterson Mill	34	22	40	0	96	53	26	0	0	79	15	10	0	0	25	15	3	0	0	18	15	3	0	0	18
TOTAL	461	329	204	7	1,001	240	435	111	2	788	170	263	72	6	511	220	236	128	3	587	220	295	28	5	548

Note: Permit totals include municipal permits and are revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May 2011.

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*

2006 - 2010

	2006*		2007*		2008*		2009*		2010*	
SCHOOL	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Abingdon	4,781	13,027	4,781	13,017	4,781	12,998	4,783	12,992	4,781	11,593
Bakerfield	2,238	6,100	2,254	6,137	2,257	6,138	2,270	6,168	2,274	5,581
Bel Air	2,899	7,902	2,995	8,155	3,011	8,189	3,011	8,181	3,013	7,731
Church Creek	3,118	8,499	3,278	8,924	3,317	9,023	3,449	9,369	3,538	9,248
Churchville	2,417	6,589	2,436	6,633	2,447	6,655	2,456	6,673	2,463	6,808
Darlington	966	2,633	998	2,716	1,000	2,721	1,003	2,726	1,007	2,646
Deerfield	3,256	8,876	3,259	8,874	3,259	8,864	3,262	8,862	3,263	9,506
Dublin	1,615	4,403	1,634	4,449	1,643	4,471	1,651	4,485	1,658	4,490
Edgewood	1,128	3,073	1,199	3,264	1,222	3,322	1,244	3,381	1,248	3,523
Emmorton	1,912	5,212	2,085	5,676	2,175	5,916	2,229	6,056	2,274	6,159
Forest Hill	2,353	6,414	2,373	6,462	2,393	6,508	2,397	6,512	2,409	7,004
Forest Lakes	2,811	7,660	2,827	7,696	2,831	7,698	2,836	7,705	2,837	7,785
Fountain Green	1,892	5,157	1,892	5,151	1,892	5,146	1,892	5,140	1,892	5,742
G. Lisby at Hillsdale	2,243	6,114	2,246	6,116	2,252	6,124	2,256	6,128	2,264	5,693
Hall's Cross Roads	1,773	4,834	1,899	5,171	1,915	5,211	1,934	5,253	1,951	5,350
Havre de Grace	2,605	7,099	2,899	7,893	3,187	8,667	3,326	9,035	3,388	7,890
Hickory	2,601	7,091	2,720	7,406	2,753	7,489	2,759	7,495	2,761	7,994
Homestead/Wakefield	5,095	13,883	5,169	14,074	5,242	14,253	5,271	14,319	5,287	14,411
Jarrettsville	2,631	7,170	2,661	7,246	2,707	7,361	2,725	7,403	2,738	7,730
Joppatowne	3,659	9,975	3,746	10,198	3,825	10,405	3,834	10,416	3,843	9,801
Magnolia	1,589	4,330	1,590	4,328	1,590	4,323	1,621	4,404	1,639	4,670
Meadowvale	2,531	6,901	2,602	7,083	2,608	7,095	2,621	7,119	2,622	6,963
Norrisville	1,201	3,274	1,225	3,334	1,245	3,388	1,255	3,409	1,258	3,496
North Bend	2,170	5,915	2,200	5,991	2,214	6,021	2,220	6,032	2,226	6,214
North Harford	2,230	6,080	2,270	6,181	2,286	6,219	2,302	6,253	2,316	6,599
Prospect Mill	2,687	7,324	2,799	7,620	2,800	7,615	2,829	7,686	2,858	7,418
Red Pump	3,588	9,782	3,616	9,845	3,670	9,983	3,720	10,107	3,776	10,127
Ring Factory	2,663	7,258	2,676	7,286	2,680	7,288	2,712	7,368	2,712	7,349
Riverside	2,429	6,622	2,432	6,621	2,451	6,666	2,453	6,663	2,454	6,532
Roye-Williams	1,826	4,977	1,844	5,021	1,844	5,015	1,844	5,010	1,844	5,901
Wm. Paca/Old Post Rd	1,590	11,361	1,850	5,037	1,862	12,077	1,911	5,191	4,528	12,516
Wm. S. James	4,480	5,183	4,484	12,209	4,503	5,236	4,521	12,283	1,950	5,712
Youth's Benefit	5,050	13,765	5,097	13,877	5,121	13,929	5,138	13,957	5,146	14,644
TOTAL	86,025	234,482	88,033	239,692	88,984	242,012	89,733	243,779	90,218	244,826

* 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 2011.

Table 15
Harford County Population and Households
by Middle School District

2006 - 2010

SCHOOL	2006*		2007*		2008*		2009*		2010*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,662	31,786	11,986	32,634	12,106	32,926	12,318	33,465	12,456	33,298
Bel Air	12,867	35,072	13,245	36,063	13,422	36,504	13,511	36,706	13,594	35,055
Edgewood	13,313	36,287	13,647	37,157	13,684	37,217	13,764	37,393	13,809	37,068
Fallston	8,448	23,027	8,599	23,413	8,729	23,741	8,788	23,875	8,826	25,102
Havre de Grace	6,459	17,605	6,864	18,688	7,113	19,344	7,222	19,620	7,271	18,129
Magnolia	7,695	20,975	7,723	21,027	7,764	21,117	7,800	21,189	7,827	21,071
North Harford	9,978	27,198	10,126	27,571	10,221	27,799	10,268	27,895	10,313	29,368
Patterson Mill	5,895	16,068	5,980	16,283	6,072	16,513	6,147	16,699	6,170	17,460
Southampton	9,708	26,463	9,863	26,855	9,873	26,851	9,916	26,938	9,952	28,275
TOTAL	86,025	234,482	88,033	239,692	88,984	242,012	89,733	243,779	90,218	244,826

* 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 2011.

