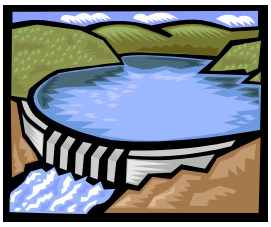
2006 Annual Growth Report



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The 2006 Annual Growth Report

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EXECUTIVE SUMMARY

In accordance with the Harford County Adequate Public Facilities provisions (Section 267-104) 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, Water and Sewerage System, and Road Intersections.

Harford County Public Schools:

The adopted adequacy standards for the Public School system are:

Elementary Schools - 105 percent of rated capacity within 3 years.
Secondary Schools - 105 percent of rated capacity within 3 years.

Under current law, preliminary plans for new developments cannot be approved in elementary and secondary school districts where the full-time enrollment currently exceeds, or is projected to exceed, 105 percent of the capacity within three years. Currently, twenty-one of thirty-two elementary schools and fifteen of seventeen middle and high schools meet adequacy standards. The following schools listed below do not meet the adequacy standards established.

Elementary Schools	Year	Actual / Projected Students	Utilization Rate
Deerfield Elementary	2006/2007	569	106%
Emmorton Elementary	2006/2007	653	124%
Forest Lakes Elementary	2006/2007	707	129%
Fountain Green Elementary	2006/2007	643	117%
Hickory Elementary	2007/2008	674	106%
Homestead/Wakefield Elementary	2007/2008	939	106%
Joppatowne Elementary	2008/2009	514	106%
Magnolia Elementary	2006/2007	514	108%
Prospect Mill Elementary	2006/2007	989	140%
William Paca / Old Post Road Elementary	2006/2007	1,018	108%
Youth's Benefit Elementary	2006/2007	1,046	120%
Secondary Schools	Year	Actual / Projected Students	Utilization Rate
Aberdeen High School	2006/2007	1,590	117%
Bel Air High School	2006/2007	1,683	118%

Beginning July 1, 2007, major subdivision plans within these attendance areas will not be approved but will be reviewed and placed on a waiting list until capacity is available. Patterson Mill Middle/High School is scheduled to open in September, 2007 and will provide relief for Bel Air, Fallston, and Southampton Middle Schools as well as C. Milton Wright and Fallston High Schools.

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.

Harford County's sewerage system's average flow totals 13.3 Million Gallons per Day (MGD), while the design capacity is 21.08 MGD, for a total Average Reserve of 7.78 MGD (as of December 2006). The County water system's current average daily usage is 11.8 MGD, with a peak day consumption of 15.0 MGD. The Water Treatment capacity is 21.3 MGD, leaving a total reserve of 6.3 MGD (as of December 2006). These figures refer only to a county-wide total capacity figure.

The determination of water or sewerage capacity in a specific area of the County can be found in the "Water and Sewer 2006 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 with the minimum required pressures for 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 sewer 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 Route 40 Commercial Revitalization District 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, 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, 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 two 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 and Maryland 924 (Tollgate Road)
2. Maryland 22 and Thomas Run Road / Schucks Road
3. Interstate 95 and Maryland 24 Ramp
4. Business US 1 and Henderson Road
5. Maryland 147 and Connolly Road
6. Maryland 23 and Grafton Shop Road
7. Tollgate Road and MacPhail Road
8. US 1 and Milton Avenue
9. US 1 and Reckord Road
10. Maryland 7 and Joppa Farm Road
11. Maryland 24 and Forest Valley Drive
12. Maryland 155 and Earlton Road

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

INTRODUCTION

The Annual Growth Report is an ongoing analysis of growth trends, facility capacity, and service performance. This report was 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;
- 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 2000 Census. This data is adjusted to reflect a number of variables including building permits, average household size and household vacancy rates. The 5 and 10 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 remaining jurisdictions in the Baltimore Region are based on an interpolation of the Baltimore Metropolitan Council's Round 7 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 6 or more units remaining and approved municipality plans are included. Currently, there are 7,792 planned units remaining as of December 31, 2006.

The 2000 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, 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.

Table 1
Harford County - Baltimore Region
Residential Permit Activity
2002 - 2006

Jurisdiction	2002	2003	2004	2005	2006	Total	Percentage of Baltimore Region
Harford County	1,885	1,991	1,777	2,114	1,031	8,798	17.4%
Anne Arundel County	2,499	2,998	2,380	3,014	1,465	12,356	24.4%
Baltimore City	368	829	723	1,262	1,081	4,263	8.4%
Baltimore County	2,949	2,817	2,209	1,990	2,223	12,188	24.1%
Carroll County	1,546	988	923	675	515	4,647	9.2%
Howard County	1,637	1,453	1,840	1,781	1,699	8,410	16.6%
Total	**10,884**	**11,076**	**9,852**	**10,836**	**8,014**	**50,662**	**100%**

Source: Baltimore Metropolitan Council, March, 2007.

Table 2
Harford County - Baltimore Region
Population and Household Projections
2006 - 2016

Jurisdiction	2006 Population	2006 Households	2011 Population	2011 Households	2016 Population	2016 Households
Harford County	241,950	90,430	260,460	98,720	274,840	106,080
Anne Arundel County	517,460	194,480	535,000	204,020	547,000	211,900
Baltimore City	650,800	258,900	661,240	267,740	670,680	275,180
Baltimore County	799,140	321,440	822,980	331,860	834,520	336,800
Carroll County	172,060	60,500	185,800	65,900	197,220	70,880
Howard County	275,340	102,240	291,760	111,880	306,520	120,840
Total	**2,656,750**	**1,027,990**	**2,757,240**	**1,080,120**	**2,830,780**	**1,121,680**

Source: Baltimore Metropolitan Council, March, 2007

Table 3
Harford County - Baltimore Region
Employment Projections
2006 - 2016

Jurisdiction	2006 Employment	2011 Employment	2016 Employment
Harford County	115,860	132,160	143,060
Anne Arundel County	322,980	347,060	375,840
Baltimore City	443,160	453,500	463,760
Baltimore County	493,940	511,880	521,260
Carroll County	77,900	84,800	87,100
Howard County	180,720	200,100	218,160
Total	**1,634,560**	**1,729,500**	**1,809,180**

Source: Baltimore Metropolitan Council, March, 2007.

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

Permit Type	2002		2003		2004		2005		2006	
	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	17	394,900	4	195,886	36	461,819	33	691,534	21	237,953
Industrial	12	228,300	2	604,853	7	615,313	9	61,082	17	174,590
Institutional	17	241,300	5	114,987	18	123,150	22	313,231	33	342,869
Utilities	5	4,600	1	18,758	2	0	2	0	2	0
Other	1	12,000	1	14,400	5	38,640	1	8,400	2	161,000
Total	**52**	**881,100**	**13**	**948,884**	**68**	**1,238,922**	**67**	**1,074,247**	**75**	**916,412**

Source: Baltimore Metropolitan Council, March, 2007.

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

Permit Type	2002		2003		2004		2005		2006	
	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	44	NA	29	NA	43	NA	33	NA	31	NA
Industrial	7	NA	2	NA	8	NA	1	NA	1	NA
Institutional	24	NA	13	NA	19	NA	4	NA	11	NA
Utilities	10	NA	1	NA	3	NA	1	NA	0	NA
Total	**85**	**NA**	**45**	**NA**	**73**	**NA**	**39**	**NA**	**43**	**NA**

NA: Data Not Available

Source: Baltimore Metropolitan Council, March, 2007.

PUBLIC SCHOOLS

Introduction

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 five-year projected school enrollments (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 (Tables 9 and 10). In addition, development information such as building permits issued by dwelling type (Tables 11, 12, and 13) and population and household estimates (Tables 14, 15, and 16) are included in this report. School maps and pupil yield factors by dwelling unit type are included in the Appendix.

