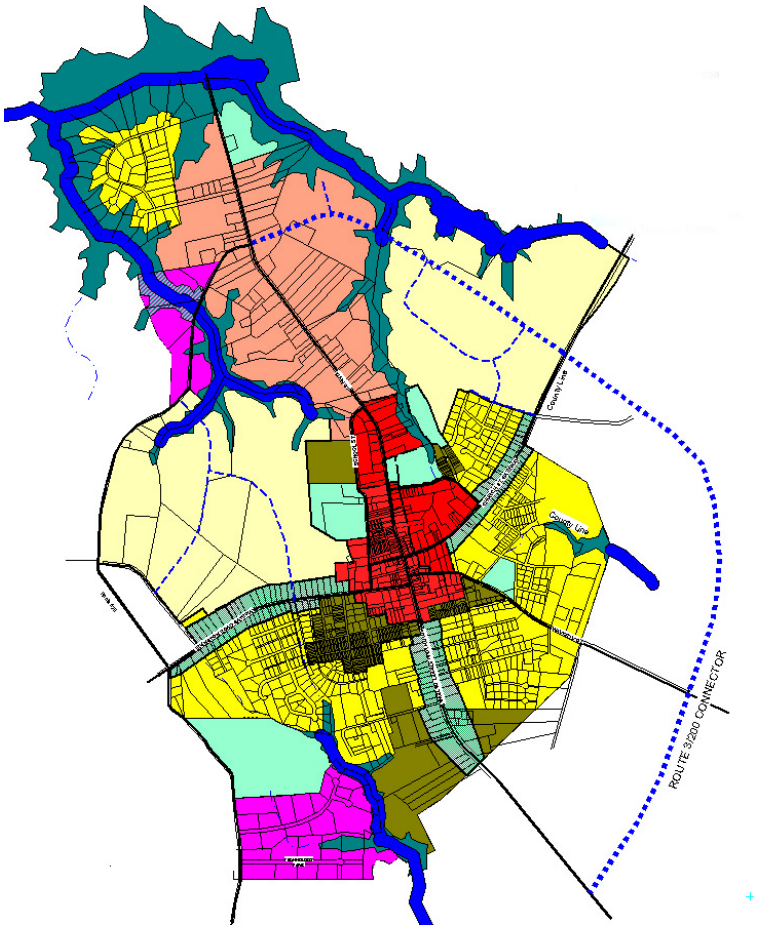
COMPREHENSIVE PLAN: 2006
Town of Kilmarnock, Virginia



Prepared by the
KILMARNOCK PLANNING COMMISSION

Adopted by the Town Council
February 27, 2006

A VISION FOR KILMARNOCK

Located in Virginia's Northern Neck, a strategic area that shares shorelines of the Chesapeake Bay and two of Virginia's great rivers, the Potomac and Rappahannock, the Town of Kilmarnock, claims a rich heritage linking it to Scotland, Native Americans and early settlers.

The Town is named for Kilmarnock, Scotland, although in earlier times it was also known as the "Crossroads." and "Steptoe's Ordinary." Road patterns today resemble the path used by Indians prior to European settlement. As the town of approximately 1,300 citizens entered the 21st Century, it is firmly established as the trade center of the eastern part of the Northern Neck and is positioned for continued growth not only as the region's commercial center but also as a excellent place for living, working retiring and leisure activities. Kilmarnock hereby articulates its vision for the future in the following goals:

Economy: To provide a wide-range of full-time employment opportunities in business and technology enterprises and to assure the dominance of the Town as a major business center for the region.

Commerce To maintain the historic identity of downtown as the central business district of the region while recognizing the North Main Street area as a general business area.

Growth and the Use of land To plan and manage growth consistent with the need to accommodate future population within the Town's ability to provide public facilities and services.

To develop and use land in a way to maintain a delicate balance between things physical and things natural. To assure an excellent quality of life through orderly physical development and protection of the natural environment. To utilize available land planning and architectural techniques such as planned unit development, mixed-use development and "new urbanism."

Preservation To incorporate the values of preservation of natural environmental and historical features of the community into planning and implementation of all public and private activities. By protecting the equity of our community.

Housing To provide for a range of affordable housing styles that incorporate open space and other recreational amenities in pedestrian-oriented settings.

Transportation To provide a network of streets accommodating a compatible relationship among various forms of traffic, vehicular pedestrian and bicycle. To supplement traffic routes with adequate parking facilities in order to establish a workable circulation pattern throughout the community.

Public Services To provide a network of public facilities and protective services in sync with population needs.

COMPREHENSIVE PLAN

TOWN OF KILMARNOCK, VIRGINIA

Prepared by the
KILMARNOCK PLANNING COMMISSION

Adopted by the
TOWN COUNCIL
February 27, 2006

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COMPREHENSIVE PLAN, TOWN OF KILMARNOCK
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CHAPTER 1
DEMOGRAPHIC AND ECONOMIC PROFILE

A. HISTORIC SETTING

American towns and cities originated from a variety of different sources. One of the earliest, and most formal, types of settlements came during the colonial period. Many towns (some are now large cities) that were started during that period were planned using European standards that placed emphasis on sites for public places and generous streets[1]. Examples surviving today are the older sections of Williamsburg, Annapolis, Savannah, Philadelphia and Washington D.C. Names like Francis Nicholson (the then governor of Virginia), William Penn, James Oglethorpe, and Pierre L'Enfant are recalled as the town planners of these early urban places. Also following the European tradition, the official governmental authority, the crown or a private company was the major player in determining where towns would be built and how they would be developed.

The American Revolution changed that by substituting state government for the authority of the crown. Towns and cities then became "creatures of the state" and it was not until the 1920s that local governments were authorized by their states to prepare town and city plans to guide their community's development. Under the "*laissez faire*" attitude toward development that prevailed during the intervening 200-year period, most American towns developed more or less spontaneously where they served market needs. This was usually along some transportation routes and the more major the transportation route the larger the development that ensued.

The feature that stimulated the initial establishment of and growth of almost all American towns was the need to connect one settlement with others in order to provide the exchange of goods and services required to sustain a healthy urban community. So most towns and cities started as waypoints or crossroads on transportation routes.

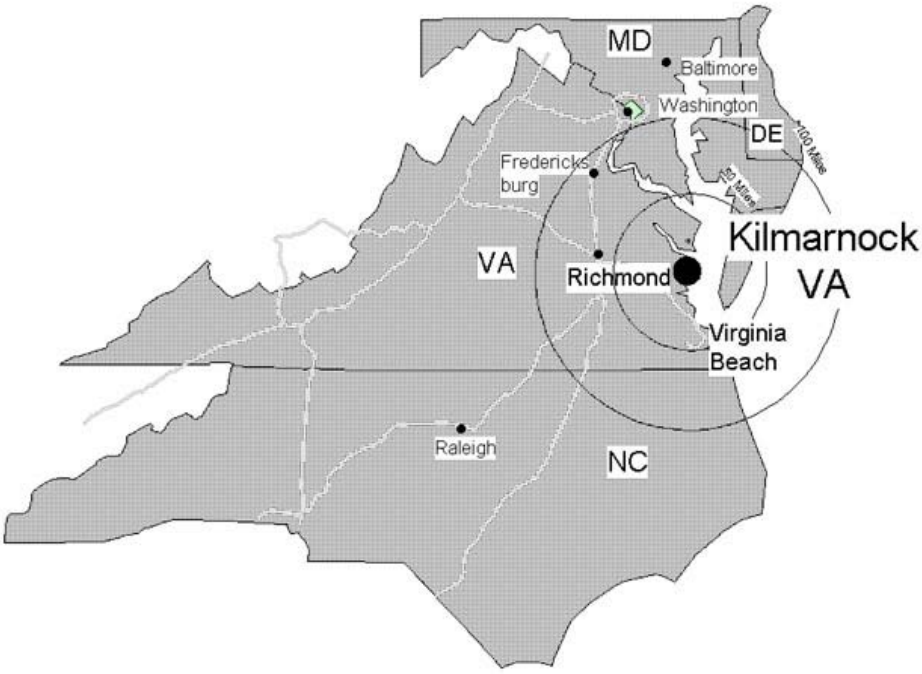
First settled in the mid 1600s, Kilmarnock was originally known as "The Crossroads" according to brief history provided in the 1989 Comprehensive Plan. That document suggests that Kilmarnock probably had its beginnings at the intersection of Indian paths which later became the locations of Routes 3 and 200. It was in the early 1700s that William Steptoe began to operate a storehouse and ordinary at the crossroads so that the crossroads came to be called

[1] In Philadelphia, for example, two streets intersection in the center of town were 100-feet wide and most other streets were 50-feet wide.

"Steptoe's Ordinary." In 1764, Robert Gilmour, an agent for a mercantile firm based in Glasgow, Scotland, is thought to have been involved in giving the name of "Kilmarnock" to the crossroads location using the name of Kilmarnock, Scotland, where he apparently also owned land.

The earliest known record referenced to "Kilmarnock, Virginia," can be found in a deed recorded in 1778. It was incorporated as the "Town of Kilmarnock" by an act of the General Assembly in 1930.[2] Since that time it has grown in size and after the boundary adjustment during the 1980s Kilmarnock occupies 2.69 square miles.

Figure 1.1
Location Map



Kilmarnock, Virginia, is located in Lancaster County near the southeastern tip of the Northern Neck. The town borders, and a small portion along the southeastern side of Church Street is located within, Northumberland County. While the town does not have major transportation

[2]From: Comprehensive Plan, Town of Kilmarnock, 1989, p. 4; also, see Master Plan Report, University of Virginia School of Architecture, 1992.

corridors of interstate highways, railroads or carrier-based airports, it is within 100 miles of the metropolitan areas of Richmond, Hampton Roads, and Washington DC. This places major urban services within less than two hours drive of local residents via Virginia's primary highways.

Kilmarnock serves as the business and commercial center of Lancaster County and parts of the neighboring counties of Northumberland, Richmond and Middlesex. Almost all of the town is located in Lancaster County but small area is in Northumberland County. The town's population is 11 percent of Lancaster County's population, but the town has 47 percent of the county's business and service establishments. Employment and income data are only available at the county level. Lancaster County is characterized by slow job growth, high unemployment, low wages but above average per capita personal income. The high unemployment/low wage situation is linked to the rural job market while the higher income factor reflects the growth of a retired population within the area.

B. POPULATION

1. Growth

The population of the Northern Neck (the four-county area comprising the Northern Neck Planning District) started the 20th Century at 35,126 and, although some fluctuation occurred during the ensuing 50 years, it reached 1950 with a population still at about the same level (35,079). From 1950 until 1990, it increased a little during each decade, in some more than in others, and by 1990 the region's population had grown to 44,133. The average increase per decade for that 40 year period was about 6 percent. But in the last decade of the 20th Century, the area's population accelerated to about 12 percent, between 1990 and 2000, reaching 49,353.