Table 16
Harford County Population and Households
by High School District

2006 - 2010

SCHOOL	2006*		2007*		2008*		2009*		2010*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,662	31,786	11,986	32,634	12,106	32,926	12,318	33,465	12,456	33,298
Bel Air	12,867	35,072	13,245	36,063	13,422	36,504	13,511	36,706	13,594	35,055
C. Milton Wright	9,778	26,652	9,863	26,855	9,873	26,851	9,916	26,938	9,952	28,275
Edgewood	13,493	36,779	13,647	37,157	13,684	37,217	13,764	37,393	13,809	37,068
Fallston	8,264	22,525	8,599	23,413	8,729	23,741	8,788	23,875	8,826	25,102
Havre de Grace	6,713	18,297	6,864	18,688	7,113	19,344	7,222	19,620	7,271	18,129
Joppatowne	7,318	19,947	7,723	21,027	7,764	21,117	7,800	21,189	7,827	21,071
North Harford	10,099	27,526	10,126	27,571	10,221	27,799	10,268	27,895	10,313	29,368
Patterson Mill	5,832	15,897	5,980	16,283	6,072	16,513	6,147	16,699	6,170	17,460
TOTAL	86,025	234,482	88,033	239,692	88,984	242,012	89,733	243,779	90,218	244,826

* 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 2011.

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 2004 Harford County Land Use Element Plan. Additional information is included in this report on water/sewage usage by dwelling type; for nonresidential 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 "2010 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. In 1997, the average daily water demand by customers served by the County's central system was approximately 9.6 MGD, with a corresponding maximum day demand of approximately 14.3 MGD. In 2010, the County's average day and maximum day demands were 12.1 MGD and 17.1 MGD, respectively. The total maximum daily water treatment capacity is approximately 20.4 MGD.

Per the Maryland Department of the Environment's Water Supply Capacity Management Plan the County has a maximum day drought demand of 18.7 MGD which leaves an excess capacity of 1.7 MGD for additional growth addition to the County demand, 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.

Expansion of the existing Abingdon Water Treatment Plant is currently under construction and is anticipated to be completed by the end of 2011, bringing an additional 10 MGD of source capacity online. The County's total maximum daily water treatment capacity will increase to 30.4 MGD upon completion of the Abingdon Water Treatment Plant expansion.

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) Adkins Retreat
3) Campus Hills Water Works Inc.
4) Clear View Mobile Home Park
5) Darlington
6) Darlington Mobile Home Park
7) Fountain Green Mobile Home Park
8) Greenridge Utilities Inc.
9) Hart Heritage
10) Lakeside Vista
11) Queens Castle Mobile Home Park
12) Swan Harbor Mobile Home Park
13) Williams Mobile Home Park

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 “2009 Water and Sewer Adequate Public Facilities Report.”

The average daily influent flow to the Sod Run WWTP in 2010 was approximately 12.6 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 2010 was approximately 0.76 MGD. The average daily influent flow for Spring Meadows in 2010 was 0.01 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 in order to encourage growth to remain within the growth corridor, maintain financial stability, and protect the environment.

Table 17

JANUARY - DECEMBER 2010
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.

	2010
Total Number of Connections	42,814
WATER	
Total Number of Connections	39,710
Average Water Production	12.1 MGD
Maximum Day Water Production	17.1 MGD
Average Water Usage per Connection (gal/day)	305
Residential Unit Water Usage (gal/day)	147
Average Commercial/Industrial Water Usage (gal/day)	5,898
SEWAGE	
Total Number of Sewer Connections	40,209
Average Sewage Flows	13.3 MGD
Maximum Day Sewage Flows	29.2 MGD
Average Sewage per Connection (gal/day)	331
Residential Sewage Generation (gal/day)	147
Average Commercial/Industrial Sewage Generation (gal/day)	5,898

- MGD = Million Gallons per Day

Source: 2010 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 WATER DEMAND	1993	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025
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	7.6	8.4	9.0
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	11.0	12.1	13.0
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	7.3	7.5	7.95
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	10.7	11.0	11.6
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
* 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*	1.5	1.5	1.5
Chapel Hill																				
Avg. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	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	1.5	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	0.3	0.3	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
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	15.5	16.5	17.6
Max. Day, mgd	8.5	12.1	11.2	14.3	14.5	14.8	12.5	17.2	16.9	13.9	14.0	15.4	15.0	16.6	15.4	15.1	17.1	25.2	26.6	28.1

*-Allocated maximum day flow projections based on service agreements.
A - Actual flows

Source: 2010 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)	INDUSTRIAL FLOW (ADF)	INFILTRATION / INFLOW (ADF)	TOTAL FLOW	SYSTEM CAPACITY
HARFORD COUNTY	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
	2008	36,530	8.4	1.3	1.8	11.5	20
	2009	36,658	8.4	1.3	2.8	12.5	20
	2010	37,176	8.1	1.7	2.8	12.6	20
	2025	45,872	10.3	2.58	4.0	16.88	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
	2008	3,264	0.60	0.04	0.09	0.73	0.95
	2009	3,294	0.58*	0.03*	0.08*	0.69*	0.95
	2010	3,033	0.64	0.04	0.08	0.76	0.95
	2025	3,251	0.71	0.04	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
	2008	53	0.01	0	NC	0.01	0.01
	2009	53	0.01	0	NC	0.01	0.01
	2010	53	0.01	0	NC	0.01	0.01
	2025	53	0.01	0	NC	0.01	0.01
WHITEFORD - CARDIFF	2004	178	0.02	0	0.01	0.03	0.12
	2008	179	0.02	0	0.01	0.03	0.12
	2009	179	0.02	0	0.01	0.03	0.12
	2010	179	0.23	0	0.001	0.024	0.12
	2025	179	0.09	0.01	0.02	0.12	0.12

NC = Not Computed

* During the last 6 months of 2009, the clarifiers at the Joppatowne WWTP were being worked on, so Pump Station 47 was sending some flow to the Harford County Sod Run drainage area for treatment.

