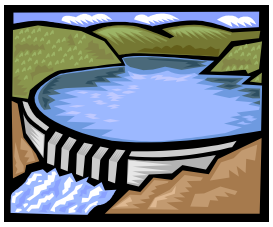
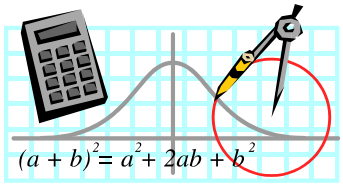
2005 Annual Growth Report





Harford County Government
Department of Planning and Zoning

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Preserving Harford's Past; Promoting Harford's Future

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This document is available in alternative format upon request.

The 2005 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-six of thirty-two elementary schools and fourteen 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	2007/2008	620	106%
Emmorton Elementary	2007/2008	637	111%
Forest Lakes Elementary	2005/2006	656	109%
Fountain Green Elementary	2007/2008	676	113%
Prospect Mill Elementary	2005/2006	885	114%
Youth's Benefit Elementary	2007/2008	1,063	112%
Secondary Schools	Year	Actual / Projected Students	Utilization Rate
Bel Air Middle School	2005/2006	1,434	109%
Aberdeen High School	2005/2006	1,543	113%
Bel Air High School	2005/2006	1,639	115%

Beginning July 1, 2006, 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. County construction funds have been made available for a new middle/high school that is scheduled to open in the 2007/2008 school year.

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 12.9 Million Gallons per Day (MGD) while the design capacity is 21.08 MGD for a total Average Reserve of 8.18 MGD (as of December 2005). The County water system's current average daily usage is 12.1 MGD with a peak day consumption of 15.4 MGD. The Water Treatment capacity is 21.3 MGD, leaving a total reserve of 5.9 MGD (as of December 2005). 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 2005 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 Level of Service (LOS) below the adopted standards. These improvements must bring the level of service 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

unsignalized intersections and one signalized intersection with one or more movements operating at a LOS E 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. Interstate 95 and Maryland 24 Ramp
2. Maryland 24 and Forest Valley Drive
3. Maryland 24 and Maryland 924 (Tollgate 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 6B 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. Currently there are 9,246 planned units remaining and 4,275 of these units have been recorded as of June 30, 2005.

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
2001 - 2005

Jurisdiction	2001	2002	2003	2004	2005	Total	Percentage of Baltimore Region
Harford County	1,883	1,886	1,992	1,781	2,189	9,731	18.0%
Anne Arundel County	2,763	2,499	2,998	2,380	3,014	13,654	25.2%
Baltimore City	216	368	829	723	1,262	3,398	6.3%
Baltimore County	3,618	2,949	2,817	2,209	1,990	13,583	25.1%
Carroll County	1,364	1,546	988	923	675	5,496	10.2%
Howard County	1,509	1,637	1,453	1,840	1,781	8,220	15.2%
Total	**11,353**	**10,885**	**11,077**	**9,856**	**10,911**	**54,082**	**100%**

Source: Baltimore Metropolitan Council, March, 2006.

Table 2
Harford County - Baltimore Region
Population and Household Projections
2005 - 2015

Jurisdiction	2005 Population	2005 Households	2010 Population	2010 Households	2015 Population	2015 Households
Harford County	237,165	88,410	254,700	96,100	268,200	103,200
Anne Arundel County	511,600	190,600	526,800	201,100	540,100	210,500
Baltimore City	646,000	256,600	658,700	266,400	658,000	271,800
Baltimore County	790,700	316,900	819,700	330,100	832,900	337,000
Carroll County	169,500	59,500	179,700	63,600	187,000	66,900
Howard County	273,500	100,000	294,200	108,700	308,900	117,500
Total	**2,628,465**	**1,012,010**	**2,733,800**	**1,066,000**	**2,795,100**	**1,106,900**

Source: Baltimore Metropolitan Council, March, 2006

Table 3
Harford County - Baltimore Region
Employment Projections
2005 - 2015

Jurisdiction	2005 Employment	2010 Employment	2015 Employment
Harford County	105,100	111,100	115,500
Anne Arundel County	317,100	334,700	357,100
Baltimore City	467,300	479,000	489,000
Baltimore County	469,100	493,300	502,300
Carroll County	76,300	84,300	86,800
Howard County	180,000	200,000	215,000
Total	**1,614,900**	**1,702,400**	**1,765,700**

Source: Baltimore Metropolitan Council, March, 2006.

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

	2001		2002		2003		2004		2005	
Permit Type	**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	15	345,549	17	394,900	4	195,886	36	461,819	33	691,534
Industrial	0	0	12	228,300	2	604,853	7	615,313	9	61,082
Institutional	7	78,480	17	241,300	5	114,987	18	123,150	22	313,231
Utilities	1	240	5	4,600	1	18,758	2	0	2	0
Other	4	87,929	1	12,000	1	14,400	5	38,640	1	8,400
Total	**27**	**512,198**	**52**	**881,100**	**13**	**948,884**	**68**	**1,238,922**	**67**	**1,074,247**

Source: Baltimore Metropolitan Council, March, 2006.

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

Permit Type	2001		2002		2003		2004		2005	
	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	65	NA	44	NA	29	NA	43	NA	33	NA
Industrial	3	NA	7	NA	2	NA	8	NA	1	NA
Institutional	30	NA	24	NA	13	NA	19	NA	4	NA
Utilities	8	NA	10	NA	1	NA	3	NA	1	NA
Total	**106**	**NA**	**85**	**NA**	**45**	**NA**	**73**	**NA**	**39**	**NA**

NA: Data Not Available

Source: Baltimore Metropolitan Council, March, 2006.

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-six 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	2007/2008	620	106%
Emmorton Elementary	2007/2008	637	111%
Forest Lakes Elementary	2005/2006	656	109%
Fountain Green Elementary	2007/2008	676	113%
Prospect Mill Elementary	2005/2006	885	114%
Youth's Benefit Elementary	2007/2008	1,063	112%

Beginning July 1, 2006, 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, fourteen 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
Bel Air Middle School	2005/2006	1,434	109%
Aberdeen High School	2005/2006	1,543	113%
Bel Air High School	2005/2006	1,639	115%

Beginning July 1, 2006, 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. County construction funds have been made available for a new middle/high school that is scheduled to open in the 2007/2008 school year.