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. The information in this report is based on factual data. Based on the Adequate Public Facilities provision of the County Code (Section 267-104), the levels of service standard for Public Schools are:

Elementary – 105 percent of rated capacity within 3 years
Secondary – 105 percent of rated capacity within 3 years

Elementary Schools

Under current law, preliminary plans for new developments cannot be approved in elementary school districts where the full-time enrollment currently exceeds or is projected to exceed 105 percent of the capacity within three years. Currently, twenty-one of thirty-two 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
Deerfield Elementary	2006/2007	569	106%
Emmorton Elementary	2006/2007	653	124%
Forest Lakes Elementary	2006/2007	707	129%
Fountain Green Elementary	2006/2007	643	117%
Hickory Elementary	2007/2008	674	106%
Homestead/Wakefield Elementary	2007/2008	939	106%
Joppatowne Elementary	2008/2009	514	106%
Magnolia Elementary	2006/2007	514	108%
Prospect Mill Elementary	2006/2007	989	140%
Wm. Paca / Old Post Road Elementary	2006/2007	1018	108%
Youth's Benefit Elementary	2006/2007	1,046	120%

Beginning July 1, 2007, major subdivision plans within these attendance areas will not be approved but will continue to be reviewed and placed on a waiting list until capacity is available.

Secondary Schools

Under current law, preliminary plans for new developments cannot be approved in secondary school districts where the full-time enrollment currently exceeds or is projected to exceed 105 percent of the capacity within three years. Currently, fifteen of seventeen middle and high schools meet adequacy standards. The following schools listed below do not meet the adequacy standards established.

Secondary Schools	Year	Actual / Projected Students	Utilization Rate
Aberdeen High School	2006/2007	1,590	117%
Bel Air High School	2006/2007	1,683	118%

Beginning July 1, 2007, major subdivision plans within these attendance areas will not be approved but will continue to be reviewed and placed on a waiting list until capacity is available. Patterson Mill Middle/High School is scheduled to open in September, 2007 and will provide relief for Bel Air and Fallston Middle Schools as well as C. Milton Wright and Fallston High Schools.

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 the first grade in 2000 and the number in the second grade the following year. The ratio, therefore, represents the number of first graders who advance to the 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)

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 was 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. It is important to note that there are a significant number of "age targeted" and "age restricted" developments in the Aberdeen and Havre de Grace areas. Pupil yield factors were adjusted in these school districts based on existing age-targeted developments in Harford County. Traditional Neighborhood Design development pupil yield rates from neighboring jurisdictions were also examined to help determine appropriate pupil yield rates associated with these types of developments.

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 will be made in terms of school capacities or utilization of existing facilities.

Table 6
Harford County Elementary Schools
Utilization Chart
2006

Elementary School	State-Rated	Actual		Projected					
		2006 - 2007		2007 - 2008		2008 - 2009		2009 - 2010	
	Capacity	ENROLL	% UTIL.	ENROLL	% UTIL.	ENROLL	% UTIL.	ENROLL	% UTIL.
Abingdon	821	732	89%	722	88%	735	90%	724	88%
Bakerfield	455	425	93%	425	93%	421	93%	426	94%
Bel Air	500	485	97%	496	99%	506	101%	515	103%
Church Creek	790	735	93%	760	96%	746	94%	775	98%
Churchville	389	371	95%	344	88%	341	88%	347	89%
Darlington	170	130	76%	118	69%	127	75%	130	76%
Deerfield	536	**569**	**106%**	541	101%	532	99%	528	99%
Dublin	295	231	78%	241	82%	254	86%	261	88%
Edgewood	533	383	72%	376	71%	382	72%	382	72%
Emmorton	526	**653**	**124%**	**701**	**133%**	**716**	**136%**	**739**	**140%**
Forest Hill	582	586	101%	593	102%	609	105%	609	105%
Forest Lakes	546	**707**	**129%**	**734**	**134%**	**747**	**137%**	**780**	**143%**
Fountain Green	549	**643**	**117%**	**667**	**121%**	**671**	**122%**	**671**	**122%**
G. Lisby at Hillsdale	432	313	72%	322	75%	336	78%	327	76%
Hall's Cross Rds	518	385	74%	408	79%	411	79%	415	80%
Havre de Grace	576	348	60%	333	58%	317	55%	305	53%
Hickory	638	657	103%	**674**	**106%**	**686**	**108%**	**686**	**108%**
Homestead/Wakefield	887	911	103%	**939**	**106%**	**942**	**106%**	**956**	**108%**
Jarrettsville	524	415	79%	412	79%	395	75%	398	76%
Joppatowne	485	504	104%	501	103%	**514**	**106%**	507	105%
Magnolia	474	**514**	**108%**	**520**	**110%**	**520**	**110%**	**531**	**112%**
Meadowvale	568	552	97%	518	91%	502	88%	502	88%
Norrisville	252	221	88%	226	90%	223	88%	227	90%
North Bend	514	427	83%	424	82%	418	81%	420	82%
North Harford	482	500	104%	489	101%	484	100%	491	102%
Prospect Mill	706	**989**	**140%**	**1,040**	**147%**	**1,076**	**152%**	**1,099**	**156%**
Ring Factory	549	530	97%	533	97%	526	96%	527	96%
Riverside	546	547	100%	499	91%	489	90%	492	90%
Roye-Williams	629	526	84%	552	88%	559	89%	560	89%
Wm Paca / Old Post Rd	940	**1,018**	**108%**	**1,049**	**112%**	**1,060**	**113%**	**1,060**	**113%**
Wm. S. James	524	476	91%	436	83%	429	82%	418	80%
Youth's Benefit	870	**1,046**	**120%**	**1,110**	**128%**	**1,133**	**130%**	**1,122**	**129%**
TOTAL	17,806	17,529	98%	17,703	99%	17,807	100%	17,930	101%

Source: Harford County Public Schools and Dept. of Planning and Zoning, October, 2006.

Table 7

Harford County Middle Schools

Utilization Chart

2006

Middle School	State-Rated Capacity	Actual 2006 - 2007 ENROLL	Actual 2006 - 2007 %UTIL	Projected 2007 - 2008 ENROLL	Projected 2007 - 2008 %UTIL	Projected 2008 - 2009 ENROLL	Projected 2008 - 2009 %UTIL	Projected 2009 - 2010 ENROLL	Projected 2009 - 2010 %UTIL
Aberdeen	1,656	1,204	73%	1,142	69%	1,129	68%	1,145	69%
Bel Air*	1,316	1,402	107%	1,297	99%	1,286	98%	1,259	96%
Edgewood	1,338	1,165	87%	1,134	85%	1,026	77%	1,027	77%
Fallston*	1,116	1,181	106%	891	80%	954	85%	949	85%
Havre de Grace	785	600	76%	602	77%	572	73%	554	71%
Magnolia	1,030	870	84%	843	82%	782	76%	799	78%
North Harford	1,241	1,084	87%	1,200	97%	1,198	97%	1,159	93%
Patterson Mill	700	0	N/A	695	99%	710	101%	717	102%
Southampton	1,530	1,550	101%	1,233	81%	1,275	83%	1,251	82%
Alternative Education	100	32							
Total	10,812	9,088	84%	9,037	84%	8,932	83%	8,860	82%

* Patterson Mill is under construction currently and will provide relief to Bel Air and Fallston Middle Schools beginning in the 2007/08 school year.

Source: Harford County Public Schools and Dept. of Planning and Zoning, October, 2006.

Table 8

Harford County High Schools

Utilization Chart

2006

High School	State-Rated Capacity	Actual 2006 - 2007 ENROLL	Actual 2006 - 2007 %UTIL	Projected 2007 - 2008 ENROLL	Projected 2007 - 2008 %UTIL	Projected 2008 - 2009 ENROLL	Projected 2008 - 2009 %UTIL	Projected 2009 - 2010 ENROLL	Projected 2009 - 2010 %UTIL
Aberdeen	1,360	1,590	**117%**	1,677	**123%**	1,712	**126%**	1,585	**117%**
Bel Air	1,423	1,683	**118%**	1,541	**108%**	1,513	**106%**	1,513	**106%**
C. Milton Wright*	1,666	1,855	111%	1,782	107%	1,614	97%	1,602	96%
Edgewood	1,379	1,263	92%	1,217	88%	1,232	89%	1,148	83%
Fallston*	1,529	1,606	105%	1,359	89%	1,240	81%	1,139	74%
Harford Technical	965	1,056	109%	1,078	112%	1,057	110%	1,064	110%
Havre de Grace	849	718	85%	720	85%	728	86%	714	84%
Joppatowne	1,115	1,062	95%	1,035	93%	997	89%	932	84%
North Harford	1,600	1,437	90%	1,411	88%	1,381	86%	1,411	88%
Patterson Mill	900	0	N/A	375	42%	545	61%	720	80%
Alternative Education	260	131							
Total	13,046	12,401	102%	12,195	93%	12,019	92%	11,828	91%

N/A: Not Available

* Patterson Mill is under construction currently and will provide relief to Fallston and C. Milton Wright High Schools beginning in the 2007/08 school year.