Source: 2010 Harford County Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer.

Table 20
2010 EXISTING WATER & SEWER CAPITAL PROJECTS

The Capital Improvement Program establishes projects for expanding and improving water and sewer facilities. This list of 2010 Capital Projects includes the project status.

PROJECT NO.	PROJECT NAME	PROJECT STATUS
6440	Infiltration/Inflow	Flow Monitoring, Manhole Rehabilitation, Televising & Smoke Testing: on-going
6613	Church Creek Pump Station	Construction Phase
6627	Country Walk Water Transmission Main Parallel	Design Phase Complete / On hold
6632	Bear Cabin Pump Station	Construction Bid Phase
6634	Lower Bynum Run Interceptor Parallel	Easement Acquisition
6637	Sod Run ENR	Design Phase
6665	Joppa Farm Road Pump Station # 47 Redirection & Parallel Sewer	Design Phase Complete / On hold
6671	Abingdon Water Treatment Plant Expansion	Construction Phase
6676	Oaklyn Manor Phase II Petition	Design Phase Complete / Project Closed
6687	Abingdon Road Water Main	Design Phase & Easement Acquisition Completed
6690	MD Route 24 Water Transmission Main	Study Phase
6692	Bush Creek Pump Station Upgrade	Construction Phase
6696	Haverhill Pump Station Replacement	Construction Complete
6697	Riviera Drive Pump Station Replacement	Construction Complete
6699	Winters Run Pump Station Outfall Sewer	Design Phase & AMTRAK Easement Acquisition Complete
6700	Hickory Bypass Water Transmission Main (Rte. 1 to Vineyard Oaks)	Design Phase Complete
6703	Bynum Run Parallel Phase 6 & 7	Alignment Study, Wetland Permitting & Easement Acquisition
6705	Joppatowne ENR	Design Phase
6707	Infiltration / Inflow in Bynum Run Drainage Area	Study Phase
6711	Swan Creek Water Tank	Easement Acquisition
6712	Edgewood Interceptor Parallel	Funding Phase
6713	Greenridge Pump Station Replacement	Design Phase
6715	Bill Bass Outfall Sewer Replacement	Design Phase

Road System

The information for the APF 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 11 (Table 24), and a list of State Consolidated Transportation Program (CTP) projects funded for construction in FY 11 (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.

Road Intersection Analysis Methodology

A key feature of the APF Road Intersection regulations is the requirement for preparation of a Traffic Impact Analysis (TIA) for residential and nonresidential uses that generate more than 249 trips per day. Proposed development located within the Chesapeake Science and Security Corridor will not be required to submit a Traffic Impact Analysis unless the proposed use will 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 Traffic Impact Analysis is outlined in the "Harford County Traffic Impact Analysis Guidelines."

A complete TIA includes the following:

- The designation of the study area as required in the APF regulations based on whether the proposed development is inside or outside the Development Envelope.

Inside the Development Envelope:
The TIA shall include all the existing County and State roads from the point of entrance of site to the second intersection of an arterial roadway or higher functional classification road, in all directions. Developments which generate 1,500 or more trips per day may be required to expand the study area.

Outside the Development Envelope:
The TIA shall include all existing County and State roads from point of entrance to first intersection of a major collector or higher classification road, in all directions.

- 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 Levels of Service 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 the background traffic.

- An explanation of the results with recommended improvements as necessary.

The developer is required to provide improvements where the trips generated by the development reduce the Level of Service (LOS) from adequate to a LOS below the standard. The standard for intersections within the Development Envelope will be LOS D. If existing LOS is E or F at an intersection within the Development Envelope, the developer must mitigate the impact of the development's new trips. The standard for intersections outside the Development Envelope will be LOS C. If the existing LOS is D or lower, then the developer must mitigate the impact of the development's new trips.

In addition to the review of individual Traffic Impact Analyses, 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 five signalized intersections and ten 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 24 / Maryland 924 / Tollgate Road
2. Maryland 24 and US 1
3. Maryland 152 and Singer Road
4. Maryland 22 and Thomas Run Road / Schucks Road
5. Maryland 24 and Bel Air South Parkway
6. Interstate 95 and Maryland 24 Ramp
7. Business US 1 and Henderson Road
8. Maryland 147 and Connolly Road
9. Maryland 23 and Grafton Shop Road
10. Tollgate Road and MacPhail Road
11. US 1 and Reckord Road
12. Maryland 7 and Brass Mill Road
13. Maryland 7 and Joppa Farm Road
14. Maryland 155 and Earlton Road
15. Maryland 22 and Aldino-Stepney Road

Developments that impact these intersections will be required to mitigate their impacts to the intersection. The Interstate-95/Maryland 24 Improvement Project is currently under construction and is anticipated to improve the LOS at the Maryland 24/Maryland 924/Tollgate Road intersection and the Interstate 95 and Maryland 24 Ramp.

To address operational issues and impacts associated with BRAC, the Maryland State Highway Administration began construction on the US 40 and MD715 interchange project in the fall of 2010. This project will add a spur to the eastbound US 40 ramp which will allow vehicles to access northbound MD 715 and eliminate the U-turn movement on US 40. The project will also add capacity to MD 715 at the Old Philadelphia intersection. The anticipated completion date fro this project is 2013. Tables 24 and 25 detail County Capital Projects and State Consolidated Transportation Projects relative to this reporting period.