Table 1.1
Northern Neck Population 1990-2004

Cou5nty	**1990** Population	**2000** Population	**% Change** 1990-2000	***Estimated*** *2004*
Lancaster	10,856	11,567	6.2%	*12,030*
Northumberland	10,524	12,259	16.5%	*12,893*
Richmond	7,273	8,809	21.1%	*8,990*
Westmoreland	15,480	16,718	8.0%	*17,039*
TOTAL	**44,133**	**49,353**	**11.8**	***50,952***

The major increases occurred in the two adjoining counties: Northumberland, 16.5 percent and Richmond 21.1 percent. Recent estimates by State agencies project the Planning District to have about 53,500 by 2010 and 57,200 by 2020.

Kilmarnock's population also grew during the last half of the 20th Century. It experienced decline from 1950 to 1960, a period during which heavy population migration from rural to large urban areas was occurring. After 1960 the town's population increased gradually from 627 persons in 1960 to 1109 by 1990. Part of this increase (estimated at 70 persons) came as a result of a boundary line adjustment that took place during the 1980s. Table 1.2 provides projections of the town's population to year 2020 using a formula derived by "regression analysis." This process takes known values (census figures) and develops a mathematical formula that represents the trend of growth. The same formula is used to project the trend line into future periods.

Table 1.2
Population Growth and Projections, Kilmarnock Va. 1960-2020

Year	Trend line (A) 1960-2000 Projection	Amount of Increase	
		Amount	Percent
1960	627	-	-
1970	841	214	34.1
1980	944	103	12.3
1990	1,109	165	17.5
2000	1,244	135	10.8
2010	1,400*	156	12.5
2020	1,570*	170	12.1

Sources: U. S. Census data, 1960-2000
*PMA's projections based on Linear Regression model using 1960-2000 census numbers.

The trend line uses census data from 1960 through 2000 The projections represent a base-line growth trend similar to that of the recent past. One should keep in mind, however, that

population change can occur very rapidly if new development occurs, particularly if higher density apartments complexes were to become the standard for new development.
Two things might cause a upsurge in housing units in Kilmarnock. The first is a noticeable shift toward higher density housing and the second comes from the strong likelihood that the next 20 years will see much of the now undeveloped land within the Town developed, at least in part, with housing.

For example, there are approximately 550 acres in the two large areas on the future Land Use Plan designated for future residential. While some of this land may be unusable because of streams and steep slopes and in any development scenario, about one-fourth to one-third of any development would be consumed in streets and other public areas, there is great potential for new residential development within in these areas. If one assumes that half of this land could be developed at an average density of 2.2 dwellings per acre, the area has the potential for about 500 new dwellings which would accommodate more than 1,000 new residents. Therefore one of the major questions facing the Town in the next 10-20 years is what is the proper vision for this area?

2. Age Distribution

Figure 1.2

Change in Age Distribution, Kilmarnock Va. 1970-2000

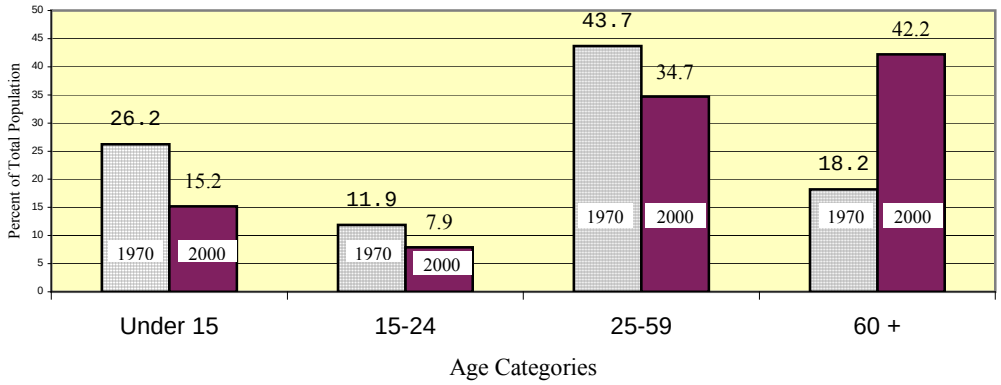


Figure 1.2 reflects the major long-term shift in the composition of Kilmarnock's population from a younger to an older citizenry. The chart tells the story by comparing over time each of four age categories for each major population group Table 1.3 below fills in the details for each year period.

Table 1.3
Change in Age Distribution, 1970-2000, Kilmarnock, Va.

	1970		1980		1990		2000	
Age Group	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 15	240	26.2	120	12.6	170	15.3	189	15.2
15-24	109	11.9	118	12.4	97	8.7	98	7.9
25-59	400	43.7	359	37.8	403	36.4	432	34.7
60 +	167	18.2	353	37.2	439	39.6	525	42.2
Total	916*	100.0	950*	100	1109	100	1244	100.0

Sources: Draft Comprehensive Plan Update (about 1996); and US. Census.
*Census figures for 1970 and 1980 respectively were reported as 841 and 944 persons.

There are several local issues related to the increase in the older population. For one thing most older families that have moved into the community are fairly affluent and have a positive effect on the local economy. Some start new businesses and in this respect generate new jobs. They own larger homes and have fewer children, thus improving the tax base while not increasing the cost of education. Some of the older population have lower incomes and will need more community services, health care, transportation, recreation, financial assistance and the like. As the "baby boomers" retire over the next 20 years, the share of retirement-age population will likely grow even larger.

C. ECONOMY

1. Employment

Table 1.4 shows employment in Lancaster County[3] by industry group every other year since 1996. During this period there were changes not only in total employment but also in the distribution among industrial groups. Overall the economy gained almost 500 **jobs (about 13** percent). Gains were experienced in Services (77%), Construction (60%), Government (15%) and Finance/Insurance/Real Estate (6%). Losing ground were Agriculture/Fishing. (-55%) and Trade (-26%). Eighty seven percent of the jobs reported were with privately owned firms. The jobs reported from Social Security Payments exclude a few jobs that are not covered by this program, notably agricultural jobs and some self-employed individuals.

Table 1.4
Employment Trends in Lancaster and Northurmberland Counties, 1995-2004

	1995			2000			2004		
Category	Lancaster	N.orth-umberland	**Total**	Lancaster	North-umberland	**Total**	Lancaster	North-umberland	**Total**
Total All Industries	3,942	2,147	**6,089**	4,343	2,508	**6,851**	4,396	2,781	**7,177**
Private Ownership	3,475	1,737	**5,212**	3,805	1,968	**5,773**	3,861	2,260	**6,121**
Agri. For. Fish	72	34	**106**	100	30	**130**	32	7	**39**
Construction	213	201	**414**	286	263	**549**	353	363	**716**
Manufacturing	220	570	**790**	246	455	**701**	224	599	**823**
Trans. Com.. Util.	145	75	**220**	115	143	**258**	149	66	**215**
Trade	965	408	**1,373**	1,005	419	**1,424**	726	404	**1,130**
Fin. Ins. R.E	278	80	**358**	301	92	**393**	296	104	**400**
Services	1,582	369	**1,951**	1,752	566	**2,318**	2,081	713	**2,794**
Government	467	410	**877**	538	540	**1,078**	535	521	**1,056**
Unlisted								4	**4**

Source: U S Bureau of Labor Statistics, Covered Employment (March data)

2. Business Firms - Kilmarnock

While detailed employment data is not published for towns, a measure of how Kilmarnock functions as a regional trade center can be seen in the concentration of establishments within the Town proper. The next table lists the local tax classifications of 259 businesses operating within Kilmarnock in 2005 as reported by Town records. This was about one-fourth of all the businesses listed in Lancaster County by the 2002 Census of Business (Bureau of the Census) but 60 percent of all retail trade establishments.

Table 1.5
List of Businesses and Services in Kilmarnock

Type	Code	Number
Agencies & Agents	100	13
Barber Shops	402	2
Beauty Shops	403	11
Bowling Alley/Motion	201	1
Carnivals	202	1
Contractors	450	19
Dry Cleaners/Laundromat	404	3
Funeral Home	494	1
Hotels and Motels	480	2
Nursing Home/Assisted Living	481	2

[3] Lancaster County data is used here as the closest measure of employment within the area; most census data are not provided for town.

Out of Area Contractors	460	2
Photographers	482	0
Printing Office	493	4
Professional	300	38

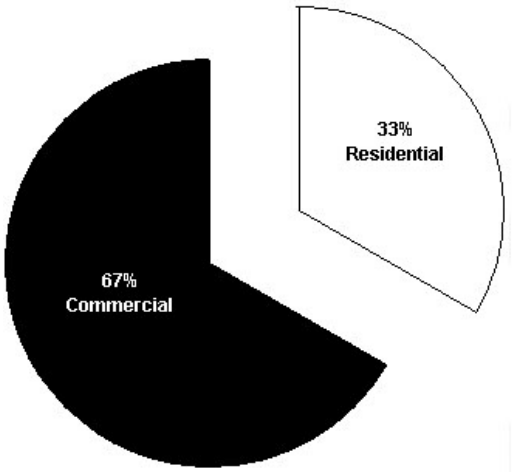
Table 1.5, Continued

Type	Code	Number
Repair Shops	470	8
Retail Merchants	490	127
Retail Merchants - Groceries	491	6
Services and Trade	400	4
Temporary Food Vendors	499	2
Temporary Retail Vendors	486	0
Utilities - Cable/TV	498	2
Utilities - Electric	496	0
Utilities - Telephone	497	1
Wholesale Distributor	495	10
	Total	259

3. Construction

Throughout the 1990s and continuing through 2004, a major indicator of the strength of Kilmarnock's economy is reflected by strong construction activity. Figure 1.3 illustrates the relationship between commercial and residential building permit values issued between 1990 and 2004. Two-thirds of the construction value was in commercial and Institutional buildings. Over the long period this relationship remained fairly constant although occasional large projects may have tipped the balance either way in any particular year. Total investment during the 15 years covered by the chart was $11.12 million in residential construction and $20.08 million in commercial construction. If these amounts were expressed in 2005 dollars the values would be approximately $14 million in residential and $28 million in commercial construction. Some of the larger projects include a new school building[4] and a library in 1990; the Mayfair House (1997) that provided 48 "assisted living" spaces; a new Holiday Inn Express; Tartan Village and an addition to the Bank of Lancaster.

Figure 1.3
Distribution of Building Value,1990-2004
Kilmarnock, Va.



[4] School and library construction, 1990, was listed under "commercial" for tabulation purposes; The school project was valued at $8.0 million at that time.