Source: Harford County Public Schools and Dept. of Planning and Zoning, October, 2006.

Table 9

Harford County
Modified Elementary School Enrollment Projections

School District	2006	2007	2008	2009	2010	2011	2012	2013	2014
ABINGDON	732	722	735	724	744	775	786	787	797
modified	**732**	**722**	**746**	**746**	**778**	**822**	**845**	**858**	**881**
BAKERSFIELD	425	425	421	426	426	439	450	451	456
modified	**425**	**425**	**466**	**521**	**576**	**653**	**735**	**810**	**898**
BEL AIR	485	496	506	515	519	540	555	554	563
modified	**485**	**496**	**512**	**527**	**537**	**565**	**587**	**592**	**608**
CHURCH CREEK	735	760	746	775	802	810	834	831	841
modified	**735**	**760**	**780**	**843**	**907**	**953**	**1,019**	**1,056**	**1,110**
CHURCHVILLE	371	344	341	347	355	366	367	404	409
modified	**371**	**344**	**349**	**363**	**380**	**399**	**409**	**458**	**472**
DARLINGTON	130	118	127	130	137	148	143	156	158
modified	**130**	**118**	**131**	**138**	**149**	**165**	**164**	**183**	**190**
DEERFIELD	569	541	532	528	544	552	567	622	633
modified	**569**	**541**	**534**	**532**	**550**	**560**	**577**	**635**	**649**
DUBLIN	231	241	254	261	277	284	284	283	285
modified	**231**	**241**	**258**	**269**	**290**	**301**	**305**	**308**	**314**
EDGEWOOD	383	376	382	382	386	404	415	414	418
modified	**383**	**376**	**383**	**383**	**388**	**407**	**419**	**419**	**424**
EMMORTON	653	701	716	739	769	799	789	784	798
modified	**653**	**701**	**740**	**788**	**846**	**905**	**923**	**946**	**993**
FOREST HILL	586	593	609	609	620	637	645	644	655
modified	**586**	**593**	**614**	**619**	**635**	**657**	**671**	**675**	**692**
FOREST LAKES	707	734	747	780	807	831	841	838	849
modified	**707**	**734**	**756**	**798**	**834**	**868**	**888**	**894**	**916**
FOUNTAIN GREEN	643	667	671	671	685	704	714	711	723
modified	**643**	**667**	**671**	**671**	**685**	**704**	**714**	**711**	**723**
G. LISBY AT HILLSDALE	313	322	336	327	332	339	348	348	351
modified	**313**	**322**	**339**	**333**	**341**	**351**	**364**	**367**	**373**
HALLS CROSS ROADS	385	408	411	415	429	435	431	428	433
modified	**385**	**408**	**417**	**427**	**447**	**460**	**462**	**465**	**477**
HAVRE DE GRACE	348	333	317	305	309	317	327	327	329
modified	**348**	**333**	**362**	**400**	**460**	**535**	**622**	**704**	**800**
HICKORY	657	674	686	686	694	699	724	721	734
modified	**657**	**674**	**697**	**708**	**727**	**744**	**782**	**791**	**817**
HOMESTEAD/WAKEFIELD	911	939	942	956	999	1,023	1,030	1,030	1,043
modified	**911**	**939**	**967**	**1,007**	**1,077**	**1,129**	**1,164**	**1,193**	**1,236**
JARRETTSVILLE	415	412	395	398	401	420	427	425	431
modified	**415**	**412**	**404**	**416**	**429**	**458**	**475**	**483**	**500**
JOPPATOWNE	504	501	514	507	526	540	549	548	555
modified	**504**	**501**	**535**	**551**	**595**	**635**	**671**	**697**	**733**
MAGNOLIA	514	520	520	531	543	552	557	556	562
modified	**514**	**520**	**536**	**563**	**593**	**620**	**643**	**661**	**687**
MEADOWVALE	552	518	502	502	531	534	542	588	597
modified	**552**	**518**	**526**	**550**	**605**	**635**	**671**	**755**	**795**
NORRISVILLE	221	226	223	227	234	235	239	238	242
modified	**221**	**226**	**228**	**237**	**249**	**255**	**265**	**270**	**280**
NORTH BEND	427	424	418	420	428	442	444	442	450
modified	**427**	**424**	**429**	**442**	**462**	**489**	**503**	**513**	**535**
NORTH HARFORD	500	489	484	491	491	498	518	518	527
modified	**500**	**489**	**498**	**520**	**534**	**557**	**594**	**610**	**637**
PROSPECT MILL	989	1,040	1,076	1,099	1,140	1,176	1,175	1,172	1,189
modified	**989**	**1,040**	**1,092**	**1,133**	**1,192**	**1,247**	**1,264**	**1,279**	**1,316**
RING FACTORY	530	533	526	527	531	534	559	559	567
modified	**530**	**533**	**534**	**543**	**556**	**567**	**602**	**610**	**628**
RIVERSIDE	547	499	489	492	505	526	526	578	588
modified	**547**	**499**	**519**	**552**	**599**	**657**	**693**	**796**	**849**
ROYE-WILLIAMS	526	552	559	560	571	594	610	608	617
modified	**526**	**552**	**571**	**584**	**608**	**645**	**675**	**686**	**709**
WM PACA/OLD POST RD	1,018	1,049	1,060	1,060	1,098	1,127	1,135	1,137	1,151
modified	**1,018**	**1,049**	**1,102**	**1,145**	**1,230**	**1,308**	**1,366**	**1,419**	**1,488**
W.S. JAMES	476	436	429	418	429	447	446	486	492
modified	**476**	**436**	**432**	**424**	**438**	**459**	**460**	**504**	**513**
YOUTHS BENEFIT	1,046	1,110	1,133	1,122	1,143	1,177	1,199	1,195	1,216
modified	**1,046**	**1,110**	**1,157**	**1,170**	**1,216**	**1,277**	**1,327**	**1,349**	**1,399**
Total	17,529	17,703	17,807	17,930	18,405	18,904	19,176	19,383	19,659
Total - modified	**17,529**	**17,703**	**18,283**	**18,904**	**19,914**	**20,988**	**21,859**	**22,696**	**23,643**

Source: Harford County Dept. of Planning and Zoning, May 2007.

Table 10

Harford County
Modified Secondary School Enrollment Projections

Middle School

School District	2006	2007	2008	2009	2010	2011	2012	2013	2014
Aberdeen	1,204	1,142	1,129	1,145	1,159	1,145	1,159	1,219	1,235
modified	**1,204**	**1,142**	**1,166**	**1,221**	**1,275**	**1,300**	**1,358**	**1,469**	**1,533**
Bel Air	1,402	1,297	1,286	1,259	1,261	1,276	1,341	1,438	1,468
modified	**1,402**	**1,297**	**1,295**	**1,277**	**1,289**	**1,315**	**1,408**	**1,615**	**1,743**
Edgewood	1,165	1,134	1,026	1,027	973	947	933	947	977
modified	**1,165**	**1,134**	**1,070**	**1,113**	**1,100**	**1,117**	**1,119**	**1,137**	**1,200**
Fallston	1,181	891	954	949	980	976	983	1,043	1,067
modified	**1,181**	**891**	**962**	**966**	**1,007**	**1,012**	**1,024**	**1,099**	**1,176**
Havre de Grace	600	602	572	554	500	477	476	449	454
modified	**600**	**602**	**593**	**596**	**562**	**559**	**556**	**524**	**517**
Magnolia	870	843	782	799	733	718	732	735	752
modified	**870**	**843**	**816**	**867**	**833**	**853**	**889**	**931**	**974**
North Harford	1,084	1,200	1,198	1,159	1,126	1,110	1,133	1,192	1,209
modified	**1,084**	**1,200**	**1,223**	**1,210**	**1,202**	**1,212**	**1,246**	**1,345**	**1,443**
Patterson Mill	**0**	**695**	**710**	**717**	**711**	**695**	**693**	**692**	704
modified	**0**	**695**	**717**	**731**	**732**	**723**	**712**	**700**	**706**
Southampton	1,550	1,233	1,275	1,251	1,272	1,308	1,352	1,411	1,433
modified	**1,550**	**1,233**	**1,282**	**1,265**	**1,293**	**1,337**	**1,427**	**1,591**	**1,668**
Total	9,056	9,037	8,932	8,860	8,715	8,652	8,802	9,126	9,299
Total - modified	**9,056**	**9,037**	**9,125**	**9,245**	**9,293**	**9,428**	**9,740**	**10,411**	**10,960**