Table 21

Signalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2007 - 2010

Intersection	2007 Peak Hour Level Of Service / Delay In Seconds	2008 Peak Hour Level Of Service / Delay In Seconds	2009 Peak Hour Level Of Service / Delay In Seconds	2010 Peak Hour Level Of Service / Delay In Seconds
Maryland Route 7 and U.S. Route 40		C / 30.1		C / 29.2
Maryland Route 924 and Moores Mill Road		C / 33.4		B / 19.8
Maryland Route 24 and Trimble Road		B / 19.5		D / 40.6
Maryland Route 152 and U.S. Route 1		E / 61.0		D / 48.6
Maryland Route 24 and U.S. Route 1		E / 61.8		E / 59.6
Maryland Route 152 and Trimble Road		C / 32.7		C / 23.6
Maryland Route 24 and Jarrettsville Road		C / 24.6		C / 23.8
Maryland Route 152 and Hanson Road		B / 19.3		C / 27.9
Maryland Route 152 and Singer Road		D / 40.2		D / 37.6
Maryland 22 and Thomas Run Road/Schucks Road		D / 41.2		D / 41.8
Maryland 715 and Old Philadelphia Road		C / 24.9		C / 23.3
Maryland Route 22 and Brier Hill Road	B / 16.7		B / 15.1	
Maryland Route 22 and Maryland Route 136	C / 29.0		C / 29.6	
Maryland Route 24 and Bel Air South Parkway	E / 58.7		E / 52.7	
Maryland Route 24 and Forest Valley Drive*	C / 21.0		C / 20.3	
Maryland Route 24 and Plumtree Road	C / 31.8		C / 34.0	
Maryland Route 24 and Ring Factory Road	D / 48.0		C / 33.7	
Maryland Route 24 and Maryland Route 924 (Tollgate)	F / > 80		Under Construction	
Maryland Route 543 and U.S. Route 1	C / 29.6		C / 23.2	
Maryland Route 543 and Maryland Route 22	C / 29.8		D / 43.8	
Maryland Route 924 and Abingdon Road	C / 33.5		D / 41.0	

* Signalized in 2007

Source: Harford County Dept. of Planning and Zoning, May 2011

Table 22

Unsignalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2007 - 2010

Intersection	2007 Peak Hour Level Of Service / Delay In Seconds	2008 Peak Hour Level Of Service / Delay In Seconds	2009 Peak Hour Level Of Service / Delay In Seconds	2010 Peak Hour Level Of Service / Delay In Seconds
Interstate 95 and Maryland Route 24 Ramp*		F / >60		Under Construction
Business US 1 and Henderson Road		D / 28.5		E / 40.0
Maryland 147 and Connolly Road		F / 55.5		E / 49.6
Maryland 23 and Grafton Shop Road		F / 76.2		F / 55.6
Tollgate Road and MacPhail Road		F / 57.6		E / 36.0
US 1 and Reckord Road		F / 143.1		F / 56.2
Maryland 7 and Brass Mill Road		E / 38.6		F / 221.4
Woodsdale Road and Box Hill Corporate Center Drive		D / 25.8		D / 27.8
Maryland Route 7 and Maryland Route 159	B / 13.2		B / 11.4	
Maryland Route 7 and Joppa Farm Road	D / 32.5		F / 84.8	
Maryland Route 159 and Spesutia Road	B / 13.2		C / 16.8	
Maryland 155 and Earlton Road	D / 31.2		D / 34.8	
Maryland 543 and Henderson Road	D / 26.2		C / 24.8	
Tollgate Road and Ring Factory Road**	A / 7.8		A / 7.9	
Maryland 22 and Aldino-Stepney Road	E / 49.2		E / 38.5	
Macphail and Ring Factory Road	B / 14.7		C / 15.0	

* Major interchange improvements are currently underway for the I-95 / MD 24 / MD 924 interchange.
** Roundabout constructed in 2007

Source: Harford County Dept. of Planning and Zoning, May 2011.

Table 23

48 Hour Average Weekday Daily Traffic Volume And Locations

2007 - 2010

Road Name	Location	2007 Average Daily Count	2008 Average Daily Count	2009 Average Daily Count	2010 Average Daily Count
Beards Hill Road	North of Churchville Road		7,167		13,503
Carrs Mill Road	North of Maryland Route 152		9,609		9,434
Chapel Road	North of Interstate 95		2,228		2,510
Jarrettsville Road	East of Maryland Route 24		7,284		6,962
Jarrettsville Road	West of Maryland Route 24		5,063		4,886
Maryland Route 7	West of Maryland Route 24		7,612		7,341
Moores Mill Road	West of Coconut Court		11,568		9,624
Moores Mill Road	West of Old English Court		8,694		7,944
Pleasantville Road	North of Putnam Road		3,251		3,521
U.S. Route 1	North of Maryland Route 152		28,011		26,650
U.S. Route 40	North of Maryland Route 24		22,540		22,212
Abingdon Road	North of Interstate 95	10,396		12,414	
Hanson Road	South of Silverbell Road	2,740		2,775	
Hanson Road	West of Maryland Route 24	11,960		10,740	
Maryland Route 24	North of Singer Road	44,410		43,082	
Maryland Route 152	South of U.S. Route 1	24,570		23,832	
Maryland Route 543	South of Maryland Route 22	18,982		18,667	
Plumtree Road	East of Maryland Route 24	6,071		6,418	
Ring Factory Road	West of Maryland Route 24	4,596		4,709	
Ring Factory Road	East of Maryland Route 24	8,924		8,646	
Singer Road	West of Maryland Route 24	8,556		9,902	
Singer Road	East of Maryland Route 24	9,832		8,933	
Trimble Road	East of Maryland Route 24	5,179		8,298	
Trimble Road	West of Maryland Route 24	7,321		6,959	
Vale Road	West of U.S. Route 1 Overpass	8,697		8,819	

Source: Harford County Dept. of Planning and Zoning, May 2011.