The average permit value of all housing units authorized (165) was $67,422 per unit. The units included 56 single-family units, 22 town houses, and 87 multi-family units. Land value is not included with permit value. Details on building permit values are included in Table 1.6.

Table 1.6
Building Permit Value 1990-2004

	Residential						Commercial		
Year	**S.F.**	**T.H.**	**M.F**	**Other**	**Total**	**Estimated Value**	**Units**	**Estimated Value**	**Notes**
1990	12	0	20	0	32	1,538,000	4	9,061,000	School: 8 Million, Library: .5 Million
1991	4	0	0	0	4	300,000	1	170,000	Stores
1992	1	9	0	0	10	454,000	1	121,000	Other Non-Residential
1993	1	3	0	0	4	353,000	3	631,000	Church, Professional
1994	6	4	40	0	50	1,616,000	4	2,494,000	Stores: 2.29 Million
1995	1	3	0	0	4	343,000	2	122,000	Misc.
1996	6	0	0	0	6	586,000	0	0	
1997	1	0	0	48	49	1,422,000	2	244,000	Mayfair House (48 beds assisted living)
1998	1	0	8	0	9	600,000	11	1,541,000	Kilmarnock New Horizons, Burger King, Stores
1999	2	0	0	0	2	250,000	2	110,000	BayWalk, Booth's rear addition
2000	1	0	0	0	1	135,000	5	3,050,000	Holiday Inn: 2 Million, Chubby's
2001	3	0	0	0	3	425,000	4	450,000	BayWalk
2002	7	0	0	0	7	875,000	5	500,000	Misc.
2003	7	3	0	0	10	1,250,000	1	300,000	Harvey Lane Duplexes, KFC
2004	4	0	19	0	23	2,400,000	5	2,465,000	Tartan Village: 1.9 Million, Bank of Lancaster addition 1.94 Million

Source: Kilmarnock Town Manager's Reports of Building Permits Issued 1990-2004.
Residential Key: SF = Single Family; TH = Town House; MF = Multiple Family (Apartments).

4. Unemployment and Income

The major indicator of the level of employment reported by governmental sources is "unemployment." As indicated by available data unemployment has shown significant improvement since the early 1990s. In 1993 unemployment in Lancaster Counter, at 14.8 percent, was nearly three times as high as that in the Commonwealth of Virginia and more than twice the national average. In the most recent year reported by the Weldon-Cooper Center and available at the time of this document, the County unemployment rate had dropped to 5.9 percent, similar to the national average of 6.0 percent, yet still noticeably above the 4.1 percent Virginia average. Details for Lancaster and Northumberland Counties as well as those of Virginia and the United States are give in Table 1.7.

Table 1.7
Average Annual Unemployment Rate

	1993	1994	1995	1996	1997	2000	2001	2002	2003
Lancaster County	14.8	13.9	13.8	14.3	12.4	7.8	8.0	6.7	5.9
Northumberland County	13.5	12.8	12.6	12.7	11.4	6.3	6.7	6.1	5.7
Virginia	5.1	4.9	4.5	4.4	4.0	2.2	3.5	4.1	4.1
United States	6.8	6.1	5.6	5.4	4.9	4.0	4.8	5.8	6.0

Sources: UVA, Weldon Cooper Center for Public Service Data for 1993-1998 as reported in Town of Kilmarnock Official Statement 1998 for General Obligation Refunding Bonds; Virginia Employment Commission, Local Area Unemployment Statistics; and Statistical Abstract of the United States.

The level of employment only tells part of the economic story; another part is conveyed in the amount of income received from such employment. In Table 1.8, one sees that the average weekly wages in Lancaster County from all employment categories was $489.00 in 2004. That translates into approximately $25,500 per year assuming year-round employment. Approximately the same level of compensation was received in construction and services but the number fell to just over $19,000 ($366.00 per week) for retail jobs.

Wages in all categories were well below Virginia averages, as low as 35.8 percent in manufacturing. Even though salaries in retail were much below the general wage level for the area, this category scored higher as a percent of wages statewide in this category.
By taking the 2004 employment figure from Table 1.4 of 4,396 and multiplying by the average calculated annual wage of $25,500, one gets a total annual personal income from employment in the range of about $112 million.

Table 1.8
Average First-Quarter Wages, 2004

	All Industries	Construction	Manufacturing	Retail	Services
Lancaster County	489	491	284	366	493
Northumberland County	423	429	483	334	325
Virginia	772	681	794	431	733
Lancaster Co. as % of Va.	63.3	72.1	35.8	89.4	67.4

Source: Bureau of Labor Statistics, covered employment and wages in Virginia

Still another dimension of the economy is revealed by examining income reported for Lancaster County on a per capita[5] basis. In table 1.9 below, per capita income for Lancaster County in 2002 was $32,861, almost $7,400 higher than the average salary from local wages. This is an indicator of the amount of personal income of county residents from sources other than what is reported through the payroll taxing system. One such source is the income of older residents of the County; and while the exact number of retired persons is unknown nor the source of their non-wage income, it is fair to say that this population accounts for a significant share of the $88 million gap between reported income and per capita income. [6]

While Lancaster County has lower than average wage rates and higher than average unemployment than found elsewhere in the state, this condition is offset by the higher than average per capita income that is about 14 percent above the state average and 18 percent above the national average. The difference is due in part to the additional wealth brought to the County by an affluent retired group**.**

Table 1.9
Per Capita Annual Personal Income (Dollars)

	1995	**2000**	**2001**	**2002**
Lancaster County	27695	30372	33153	32861
Northumberland County	21383	24594	26802	26976
Virginia	24284	31084	32328	32793
United States	23359	29847	30527	30906
Lancaster County as % of Virginia	114.0	97.7	102.6	100.2

Source: U.S. Bureau of Economic Analysis Regional Economic Accounts.

5. Impact of Tourism

A significant share of the local economy comes from travel expenditures. Table 1.10 reports the yearly spending for travel according to data posted on the Virginia Tourism Corporation's (VTC) website.[7] Total spending for travel on the Northern Neck was $171 million in 2000, amounting to an equivalent of about $3,500 per capita. In Lancaster County the figure reached nearly $60 Million or almost $5,000 per capita. While travel-related expenditures is a significant boost to the local economy, the reader should understand that these dollars may also be included

[5] Per capita income is total income reported by families filing income tax returns divided by the number of persons
[6] Some of this gap is explained by farm income and other income that is not reported as "covered income."

in other categories already reported, also that they may omit some expenditures of travelers (such as those purchasing fuel for cars and boats from local merchants). Such expenditures may otherwise be considered local. According to the VTC, a large part of reported travel spending comes from restaurant and hotel/motels. Restaurants serve local as well as the traveling public.

Table 1.10

Total Yearly Travel Spending
Virginia Northern Neck (times $1000)

County	1990	1995	2000
Lancaster	40,560	44,140	64,572
Northumberland	17,810	21,530	42,313
Richmond	14,560	16,500	22,672
Westmoreland	22,660	27,400	42,449
Northern Neck Total	95,580	109,570	171,968

Source: Virginia Tourism Corporation's website.

Travel expenditures also create jobs. The VTC also reported that payrolls for travel-related jobs within the Northern Neck was $27 million in 2000 which translates into about 1,100 jobs using the average wage of $25,500 per year (Table 1.8); that translates into about one job for every $150,000 spent locally by visitors. The same disclaimer that was applied to sales in the preceding paragraph applies here for many of these jobs provide local as well as travel services and vice versa.

D. CONCLUDING COMMENTARY

Three major activities seem to drive the economy of Kilmarnock. The first and principal economic strength comes from the fact that the town is the regional trade and service center for the eastern part of the Northern Neck. It has about 60 percent of all employment within Lancaster County in trade and services and one-fourth of all total employment units. The most dominant growth in employment during the past eight years came in services which added 500

[7] (www.vatc.org/research/econimpdex.htm).

jobs. Construction added only 100 jobs and government only 68 jobs during that time. A strong part of the service economy is in the medical services provided by the Rappahannock General Hospital and related medical services provided by physicians and, more recently, assisted living, residential facilities. Other than medical services, wages from jobs located within the County fall far below the average for Virginia and even further below those of the larger metropolitan areas. Because Kilmarnock is the dominant trade center in the Northern Neck, a job base in service will likely continue to produce lower than average wages.

Manufacturing is not likely to be a strong force in the local economy because lack of transportation is a major constraint to improving the industrial base of the Town - and County. The distance from Kilmarnock to railroads, interstate highways and carrier airports is a major barrier to developing conventional products that require fast shipping to Mid-Atlantic and Southern markets. On the other hand, in today's computer-driven economy and "next day" delivery service almost anywhere, numerous economic opportunities present themselves to individuals and corporations alike.

Retirement comprises the third leg of the Kilmarnock economy although its impact is not directly seen in economic statistics. The Northern Neck and Tappahannock has seen a steady increase in the number of 60 and over population for many years accounting for four in ten of the regional population in 2000. Many of this demographic group buy up-scale homes and many own or start new businesses. It has been estimated that a large share of the gap between reported income from work and total income, in the range of $88 million, is accounted for by this group. The resulting disposable income has a significant impact on the local economy.

Another factor in the local economy is tourism. While Kilmarnock does not have direct waterfront access to the Chesapeake Bay or any of its major estuarine rivers, the proximity to one of the finest shorelines (for recreation) along the Atlantic Coast coupled with the Town's business infrastructure places Kilmarnock in a good position to increase trade from visitors, particularly summer visitors, to the Northern Neck. Travel expenditures are estimated to account for more than 1,000 jobs within the County and about $5,000 per year to the per-capita income within Lancaster County. The improvements to downtown should enhance the Town's ability to capture a larger share of tourist dollars.

Population growth will be the factor that drives the need for municipal services of all types and future expectations of that growth must be examined from two different views. The view taken earlier in this Chapter considered a continuation of trend growth. Trend growth assumes that future growth will continue consistent with past trends thereby the growth of Kilmarnock would continue at about the same moderate rate as in past years. According to this growth trend, the Town of Kilmarnock could be expected to grow gradually by about 300 persons reaching a population of approximately 1,600 by 2020.

In the light of the large amount of undeveloped land within the Town and the recent national as well as local pressure to increase the supply of housing, another scenario should be considered as a reasonable probability for Kilmarnock. That would be the for additional development in portions of the town that now are now undeveloped. To summarize, the total area of Kilmarnock presently encompasses 2.77 square miles[8] and of that 1.61 square miles are designated generally as "developed." The remaining 1.16 square miles are divided almost exactly in half; with half being within stream basins (at or under the 50-foot contour) and the other half being designated as vacant. The alternate growth scenario assumes full development which is described as follows:

(1) Through infill the existing residential density of 1.26 persons per acre within the existing developed area of 1.61 square miles (about 1030 acres) would be increased gradually to an average residential density of 1.5 persons per acre. That would add about 250 persons (about 150 dwelling units) by 2020.