High School

School District	2006	2007	2008	2009	2010	2011	2012	2013	2014
Aberdeen	1,590	1,677	1,712	1,585	1,547	1,541	1,503	1,507	1,531
modified	**1,590**	**1,677**	**1,757**	**1,678**	**1,687**	**1,731**	**1,741**	**1,799**	**1,882**
Bel Air	1,683	1,541	1,513	1,513	1,504	1,526	1,506	1,494	1,509
modified	**1,683**	**1,541**	**1,524**	**1,535**	**1,539**	**1,575**	**1,568**	**1,569**	**1,570**
C. Milton Wright	1,855	1,782	1,614	1,602	1,589	1,555	1,614	1,599	1,627
modified	**1,855**	**1,782**	**1,634**	**1,642**	**1,649**	**1,635**	**1,718**	**1,723**	**1,728**
Edgewood	1,263	1,217	1,232	1,148	1,081	1,036	994	939	909
modified	**1,263**	**1,217**	**1,281**	**1,245**	**1,225**	**1,230**	**1,238**	**1,230**	**1,229**
Fallston	1,606	1,359	1,240	1,139	1,129	1,138	1,163	1,135	1,160
modified	**1,606**	**1,359**	**1,252**	**1,162**	**1,164**	**1,186**	**1,224**	**1,208**	**1,191**
Havre de Grace	718	720	728	714	702	692	657	600	578
modified	**718**	**720**	**752**	**762**	**775**	**791**	**778**	**739**	**706**
Joppatowne	1,062	1,035	997	932	941	905	864	835	794
modified	**1,062**	**1,035**	**1,036**	**1,009**	**1,061**	**1,064**	**1,062**	**1,074**	**1,091**
North Harford	1,437	1,411	1,381	1,411	1,431	1,443	1,414	1,397	1,367
modified	**1,437**	**1,411**	**1,412**	**1,474**	**1,528**	**1,574**	**1,576**	**1,591**	**1,608**
Patterson Mill	**0**	**375**	**545**	**720**	**699**	**742**	**751**	**747**	738
modified	**0**	**375**	**394**	**413**	**407**	**437**	**447**	**450**	**453**
Total	**11,214**	**11,117**	**10,962**	**10,764**	**10,623**	**10,578**	**10,466**	**10,253**	**10,213**
Total - modified	**11,214**	**11,117**	**11,042**	**10,921**	**11,035**	**11,222**	**11,352**	**11,384**	**11,458**

Source: Harford County Dept. of Planning and Zoning, May, 2007.

Table 11

Harford County Residential Building Permit Activity

by Elementary School District

2002 - 2006

	2002					2003					2004					2005					2006				
	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	4	141	0	1	146	0	81	0	0	81	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Bakerfield	19	7	0	0	26	30	0	0	0	30	15	0	0	0	15	9	4	0	0	13	2	0	0	1	3
Bel Air	1	0	0	0	1	1	60	168	0	229	1	0	247	0	248	8	14	96	0	118	5	6	12	0	23
Church Creek	29	48	18	1	96	47	144	38	1	230	107	148	0	1	256	17	151	0	0	168	3	27	12	0	42
Churchville	36	0	0	1	37	20	0	0	0	20	30	0	0	1	31	19	0	0	1	20	12	0	0	0	12
Darlington	7	0	0	0	7	11	0	0	1	12	8	0	0	1	9	31	0	0	2	33	2	0	0	1	3
Deerfield	190	16	0	0	206	118	0	0	0	118	5	0	0	0	5	3	0	0	0	3	0	0	0	0	0
Dublin	20	0	0	1	21	19	0	0	0	19	15	0	0	0	15	19	0	0	2	21	10	0	0	0	10
Edgewood	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	17	58	0	0	75	0	24	0	0	24
Emmorton	81	78	0	0	159	54	72	0	0	126	61	27	0	0	88	35	92	80	0	207	26	79	16	0	121
Forest Hill	74	68	48	0	190	31	31	0	1	63	26	0	0	0	26	14	4	0	0	18	11	12	0	0	23
Forest Lakes	49	0	0	0	49	61	0	0	0	61	26	0	0	0	26	28	0	0	0	28	24	0	0	0	24
Fountain Green	99	0	0	0	99	27	0	0	0	27	22	0	0	0	22	0	0	0	0	0	0	0	0	0	0
G. Lisby at Hillsdale	4	30	0	0	34	11	0	0	0	11	4	0	0	0	4	5	0	0	0	5	6	0	0	0	6
Hall's Cross Roads	1	10	0	0	11	12	0	0	0	12	26	3	0	0	29	41	92	0	0	133	3	14	0	0	17
Havre de Grace	0	8	0	0	8	0	12	0	0	12	18	24	98	0	140	140	150	20	0	310	95	103	48	0	246
Hickory	15	0	0	0	15	8	0	48	0	56	9	30	0	3	42	54	23	48	0	125	36	0	0	0	36
Homestead/Wakefield	68	3	0	0	71	81	4	0	0	85	35	4	0	0	39	46	8	0	0	54	26	46	40	0	112
Jarrettsville	33	0	0	0	33	59	0	0	0	59	21	0	0	1	22	24	0	0	1	25	44	0	0	2	46
Joppatowne	93	52	0	0	145	73	8	0	0	81	8	0	0	0	8	27	0	0	0	27	24	0	0	0	24
Magnolia	4	0	0	0	4	30	0	0	0	30	16	0	0	0	16	1	0	0	0	1	0	0	0	0	0
Meadowvale	44	8	0	0	52	80	12	0	0	92	17	39	0	0	56	5	69	0	0	74	6	0	0	0	6
Norrisville	10	0	0	1	11	18	0	0	0	18	8	0	0	2	10	22	0	0	2	24	17	0	0	1	18
North Bend	29	0	0	2	31	36	0	0	2	38	34	0	0	2	36	32	0	0	1	33	17	0	0	2	19
North Harford	44	0	0	4	48	51	0	0	0	51	54	0	0	2	56	46	0	0	0	46	19	0	0	0	19
Prospect Mill	124	17	38	1	180	41	79	0	0	120	23	100	16	0	139	6	48	65	0	119	1	0	5	0	6
Ring Factory	2	0	0	0	2	4	0	0	0	4	2	0	0	0	2	14	0	0	0	14	4	0	0	0	4
Riverside	15	0	0	0	15	11	0	0	2	13	8	0	132	0	140	3	0	64	0	67	28	4	32	0	64
Roye-Williams	9	0	0	0	9	32	0	0	0	32	28	0	0	0	28	19	0	0	0	19	0	29	28	0	57
Wm. Paca/Old Post Rd	83	32	0	0	115	111	0	0	0	111	137	0	0	0	137	175	99	0	0	274	15	0	0	0	15
Wm. S. James	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3	0	0	2	5	5	15	0	0	20
Youth's Benefit	64	0	0	0	64	148	0	0	0	148	128	0	0	0	128	55	0	0	0	55	31	0	0	0	31
TOTAL	1,251	518	104	12	1,885	1,227	503	254	7	1,991	896	375	493	13	1,777	918	812	373	11	2,114	472	359	193	7	1,031

* Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2007

KEY:

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

Table 12

Harford County Residential Building Permit Activity

by Middle School District

2002 - 2006

	2002					2003					2004					2005					2006				
	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	64	95	18	1	178	133	144	38	1	316	182	151	0	1	334	93	247	0	0	340	17	70	40	1	128
Bel Air	168	146	48	0	362	62	163	216	0	441	69	0	247	0	316	78	96	224	0	398	60	120	28	0	208
Edgewood	277	189	0	1	467	231	81	0	0	312	146	0	0	0	146	196	157	0	0	353	17	24	0	0	41
Fallston	88	0	0	0	88	229	0	0	2	231	163	0	0	0	163	95	0	64	0	159	96	4	32	0	132
Havre de Grace	58	16	0	0	74	97	24	0	1	122	50	63	98	2	213	185	219	20	2	426	109	103	48	1	261
Magnolia	104	52	0	0	156	112	8	0	0	120	31	0	132	0	163	29	0	0	0	29	40	4	0	0	44
North Harford	165	0	0	8	173	195	0	0	3	198	150	0	0	7	157	146	4	0	6	156	89	12	0	5	106
Patterson Mill	63	3	0	0	66	80	4	0	0	84	33	31	0	0	64	70	18	0	2	90	34	22	40	0	96
Southampton	264	17	38	2	321	88	79	0	0	167	72	130	16	3	221	26	71	65	1	163	10	0	5	0	15
TOTAL	1,251	518	104	12	1,885	1,227	503	254	7	1,991	896	375	493	13	1,777	918	812	373	11	2,114	472	359	193	7	1,031