Table 24

List of Approved County Capital Projects

Funded for Construction in FY 11

Bridge and Road Scours	**Repairs**
Bridge Rehabilitation	**Repairs**
Road and Bridge Scours	**Repairs**
North Avenue/Henderson Road Bridge #215	**New Bridge**
St. Clair Bridge Road Bridge #99	**Rehabilitation**
Watervale Road Bridge #63	**Replacement**
MacPhail Road @ Tollgate Road	**Roundabout**
Red Pump Road @ Yankee Doodle Drive	**Roundabout**
Robinhood Road – US 40 to Titan Terrace	**Upgrade**
Trimble Road @ Fort Hoyle Road	**Roundabout**
Wheel Road – Laurel Bush Road to Fairway Drive	**Upgrade**
Road Reconstruction and Rehabilitation*	**Reconstruct and rehabilitate**
Roadways Resurfacing*	**Resurfacing**
Tar and Chip Conversion*	**Rehabilitate Roads to Hot Mix Asphalt**

***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

State Consolidated Transportation Program

Funded for Construction in FY 11

I-95 / MD 24 – Singer Road to MD 7	**Grade separate MD 24/MD 924/Tollgate Rd Intersection and upgrade I-95/MD 24 interchange**
US 40 Thomas J. Hatem Memorial Bridge	**Deck Replacement**
US 40 / MD 715 Interchange	**Interchange Improvements**
MD 7 – Seven Trails Drive to US 40	**Patching**
MD 22 – MD 136 to MD 155	**Patching**
MD 22 – East of MD 543	**Patching**
MD 23 – MD 138 to MD 24	**Patching**
MD 24 – Red Pump Road to US 1 Bypass Bridge	**Resurfacing**
MD 132 – US 40 to end of State maintenance	**Resurfacing**
MD 462 – MD 132 to Carsins Run	**Resurface**
MD 543 – MD 165 to MD 440	**Resurfacing**
MD 922 (Churchville Road) – Bond Street to Bus US 1	**Resurfacing**
MD 22 @ Mt Royal Avenue	**ADA Improvements**
MD 24 – Marketplace Drive to Boulton Street	**ADA Improvements**
MD 24 – Bynum Road to Myers Drive	**ADA Improvements**
US 40 – Lewis Lane to Erie Street	**ADA Improvements**

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 change in development patterns reported are consistent with each other, the recommendations from the last annual report, the adopted plans of the jurisdiction and adjoining jurisdictions, and the plans of the State and local jurisdictions that are responsible for financing or constructing public improvements that are necessary for the implementation of local plans. To address this requirement the following is provided:

All of the development noted in this report has been determined to be consistent with the surrounding land uses. A review for consistency is part of the plan approval process. As recommended in previous reports, the County continues to direct the majority of its new development and redevelopment (88% in 2010) 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 remains on protecting the Priority Preservation Area (PPA). During 2010, 199 acres were protected, 118 of which were in the PPA. This brings the total protected land in the County to 45,321 acres, including almost 33,000 acres in the Priority Preservation Area.

The subdivisions noted in Appendix A are consistent with the intent and policies of the 2004 Land Use Element Plan, the Water and Sewer Master Plan, and the Adequate Public Facilities regulations. All roadway improvements are consistent with the State Consolidated Transportation Plan, the Transportation Improvement Program, and the County's Transportation Element Plan.

In addition, all major subdivisions or development plans that must be reviewed by the County's Development Advisory Committee along with requests for rezoning that are located within one mile of a local jurisdiction are submitted to that jurisdiction for review and comment. All development activity approved during 2010 was consistent with the plans of adjoining jurisdictions. During 2010, the County also reviewed and provided comments on the Municipal Growth Elements and the Water Resource Elements for the cities of Aberdeen and Havre de Grace. Coordination between the municipalities and the County will continue as part of the updating of the County's Land Use Element Plan.

PROCESS IMPROVEMENTS

As part of the annual report, local jurisdictions must identify any changes that will improve the planning and development process, and they must identify any zoning ordinances or regulations that have been adopted during the reporting period that specifically address the planning visions in §1.01 of Article 66B.

With the adoption of the Transportation Element Plan and the Historic Preservation Element Plan in 2010, the remaining major program improvements to be addressed are the update of the 2004 Master Plan and Land Use Element Plan and the update of the 2005 Land Preservation, Parks, and Recreation Plan. Both the Transportation Element Plan and the Historic Preservation Plan were developed to address the 12 Visions associated with the State's Smart Green and Growing legislation. These Visions will also be addressed in the upcoming plan updates.

The County's Master Plan and Land Use Element Plan update was initiated in February 2011, and it is anticipated that a draft document will be available for review at the end of the year. Action by County Council is expected in early 2012. Concurrent with the development of this plan will be the update of the Land Preservation, Parks, and Recreation Plan. Work on this plan is scheduled to begin in mid-spring with adoption to follow in 2012. Also during the 2011-2012 timeframe the County will be participating in the development of the Phase II Watershed Implementation Plan (WIP).

The County does not anticipate making any changes to its development review process in the immediate future, and the County will continue to direct the majority of its development and redevelopment to its designated growth areas.

ORDINANCES AND/OR REGULATIONS THAT IMPLEMENT THE STATE PLANNING VISIONS

As noted previously, the Department of Planning and Zoning has updated several of its element plans (Natural Resources and Water Resources Element Plan, Transportation Element Plan and Historic Element Plan). Each of these plans include the planning visions contained in §1.01 of Article 66B, and strategies are included that address these visions. The County is also in the process of updating its Chesapeake Bay Critical Area Program. The planning visions will also be included into the next scheduled update of the County's Master Plan and Land Use Element Plan.