(2) The remaining .58 square miles (371 acres) that is in prime development would be developed under this scenario at an average residential density of 1.5 persons per acre thus adding housing for another 550 to 600 persons.

(3) The .58 square miles (371 acres) of the steep slopes within the stream basins, land below the 50-foot contour line, would remain undeveloped although there may be some occasional development within the area, which for estimating purposes will be disregarded.

To summarize, the second scenario would give Kilmarnock a population of about 2,150 under

"build out" conditions. Built out in this sense does not mean that no additional residential growth could occur within the Town limits. Even this scenario presumes that the development regulations in the newly developed areas would be at a moderately low residential rate averaging about one person per acre. The reason for estimating such a low global density for the remaining land is that development occurs randomly with interspersed vacant areas in between developments. Also many parcels may be devoted to public, semi-public or non-housing uses which reduces the overall density. Additionally, public policies on zoning density will play a large part on the ultimate density of development within Kilmarnock.

[8] As measured by the Mapping Software used in this report; the official area of the Town is carried as 2.69 square miles.

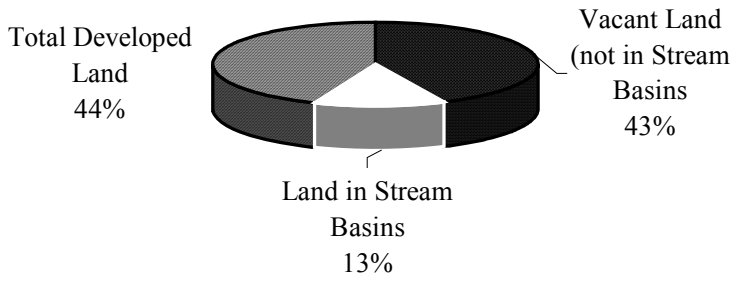
CHAPTER 2
ANALYSIS OF PHYSICAL CONDITIONS AFFECTING DEVELOPMENT

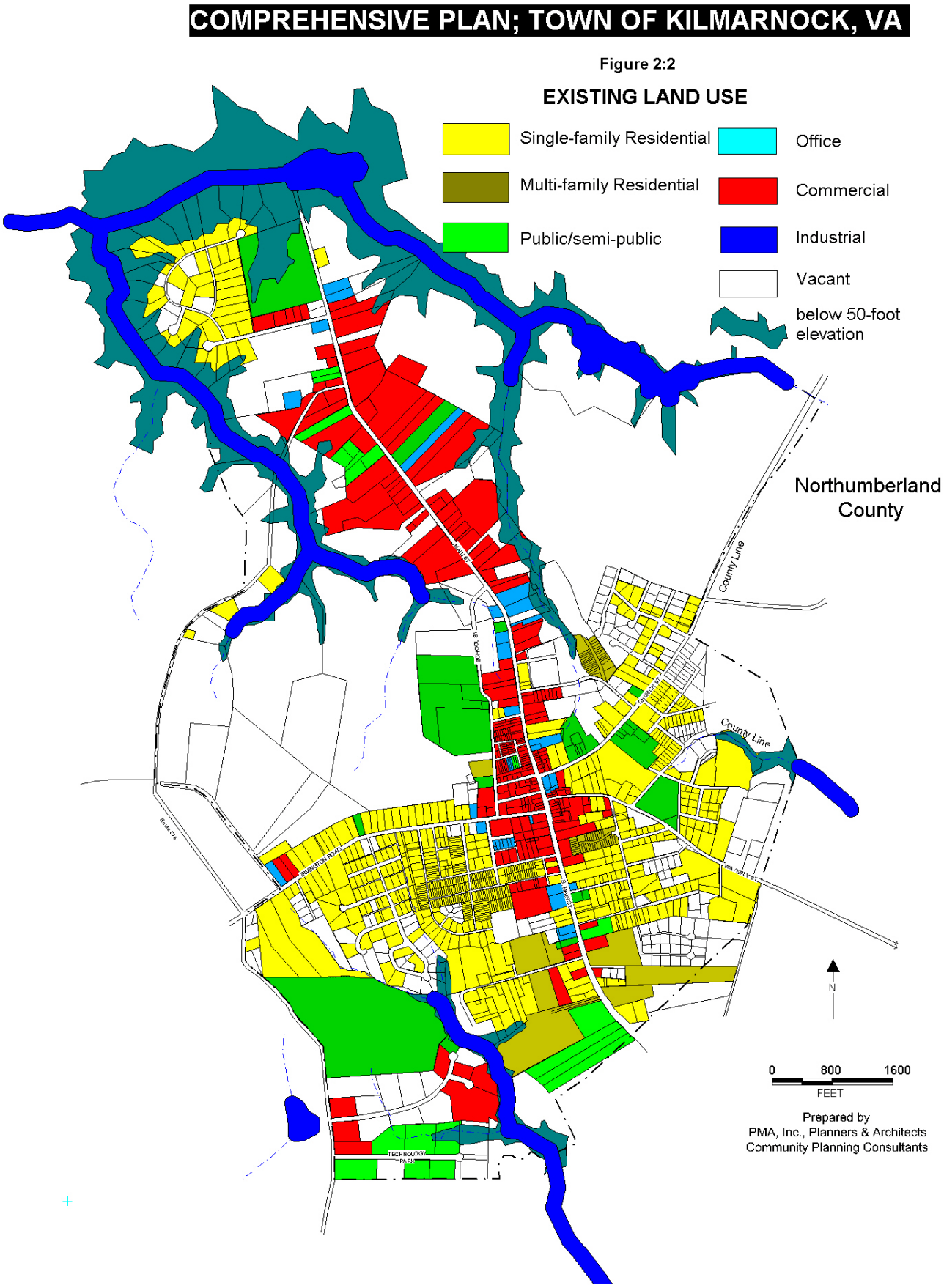
Apart from the option of redefining its corporate boundaries, factors affecting Kilmarnock's potential for future development may be broadly characterized in these four areas: (1) the amount of land within the corporate boundaries; (2) the extent to which that land is already occupied by man-made features; (3) lands that are protected from development by regulation, reservation or other means; and (4) the physical characteristics that are likely to limit the opportunities of land to support additional development. In this Chapter, these conditions will be examined and illustrated with maps of various conditions and also tabulation and analysis of data where data are available and appropriate. Among other purposes the data in this chapter serve to provide a structural framework for preparing the future land use plan which will be presented in Chapter 4. The future land use plan is a critical component of a comprehensive plan because all other elements of the plan, in addition to land use development regulations, will eventually depend upon the land use plan and its policies**.**

A. AMOUNT OF LAND

The land area of Kilmarnock may be broadly divided into the three categories shown in Figure 2.1: developed land, land that has serious constraints to development, and the remaining vacant land. The amount of land remaining to be developed is roughly equal to the amount that is already developed.

Figure 2.1
Developed and Available Land
Kilmarnock, Virginia



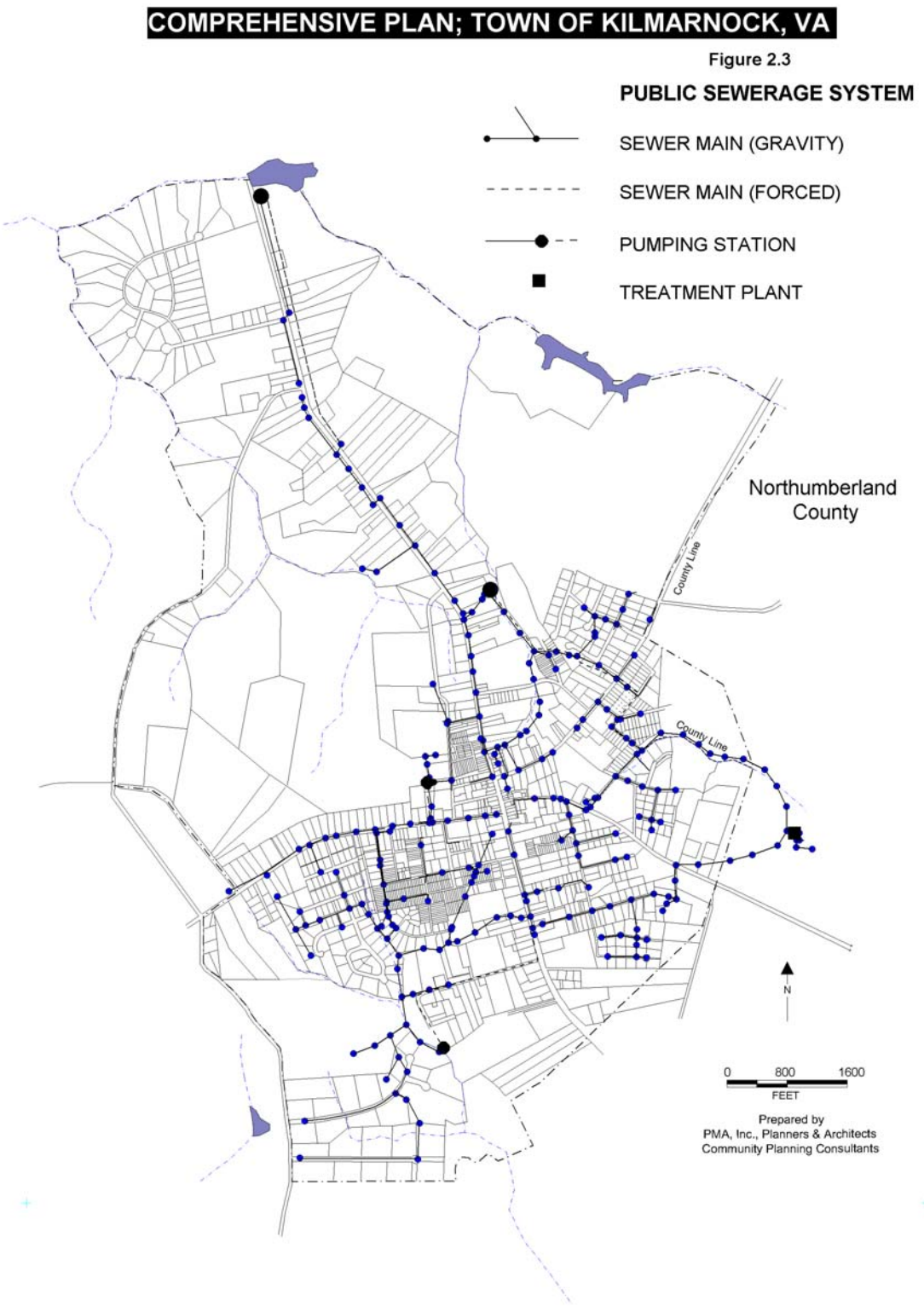

COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2:2
EXISTING LAND USE
Single-family Residential
Multi-family Residential
Public/semi-public
Office
Commercial
Industrial
Vacant
below 50-foot elevation
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