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 1985 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
2005

Elementary School	APF Capacity	State-Rated Capacity	Actual 2005 - 2006 ENROLL	Actual 2005 - 2006 % UTIL.*	Projected 2006 - 2007 ENROLL	Projected 2006 - 2007 % UTIL.*	Projected 2007 - 2008 ENROLL	Projected 2007 - 2008 % UTIL.*	Projected 2008 - 2009 ENROLL	Projected 2008 - 2009 % UTIL.*
Abingdon	900	883	802	89%	782	87%	764	85%	766	85%
Bakerfield	500	489	444	89%	434	87%	429	86%	423	85%
Bel Air	550	536	504	92%	493	90%	484	88%	487	89%
Church Creek	865	846	758	88%	772	89%	783	91%	747	86%
Churchville	425	419	383	90%	373	88%	357	84%	359	84%
Darlington	185	182	138	75%	139	75%	141	76%	150	81%
Deerfield	585	576	584	100%	614	105.0%	620	**106%**	612	105%
Dublin	325	317	221	68%	214	66%	210	65%	212	65%
Edgewood	585	571	435	74%	423	72%	428	73%	443	76%
Emmorton	575	566	570	99%	582	101%	637	**111%**	630	**110%**
Forest Hill	635	626	532	84%	531	84%	567	89%	583	92%
Forest Lakes	600	586	656	**109%**	669	**112%**	725	**121%**	721	**120%**
Fountain Green	600	591	611	102%	615	103%	676	**113%**	670	**112%**
G. Lisby at Hillsdale	475	464	329	69%	315	66%	314	66%	319	67%
Hall's Cross Rds	570	554	363	64%	362	64%	366	64%	341	60%
Havre de Grace	625	616	393	63%	370	59%	355	57%	355	57%
Hickory	700	686	690	99%	663	95%	668	95%	678	97%
Homestead/Wakefield	1,020	978	938	92%	926	91%	932	91%	923	90%
Jarrettsville	570	564	420	74%	408	72%	438	77%	415	73%
Joppatowne	570	544	561	98%	552	97%	542	95%	548	96%
Magnolia	550	556	495	90%	489	89%	478	87%	469	85%
Meadowvale	625	608	583	93%	580	93%	582	93%	568	91%
Norrisville	275	272	207	75%	223	81%	224	81%	213	77%
North Bend	575	579	449	78%	432	75%	410	71%	393	68%
North Harford	535	514	531	99%	521	97%	506	95%	496	93%
Prospect Mill	775	758	885	**114%**	903	**117%**	957	**123%**	948	**122%**
Ring Factory	600	591	501	84%	484	81%	516	86%	494	82%
Riverside	600	586	534	89%	543	91%	531	89%	520	87%
Roye-Williams	700	671	557	80%	553	79%	544	78%	520	74%
Wm Paca / Old Post Rd	1,110	1,033	996	90%	1,008	91%	1,012	91%	1,014	91%
Wm. S. James	575	564	478	83%	455	79%	439	76%	439	76%
Youth's Benefit	950	938	952	100%	970	102%	1,063	**112%**	1,051	**111%**
TOTAL	19,730	19,264	17,500	89%	17,398	88%	17,698	90%	17,507	89%

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

Table 7

Harford County Middle Schools

Utilization Chart

2005

Middle School	APF Capacity	State-Rated Capacity	Actual 2005 - 2006 ENROLL	Actual 2005 - 2006 %UTIL	Projected 2006 - 2007 ENROLL	Projected 2006 - 2007 %UTIL	Projected *2007 - 2008 ENROLL	Projected *2007 - 2008 %UTIL	Projected *2008 - 2009 ENROLL	Projected *2008 - 2009 %UTIL
Aberdeen	1,656	1,656	1,247	75%	1,260	76%	1,192	72%	1,246	75%
Bel Air	1,316	1,316	1,434	**109%**	1,394	**106%**	1,325	101%	1,284	98%
Edgewood	1,338	1,338	1,216	91%	1,153	86%	1,170	87%	1,176	88%
Fallston*	1,116	988	1,212	109%	1,188	106%	1,029	92%	1,019	91%
Havre de Grace	785	785	589	75%	600	76%	588	75%	582	74%
Magnolia	1,030	1,030	916	89%	916	89%	816	79%	757	73%
North Harford	1,241	1,241	1,123	90%	1,099	89%	1,184	95%	1,184	95%
Patterson Mill	700	700	N/A	N/A	N/A	N/A	688	98%	659	94%
Southampton*	1,530	1,530	1,535	100%	1,585	104%	1,241	81%	1,290	84%
Alternative Education			17							
Total	10,712	10,584	9,289	93%	9,195	92%	9,233	86%	9,197	86%

* Patterson Mill is being constructed currently and will provide relief to Southampton and Fallston Middle Schools beginning in the 2007/08 school year.

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

Table 8

Harford County High Schools

Utilization Chart

2005

High School	APF Capacity	State-Rated Capacity	Actual 2005 - 2006 ENROLL	Actual 2005 - 2006 %UTIL	Projected 2006 - 2007 ENROLL	Projected 2006 - 2007 %UTIL	Projected *2007 - 2008 ENROLL	Projected *2007 - 2008 %UTIL	Projected *2008 - 2009 ENROLL	Projected *2008 - 2009 %UTIL
Aberdeen	1,360	1,360	1,543	**113%**	1,578	**116%**	1,580	**116%**	1,533	**113%**
Bel Air	1,423	1,423	1,639	**115%**	1,691	**119%**	1,585	**111%**	1,588	**112%**
C. Milton Wright*	1,666	1,666	1,834	110%	1,851	111%	1,719	103%	1,536	92%
Edgewood	1,379	1,379	1,316	95%	1,309	95%	1,291	94%	1,248	91%
Fallston*	1,529	1,529	1,643	107%	1,687	110%	1,445	95%	1,419	93%
Harford Technical	965	965	1,052	109%	1,048	109%	1,059	110%	1,045	108%
Havre de Grace	849	849	721	85%	718	85%	688	81%	675	80%
Joppatowne	1,115	1,115	1,118	100%	1,115	100%	1,120	100%	1,113	100%
North Harford	1,600	1,600	1,445	90%	1,474	92%	1,398	87%	1,366	85%
Patterson Mill	900	900	N/A	N/A	N/A	N/A	390	43%	606	67%
Alternative Education			96							
Total	12,786	12,786	12,407	104%	12,471	105%	12,275	96%	12,129	95%

* Patterson Mill is being constructed 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, April, 2006.