APPENDIX A

Appendix A
HARFORD COUNTY
APPROVED SUBDIVISION PLANS: 2010

MAP #	PLAN NAME	ACREAGE	LOT ACREAGE	TOTAL UNITS	SF UNITS	TH UNITS	APT UNITS	CONDO UNITS	TYPE OF USE	PFA	ZONING
1	3735 SEWELL ROAD, LOTS 1-3	2.14	2.14	3	3	0	0	0	RESIDENTIAL	YES	R1
2	4820 PHILADELPHIA ROAD	0.459	0.459	1	1	0	0	0	RESIDENTIAL	YES	R3
3	ACERAGE ESTATES	6.03	6.03	1	1	0	0	0	RESIDENTIAL		RR
4	ALDRICH, LEWIS E. & NANCY L. - LOTS 5 & 7	8.878	8.878	1	1	0	0	0	RESIDENTIAL		AG
5	ALLUISI & COX, LANDS OF - LOTS 1 & 2	19.213	19.213	2	2	0	0	0	RESIDENTIAL		AG
6	AYRES PROPERTY - LOTS 3-9	79.67	79.67	7	7	0	0	0	RESIDENTIAL		AG
7	BARBACANE, LANDS OF - LOTS 1 & 2	14.161	14.161	2	2	0	0	0	RESIDENTIAL		AG
8	BARBERRY, LLC - LOTS 7, 8 & 9	6	6	3	3	0	0	0	RESIDENTIAL		AG
9	BEECHTREE ESTATES-PHASE III & IV	300.64	300.64	266	266	0	0	0	RESIDENTIAL	YES	R2/R3 COS
10	BERKSHIRE MANOR (FORMERLY WOODLAWN)	100.575	100.575	290	129	161	0	0	RESIDENTIAL	YES	R3 COS
11	BLAKE'S LEGACY	81.36	81.36	114	114	0	0	0	RESIDENTIAL	YES	R1 COS
12	BLAKE'S LEGACY WEST	11.32	11.32	15	15	0	0	0	RESIDENTIAL	YES	R1
13	BOARD OF EDUCATION OF HARFORD COUNTY MARYLAND, LAND OF	7.75	7.75	0	0	0	0	0	NON RESIDENTIAL		R4
14	BOULEVARD AT BOX HILL-LOT 21	30.8	30.8	0	0	0	0	0	NON RESIDENTIAL		CI
15	BRICE, LANDS OF MORRIS & EVELYN	1.452	1.452	2	2	0	0	0	RESIDENTIAL	YES	R1
16	BROCKMEYER, CHARLES L. - LOTS 2,5,7 & 8	37.24	37.24	2	2	0	0	0	RESIDENTIAL		AG
17	BURGHAUSER, LANDS OF - LOTS 1 & 2	14.557	14.557	2	2	0	0	0	RESIDENTIAL		AG
18	DEER HOLLOW	103.37	74.297	25	25	0	0	0	RESIDENTIAL		AG/RR
19	FARINHOLT, GENEVIEVE - LOTS 1-3	21.4	21.4	2	2	0	0	0	RESIDENTIAL		AG
20	FIELDER, SR., LAND OF THE ESTATE OF SAMUEL B. - LOTS 2-4 (PARCEL 1)	6.88	6.88	3	3	0	0	0	RESIDENTIAL		AG
21	FIELDER, SR., LAND OF THE ESTATE OF SAMUEL B. - LOTS 3-6 (PARCEL 2)	9.06	9.06	4	4	0	0	0	RESIDENTIAL		AG
22	FOUNTAIN GREEN MEADOWS	4.26	4.26	3	3	0	0	0	RESIDENTIAL	YES	R2
23	GROSS, LANDS OF - LOTS 1 AND 2	3.034	3.034	1	1	0	0	0	RESIDENTIAL		RR
24	HARFORD COUNTY COLLEGE - WEST CAMPUS	109.92	109.92	0	0	0	0	0	NON RESIDENTIAL		AG
25	HARFORD RESERVE	8.67	8.67	4	4	0	0	0	RESIDENTIAL		AG/R2
26	HENRY CLAY ESTATES - LOTS 1-58	484.006	187	58	58	0	0	0	RESIDENTIAL		AG
27	HICKORY COMMERCIAL	7.07	7.07	0	0	0	0	0	NON RESIDENTIAL		B3
28	HOLLYWOODS	26.7	26.7	89	0	89	0	0	RESDIENTIAL	YES	R3
29	HOOPER, LANDS OF - LOT 2	15.825	15.825	1	1	0	0	0	RESIDENTIAL		AG
30	INDIAN SPRING FARM - LOT 2	2	2	1	1	0	0	0	RESIDENTIAL		AG
31	INDIAN SPRING FARM - LOT 3	2	2	1	1	0	0	0	RESDIENTIAL		AG
32	KELLY GLEN - LOTS 1-107	46.72	46.72	107	107	0	0	0	RESIDENTIAL	YES	R2 COS
33	LAWRENCE LLC, LANDS OF - LOT 1	80.11	4	0	0	0	0	0	NON RESIDENTIAL		AG
34	LLOYD, ESTATE OF STANLEY E. ESTATES	43.3	6.46	5	5	0	0	0	RESIDENTIAL		AG
35	MARSHALL ESTATES - LOTS 13-27 AND REVISED LOT 6	54.82	54.82	15	15	0	0	0	RESIDENTIAL		AG
36	MARZULLO, JOHN J. - LOTS 3 & 5	19.625	19.625	1	1	0	0	0	RESIDENTIAL		AG
37	MEDLEY ESTATES (LOTS 1-33)	24.45	24.45	33	33	0	0	0	RESIDENTIAL	YES	R1 COS
38	OLDFIELD LOTT - LOTS 4-12	36.5	36.5	9	9	0	0	0	RESIDENTIAL		AG
39	OWENS, LANDS OF - LOTS 1 & 2	20.784	20.784	2	2	0	0	0	RESIDENTIAL		AG
40	PROSPECT GREEN	21.354	21.354	96	0	96	0	0	RESIDENTIAL	YES	R2 COS
41	RICHARDSON'S LEGACY - LOTS 1-42	23.615	23.615	42	42	0	0	0	RESIDENTIAL		R2 COS
42	ROCK SPRING ROAD COMMERCIAL	4.59	4.59	0	0	0	0	0	NON RESIDENTIAL		B2
43	ROYAL FARMS STORE - EDGEWOOD AND HANSON ROADS	1.87	1.87	0	0	0	0	0	NON RESIDENTIAL		B2
44	SMITH, LANDS OF ROY - LOT 4	2.52	2.52	1	1	0	0	0	RESIDENTIAL		AG
45	SMITH, LANDS OF ROY, LOTS 1,2 & 3	6.454	6.454	3	3	0	0	0	RESIDENTIAL		AG
46	SMITHSON, LANDS OF - LOTS 2 & 3	8.73	8.73	2	2	0	0	0	RESIDENTIAL		AG
47	SUSQUEHANNA OVERLOOK	17.64	17.64	4	4	0	0	0	RESIDENTIAL		AG
48	SUSQUEHANNA OVERLOOK - LOTS 5 & 6	46.54	4	2	2	0	0	0	RESIDENTIAL		AG
49	TYSON FAMILY REVOCABLE TRUST, LDS OF - LOT 1	2.637	2.637	1	1	0	0	0	RESIDENTIAL		AG
50	WAFFLE HILL PROPERTIES LLC - LOT 2	15.236	15.236	1	1	0	0	0	RESIDENTIAL		AG
51	WILSON'S CHANCE	30.02	11.41	1	1	0	0	0	RESIDENTIAL		AG
	TOTALS	2,034	1,534	1,228	882	346	0	0			