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2007

KEY:

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

Table 13

Harford County Residential Building Permit Activity

by High School District

2002-2006

	2002					2003					2004					2005					2006				
	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	64	95	18	1	178	133	144	38	1	316	182	151	0	1	334	93	247	0	0	340	17	70	40	1	128
Bel Air	168	146	48	0	362	62	163	216	0	441	69	0	247	0	316	78	96	224	0	398	60	120	28	0	208
C.M. Wright	264	17	38	2	321	88	79	0	0	167	72	130	16	3	221	26	71	65	1	163	10	0	5	0	15
Edgewood	277	189	0	1	467	231	81	0	0	312	146	0	0	0	146	196	157	0	0	353	17	24	0	0	41
Fallston	88	0	0	0	88	229	0	0	2	231	163	0	0	0	163	95	0	64	0	159	96	4	32	0	132
Havre de Grace	58	16	0	0	74	97	24	0	1	122	50	63	98	2	213	185	219	20	2	426	109	103	48	1	261
Joppatowne	104	52	0	0	156	112	8	0	0	120	31	0	132	0	163	29	0	0	0	29	40	4	0	0	44
North Harford	165	0	0	8	173	195	0	0	3	198	150	0	0	7	157	146	4	0	6	156	89	12	0	5	106
Patterson Mill	63	3	0	0	66	80	4	0	0	84	33	31	0	0	64	70	18	0	2	90	34	22	40	0	96
TOTAL	1,251	518	104	12	1,885	1,227	503	254	7	1,991	896	375	493	13	1,777	918	812	373	11	2,114	472	359	193	7	1,031

Note: Permits totals revised for cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2007

KEY:

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

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

2002 - 2006

	2002*		2003*		2004*		2005*		2006*	
SCHOOL	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Abingdon	3,915	10,607	4,054	10,926	4,131	11,115	4,133	11,086	4,133	11,057
Bakerfield	2,921	7,914	2,946	7,940	2,974	8,003	2,989	8,017	3,001	8,029
Bel Air	3,331	9,025	3,334	8,986	3,552	9,557	3,787	10,160	3,899	10,433
Church Creek	3,048	8,257	3,139	8,460	3,357	9,034	3,601	9,659	3,760	10,060
Churchville	2,055	5,567	2,085	5,620	2,101	5,652	2,129	5,711	2,148	5,747
Darlington	1,014	2,748	1,021	2,752	1,031	2,775	1,040	2,790	1,071	2,866
Deerfield	2,237	6,060	2,432	6,556	2,544	6,847	2,549	6,838	2,552	6,828
Dublin	1,282	3,473	1,302	3,509	1,321	3,554	1,335	3,581	1,355	3,625
Edgewood	1,389	3,763	1,389	3,744	1,389	3,738	1,391	3,731	1,462	3,912
Emmorton	2,527	6,846	2,678	7,218	2,798	7,528	2,881	7,729	3,078	8,235
Forest Hill	2,001	5,420	2,182	5,881	2,242	6,033	2,267	6,080	2,284	6,110
Forest Lakes	3,133	8,487	3,179	8,569	3,237	8,711	3,262	8,750	3,288	8,798
Fountain Green	2,461	6,667	2,555	6,886	2,581	6,944	2,601	6,979	2,601	6,960
G. Lisby at Hillsdale	1,858	5,033	1,939	5,226	1,949	5,245	1,896	5,086	1,958	5,238
Hall's Cross Roads	1,889	5,117	1,920	5,175	1,932	5,198	1,959	5,256	2,085	5,580
Havre de Grace	2,999	8,126	3,007	8,105	3,018	8,122	3,151	8,454	3,460	9,257
Hickory	2,494	6,758	2,509	6,762	2,562	6,894	2,603	6,982	2,720	7,276
Homestead/Wakefield	5,091	13,792	5,158	13,901	5,237	14,091	5,274	14,150	5,326	14,249
Jarrettsville	2,220	6,013	2,251	6,067	2,307	6,207	2,329	6,247	2,353	6,294
Joppatowne	3,295	8,926	3,433	9,251	3,510	9,446	3,518	9,437	3,544	9,481
Magnolia	1,503	4,071	1,507	4,061	1,535	4,131	1,550	4,159	1,551	4,151
Meadowvale	2,391	6,477	2,441	6,580	2,529	6,804	2,582	6,926	2,652	7,096
Norrisville	884	2,394	894	2,410	913	2,452	921	2,470	943	2,524
North Bend	2,243	6,076	2,272	6,124	2,308	6,211	2,341	6,281	2,373	6,349
North Harford	2,284	6,188	2,329	6,277	2,377	6,397	2,432	6,525	2,476	6,625
Prospect Mill	3,549	9,614	3,724	10,038	3,842	10,339	3,976	10,666	4,089	10,941
Ring Factory	2,355	6,380	2,357	6,352	2,361	6,352	2,363	6,338	2,376	6,357
Riverside	2,658	7,202	2,672	7,203	2,685	7,224	2,818	7,559	2,881	7,709
Roye-Williams	1,495	4,051	1,475	3,976	1,506	4,051	1,589	4,264	1,550	4,148
Wm. Paca/Old Post Rd	5,225	14,154	5,334	14,376	5,439	14,636	5,569	14,940	5,830	15,598
Wm. S. James	1,900	5,148	1,900	5,122	1,902	5,119	1,902	5,103	1,907	5,102
Youth's Benefit	5,346	14,483	5,407	14,572	5,547	14,927	5,671	15,212	5,723	15,312
TOTAL	82,991	224,840	84,826	228,620	86,718	233,335	88,410	237,165	90,430	241,950

* Note: Population / Household figures are as of April 1 each year.

Source: Harford County Dept. of Planning and Zoning, May, 2007.

Table 15
Harford County Population and Households
by Middle School District

2002 - 2006

SCHOOL	2002*		2003*		2004*		2005*		2006*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,707	31,717	11,877	32,010	12,177	32,765	12,494	33,515	12,817	34,292
Bel Air	9,539	25,844	9,885	26,642	10,304	27,726	10,604	28,446	10,985	29,391
Edgewood	13,456	36,456	13,900	37,464	14,197	38,200	14,335	38,454	14,671	39,251
Fallston	8,056	21,824	8,139	21,937	8,359	22,492	8,515	22,843	8,667	23,187
Havre de Grace	6,671	18,074	6,743	18,173	6,858	18,452	7,060	18,938	7,475	19,998
Magnolia	7,003	18,973	7,151	19,274	7,266	19,552	7,421	19,907	7,449	19,929
North Harford	9,066	24,562	9,230	24,878	9,419	25,346	9,571	25,673	9,719	26,002
Patterson Mill	5,706	15,460	5,795	15,617	5,875	15,807	5,936	15,923	6,022	16,111
Southampton	11,786	31,931	12,105	32,626	12,264	33,000	12,474	33,466	12,629	33,788
TOTAL	82,991	224,840	84,826	228,620	86,718	233,340	88,410	237,165	90,430	241,950

* Note: Population / Household figures are as of April 1 each year.

Source: Harford County Dept. of Planning and Zoning, May, 2007.

Table 16
Harford County Population and Households
by High School District

2002 - 2006

SCHOOL	2002*		2003*		2004*		2005*		2006*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,707	31,717	11,877	32,010	12,177	32,765	12,494	33,515	12,817	34,292
Bel Air	9,539	25,844	9,885	26,642	10,304	27,726	10,604	28,446	10,985	29,391
C. Milton Wright	11,786	31,931	12,105	32,626	12,264	33,000	12,474	33,466	12,559	33,602
Edgewood	13,456	36,456	13,900	37,464	14,197	38,200	14,335	38,454	14,490	38,768
Fallston	8,056	21,824	8,139	21,937	8,359	22,492	8,515	22,843	8,851	23,680
Havre de Grace	6,671	18,074	6,743	18,173	6,858	18,452	7,060	18,938	7,221	19,320
Joppatowne	7,003	18,973	7,151	19,274	7,266	19,552	7,421	19,907	7,826	20,938
North Harford	9,066	24,562	9,230	24,878	9,419	25,346	9,571	25,673	9,598	25,680
Patterson Mill	5,706	15,460	5,795	15,617	5,875	15,807	5,936	15,923	6,084	16,278
TOTAL	82,991	224,840	84,826	228,620	86,718	233,340	88,410	237,165	90,430	241,950

* Note: Population / Household figures are as of April 1 each year.