Table 9

Harford County
Modified Elementary School Enrollment Projections

School District	2005	2006	2007	2008	2009	2010	2011	2012	2013
ABINGDON	802	782	764	766	750	758	771	781	789
modified	**802**	**782**	**775**	**788**	**783**	**803**	**829**	**852**	**873**
BAKERSFIELD	444	434	429	423	429	434	443	449	454
modified	**444**	**434**	**499**	**573**	**676**	**795**	**939**	**1,101**	**1,284**
BEL AIR	504	493	484	487	490	483	487	493	498
modified	**504**	**493**	**490**	**499**	**508**	**507**	**518**	**531**	**542**
CHURCH CREEK	758	772	783	747	770	779	775	785	794
modified	**758**	**772**	**816**	**813**	**874**	**921**	**956**	**1,009**	**1,063**
CHURCHVILLE	383	373	357	359	365	372	371	375	379
modified	**383**	**373**	**365**	**375**	**390**	**406**	**413**	**426**	**439**
DARLINGTON	138	139	141	150	153	160	161	162	163
modified	**138**	**139**	**145**	**158**	**166**	**178**	**183**	**189**	**195**
DEERFIELD	584	614	620	612	617	633	645	653	660
modified	**584**	**614**	**622**	**616**	**623**	**641**	**655**	**666**	**675**
DUBLIN	221	214	210	212	214	221	220	222	224
modified	**221**	**214**	**214**	**221**	**227**	**239**	**242**	**248**	**254**
EDGEWOOD	435	423	428	443	448	442	451	455	459
modified	**435**	**423**	**429**	**444**	**450**	**445**	**455**	**460**	**465**
EMMORTON	570	582	637	630	627	631	634	643	651
modified	**570**	**582**	**662**	**680**	**703**	**736**	**768**	**809**	**851**
FOREST HILL	532	531	567	583	590	599	602	611	616
modified	**532**	**531**	**572**	**593**	**605**	**620**	**628**	**643**	**653**
FOREST LAKES	656	669	725	721	739	741	741	751	762
modified	**656**	**669**	**734**	**739**	**767**	**778**	**788**	**808**	**829**
FOUNTAIN GREEN	611	615	676	670	669	679	680	689	698
modified	**611**	**615**	**676**	**670**	**669**	**679**	**680**	**689**	**698**
G. LISBY AT HILLSDALE	329	315	314	319	311	316	321	324	328
modified	**329**	**315**	**317**	**325**	**320**	**328**	**337**	**343**	**350**
HALLS CROSS ROADS	363	362	366	341	333	338	336	339	343
modified	**363**	**362**	**372**	**353**	**351**	**362**	**366**	**376**	**387**
HAVRE DE GRACE	393	370	355	355	350	355	365	368	371
modified	**393**	**370**	**398**	**446**	**494**	**562**	**646**	**727**	**818**
HICKORY	690	663	668	678	674	679	682	691	699
modified	**690**	**663**	**679**	**700**	**708**	**724**	**739**	**761**	**782**
HOMESTEAD/WAKEFIELD	938	926	932	923	930	957	943	952	959
modified	**938**	**926**	**957**	**973**	**1,007**	**1,063**	**1,076**	**1,115**	**1,152**
JARRETTSVILLE	420	408	438	415	416	416	423	428	431
modified	**420**	**408**	**447**	**432**	**442**	**452**	**469**	**485**	**499**
JOPPATOWNE	561	552	542	548	547	551	540	546	553
modified	**561**	**552**	**564**	**593**	**616**	**645**	**658**	**692**	**729**
MAGNOLIA	495	489	478	469	471	483	481	486	489
modified	**495**	**489**	**494**	**501**	**520**	**551**	**567**	**592**	**615**
MEADOWVALE	583	580	582	568	565	582	575	582	587
modified	**583**	**580**	**605**	**614**	**636**	**681**	**700**	**736**	**772**
NORRISVILLE	207	223	224	213	222	227	220	224	227
modified	**207**	**223**	**229**	**222**	**237**	**247**	**245**	**255**	**264**
NORTH BEND	449	432	410	393	390	393	395	400	404
modified	**449**	**432**	**421**	**415**	**423**	**438**	**453**	**471**	**489**
NORTH HARFORD	531	521	506	496	507	505	504	511	516
modified	**531**	**521**	**520**	**524**	**551**	**564**	**578**	**602**	**625**
PROSPECT MILL	885	903	957	948	952	958	958	969	977
modified	**885**	**903**	**974**	**982**	**1,004**	**1,028**	**1,046**	**1,077**	**1,105**
RING FACTORY	501	484	516	494	498	493	500	508	516
modified	**501**	**484**	**524**	**510**	**522**	**525**	**541**	**559**	**576**
RIVERSIDE	534	543	531	520	521	530	528	535	541
modified	**534**	**543**	**560**	**579**	**612**	**657**	**691**	**738**	**786**
ROYE-WILLIAMS	557	553	544	520	516	520	533	540	546
modified	**557**	**553**	**556**	**544**	**552**	**569**	**597**	**618**	**638**
WM PACA/OLD POST RD	996	1,008	1,012	1,014	1,004	1,010	1,010	1,021	1,031
modified	**996**	**1,008**	**1,054**	**1,100**	**1,135**	**1,189**	**1,238**	**1,303**	**1,370**
W.S. JAMES	478	455	439	439	428	432	444	450	455
modified	**478**	**455**	**442**	**445**	**437**	**444**	**459**	**467**	**475**
YOUTHS BENEFIT	952	970	1,063	1,051	1,035	1,048	1,057	1,070	1,082
modified	**952**	**970**	**1,087**	**1,099**	**1,108**	**1,147**	**1,183**	**1,225**	**1,266**
Total	17,500	17,398	17,698	17,507	17,531	17,725	17,796	18,013	18,202
Total - modified	**17,500**	**17,398**	**18,198**	**18,529**	**19,115**	**19,925**	**20,642**	**21,570**	**22,519**

Source: Harford County Dept. of Planning and Zoning, May 2006.

Table 10

Harford County
Modified Secondary School Enrollment Projections

Middle School

School District	2005	2006	2007	2008	2009	2010	2011	2012	2013
Aberdeen	1,247	1,260	1,192	1,246	1,229	1,217	1,220	1,225	1,235
modified	**1,247**	**1,260**	**1,306**	**1,427**	**1,473**	**1,527**	**1,602**	**1,684**	**1,775**
Bel Air	1,434	1,394	1,325	1,284	1,284	1,309	1,331	1,308	1,299
modified	**1,434**	**1,394**	**1,343**	**1,310**	**1,319**	**1,355**	**1,388**	**1,398**	**1,398**
Edgewood	1,216	1,153	1,170	1,176	1,215	1,177	1,166	1,127	1,128
modified	**1,216**	**1,153**	**1,252**	**1,301**	**1,389**	**1,391**	**1,425**	**1,414**	**1,405**
Fallston	1,212	1,188	1,029	1,019	1,043	1,046	1,056	1,066	1,076
modified	**1,212**	**1,188**	**1,046**	**1,045**	**1,079**	**1,091**	**1,111**	**1,142**	**1,184**
Havre de Grace	589	600	588	582	570	530	550	532	552
modified	**589**	**600**	**649**	**675**	**696**	**684**	**749**	**792**	**868**
Magnolia	916	916	816	757	764	729	882	867	874
modified	**916**	**916**	**878**	**849**	**892**	**889**	**1,114**	**1,366**	**1,687**
North Harford	1,123	1,099	1,184	1,184	1,151	1,102	1,034	1,035	1,032
modified	**1,123**	**1,099**	**1,237**	**1,263**	**1,254**	**1,228**	**1,180**	**1,137**	**1,092**
Patterson Mill	**N/A**	**N/A**	**688**	**659**	**638**	**648**	**650**	**655**	**657**
modified	**N/A**	**N/A**	**688**	**666**	**652**	**669**	**679**	**693**	**710**
Southampton	1,535	1,585	1,241	1,290	1,302	1,307	1,310	1,320	1,330
modified	**1,535**	**1,585**	**1,254**	**1,310**	**1,329**	**1,342**	**1,352**	**1,373**	**1,404**
Total	9,272	9,195	9,233	9,197	9,196	9,065	9,199	9,135	9,183
Total - modified	**9,272**	**9,195**	**9,650**	**9,846**	**10,083**	**10,176**	**10,600**	**10,997**	**11,523**