Source: Harford County Dept. of Planning Zoning, May 2011.

2010 Plan Summary

	Residential Preliminary Plans Approved	Residential Preliminary Plan Units Approved	Nonresidential Preliminary Plans Approved	Total Plans Approved
Inside PFA	12	1019	5	17
Outside PFA	32	209	2	34
Total	44	1228	7	51

Priority Funding Area

2010 Approved Plans

HARFORD COUNTY
ANNUAL REPORT
2010 APPROVED PLANS

Source: Harford County Department of Planning & Zoning, May 2011

APPENDIX B

Appendix B

DEVELOPMENT REGULATIONS – LIST OF AMENDMENTS

Zoning Code

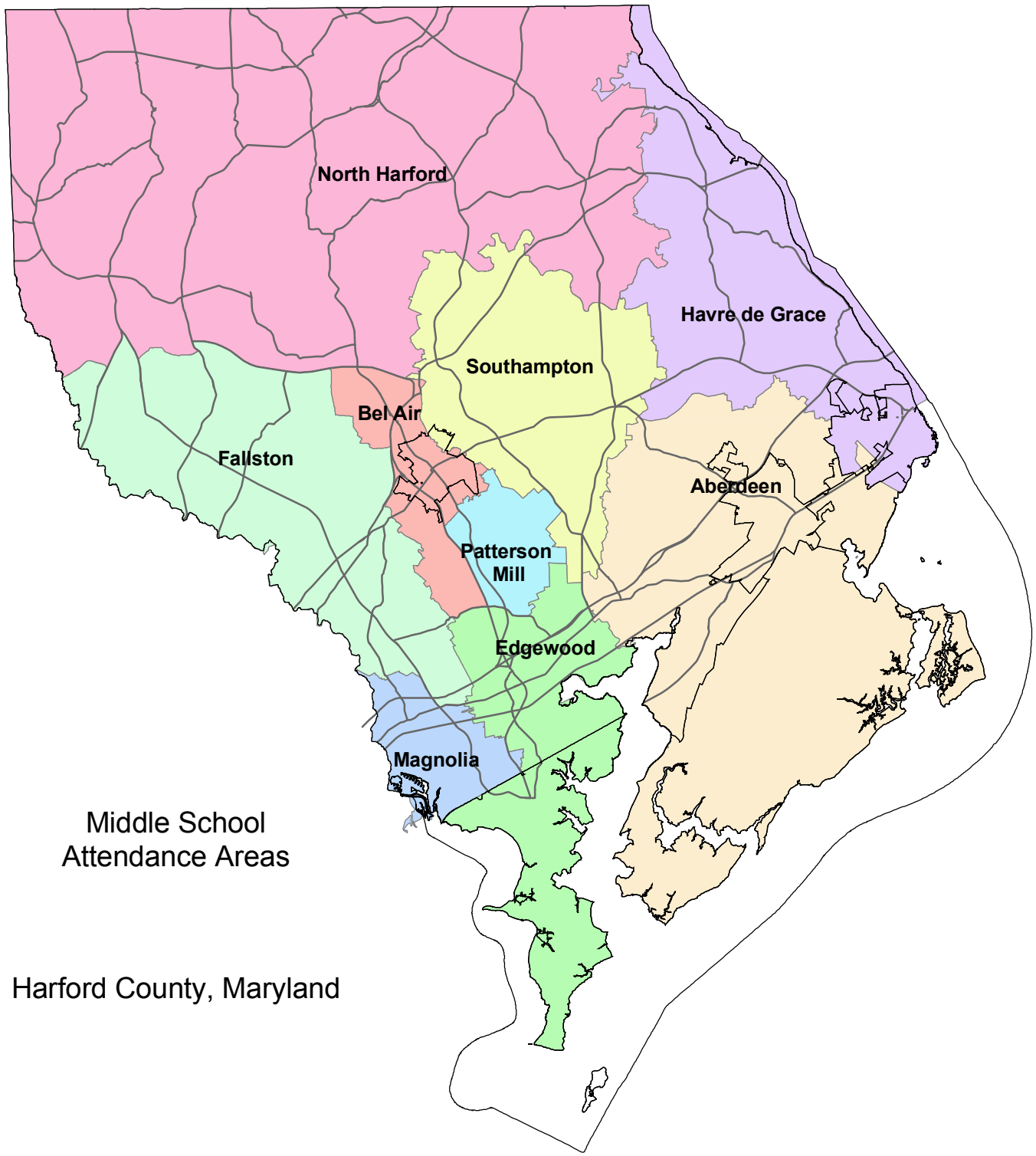
Effective	Bill	Description
1/22/10	09-31aa	Housekeeping items/corrections/clarifications 267-29 BOA- clarification of "days"; 267-22 Lots – panhandle length waiver; 267-33 Yards – front yard reductions; 267-29 Landscaping – remove submission of plan to BOA requirement; 267-59 B1, B2, B3 – correct impervious surface in B1; 267-62 NRD – townhouses in R1; 267-63 Critical Area – ratio correction' 267-64 CSSC- Delete ICSC in B1; 267-68 Special Development Approval – delete redundant wording; 267-88 SE specific standards – add criteria for biological products; correct spelling of "civic"; add criteria for mulch processing storage and sales; Industrial use chart – remove "small arms ammunition".
1/22/10	09-33aa	APF 267-126. Add STATE to rated capacity and change 5 yrs to 3yrs. Re-write capital project portion. Remove grandfathering. This bill also speaks to the sunset provision in prior legislation.
4/20/10	10-03	Special Exception. Construction services/suppliers and lawn /landscaping services. Change minimum parcel area from 1 acre to .5 acres.
12/13/10	10-30	Historic Landmarks 267-112. Add Calvary United Methodist Church and Woodview.
12/27/10	10-32aa	Buffer yards. 267-30A. Add (8) (9) (10) and update Table 30-1 relating to buffers not required for certain agriculturally zoned properties.