Source: Harford County Dept. of Planning and Zoning, May, 2007.

WATER AND SEWERAGE

Introduction

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/sewerage usage by dwelling type; for nonresidential uses, an inventory of existing water consumption/sewerage 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. This information is extracted from the "2006 Water and Sewer Adequate Public Facilities Report," and can be found on pages 28 - 30 of this report.

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 1996, the average daily water demand by customers served by the County's central system was approximately 8.6 MGD, with a corresponding maximum day demand of approximately 11.2 MGD. In 2006, the County's average day and maximum day demands were 11.8 MGD and 15.0 MGD, respectively. To keep pace with the projected growth, staged construction programs are established that distribute required capital costs for improvements and/or additions to the County’s system over a period of years.

There are seven multiple-use water systems that are not maintained or operated by Harford County, but are subject to the APF provision of the County Code. These systems are listed below:

1) Maryland-American Water Co.
2) Conowingo Power Co.
3) Campus Hills Water Works Inc.
4) Darlington
5) Greenridge Utilities Inc.
6) Lakeside Vista
7) Bel Air Heights

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 on page 9 and pages 32-161 of the “2006 Water and Sewer Adequate Public Facilities Report.”

The average daily influent flow to the Sod Run WWTP in 2006 was approximately 12.5 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 2006 was approximately 0.74 MGD. The determination of future wastewater flows to wastewater treatment plants is made by using population and household projections developed by 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.

There are two private multi-use sewerage systems in the County. The Conowingo-Susquehanna Power Company provides sewerage service to the Conowingo Power Plant, some surrounding residences, and the Swan Harbor Dell Mobile Home Park which serves about 160 units. In addition, a sanitary sewer collection system has 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.

Table 17

JANUARY - DECEMBER 2006
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.

	2006
Total Number of Connections	40,941
WATER	
Total Number of Connections	38,324
Average Water Production	11.8 MGD
Maximum Day Water Production	15.0 MGD
Average Water Usage per Connection (gal/day)	308
Residential Unit Water Usage (gal/day)	165
Average Commercial/Industrial Water Usage (gal/day)	5,230
SEWAGE	
Total Number of Sewer Connections	39,647
Average Sewage Flows	13.3 MGD
Maximum Day Sewage Flows	29.3 MGD
Average Sewage per Connection (gal/day)	335
Residential Sewage Generation (gal/day)	165
Average Commercial/Industrial Sewage Generation (gal/day)	5,230

- MGD = Million Gallons per Day

Source: 2006 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	YEAR																		
	1990	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2010**	**2015**	**2020**	**2025**
First Zone																			
Avg. Day, mgd	3.4	3.2	3.4	4.1	4.05	4.5	4.5	4.6	3.5	5.1	5.7	3.6	3.8	4.2	3.6	6.7	9.1	11.4	15.2
Max. Day, mgd	4.3	4.6	4.8	6	4.8	6.5	6.6	6.5	4.6	9.1	7.8	4.7	4.8	5.9	4.9	9.5	12.8	16.7	22.0
Total of Second, Third and Fourth Zones																			
Avg. Day, mgd	2.5	3.5	3.7	3.8	4.5	5	5	5.7	5.9	6.4	5.8	7.5	7.5	7.7	8.0	6.6	7.3	9.1	9.9
Max. Day, mgd	3.3	3.9	4	5.6	5.9	6.8	6.9	7.3	6.9	7.1	8.1	8.2	8.2	8.5	9.1	9.8	10.7	13.2	14.4
Aberdeen																			
Avg. Day, mgd	0	0	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	0.3	0.4	0.5	0.5
* 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
Chapel Hill																			
Avg. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	2.0	2.0	2.0
* Max. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5*	1.5*	3.0	3.0	3.0	3.0
Maryland-American Water Co.																			
Avg. Day, mgd	0	0	0	0	0	0.07	0.01	0.01	0.19	0.01	0.16	0.001	0.02	0.03	0.03	0.2	0.25	0.3	0.35
* Max. Day, mgd	0	0	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
Total																			
Avg. Day, mgd	5.9	6.7	7.1	8.4	8.6	9.6	9.5	10.6	9.9	11.8	12.1	11.6	11.6	12.1	11.8	15.8	19	23.4	28.0
Max. Day, mgd	7.6	8.5	8.8	12.1	11.2	14.3	14.5	14.8	12.5	17.2	16.9	13.9	14	15.4	15.0	23.3	27.5	33.9	40.4

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

Source: 2006 Haford 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
	2006	33,560	9.9	0.6	2.0	12.5	20
	2010	41,696	12.3	0.8	1.9	15.0	20
	2025	59,333	16	0.9	2.1	19.0	20
JOPPATOWNE	1993	4,787	0.59	0	0.19	0.78	0.75
	1995	4,787	0.56	0	0.19	0.75	0.75
	2000	5,287	0.65	0	0.19	0.84	0.95
	2006	5,437	0.64	0	0.1	0.74	0.95
	2010	5,620	0.68	0	0.19	0.87	0.95
	2025	5,704	0.71	0	0.2	0.91	0.95
SPRING MEADOWS	1993	51	0.01	0	0	0.01	0.01
	1995	51	0.01	0	0	0.01	0.01
	2000	52	0.01	0	0	0.01	0.01
	2006	53	0.01	0	0	0.01	0.01
	2010	53	0.01	0	0	0.01	0.01
	2025	53	0.01	0	0	0.01	0.01
WHITEFORD - CARDIFF	2004	178	0.02	0	0.01	0.03	0.12
	2006	178	0.02	0	0.01	0.03	0.12
	2010	179	0.03	0.01	0.02	0.06	0.12
	2025	179	0.09	0.01	0.02	0.12	0.12

Source: 2006 Harford County Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer.

Table 20
2006 EXISTING WATER & SEWER CAPITAL PROJECTS

The Capital Improvement Program establishes projects for expanding and improving water and sewer facilities. This list of 2006 Capital Projects includes the project status.

PROJECT NO.	PROJECT NAME	PROJECT STATUS
6440	Infiltration/Inflow	- Televising Contract- Evaluation Phase - Charwood Ct. Cured-In-Place Contract - Bid Phase - Sheffield Ct. – Pipe Rehabilitation Phase - Cedarwood Smoke Testing – Performed
6458	Lower Bynum Run Parallel Interceptor	Phase 3A & 4: Construction Complete; Phase 5: Construction Phase
6608	Bush Creek P.S. Force Main Surge Facility Modification	Construction Complete
6613	Church Creek Pump Station and Force Main Replacement	Design Phase
6634	Lower Bynum Run Interceptor Parallel	Phase 1: Design Phase & Easement Acquisition
6635	Oaklyn Manor/Mandeville Road Sewer Petition	Bidding Phase Complete
6646	Foster Branch Pump Station and Force Main	Design and Permitting Phase Complete
6647	Riverside Force Main	Design Phase
6661	Willoughby Beach / Edgewood Road Water Main	Construction Complete
6665	Joppatowne Pump Station # 47 and Parallel Sewer	Design Phase & Easement Acquisition
6669	Rock Spring Road Sewer Petition	Construction Complete
6671	Abingdon Water Treatment Plant Expansion	Design Phase
6678	Stans Road and Dugan Drive Sewer Petition	Design Phase Complete
----	Glenn Heights Water Petition	Grant Funding Acquisition
----	Glenn Heights Water Petition	Grant Funding Acquisition

ROAD SYSTEM

Introduction

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 07 (Table 24)**,** and a list of State consolidated transportation program projects funded for construction in FY 07 (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. Proposed development located within the Route 40 Commercial Revitalization District 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 of 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 two 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:

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

1. Maryland 24 and Maryland 924 (Tollgate Road)
2. Maryland 22 and Thomas Run Road / Schucks Road
3. Interstate 95 and Maryland 24 Ramp
4. Business US 1 and Henderson Road
5. Maryland 147 and Connolly Road
6. Maryland 23 and Grafton Shop Road
7. Tollgate Road and MacPhail Road
8. US 1 and Milton Avenue
9. US 1 and Reckord Road
10. Maryland 7 and Joppa Farm Road
11. Maryland 24 and Forest Valley Drive
12. Maryland 155 and Earlton Road

Table 21

Signalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2003 - 2006

Intersection	2003 Peak Hour Level Of Service / Delay In Seconds	2004 Peak Hour Level Of Service / Delay In Seconds	2005 Peak Hour Level Of Service / Delay In Seconds	2006 Peak Hour Level Of Service / Delay In Seconds
Maryland Route 7 and U.S. Route 40		C / 32.4		C / 27.6
Maryland Route 924 and Moores Mill Road		C / 24.0		C / 33.4
Maryland Route 24 and Trimble Road		C / 42		C / 28.6
Maryland Route 152 and U.S. Route 1		C / 43.8		D / 47.0
Maryland Route 24 and U.S. Route 1		C / > 35		D / 39.7
Maryland Route 152 and Trimble Road		C / 24.3		C / 20.7
Maryland Route 24 and Jarrettsville Road		C / 20.6		C / 22.4
Maryland Route 152 and Hanson Road		C / 28.8		C / 22.7
Maryland Route 152 and Singer Road		D / 37.6		C / 30.1
Maryland 22 and Thomas Run Road/Schucks Road		NA		D / 42.6
Maryland Route 22 and Brier Hill Road	C / 25.3		C / 24.7	
Maryland Route 22 and Maryland Route 136	D / 37.6		C / 34.6	
Maryland Route 24 and Bel Air South Parkway	D / 54.2		D / 36.6	
Maryland Route 24 and Plumtree Road	D / 35.4		D / 34.5	
Maryland Route 24 and Ring Factory Road	C / 25.2		D / 39.8	
Maryland Route 24 and Maryland Route 755	D / 40.3		D / 45.7	
Maryland Route 24 and Maryland Route 924 (Tollgate)	F / 110.2		F / 132.6	
Maryland Route 543 and U.S. Route 1	B / 17.8		C / 22.3	
Maryland Route 543 and Maryland Route 22	D / 52.4		D / 35.1	
Maryland Route 924 and Abingdon Road	B / 19.4		D / 42.6	
Maryland Route 924 and Abingdon Road	C / 28.1		D / 42.6	

NA: Not available

Source: Harford County Dept. of Planning and Zoning, April, 2007.

Table 22

Unsignalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2003 - 2006

Intersection	2003 Peak Hour Level Of Service / Delay In Seconds	2004 Peak Hour Level Of Service / Delay In Seconds	2005 Peak Hour Level Of Service / Delay In Seconds	2006 Peak Hour Level Of Service / Delay In Seconds
Interstate 95 and Maryland Route 24 Ramp		F / >60		F / >60
Business US 1 and Henderson Road		D / 29.4		E / 35.5
Maryland 147 and Connolly Road		F / 80.5		F / 113.4
Maryland 23 and Grafton Shop Road		NA		F / 127.1
Tollgate Road and MacPhail Road		NA		F / 54.5
US 1 and Milton Avenue		F / 73.9		F / 245.9
US 1 and Reckord Road		F / 67.5		F / 95.5
Maryland 7 and Brass Mill Road		NA		C / 21.3
Maryland 715 and Old Philadelphia Road		B / 17.9		C / 22.9
Woodsdale Road and Box Hill Corporate Center Drive		NA		C / 18.8
Maryland Route 7 and Maryland Route 159	B / 10.5		B / 12.5	
Maryland Route 7 and Joppa Farm Road	NA		E / 35.8	
Maryland Route 24 and Forest Valley Road	F / >150		F / 121.5	
Maryland Route 159 and Spesutia Road	C / 16.3		B / 10.4	
Maryland 155 and Earlton Road	NA		E / 36.3	
Maryland 543 and Henderson Road	NA		D / 34.2	
Macphail and Ring Factory Road	NA		B / 12.1	

NA: Not Available

Source: Harford County Dept. of Planning and Zoning, April, 2007.

Table 23

48 Hour Average Weekday Daily Traffic Volume And Locations

2003 - 2006

Road Name	Location	2003 Average Daily Count	2004 Average Daily Count	2005 Average Daily Count	2006 Average Daily Count
Beards Hill Road	North of Churchville Road		11,670		8,025
Carrs Mill Road	North of Maryland Route 152		8,747		8,756
Chapel Road	North of Interstate 95		1,700		2,406
Jarrettsville Road	East of Maryland Route 24		11,670		7,930
Jarrettsville Road	West of Maryland Route 24		7,065		5,550
Maryland Route 7	West of Maryland Route 24		7,775		7,840
Moores Mill Road	West of Coconut Court		10,211		10,653
Moores Mill Road	West of Old English Court		8,676		7,877
Pleasantville Road	North of Putnam Road		3,843		3,608
Stepney Road	North of Interstate 95		1,382		1,442
U.S. Route 1	North of Maryland Route 152		31,125		27,282
U.S. Route 40	North of Maryland Route 24		22,075		24,530
Abingdon Road	North of Interstate 95	10,783		10,519	
Hanson Road	South of Silverbell Road	1,770		3,602	
Hanson Road	West of Maryland Route 24	12,160		11,246	
Maryland Route 24	North of Singer Road	43,875		45,250	
Maryland Route 152	South of U.S. Route 1	25,925		24,050	
Maryland Route 543	South of Maryland Route 22	18,050		19,175	
Plumtree Road	East of Maryland Route 24	4,745		5,307	
Ring Factory Road	West of Maryland Route 24	4,746		3,765	
Ring Factory Road	East of Maryland Route 24	9,939		8,639	
Singer Road	West of Maryland Route 24	10,689		7,984	
Singer Road	East of Maryland Route 24	6,905		9,776	
Trimble Road	East of Maryland Route 24	7,751		5,711	
Trimble Road	West of Maryland Route 24	7,034		5,478	
Vale Road	West of U.S. Route 1 Overpass	14,844*		8,253	

***Increase due to Red Pump Road closure /construction**

Source: Harford County Dept. of Planning and Zoning, April, 2007.

Table 24

List of Approved County Capital Projects

Funded for Construction in FY 07

Bridge Painting	**Surface Coatings**
Bridge Rehabilitation	**Repairs**
Road and Bridge Scours	**Repairs**
Greene Road Bridge #79	**Replacement**
Moores Mill Road Bridge #48	**Replacement**
St. Clair Bridge Road #99	**Rehabilitation**
Southampton Road Bridge #47	**Replacement**
Telegraph Road Bridge #112	**Replacement**
Thomas Run Road Bridge #34	**Rehabilitation**
Carrs Mill Road, MD 152-Belle Meade	**Widen and straighten**
Culvert Rehabilitation	**Replacement/Rehabilitation/Repair**
Hornbeam Road	**Curb replacing and resurfacing**
Intersection Improvement - Capacity	**Abingdon Rd. @ MD 924 – Right turn lane**
Intersection Improvement – Safety / Capacity	**Foster Branch Road @ Trimble Rd. Intersection realignment**
Intersection Improvement - Capacity	**Grafton Shop @ Vale – Right turn lane**
Moores Mill Road, MD 924-MD 22	**Upgrade**
Perryman Access – MD 715 Connection	**Minor Construction**
Perryman Access – BRAC	**Construct 1,000 feet of new roadway**
Schucks Road Improvement	**Improved Drainage Systems**
Robinhood Road, US 40 – Titan Terrace	**Upgrade**
Tollgate, W. Ring Factory-Plumtree	**Upgrade**

Table 25

State Consolidated Transportation Program

Funded for Construction in FY 07

US 40 – MD 152 to MD 24 Overpass	**Upgrade/Streetscape**
MD 7A – Old Bay Lane to Union Avenue	**Resurface**
MD 24 – Singer Road to W. MacPhail Road	**Resurface**
MD 24 – US 40 ramp to railroad bridge	**Resurface**
MD 24 – Bridge 12071 over Amtrak & Sibert Rd.	**Deck Overlay**
MD 152 – I-95 to APG Gate	**Resurface**
MD 755 – MD 24 to Willoughby Beach Road	**Streetscape**
MD 924 – MD 22 to Maulsby Street	**Streetscape**
Ma and Pa Heritage Trail – Tollgate parking lot to Edgeley Grove Farm	**Extension**