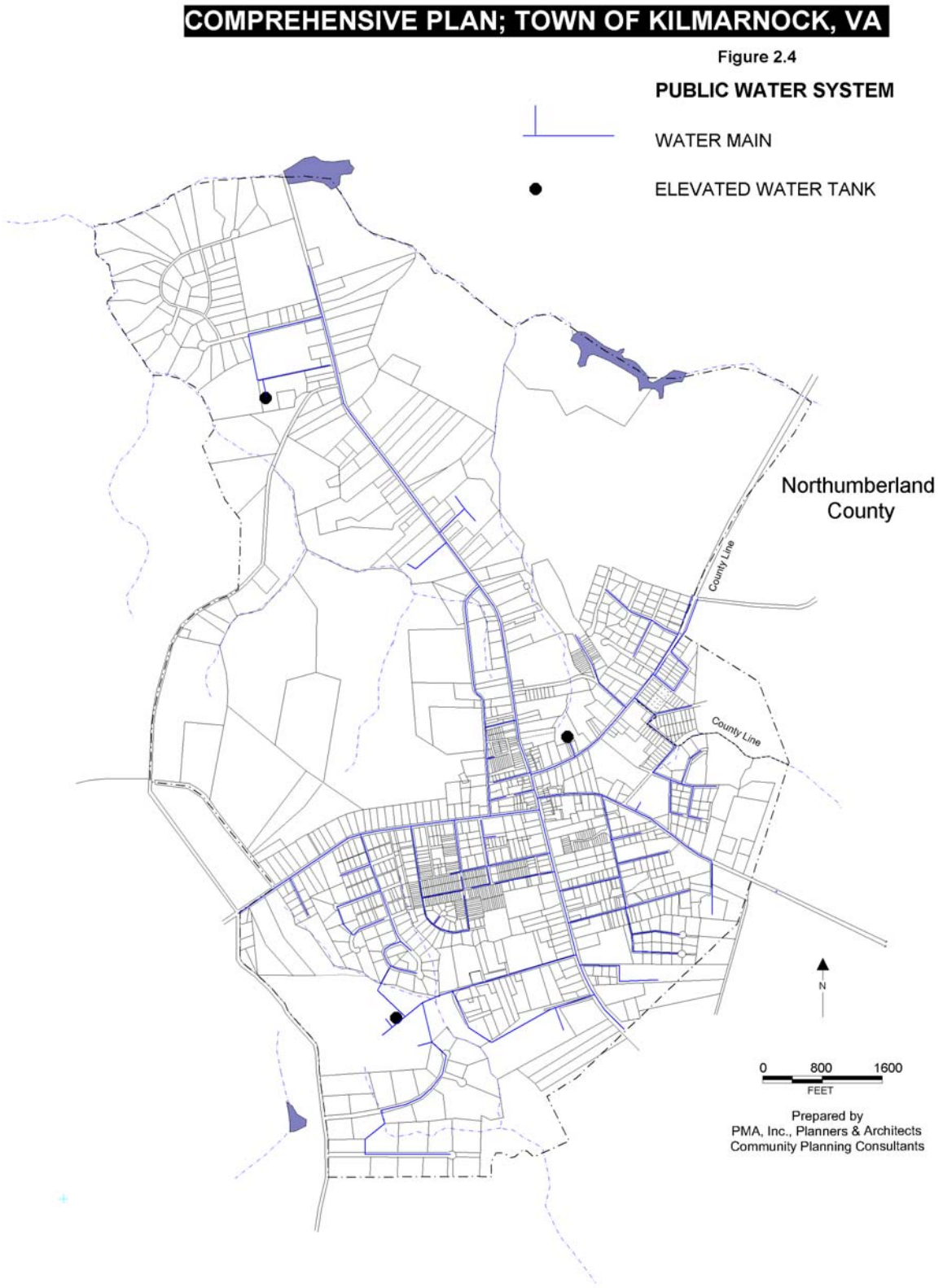
Details are shown on Figure 2.2 which depicts a land use map prepared from a field survey. Land use is shown color-coded by eight use categories over a Town Map. Table 2.1 below summarizes the amount of land in each category.

Table 2.1
Existing Land Use, 1998
Kilmarnock, Virginia

Type of Land Use	**Acres**
Single-Family Residential	356
Multiple-Family Residential	18
Offices	23
Commercial	129
Industrial	10
Public and Semi-Public	124
Streets (estimated @ 15 %)	99
Total Developed Area	**759**
Creek Basins	226
Vacant Developable Land	740
Total Town Area	**1,725**

Two observations may be made from these data. First, referring to the land use map, one may observe an overall pattern of development that is "in place" and that this pattern establishes the framework around which future growth will occur. The core downtown commercial area anchored by several major highways defines the central commercial area of Kilmarnock. A developing commercial center along both sides of upper Main Street has dominated recent commercial growth within the town limits. A typically urban residential development pattern exists around the core business center. It is predominantly residential, mostly single-family dwellings, with intermittent higher density residential projects. One major subdivision consisting of 44 residential lots has been established at the northern city line which accommodates single-family dwellings. At the southern corporate line, the Technology and Business Park is taking shape south of the Rappahannock General Hospital. Except for the residential subdivision at the north town line, nearly the entire developed portion of Kilmarnock is served by public water and sewerage facilities.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.3
PUBLIC SEWERAGE SYSTEM
SEWER MAIN (GRAVITY)
SEWER MAIN (FORCED)
PUMPING STATION
TREATMENT PLANT
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.4
PUBLIC WATER SYSTEM
WATER MAIN
ELEVATED WATER TANK
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

The second observation that may be made (more of a question to be asked) concerns how future development should occur. Overall, the land now occupied by urban uses that are included in Table 2.1 amounts to a little more than one-half acre per person of total population as estimated in Chapter 1. If this rate of development to people were to continue, the approximate population projected in Chapter 1 projects for 2020 would require no more than 200 acres of additionally developed land, say, 150 acres. If all of the remaining land were developed using the same rate, the Town could accommodate a population about double that which exists in 2000. This estimate presumes that the area shown as "below 50- foot elevation" on the Land Use Map would not be used for development. But much of how the community is developed in the future will depend upon how public utilities are used as tools of growth management and the development policies established by the Town Council. Figures 2.3,Public Sewerage, and Figure 2.4, Public Water, are fundamental to understanding the existing compact development of the town. Almost all of existing development is arranged around these utility lines. One major subdivision which does not appear to be served by either water or sewer has been developed at the northern corporate line. The lot sizes in this subdivision are noticeably much larger than those in the original town. This is partly because of the need for additional space for septic tank fields and partly because much of the land in that subdivision lies within a steep stream basin.

The large vacant areas that lie between Route 3 and the town boundary and north of downtown present the major potential areas for future development. The development of these areas should receive careful planning because the use that is made of them will determine how the remaining development of Kilmarnock will occur. These areas present an opportunity to coordinate the extension of public water and sewer with development in such a way that the goals of the Town can be achieved.[9] In summary, the primary issues concerning future development as may be determined from analysis of existing physical development and available space for development are:

---

[9]1 This subject will be extended in later chapters, specifically:

Chapter 3 will focus on developing a future land use plan and a set of development policies for each major classification of land use. These policies will address the Planning Commission and Council's preferences concerning what density of development (for residential uses) should be encouraged through land use regulations.

Chapter 4 will deal more specifically with policies concerning how water and sewer lines will be extended to new developments as they occur.

a. The selection of dominant land uses to be permitted in the undeveloped areas should rank as the highest priority in making future land use policies.

b. After that the intensity of use of the land ranks next in the hierarchy of priorities. Under the assumption that the dominant use of the remaining land would be residential, the focus of this issue should be on "residential density." This will also be a primary issue in the future land use plan.

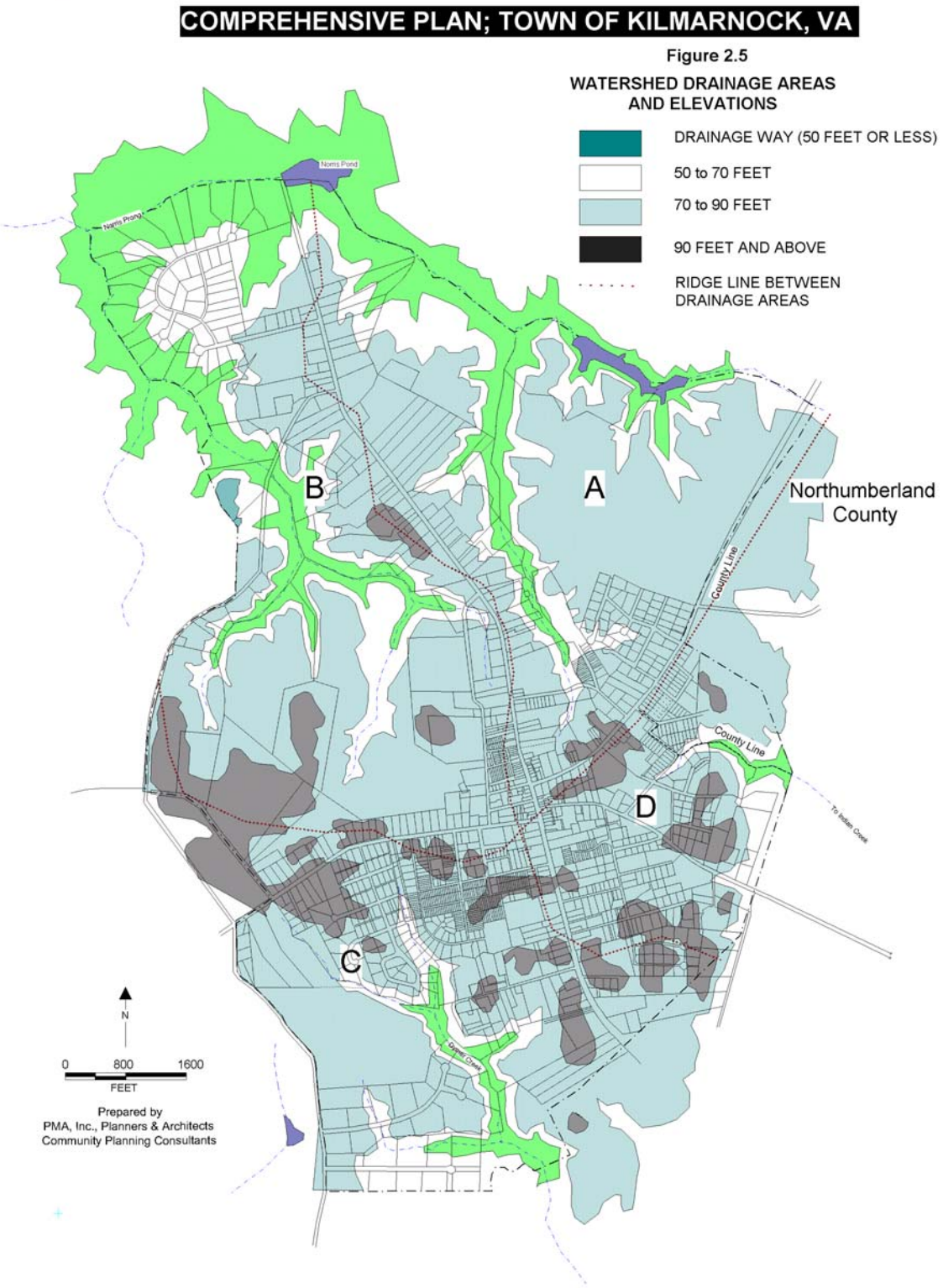
c. How shall the area be served by water and sewer is the remaining issue. Maximum development management can be provided by coordinating extensions of water and sewer lines into undeveloped areas on a programmed basis and consistent with market demands for new development. Use of modern planning techniques such as planned unit development and cluster development provides a means of reducing infrastructure costs.