High School

School District	2005	2006	2007	2008	2009	2010	2011	2012	2013
Aberdeen	1,543	1,578	1,580	1,533	1,424	1,369	1,405	1,410	1,425
modified	**1,543**	**1,649**	**1,725**	**1,751**	**1,708**	**1,727**	**1,862**	**1,963**	**2,083**
Bel Air	1,639	1,691	1,585	1,588	1,577	1,578	1,580	1,585	1,555
modified	**1,639**	**1,702**	**1,606**	**1,621**	**1,621**	**1,635**	**1,650**	**1,669**	**1,651**
C. Milton Wright	1,834	1,851	1,719	1,536	1,496	1,479	1,475	1,474	1,479
modified	**1,834**	**1,871**	**1,758**	**1,591**	**1,570**	**1,574**	**1,591**	**1,611**	**1,638**
Edgewood	1,316	1,309	1,291	1,248	1,209	1,208	1,210	1,220	1,225
modified	**1,316**	**1,358**	**1,390**	**1,397**	**1,408**	**1,464**	**1,526**	**1,600**	**1,671**
Fallston	1,643	1,687	1,445	1,419	1,310	1,307	1,310	1,325	1,330
modified	**1,643**	**1,699**	**1,467**	**1,453**	**1,354**	**1,363**	**1,379**	**1,407**	**1,425**
Havre de Grace	721	718	688	675	666	669	675	680	685
modified	**721**	**755**	**762**	**789**	**822**	**871**	**927**	**985**	**1,046**
Joppatowne	1,118	1,115	1,120	1,113	1,033	1,019	1,020	1,025	1,030
modified	**1,118**	**1,154**	**1,200**	**1,234**	**1,188**	**1,217**	**1,265**	**1,319**	**1,376**
North Harford	1,445	1,474	1,398	1,366	1,381	1,395	1,405	1,415	1,425
modified	**1,445**	**1,505**	**1,459**	**1,458**	**1,507**	**1,556**	**1,602**	**1,649**	**1,696**
Patterson Mill	**N/A**	**390**	**390**	**606**	**828**	**788**	**795**	**799**	**805**
modified	**N/A**	**390**	**407**	**427**	**606**	**583**	**595**	**605**	**616**
Total	11,259	11,423	11,216	11,084	10,924	10,812	10,875	10,933	10,959
Total - modified	**11,259**	**11,693**	**11,775**	**11,721**	**11,784**	**11,990**	**12,397**	**12,808**	**13,203**

Source: Harford County Dept. of Planning and Zoning, May, 2006.

Table 11

Harford County Residential Building Permit Activity

by Elementary School District

2001 - 2005

SCHOOL	2001					2002					2003					2004					2005				
	BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE					BUILDING PERMITS ISSUED BY DWELLING TYPE				
	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Abingdon	3	169	0	0	172	4	141	0	1	146	0	81	0	0	81	2	0	0	0	2	0	0	0	0	0
Bakerfield	6	5	0	2	13	19	7	0	0	26	30	0	0	0	30	15	0	0	0	15	9	4	0	0	13
Bel Air	8	0	0	0	8	1	0	0	0	1	1	60	168	0	229	1	0	247	0	248	8	43	96	0	147
Church Creek	16	16	17	0	49	29	48	18	1	96	47	144	38	1	230	107	148	0	1	256	17	151	0	0	168
Churchville	48	0	0	0	48	36	0	0	1	37	20	0	0	0	20	30	0	0	1	31	21	0	0	1	22
Darlington	11	0	0	1	12	7	0	0	0	7	10	0	0	1	11	8	0	0	1	9	31	0	0	2	33
Deerfield	102	16	0	0	118	190	16	0	0	206	118	0	0	0	118	5	0	0	0	5	3	0	0	0	3
Dublin	14	0	0	1	15	20	0	0	1	21	20	0	0	0	20	15	0	0	0	15	21	0	0	2	23
Edgewood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	17	58	0	0	75
Emmorton	75	55	0	0	130	81	78	0	0	159	54	72	0	0	126	61	27	0	0	88	35	92	80	0	207
Forest Hill	120	125	36	0	281	75	68	48	0	191	31	31	0	1	63	26	0	0	0	26	14	4	0	0	18
Forest Lakes	91	0	0	0	91	49	0	0	0	49	61	0	0	0	61	26	0	0	0	26	31	0	0	0	31
Fountain Green	107	0	0	0	107	99	0	0	0	99	27	0	0	0	27	22	0	0	0	22	0	0	0	0	0
G. Lisby at Hillsdale	11	0	0	1	12	4	30	0	0	34	11	0	0	0	11	4	0	0	0	4	5	0	0	0	5
Hall's Cross Roads	9	0	0	0	9	1	10	0	0	11	12	0	0	0	12	26	3	0	0	29	41	92	0	0	133
Havre de Grace	7	2	0	0	9	0	8	0	0	8	0	12	0	0	12	18	24	98	0	140	140	150	20	0	310
Hickory	50	38	0	0	88	15	0	0	0	15	8	0	48	0	56	9	30	0	2	41	54	23	48	0	125
Homestead/Wakefield	63	5	1	0	69	68	3	0	0	71	81	4	0	0	85	35	4	0	0	39	50	8	0	0	58
Jarrettsville	31	0	0	1	32	33	0	0	0	33	59	0	0	0	59	22	0	0	1	23	27	0	0	1	28
Joppatowne	118	14	0	0	132	93	52	0	0	145	74	8	0	0	82	8	0	0	0	8	27	0	0	0	27
Magnolia	0	0	0	0	0	4	0	0	0	4	30	0	0	0	30	16	0	0	0	16	1	0	0	0	1
Meadowvale	13	0	0	1	14	45	8	0	0	53	80	12	0	0	92	17	39	0	0	56	5	69	0	0	74
Norrisville	16	0	0	1	17	10	0	0	1	11	18	0	0	0	18	8	0	0	2	10	25	0	0	2	27
North Bend	32	0	0	3	35	29	0	0	2	31	36	0	0	2	38	33	0	0	2	35	40	0	0	1	41
North Harford	37	0	0	8	45	43	0	0	4	47	51	0	0	0	51	56	0	0	2	58	52	0	0	0	52
Prospect Mill	93	13	117	0	223	124	17	38	1	180	41	79	0	0	120	23	100	16	1	140	7	48	65	0	120
Ring Factory	0	0	0	0	0	2	0	0	0	2	4	0	0	0	4	2	0	0	0	2	17	0	0	0	17
Riverside	5	0	0	0	5	15	0	0	0	15	11	0	0	2	13	8	0	132	0	140	3	0	64	0	67
Roye-Williams	0	0	0	1	1	9	0	0	0	9	32	0	0	0	32	28	0	0	0	28	19	0	0	0	19
Wm. Paca/Old Post Rd	85	17	0	0	102	83	32	0	0	115	111	0	0	0	111	137	0	0	0	137	175	99	0	0	274
Wm. S. James	3	0	0	0	3	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	8	0	0	2	10
Youth's Benefit	42	0	0	1	43	64	0	0	0	64	148	0	0	0	148	130	0	0	0	130	61	0	0	0	61
TOTAL	1,216	475	171	21	1,883	1,252	518	104	12	1,886	1,228	503	254	7	1,992	900	375	493	13	1,781	964	841	373	11	2,189

* Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2006

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

2001 - 2005

	2001					2002					2003					2004					2005				
	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/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Aberdeen	44	21	17	4	86	64	95	18	1	178	133	144	38	1	316	182	151	0	1	334	93	247	0	0	340
Bel Air	230	218	37	0	485	168	146	48	0	362	62	163	216	0	441	69	0	247	0	316	78	125	224	0	427
Edgewood	193	202	0	0	395	277	189	0	1	467	231	81	0	0	312	146	0	0	0	146	201	157	0	0	358
Fallston	59	0	0	1	60	88	0	0	0	88	229	0	0	2	231	165	0	0	0	165	106	0	64	0	170
Havre de Grace	50	2	0	2	54	59	16	0	0	75	96	24	0	1	121	50	63	98	2	213	185	219	20	2	426
Magnolia	121	14	0	0	135	104	52	0	0	156	113	8	0	0	121	31	0	132	0	163	29	0	0	0	29
North Harford	219	0	0	14	233	165	0	0	8	173	196	0	0	3	199	152	0	0	7	159	166	4	0	6	176
Patterson Mill	39	5	0	0	44	63	3	0	0	66	80	4	0	0	84	33	31	0	0	64	77	18	0	2	97
Southampton	261	13	117	0	391	264	17	38	2	321	88	79	0	0	167	72	130	16	3	221	29	71	65	1	166
TOTAL	1,216	475	171	21	1,883	1,252	518	104	12	1,886	1,228	503	254	7	1,992	900	375	493	13	1,781	964	841	373	11	2,189

Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2006.

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

2001 - 2005

	2001					2002					2003					2004					2005				
	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/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL	SF	TH	APT/ CONDO	MH	TOTAL
Aberdeen	44	21	17	4	86	64	95	18	1	178	133	144	38	1	316	182	151	0	1	334	93	247	0	0	340
Bel Air	230	218	37	0	485	168	146	48	0	362	62	163	216	0	441	69	0	247	0	316	78	125	224	0	427
Edgewood	193	202	0	0	395	277	189	0	1	467	231	81	0	0	312	146	0	0	0	146	201	157	0	0	358
Fallston	59	0	0	1	60	88	0	0	0	88	229	0	0	2	231	165	0	0	0	165	106	0	64	0	170
Havre de Grace	50	2	0	2	54	59	16	0	0	75	96	24	0	1	121	50	63	98	2	213	185	219	20	2	426
Joppatowne	121	14	0	0	135	104	52	0	0	156	113	8	0	0	121	31	0	132	0	163	29	0	0	0	29
North Harford	219	0	0	14	233	165	0	0	8	173	196	0	0	3	199	152	0	0	7	159	166	4	0	6	176
Patterson Mill	39	5	0	0	44	63	3	0	0	66	80	4	0	0	84	33	31	0	0	64	77	18	0	2	97
C.M. Wright	261	13	117	0	391	264	17	38	2	321	88	79	0	0	167	72	130	16	3	221	29	71	65	1	166
TOTAL	1,216	475	171	21	1,883	1,252	518	104	12	1,886	1,228	503	254	7	1,992	900	375	493	13	1,781	964	841	373	11	2,189

Note: Permit totals revised to reflect cancelled permits.

Source: Harford County Dept. of Planning & Zoning, May, 2006.

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*

2001 - 2005

	2001*		2002*		2003*		2004*		2005*	
SCHOOL	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Abingdon	3,775	10,323	3,915	10,607	4,054	10,926	4,131	11,115	4,133	11,086
Bakerfield	2,896	7,920	2,921	7,914	2,946	7,940	2,974	8,003	2,989	8,017
Bel Air	3,328	9,102	3,331	9,025	3,334	8,986	3,552	9,557	3,787	10,160
Church Creek	2,956	8,082	3,048	8,257	3,139	8,460	3,357	9,034	3,601	9,659
Churchville	2,024	5,536	2,055	5,567	2,085	5,620	2,101	5,652	2,129	5,711
Darlington	1,008	2,755	1,014	2,748	1,021	2,752	1,031	2,775	1,040	2,790
Deerfield	2,039	5,577	2,237	6,060	2,432	6,556	2,544	6,847	2,549	6,838
Dublin	1,262	3,450	1,282	3,473	1,302	3,509	1,321	3,554	1,335	3,581
Edgewood	1,389	3,798	1,389	3,763	1,389	3,744	1,389	3,738	1,391	3,731
Emmorton	2,375	6,493	2,527	6,846	2,678	7,218	2,798	7,528	2,881	7,729
Forest Hill	1,818	4,970	2,001	5,420	2,182	5,881	2,242	6,033	2,267	6,080
Forest Lakes	3,086	8,438	3,133	8,487	3,179	8,569	3,237	8,711	3,262	8,750
Fountain Green	2,366	6,470	2,461	6,667	2,555	6,886	2,581	6,944	2,601	6,979
G. Lisby at Hillsdale	1,854	5,070	1,858	5,033	1,939	5,226	1,949	5,245	1,896	5,086
Hall's Cross Roads	1,878	5,136	1,889	5,117	1,920	5,175	1,932	5,198	1,959	5,256
Havre de Grace	2,992	8,181	2,999	8,126	3,007	8,105	3,018	8,122	3,151	8,454
Hickory	2,480	6,782	2,494	6,758	2,509	6,762	2,562	6,894	2,603	6,982
Homestead/Wakefield	5,023	13,738	5,091	13,792	5,158	13,901	5,237	14,091	5,274	14,150
Jarrettsville	2,188	5,983	2,220	6,013	2,251	6,067	2,307	6,207	2,329	6,247
Joppatowne	3,156	8,630	3,295	8,926	3,433	9,251	3,510	9,446	3,518	9,437
Magnolia	1,499	4,099	1,503	4,071	1,507	4,061	1,535	4,131	1,550	4,159
Meadowvale	2,340	6,399	2,391	6,477	2,441	6,580	2,529	6,804	2,582	6,926
Norrisville	873	2,388	884	2,394	894	2,410	913	2,452	921	2,470
North Bend	2,213	6,051	2,243	6,076	2,272	6,124	2,308	6,211	2,341	6,281
North Harford	2,239	6,123	2,284	6,188	2,329	6,277	2,377	6,397	2,432	6,525
Prospect Mill	3,372	9,220	3,549	9,614	3,724	10,038	3,842	10,339	3,976	10,666
Ring Factory	2,353	6,435	2,355	6,380	2,357	6,352	2,361	6,352	2,363	6,338
Riverside	2,644	7,230	2,658	7,202	2,672	7,203	2,685	7,224	2,818	7,559
Roye-Williams	1,458	3,987	1,495	4,051	1,475	3,976	1,506	4,051	1,589	4,264
Wm. Paca/Old Post Rd	5,114	13,985	5,225	14,154	5,334	14,376	5,439	14,636	5,569	14,940
Wm. S. James	1,900	5,197	1,900	5,148	1,900	5,122	1,902	5,119	1,902	5,103
Youth's Benefit	5,285	14,451	5,346	14,483	5,407	14,572	5,547	14,927	5,671	15,212
TOTAL	81,182	222,000	82,991	224,840	84,826	228,620	86,718	233,335	88,410	237,165