Subdivision Regulations

Effective	Bill	Description
1/22/10	09-32	Extension of preliminary plans to 2 years if APF is met (268-19).

APPENDIX C

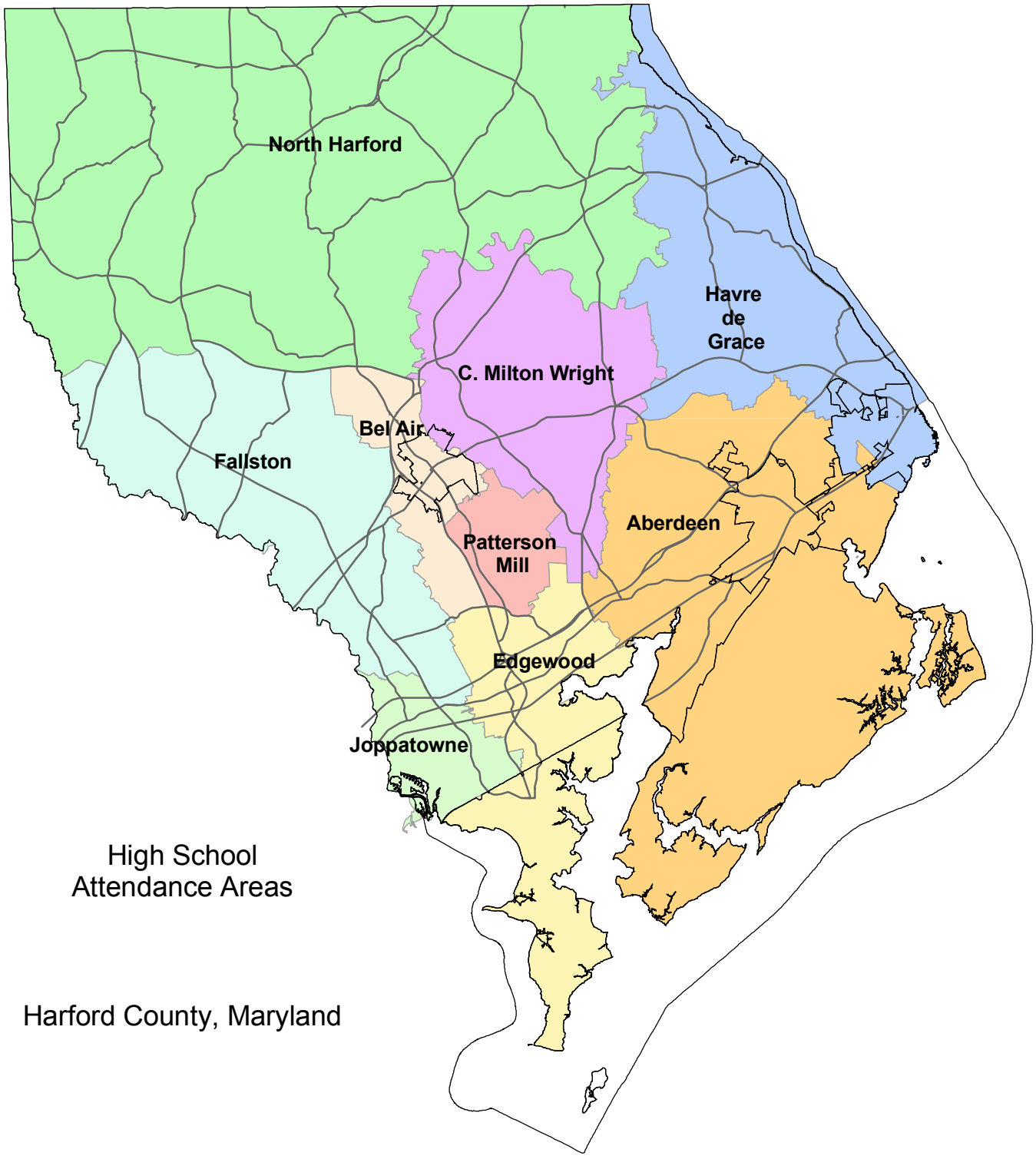
SOURCE: Harford County Public Schools, March 2011.



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

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 represented 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