B. TOPOGRAPHY AND DRAINAGE

The topography of Kilmarnock ranges approximately from 10 feet to 90 feet above sea level. The Town is drained by four stream basins, none of which is tidal. The watershed of each stream basin is divided roughly along the major highways; which is another way of saying that the highways were built along the highlands formed by ridge lines between the streams. Figure 2.5 illustrates the topography and defines the approximate limits of each of four watersheds. They are identified as follows with significant characteristics.

Watershed Area A - contains approximately 500 acres and drains into Norris Prong, a tributary to the Eastern Branch, and beyond to the Chesapeake Bay. The area contains that part of Kilmarnock north of Church Street and East of Main Street plus part of the commercial development along North Main Street. The developed area is served by water and sewer. Additional development potential includes approximately 200 acres of undeveloped land between the eastern corporate limits and the first leg branching off Norris Prong, infill residential development in the built-up residential area and infill commercial development in the North Main Street area. Major pollution threat comes from increased storm runoff generated by additional development.

Watershed Area B - Contains the land west of Route 3 and north of Irvington Road. Existing development includes the housing on the north side of Irvington Road and development west of School Street. Two of the County's major schools are located in this area as is the commercial development along the west side of North Main Street. The potential for development includes an undeveloped area of approximately 200 acres just north of Irvington Road.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.5
WATERSHED DRAINAGE AREAS AND ELEVATIONS
DRAINAGE WAY (50 FEET OR LESS)
50 to 70 FEET
70 to 90 FEET
90 FEET AND ABOVE
RIDGE LINE BETWEEN DRAINAGE AREAS
Norris Pond
Norris Prong
A
B
C
D
Northumberland County
County Line
County Line
To Indian Creek
Upper Creek
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

Watershed Area C - Contains most of the developed area of the Town south of Irvington Road and west of Main Street. The area is substantially built out except for the area between Dymar Creek and the south corporate limits. The Rappahannock General Hospital is the most visible existing use in the latter area but immediately south of the hospital is the developing Technology Park. While the specifics of development in this business park will be determined by the market, it is intended to attract technology and related businesses. In addition to the above, some "infill" development may be expected to take place on existing vacant lots and/or through conversions of existing uses during the next decade and beyond. The area is fully served by water and sewer.

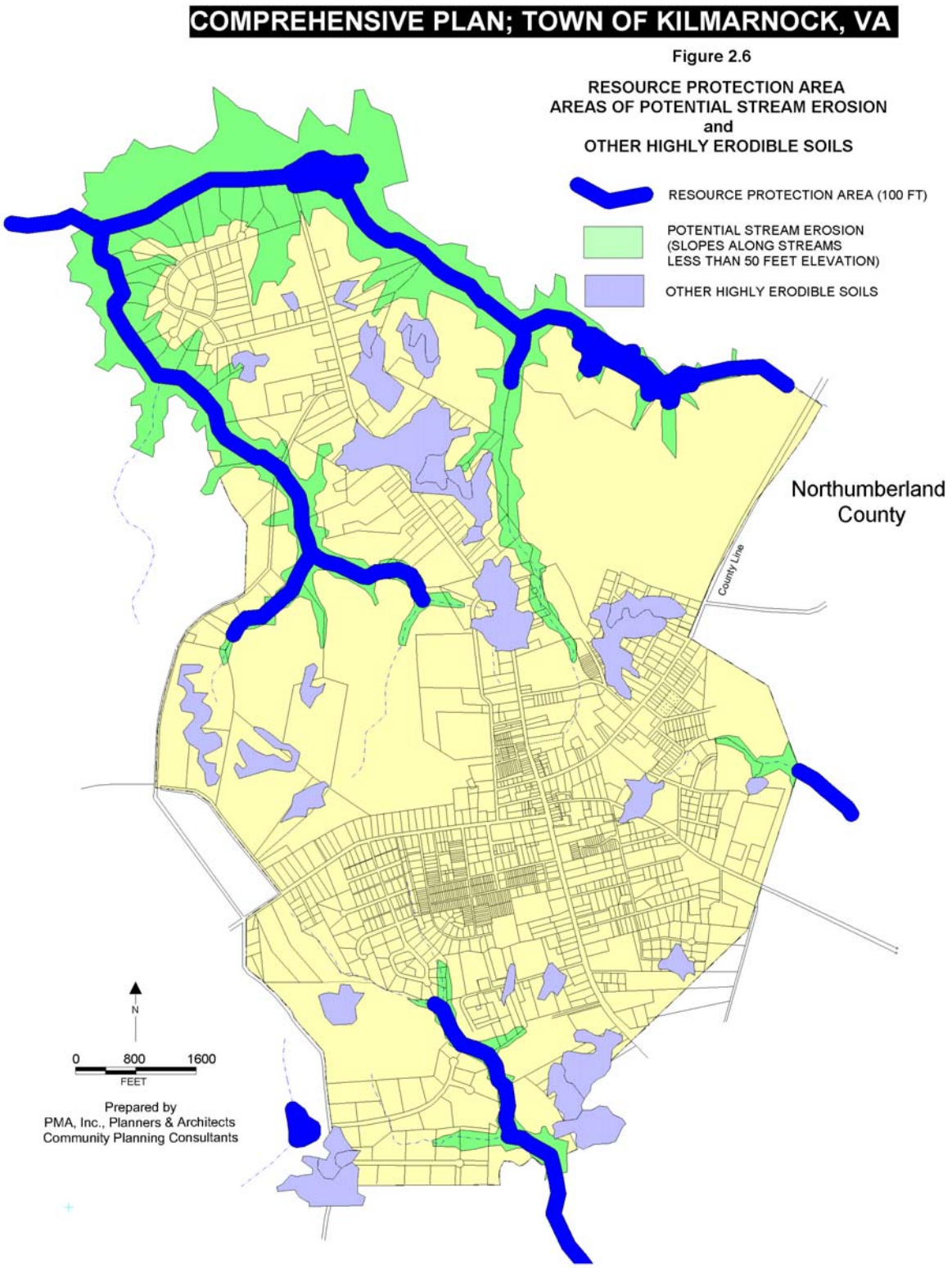
Watershed Area D - Contains the southeast sector of Kilmarnock located south of Church Street and east of Main street. This area is also mostly built out but there are some opportunities for infill development using existing vacant lots and occasional small tracts that could be further subdivided.

Planning issues for these watershed areas are based on concerns about potential damage that might be caused by storm water runoff as it finds its way into the major streams and rivers and eventually into the Chesapeake Bay. Also there is a concern that pollutants resulting from the use of land may find their way into and pollute the underground water supply. The focus of policies will be on ways to reduce or minimize the amount of pollutants in the runoff water as well as minimizing the amount of such water that reaches the Chesapeake Bay tributaries. These are the same issues that are addressed by the Chesapeake Bay Preservation Zoning Regulations as well as in the Best Management Practices Handbook, Planning Bulletin 522 published by the (then) Virginia Water Control Board[10] in 1981.

C. RESOURCE PROTECTION AREAS AND POTENTIAL STREAM EROSION

Figure 2.6 delineates the Resource Protection Area which is defined by extending a band that measures 100 feet from the centerline of major streams within the corporate limits. In addition to the RPAs, this map includes areas of potential stream erosion which are defined by the 50-foot contour. It was determined from examination of the USGS topographic maps that most of the land below this contour level had slopes in the range of 12 to 15 percent or above. Such slopes are regarded as difficult to develop by most land planning standards. In addition, steep slopes become more sensitive to erosion when the land is disturbed than relatively level land.

[10]The agency is now called the Department of Environmental Quality.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.6
RESOURCE PROTECTION AREA
AREAS OF POTENTIAL STREAM EROSION
and
OTHER HIGHLY ERODIBLE SOILS
RESOURCE PROTECTION AREA (100 FT)
POTENTIAL STREAM EROSION
(SLOPES ALONG STREAMS
LESS THAN 50 FEET ELEVATION)
OTHER HIGHLY ERODIBLE SOILS
Northumberland
County
County Line
N
0
800
1600
FEET
Prepared by
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Community Planning Consultants

It will be seen on several other maps that the land along these steep banks have other qualities that make them undesirable, at least very difficult, for development. These qualities include poor soils for septic tanks, including rapid permeability and high water tables.

While stream bank erosion occurs naturally as part of the hydrologic cycle, the rate of erosion may be accelerated through development if the pre-existing hydrologic conditions are not properly addressed during the plan of development and adequately enforced during the construction phase. Most development increases the area of impervious cover and this increase of impervious cover usually increases the volume and rate of stormwater runoff. The increased rate and volume of runoff, in turn, may scour stream banks and introduce a significant amount of sediment into the stream. For this reason, stream bank erosion must be considered in any development plan.

Within the town limits of Kilmarnock are two named streams (Dymer Creek and Norris Prong) and a few unnamed tributaries. With respect to erosion, most of the streams appear to be stable with active floodplains and fully vegetated buffers. A random review of stream segments identified one area of concern. There appears to be some limited stream bank erosion of an unnamed tributary located along the curved section of Oak Ridge Drive. The slopes of the stream are steep and the stream channel itself is deeply incised. While the drainage area of this stream segment is not known, it is located in an area that appears to have a higher percentage of impervious cover than the other segments reviewed. In addition, this particular section does not possess a wide swathe of a fully vegetated buffer to slow the rate of stormwater runoff or reduce its volume.

