

Demographic Trends in The Rappahannock River Basin

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Sub-Basin Geography: **All or Portions of.....**

- **Upper:** Counties of Albemarle, Culpeper, Fauquier, Greene, Madison, Orange & Rappahannock
- **Middle:** Counties of Caroline, King George, Spotsylvania, and Stafford & City of Fredericksburg
- **Lower:** Counties of Essex, Lancaster, Middlesex, Richmond and Westmoreland

2000 – 2006 Population Growth, by Sub-basin (see handout)

- **Total, All Basin Communities:**
 - Population Gain = 107,257 or 20.3 % increase
 - **Upper:**
 - Population Gain = 39,539 or 17.25 % increase
 - **Middle:**
 - Population Gain = 65,959 or 27.4 % increase
 - **Lower:**
 - Population Gain = 1,760 or 3.1 % increase
- **Rappahannock Basin Communities:**
 - Share of Statewide Growth = 16.8 %

2006 Population Estimate for Basin

- **Est. Watershed Population = 305,427**
 - Upper: 118,368 (38.7 %)
 - Middle: 149,408 (48.9 %)
 - Lower: 37,651 (12.3 %)
- **Basin Communities Population = 634,581**
 - Upper: 268,804 (42.35%)
 - Middle: 307,003 (48.39%)
 - Lower: 58,775 (9.26%)

Sub-Basin and Local Community Detail for 2006 Population Estimate

	Licenses in Watershed Area	Estimated Total Watershed Population	Licenses in Entire Rappahannock Basin Community Area	Estimated Total Population	Ratio of Total Population : Total Licenses	Pct Local Population in Rappahannock Watershed
Total Basin	194,374	305,427	419,600	634,581	1.5123	48.13%
UPPER	69,730	118,368	174,467	268,804	1.5407	44.04%
Albemarle	72	95	68,815	90,806	1.3196	0.10%
Culpeper	26,738	44,183	26,738	44,183	1.6524	100.00%
Fauquier	18,680	25,855	46,682	64,612	1.3841	40.02%
Greene	1,257	4,050	5,327	17,165	3.2223	23.60%
Madison	7,411	13,720	7,411	13,720	1.8513	100.00%
Orange	11,755	23,535	15,677	31,387	2.0021	74.98%
Rappahannock	3,817	6,931	3,817	6,931	1.8157	100.00%
MIDDLE	99,008	149,408	203,973	307,003	1.5051	48.67%
Caroline	1,234	1,715	18,572	25,805	1.3895	6.64%
King George	3,752	5,475	14,595	21,299	1.4593	25.71%
Spotsylvania	55,032	81,133	79,860	117,737	1.4743	68.91%
Stafford	25,270	39,434	77,226	120,511	1.5605	32.72%
Fredericksburg	13,720	21,651	13,720	21,651	1.5781	100.00%
LOWER	25,636	37,651	41,160	58,775	1.4280	64.06%
Essex	7,127	9,428	7,953	10,520	1.3228	89.61%
Lancaster	6,266	8,792	8,242	11,565	1.4032	76.03%
Middlesex	5,281	6,796	7,967	10,253	1.2870	66.29%
Richmond	4,825	9,695	4,825	9,695	2.0094	100.00%
Westmoreland	2,137	2,939	12,173	16,741	1.3753	17.56%

Source: Estimates prepared by George Washington Regional Commission, March 27, 2007.

Employment by Place of Work, 2006

	Upper	Middle	Lower	Total
Establishments	4,814	6,755	1,966	13,535
% of Total	35.6	49.9	14.5	100.0
Employment	55,083	105,167	18,690	178,940
% of Total	30.8	58.8	10.4	100.0
Avg. Weekly Pay	\$650	\$706	\$434	\$660

Source: Va. Employment Commission, Cov. Wage & Salary Employment, 2nd Qtr, 2006.

Rapp. Watershed Share (%) Population Projections, 2006 - 2030

	2006	2010	2020	2030
Upper	44.04 %	46.00 %	47.58 %	48.60 %
Middle	48.67 %	47.00 %	46.57 %	46.15 %
Lower	64.06 %	65.00 %	66.95 %	67.00 %
Total	48.13 %	48.14 %	48.50 %	48.56 %

Watershed & Basin Communities
Population Projections: 2006 – 2030

	2006	2010	2020	2030
Upper	118,381	133,873	163,524	187,093
	268,804	291,028	343,683	384,965
Middle	149,418	161,564	204,438	235,226
	307,003	343,754	438,990	509,698
Lower	37,651	39,050	42,160	44,241
	58,775	60,077	62,972	66,031
Total	305,451	334,487	410,122	466,559
	634,581	694,859	845,645	960,694

Sources: Weldon Cooper Center, 2006 Provisional Local Population Estimates (Jan 2007); Virginia Employment Commission, Provisional Population Projections, 2010-2020 (Nov 2006)

What if:

Population projection errors of the past (i.e. **under-** or **over-prediction** of local population for future years) were repeated in future projection scenarios ?