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

Source: Harford County Dept. of Planning and Zoning, May, 2006.

Table 15
Harford County Population and Households
by Middle School District

2001 - 2005

SCHOOL	2001*		2002*		2003*		2004*		2005*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,623	31,783	11,707	31,717	11,877	32,010	12,177	32,765	12,494	33,515
Bel Air	9,079	24,826	9,539	25,844	9,885	26,642	10,304	27,726	10,604	28,446
Edgewood	13,081	35,772	13,456	36,456	13,900	37,464	14,197	38,200	14,335	38,454
Fallston	7,999	21,873	8,056	21,824	8,139	21,937	8,359	22,492	8,515	22,843
Havre de Grace	6,620	18,103	6,671	18,074	6,743	18,173	6,858	18,452	7,060	18,938
Magnolia	6,875	18,800	7,003	18,973	7,151	19,274	7,266	19,552	7,421	19,907
North Harford	8,845	24,187	9,066	24,562	9,230	24,878	9,419	25,346	9,571	25,673
Patterson Mill	5,647	15,440	5,706	15,460	5,795	15,617	5,875	15,807	5,936	15,923
Southampton	11,415	31,215	11,786	31,931	12,105	32,626	12,264	33,000	12,474	33,466
TOTAL	81,182	222,000	82,991	224,840	84,826	228,620	86,718	233,340	88,410	237,165

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

Source: Harford County Dept. of Planning and Zoning, May, 2006.

Table 16
Harford County Population and Households
by High School District

2001 - 2005

SCHOOL	2001*		2002*		2003*		2004*		2005*	
	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population
Aberdeen	11,623	31,783	11,707	31,717	11,877	32,010	12,177	32,765	12,494	33,515
Bel Air	9,079	24,826	9,539	25,844	9,885	26,642	10,304	27,726	10,604	28,446
C. Milton Wright	11,415	31,215	11,786	31,931	12,105	32,626	12,264	33,000	12,474	33,466
Edgewood	13,081	35,772	13,456	36,456	13,900	37,464	14,197	38,200	14,335	38,454
Fallston	7,999	21,873	8,056	21,824	8,139	21,937	8,359	22,492	8,515	22,843
Havre de Grace	6,620	18,103	6,671	18,074	6,743	18,173	6,858	18,452	7,060	18,938
Joppatowne	6,875	18,800	7,003	18,973	7,151	19,274	7,266	19,552	7,421	19,907
North Harford	8,845	24,187	9,066	24,562	9,230	24,878	9,419	25,346	9,571	25,673
Patterson Mill	5,647	15,440	5,706	15,460	5,795	15,617	5,875	15,807	5,936	15,923
TOTAL	81,182	222,000	82,991	224,840	84,826	228,620	86,718	233,340	88,410	237,165

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

Source: Harford County Dept. of Planning and Zoning, May, 2006.

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 "2005 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 2005, the County's average day and maximum day demands were 12.1 MGD and 15.4 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 32-159 of the “2005 Water and Sewer Adequate Public Facilities Report.”

The average daily influent flow to the Sod Run WWTP in 2005 was approximately 12.1 MGD, exclusive of recycle flows and septage. The average daily influent flow to the Joppatowne WWTP in 2005 was approximately 0.83 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 and some surrounding residences and the Swan Harbor Dell Mobile Home Park that 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 2005
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.

	2005
Total Number of Connections	40,362
WATER	
Average Water Production	12.1 MGD
Maximum Day Water Production	15.4 MGD
Average Water Usage per Connection (gal/day)	320
Residential Unit Water Usage (gal/day)	161
Average Commercial/Industrial Water Usage (gal/day)	5,198
SEWAGE	
Average Sewage Flows	12.9 MGD
Maximum Day Sewage Flows	29.8 MGD
Average Sewage per Connection (gal/day)	330
Residential Sewage Generation (gal/day)	161
Average Commercial/Industrial Sewage Generation (gal/day)	5,198

- MGD = Million Gallons per Day

Source: 2005 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**	**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	6.7	11	13.5	17.2
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	9.5	15.8	19.7	25
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	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	9.8	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	0.3	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
Chapel Hill																		
Avg. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Max. Day, mgd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	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	0.2	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
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	15.8	19	23.4	28
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	23.3	27.5	33.9	40.4

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

Source: 2005 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
	2005	35,829	9.9	0.6	1.6	12.1	20
	2010	41,696	12.3	0.8	1.9	15	20
	2025	59,333	16	0.9	2.1	19	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
	2005	5,620	0.64	0	0.19	0.83	0.95
	2010	5,620	0.65	0	0.19	0.84	0.95
	2025	5,704	0.76	0	0.19	0.95	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
	2005	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
	2005	178	0.03	0	0.01	0.04	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: 2005 Harford County Adequate Public Facilities Report, Dept. of Public Works, Division of Water and Sewer.

Table 20

2005 EXISTING WATER & SEWER CAPITAL PROJECTS

The Capital Improvement Program establishes projects for expanding and improving water and sewer facilities. This list of 2005 Capital Projects includes the project status.