Included on the same map are areas that were identified in the county's soil survey as "highly erodible soils." Oddly enough most of the highly erodible soils are not located on the steep slopes of the stream basins, but along the higher grounds. In these locations the techniques of controlling soil erosion and sediment can be managed with normal techniques which are common today for most major construction. [11]

[11] The last three paragraphs of this discussion was provided by the CBLAB staff after conducting field investigations.

D. SOIL SUITABILITY FOR SEPTIC TANKS

In a community where septic tanks offer the only mode of sewage disposal, the soils ability to digest sewage is essential if development is to occur. Fortunately, most of the developed area of Kilmarnock is already provided with both a public water system and public sewerage system. But Kilmarnock presently permits the use of septic tanks in areas where public sewer lines are not available for connection and for this reason soil suitability is a logical issue for the Town. Figure 2:7 defines those areas within the corporate limits where soil conditions are considered good, fair or poor for septic tanks. The poor soils are found with many of the other environmentally sensitive soil conditions discussed with other maps. They more or less follow the stream basins although they occupy about 1.5 times the amount of land below the 50-foot contour line.

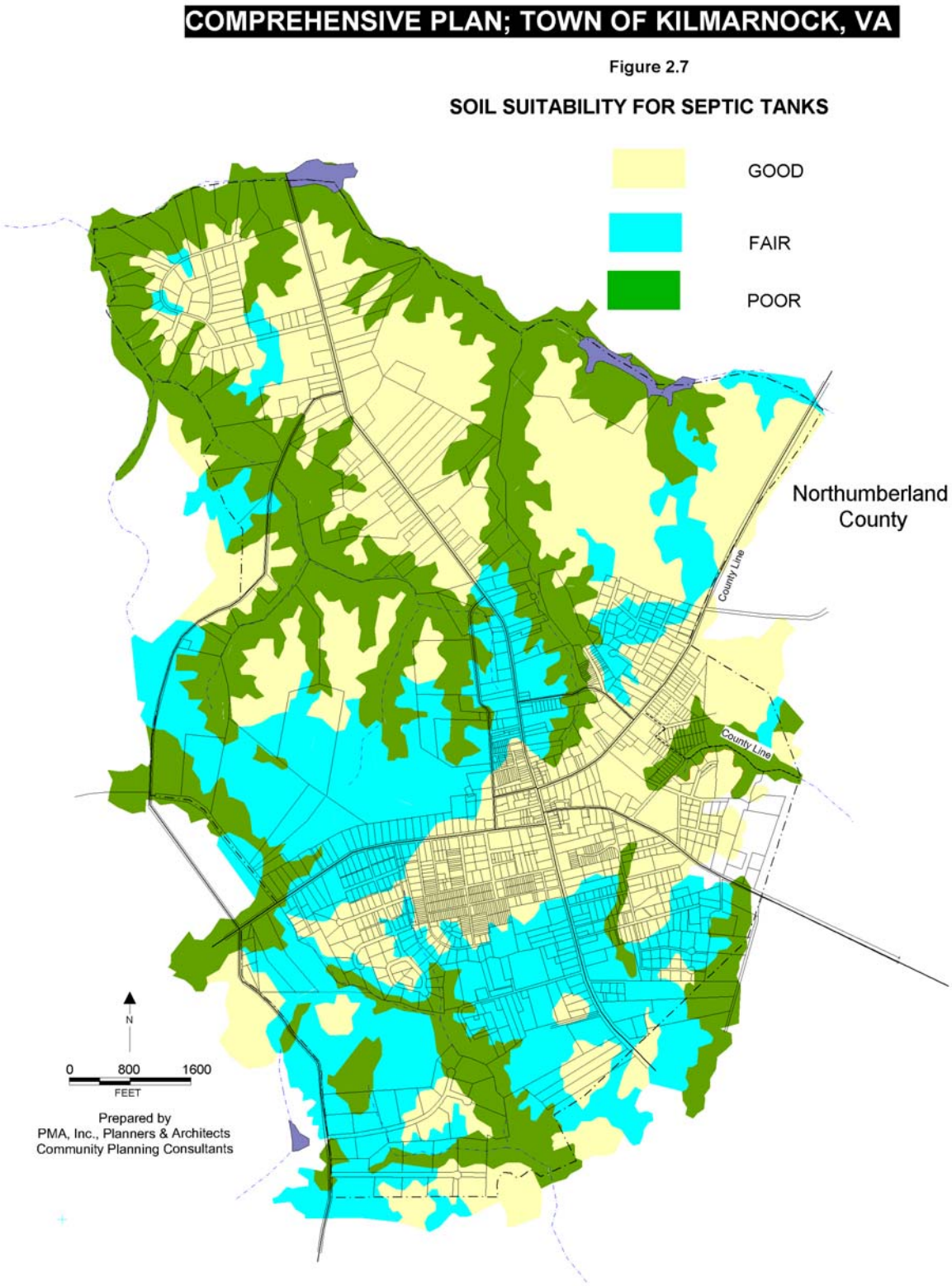
Soil Suitability for Septic Tanks
Kilmarnock, Virginia

Soil Quality	Area Covered
Good	812 acres
Fair	512 acres
Poor	471 acres[12]

A major factor in the soil's capability of accommodating septic tanks is in its permeability. Permeability is a way of indicating the speed at which water will pass through a particular soil, a factor that may be measured by the "percolation" rate. Soils with extremely slow percolation may cause septage to rise to the surface and be carried to streams in storm water. On the other hand soils with extremely fast percolation may permit the septage to pass, undigested, through to the water table, with the possibility that it will mix with a drinking water source. The standard established as acceptable by the state health department is that percolation rates should be no greater than five minutes per inch and no less than 120 minutes per inch [13].

[12] Land lower than the 50-foot contour line is 371 acres.

[13] Source: Don Alexander of the Virginia Department of Health quoting from regulations that have been in effect since 1982 (per email of 6.7 05)

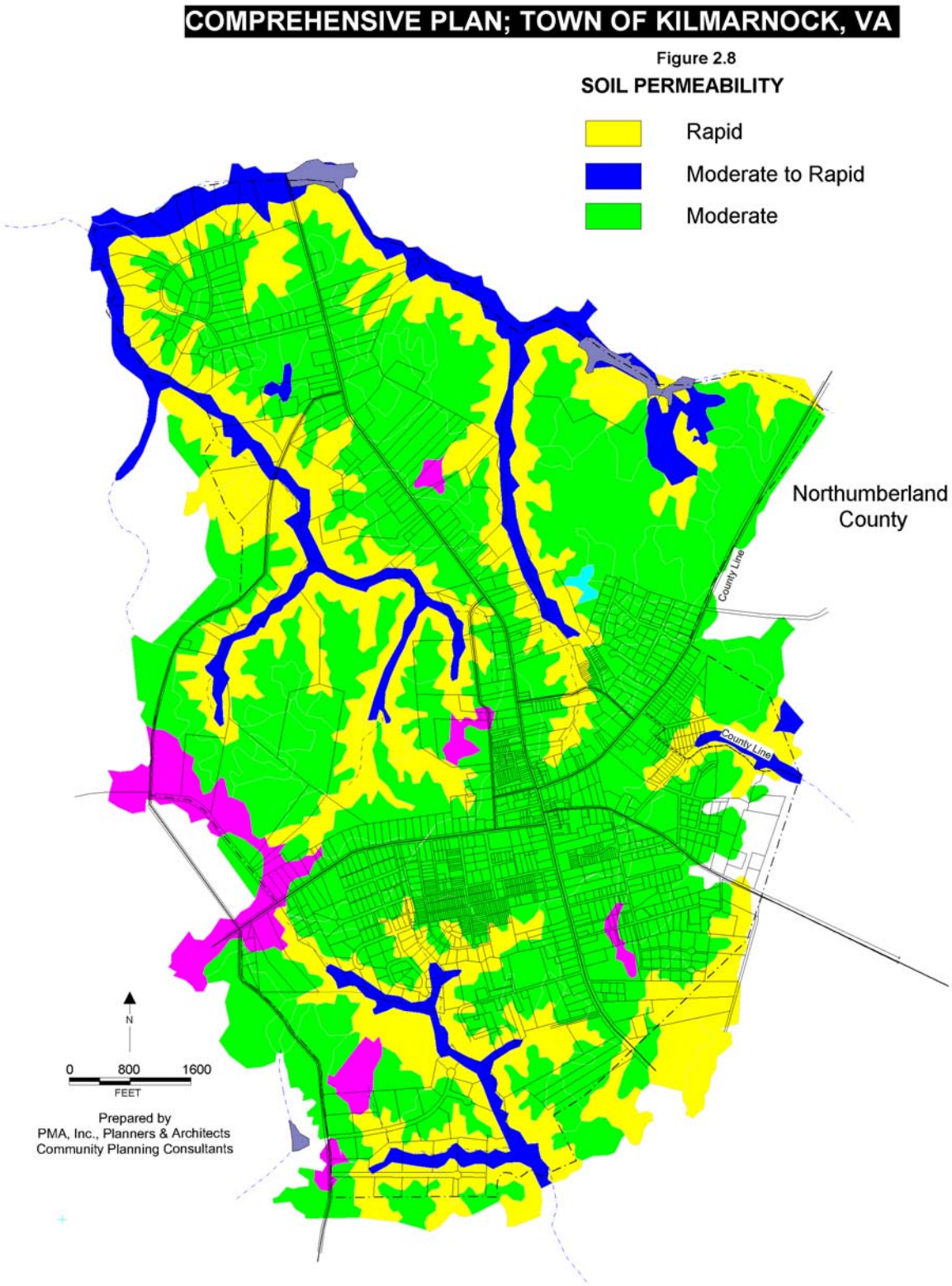

COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.7
SOIL SUITABILITY FOR SEPTIC TANKS
GOOD
FAIR
POOR
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

The soil permeability map (Figure 2.8) tracks other maps showing poor soil qualities. Most of the highly permeable soils (those labeled "Rapid" on the map) are found along the streambeds and banks. This is the result of years of erosion from the higher grounds settling into the lower stream and drainage basins. The map is dominated by soils classified as "moderate" which translates into "acceptable" for septic tank disposal fields. Whether to require sanitary sewers to serve future development is an issue that the planning commission and council of Kilmarnock will need to decide during implementation of the comprehensive plan. The issue will be dealt with in more detail as part of the land use plan in Chapter 4. Clearly, there is enough land that is either fair or good for septic tank installation and it is in the right places for potential development. If a development pattern is preferred with residential densities similar to what has been built in the older established town, then sewer should be preferred. Lower densities, perhaps, similar to what is found in the Forest Hills subdivision at the northern corporate line would be more likely to occur if development occurs without sanitary sewers.