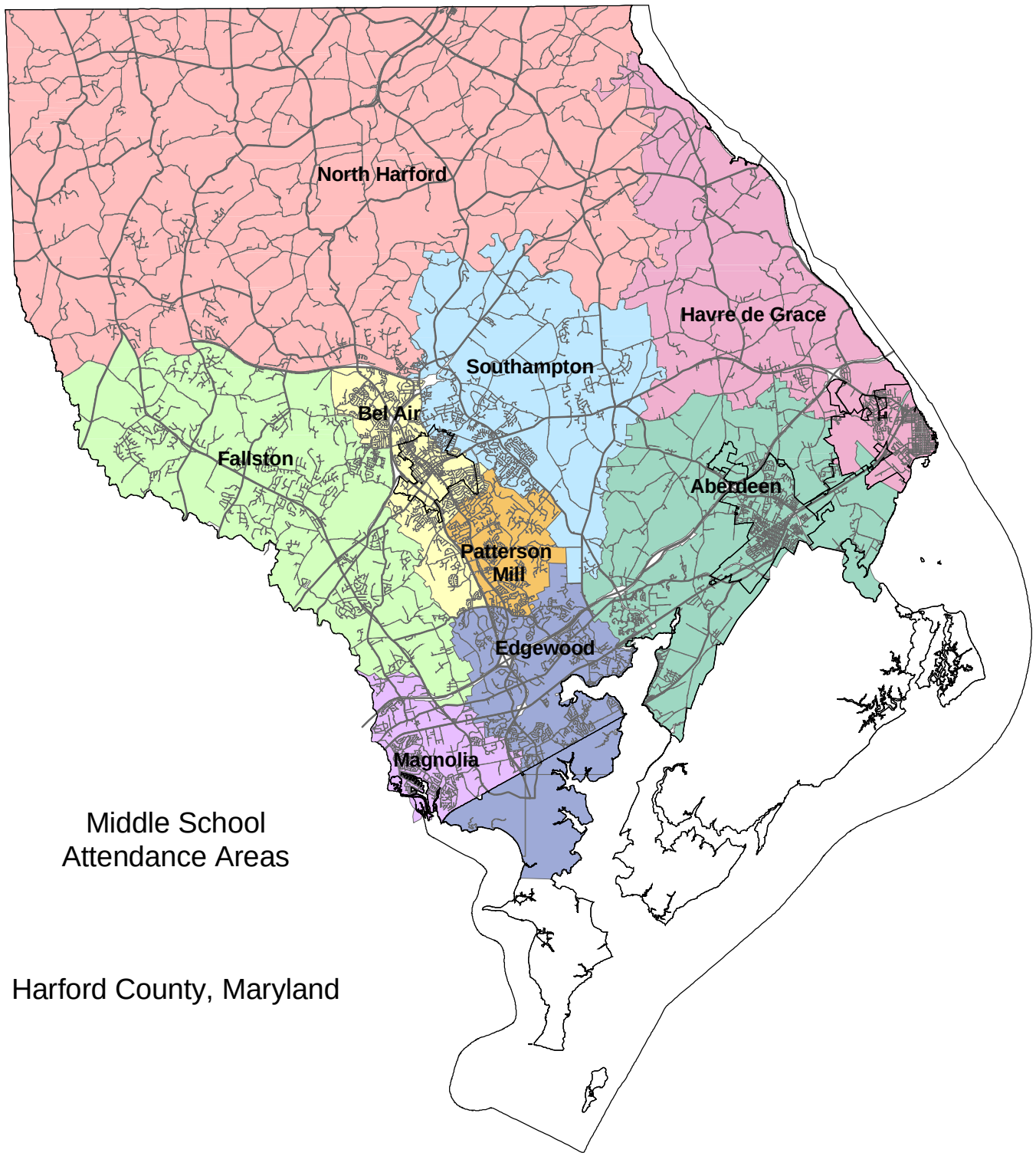
APPENDIX

PUPIL YIELD FACTORS

Forty-seven 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 23 units to 2,395 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-seven 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	.31	.16	.20
Townhome	.23	.11	.14
Apartments (2 Bdrms)	.05	.02	.02
Condo (2+ Bdrms)	.05	.02	.02
Mobile Home	.13	.05	.07

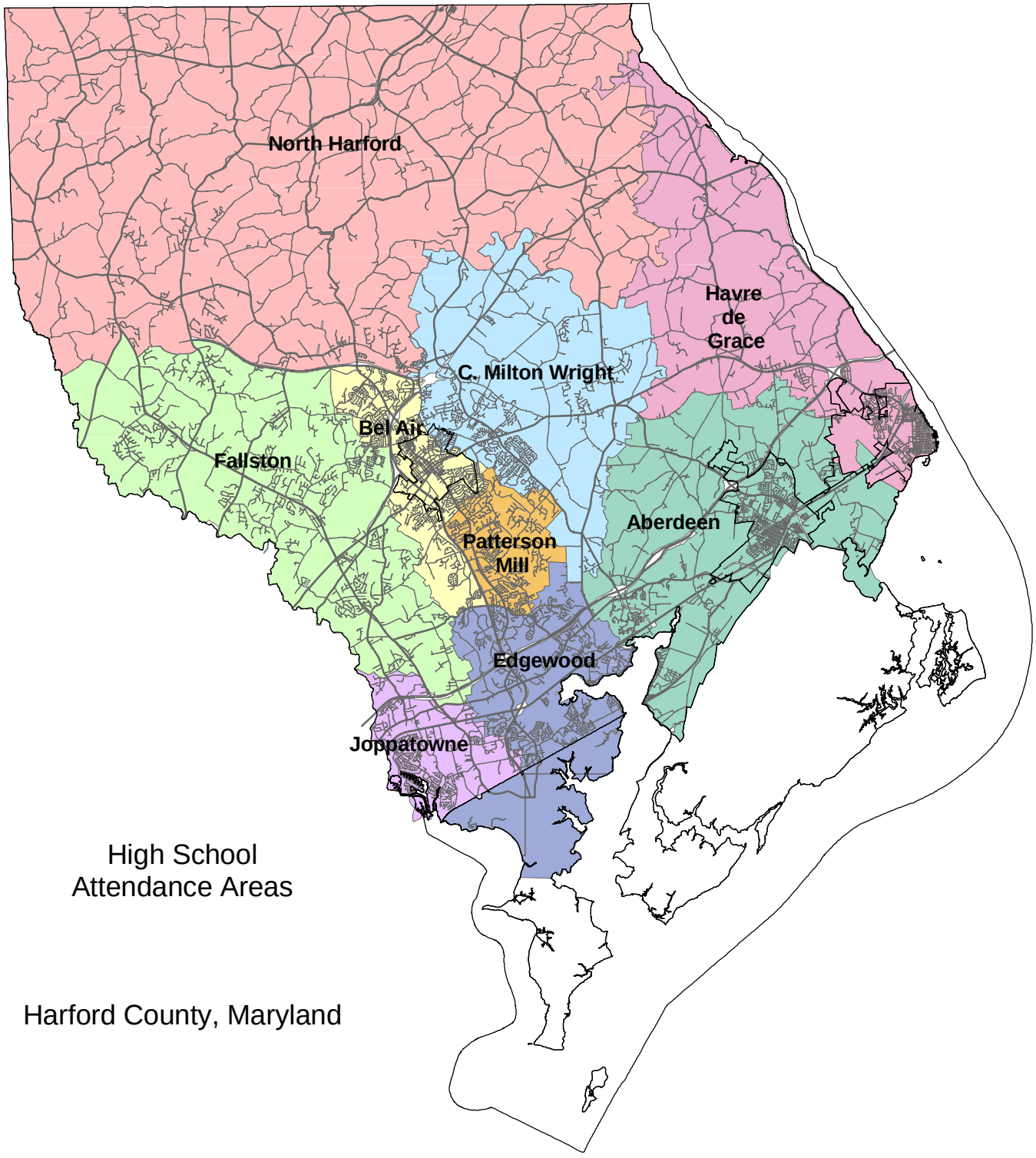
SOURCE: Harford County Public Schools, April 2006.



Middle School Attendance Areas

Harford County, Maryland

SOURCE: Harford County Public Schools, April 2006.



High School Attendance Areas

Harford County, Maryland

SOURCE: Harford County Public Schools, April 2006.