Preliminary and Alternative Population Projections: 2006 - 2030, Rappahannock River Basin

PDC & Jurisdiction Name	Census Population		Avg Annual Projection Error ('93-2000)	WCC Estimate 2006	2010		2020		2030	
	April 1, 1990	April 1, 2000			06 Projection for 2010	Alt Projection for 2010	06 Projection for 2020	Alt Projection for 2020	06 Projection for 2030	Alt Projection for 2030
Rappahannock-Rapidan RC	116,524	134,785	0.75%	160,833	175,935	171,343	214,238	200,528	241,406	225,905
Thomas Jefferson	164,210	199,648	-1.27%	218,706	233,780	247,744	265,418	307,344	290,133	336,925
GWRC	170,410	241,044	-1.60%	307,003	343,754	367,437	438,990	515,827	509,698	600,193
Northern Neck	44,173	49,353	-0.71%	51,163	51,552	53,152	53,643	57,896	57,161	61,823
Middle Peninsula	73,023	83,684	0.29%	87,755	94,305	93,533	104,211	101,854	112,079	109,439
Commonwealth of VA	6,187,358	7,078,515	-0.38%	7,642,884	7,910,118	8,337,381	8,675,862	9,839,896	9,386,793	10,734,477
Upper	194,861	229,265		268,804	291,028	288,337	343,683	335,606	384,965	376,103
Albemarle	68,040	79,236	-0.03%	90,806	95,888	95,995	106,593	106,891	116,518	116,844
Culpeper	27,791	34,262	-0.02%	44,183	47,904	47,948	60,644	60,783	68,856	69,014
Fauquier	48,741	55,139	1.68%	64,612	72,416	67,542	88,413	73,537	100,464	83,561
Greene	10,297	15,244	-2.33%	17,165	19,205	20,998	22,852	28,186	27,042	33,354
Madison	11,949	12,520	1.33%	13,720	14,042	13,294	15,450	13,391	16,955	14,696
Orange	21,421	25,881	-0.86%	31,387	34,005	35,179	41,594	45,183	46,672	50,699
Rappahannock	6,622	6,983	0.62%	6,931	7,568	7,381	8,137	7,634	8,458	7,935
Middle	170,410	241,044		307,003	343,754	367,437	438,990	515,827	509,698	600,193
Caroline	19,217	22,121	-1.13%	25,805	29,088	30,400	35,692	39,716	39,658	44,129
King George	13,527	16,803	-0.72%	21,299	23,536	24,212	29,828	31,969	34,107	36,556
Spotsylvania	57,403	90,395	-2.71%	117,737	133,675	148,141	173,670	220,654	205,907	261,612
Stafford	61,236	92,446	-1.47%	120,511	135,307	143,275	174,956	200,713	204,021	234,058
Fredericksbug	19,027	19,279	0.83%	21,651	22,148	21,410	24,844	22,774	26,005	23,838
Lower	50,991	57,015		58,775	60,077	62,267	62,972	68,831	66,031	72,283
Essex	8,689	9,989	-1.93%	10,520	10,939	11,783	11,837	14,120	12,466	14,869
Lancaster	10,896	11,567	0.15%	11,565	11,439	11,370	11,297	11,126	11,485	11,311
Middlesex	8,653	9,932	-0.80%	10,253	10,967	11,318	11,917	12,871	12,362	13,352
Richmond	7,273	8,809	-2.34%	9,695	9,305	10,176	9,790	12,081	10,705	13,210
Westmoreland	15,480	16,718	-0.28%	16,741	17,427	17,620	18,131	18,633	19,013	19,540
RRBC Communities	527,324	527,324		634,581	694,859	718,041	845,645	920,264	960,694	1,048,578
Rappahannock River Watershed	255,558	255,558		307,538	336,751	347,985	409,826	445,989	465,583	508,174
Pct of Local Pop in Watershed	48.46%	48.46%	=====	48.13%	46.82%	46.82%	45.23%	45.23%	43.70%	43.70%

Watershed & Basin Communities
Potential Population Projections: 2006 – 2030

	2006	2010	2020	2030
Upper	118,381 268,804	132,635 288,337	159,681 335,606	182,786 376,103
Middle	149,418 307,003	172,695 367,437	240,221 515,827	276,989 600,193
Lower	37,651 58,775	40,474 62,267	46,082 68,831	48,430 72,283
Total	305,451 634,581	334,607 718,041	428,843 920,264	488,637 1,048,579

Preliminary and Alternative Population Projections: Comparative Impact on Growth in Rappahannock Basin Watershed

		Preliminary Community Population Projections			ALTERNATIVE Community Population Projections				
		2006	2010	2020	2030	2006	2010	2020	2030
Upper		268,804	291,028	343,683	384,965	268,804	288,337	335,606	376,103
Middle		307,003	343,754	438,990	509,698	307,003	367,437	515,827	600,193
Lower		58,775	60,077	62,972	66,031	58,775	62,267	68,831	72,283
Total		634,581	694,859	845,645	960,694	634,582	718,041	920,264	1,048,579
		Current Estimated & Projected Future Local Population Share in Rappahanock Watershed			Current Estimated & Projected Future Local Population Share in Rappahanock Watershed				
Upper		0.4404	0.4600	0.4758	0.4860	0.4404	0.4600	0.4758	0.4860
Middle		0.4867	0.4700	0.4657	0.4615	0.4867	0.4700	0.4657	0.4615
Lower		0.6406	0.6500	0.6695	0.6700	0.6406	0.6500	0.6695	0.6700
Total		0.4813	0.4814	0.4850	0.4856	0.4813	0.4816	0.4846	0.4847
		Current Estimated & Projected Future Rappahanock Watershed Population			Current Estimated & Projected Future Rappahanock Watershed Population				
Upper		118,381	133,873	163,524	187,093	118,381	132,635	159,681	182,786
Middle		149,418	161,564	204,438	235,226	149,418	172,695	240,221	276,989
Lower		37,651	39,050	42,160	44,241	37,651	40,474	46,082	48,430
Total		305,451	334,487	410,122	466,559	305,451	345,804	445,984	508,205