PROJECT NO.	PROJECT NAME	PROJECT STATUS
6440	Infiltration/Inflow	- Manhole (County-wide) - Rehabilitation Complete Televising Contract Awarded
6458	Lower Bynum Run Parallel Interceptor	Phase 3A & 4: Construction Phase; Phase 5: part of Construction Phase
6608	Bush Creek P.S. Force Main Surge Facility Modification	Construction Bidding Phase
6634	Lower Bynum Run Interceptor Parallel	Design Phase
6635	Oaklyn Manor/Mandeville Road Sewer Petition	Design Phase
6646	Foster Branch Pump Station and Force Main	Design and Permitting Phase
6647	Riverside Force Main	Design Phase
6648	Route 40 Sewer Petition	Construction Complete
6661	Willoughby Beach / Edgewood Road Water Main	Design Phase
6665	Joppatowne Pump Station # 47 and Parallel Sewer	Design Phase
6669	Rock Spring Road Sewer Petition	Design Phase
6678	Stans Road and Dugan Drive Sewer Petition	Design Phase
7014	Joppatowne WWTP Automation	Construction Complete

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 06 (Table 24), and a list of State consolidated transportation program projects funded for construction in FY 06 (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 unsignalized intersections and one signalized intersection with one or more movements operating at a LOS E 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. Interstate 95 and Maryland 24 Ramp
2. Maryland 24 and Forest Valley Drive
3. Maryland 24 and Maryland 924 (Tollgate Road)

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

Table 21

Signalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2002 - 2005

Intersection	2002 Peak Hour Level Of Service / Delay In Seconds	2003 Peak Hour Level Of Service / Delay In Seconds	2004Peak Hour Level Of Service / Delay In Seconds	2005 Peak Hour Level Of Service / Delay In Seconds
Maryland Route 7 and U.S. Route 40	C / 30.8		C / 32.4	
Maryland Route 924 and Moores Mill Road	C / 27.2		C / 24.0	
Maryland Route 24 and Trimble Road	C / 23.5		C / 42	
Maryland Route 152 and U.S. Route 1	E / 56.5		C / 43.8	
Maryland Route 24 and U.S. Route 1	D / 54.8		C / > 35	
Maryland Route 152 and Trimble Road	C / 24.3		C / 24.3	
Maryland Route 24 and Jarrettsville Road	C / 20.8		C / 20.6	
Maryland Route 152 and Hanson Road	C / 28.8		C / 28.8	
Maryland Route 152 and Singer Road *	NA		D / 37.6	
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

*Note: Unsignalized in 2002

Table 22

Unsignalized Intersection Capacity Analyses

Level Of Service And Delay In Seconds

2002 - 2005

Intersection	2002 Peak Hour Level Of Service / Delay In Seconds	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
Interstate 95 and Maryland Route 24 Ramp	F / >60		F / >60	
Maryland Route 7 and Maryland Route 159		B / 10.5		B / 12.5
Maryland Route 24 and Forest Valley Road		F / >150		F / 121.5
Maryland Route 159 and Spesutia Road		C / 16.3		B / 10.4

Table 23

48 Hour Average Weekday Daily Traffic Volume And Locations

2002 - 2005

Road Name	Location	2002 Average Daily Count	2003 Average Daily Count	2004 Average Daily Count	2005 Average Daily Count
Beards Hill Road	North of Churchville Road	6,825		11,670	
Carrs Mill Road	North of Maryland Route 152	8,644		8,747	
Chapel Road	North of Interstate 95	1,705		1,700	
Jarrettsville Road	East of Maryland Route 24	10,196		11,670	
Jarrettsville Road	West of Maryland Route 24	4,526		7,065	
Maryland Route 7	West of Maryland Route 24	7,625		7,775	
Moores Mill Road	West of Coconut Court	10,662		10,211	
Moores Mill Road	West of Old English Court	6,942		8,676	
Pleasantville Road	North of Putnam Road	3,505		3,843	
Stepney Road	North of Interstate 95	1,373		1,382	
U.S. Route 1	North of Maryland Route 152	31,050		31,125	
U.S. Route 40	North of Maryland Route 24	17,341		22,075	
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**

Table 24

List of Approved County Capital Projects

Funded for Construction in FY 06

Bridge Painting	**Surface Coatings**
Bridge Rehabilitation	**Repairs**
Road and Bridge Scours	**Repairs**
Jerusalem Mill Pedestrian Crossing Bridge	**Construction**
Ruff's Mill Road Bridge #190	**Replacement**
St. Clair Bridge Road #99	**Rehabilitation**
Singer Road Bridge #7	**Replacement**
Southampton Road Bridge #47	**Replacement**
Thomas Run Road Bridge #34	**Rehabilitation**
Carrs Mill Road, MD 152 Grafton Shop	**Upgrade**
Culvert Rehabilitation	**Replacement/Rehabilitation/Repair**
Intersection Improvement	**Abingdon Rd. & Box Hill South Pkwy. Roundabout**
Intersection Improvement	**Tollgate @ W. Ring Factory Roundabout**
Interesction Improvement	**Bel Air S. Pkwy at Festival Entrance**
Moores Mill Road, MD 924-MD 22	**Upgrade**
Perryman Access – MD 715 Connection	**Construction**
Schucks Road Improvement	**Improved Drainage Systems**
Tollgate – W. Ring Factory – Plumtree	**Upgrade**
Vale Road, MD 924-Grafton Shop	**Upgrade**

Table 25

State Consolidated Transportation Program

Funded for Construction in FY 06

MD – Bridges 12045 and 12046	**Replace**
US 40 – MD 152 to MD 24 Overpass	**Upgrade**
US 1 Bus – Tollgate to MD 147. 40 to Union Ave.	**Resurface**
MD 147 – US 1 to MD 152	**Resurface**
MD 24 – Singer Road to W. MacPhail Road	**Resurface/Safety**
US 40 – MD 755 to Otter Point Road	**Resurface**
MD 155 – McCommons Road to I-95	**Resurface**
MD 155 - Lapidum Road to US 40	**Resurface**
MD 161 – Trappe Church Road to US 1	**Resurface**
MD 924 – Ring Factory Road to MacPhail Road	**Provide Center Turn Lane**
MD 924 – MD 22 to Maulsby Street	**Streetscape**
US 40 - MD 22 to Robin Hood Road	**Landscape**
Ma and Pa Heritage Trail – Tollgate parking lot to Edgeley Grove Farm	**Extension**

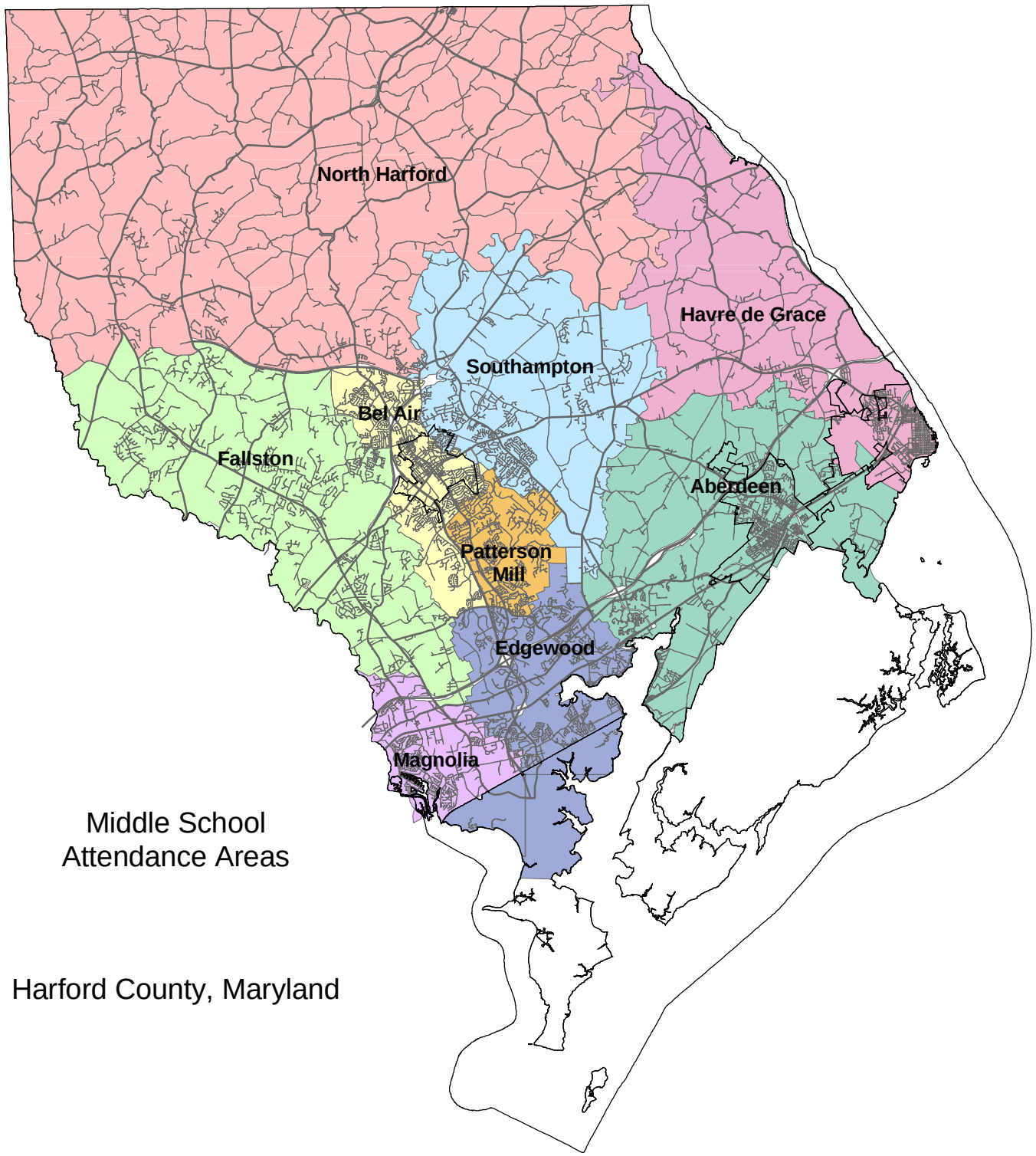
APPENDIX

PUPIL YIELD FACTORS

Forty-five 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 14 units to 1,600 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-five 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	.34	.17	.21
Townhome	.22	.11	.12
Apartments (2 Bdrms)	.05	.02	.03
Condo (2+ Bdrms)	.05	.02	.03
Mobile Home	.10	.04	.05

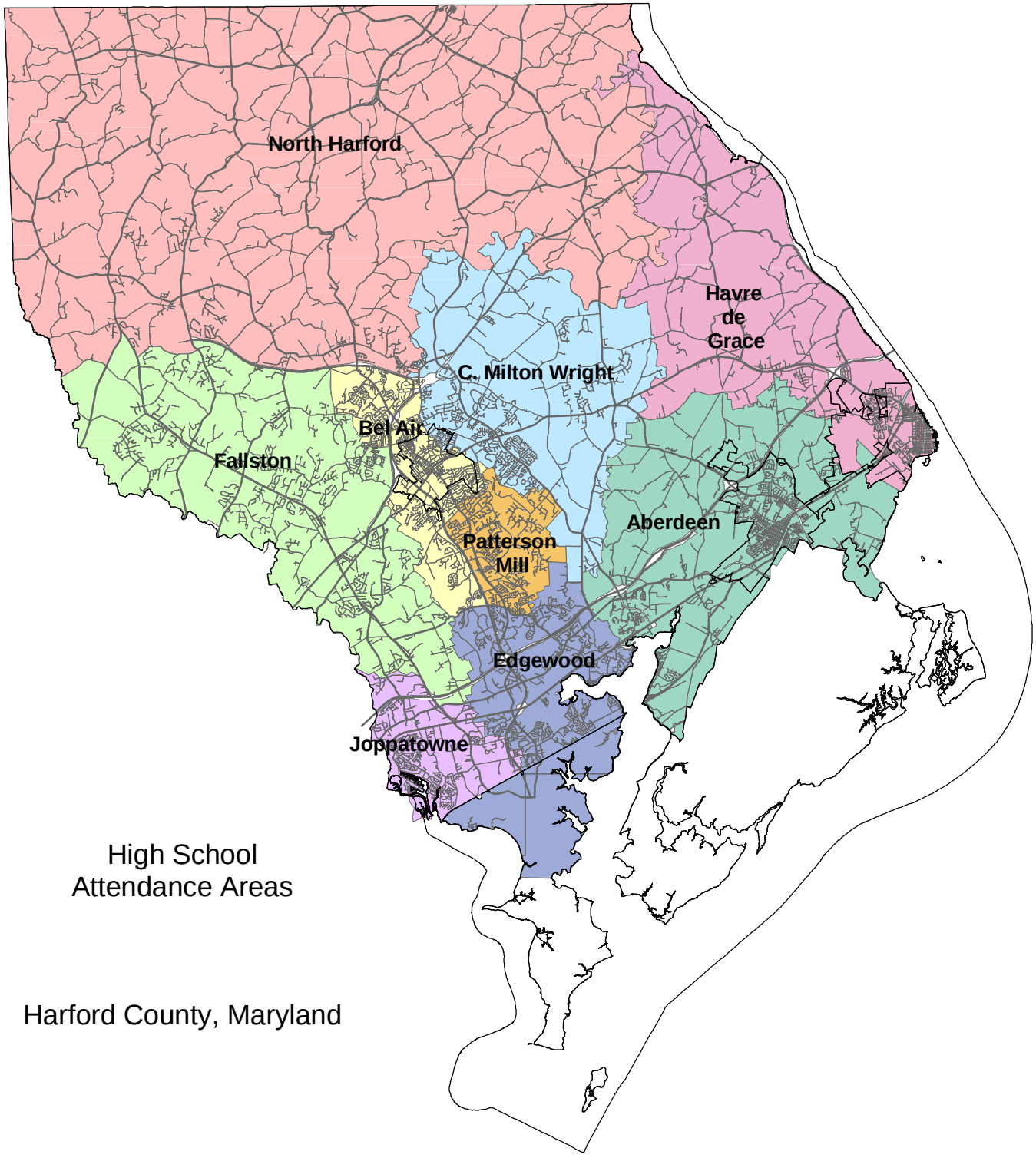
SOURCE: Harford County Public Schools, April 2006.



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.