E. WATER TABLE

Figure 2.9 illustrates the pattern of the water table in Kilmarnock. The designations shown on the map were taken from the Lancaster County Soils Survey map and classified here according to the depth of the water table. It can be readily observed that the areas with the highest water tables are found in and near the stream bottoms and basins - the same areas that consistently have been identified as having soils that are unsuitable for development for one reason or another. The distribution by level of the water table is as follows:

Water Table Class	Percent of Town's Area
High water table - less than 4 feet below the surface	13
Moderately high water table - between 4 and 10 feet below the surface	19
Low water table - between 10 and 40 feet below the surface	29
Very low water table - more than 40 feet below the surface	39


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.8
SOIL PERMEABILITY
Rapid
Moderate to Rapid
Moderate
Northumberland County
County Line
County Line
N
0 800 1600
FEET
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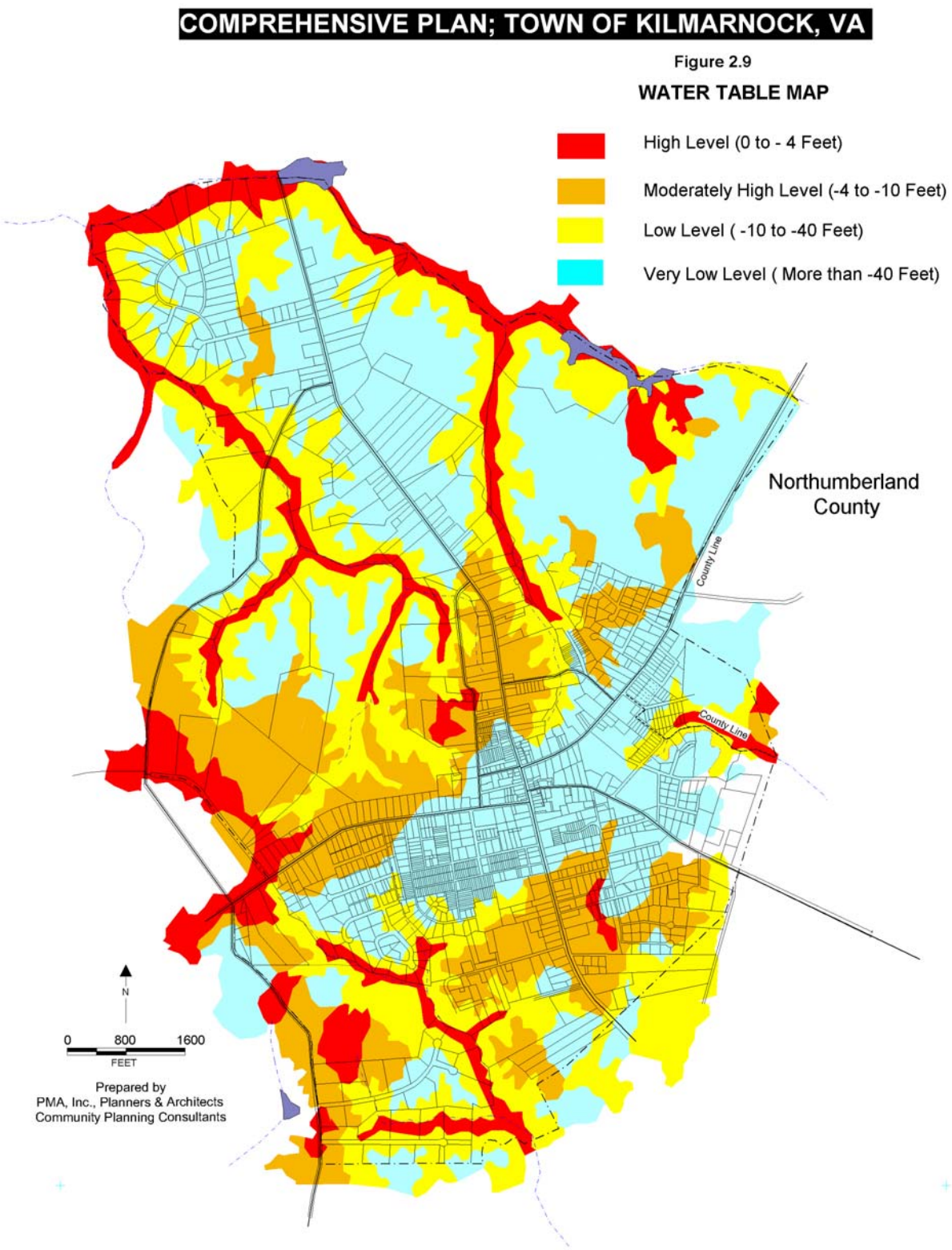
Community Planning Consultants

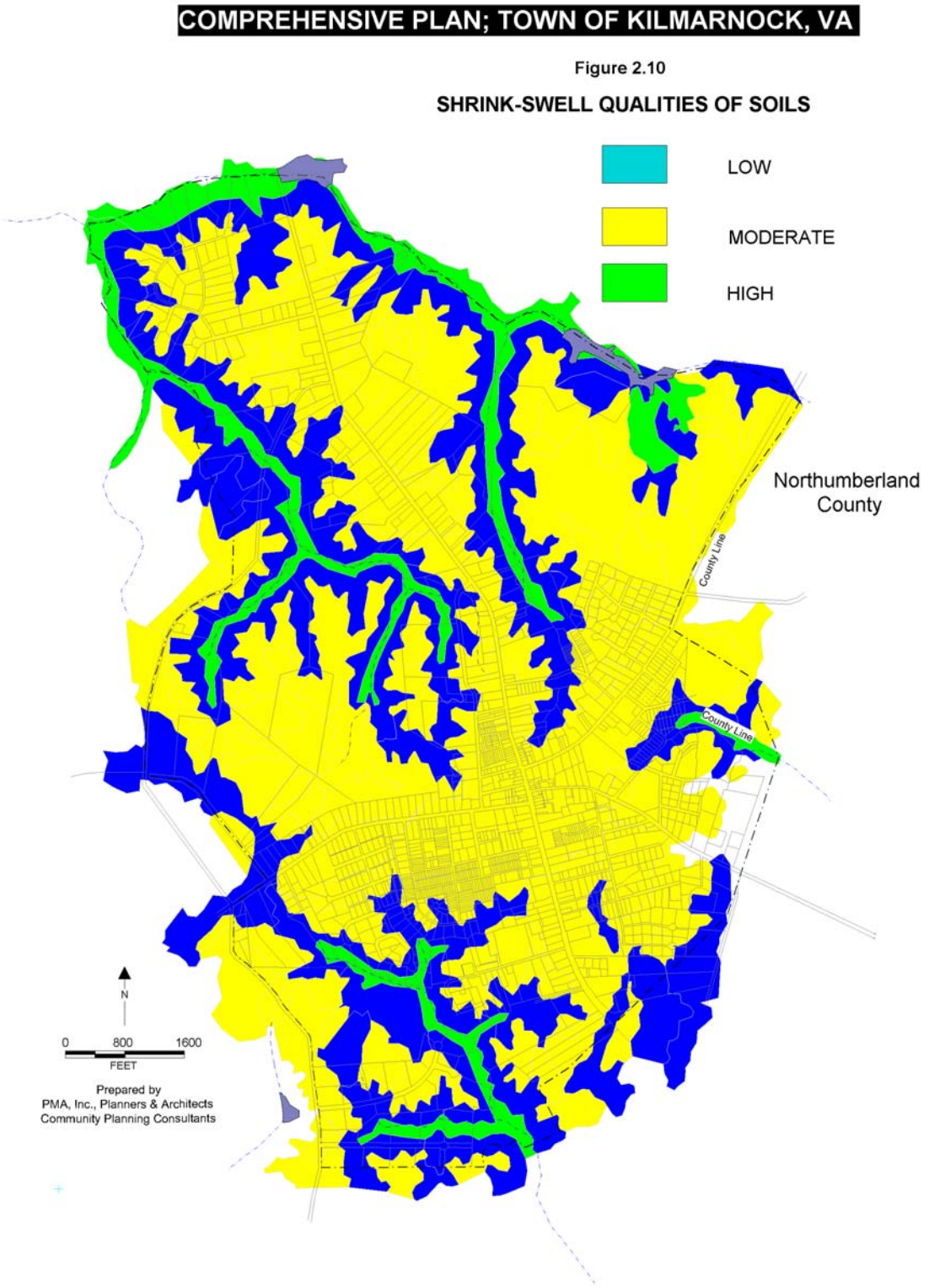

COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.9
WATER TABLE MAP
High Level (0 to - 4 Feet)
Moderately High Level (-4 to -10 Feet)
Low Level (-10 to -40 Feet)
Very Low Level (More than -40 Feet)
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

Two-thirds of the Town's corporate area has low or very low water tables while the one-third that has higher water tables is located almost exclusively along the stream basins where other unfavorable development conditions also are found. The implications of the water table level to the comprehensive plan are linked to whether future developments are to be served by public sewer and water. The higher grounds, which also have the lowest water tables, provide the highest quality land for development and the history of development in Kilmarnock reflects a preference for the higher elevations.

F. SHRINK-SWELL QUALITIES OF THE SOIL

Shrink-swell refers to the quality of soils for changing volume as moisture is gained or lost. The interaction between minerals in clay with water is the primary reason for volume changes and accordingly the amount of shrink-swell in a particular soil is related to the type and amount of clay minerals found in the soil. Figure 2.10 maps the shrink-swell qualities of soils in Kilmarnock and classifies them as low, moderate or high. Although they are the most stable of the three classes, low shrink-swell soils are found mostly in the low-lying streambeds within Kilmarnock. Moderate shrink-swell soils occupy, for the most part, high grounds of Kilmarnock; they comprise 68 percent of the Town. They occupy almost exactly the same land that is represented as favorable for development by other soil criteria in preceding discussions.

The implications of shrink-swell for planning concern the design of building foundations. Within those few places where buildings may be erected on soils with high shrink-swell qualities, special foundation investigations and designs may be required. This would normally be part of the building code regulations and except for requiring an additional review, in all cases where multi-storied buildings are involved, shrink-swell should not impose a serious burden upon the reasonable use of property within Kilmarnock for most urban purposes.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.10
SHRINK-SWELL QUALITIES OF SOILS
LOW
MODERATE
HIGH
Northumberland County
County Line
County Line
N
0 800 1600
FEET
Prepared by
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Community Planning Consultants

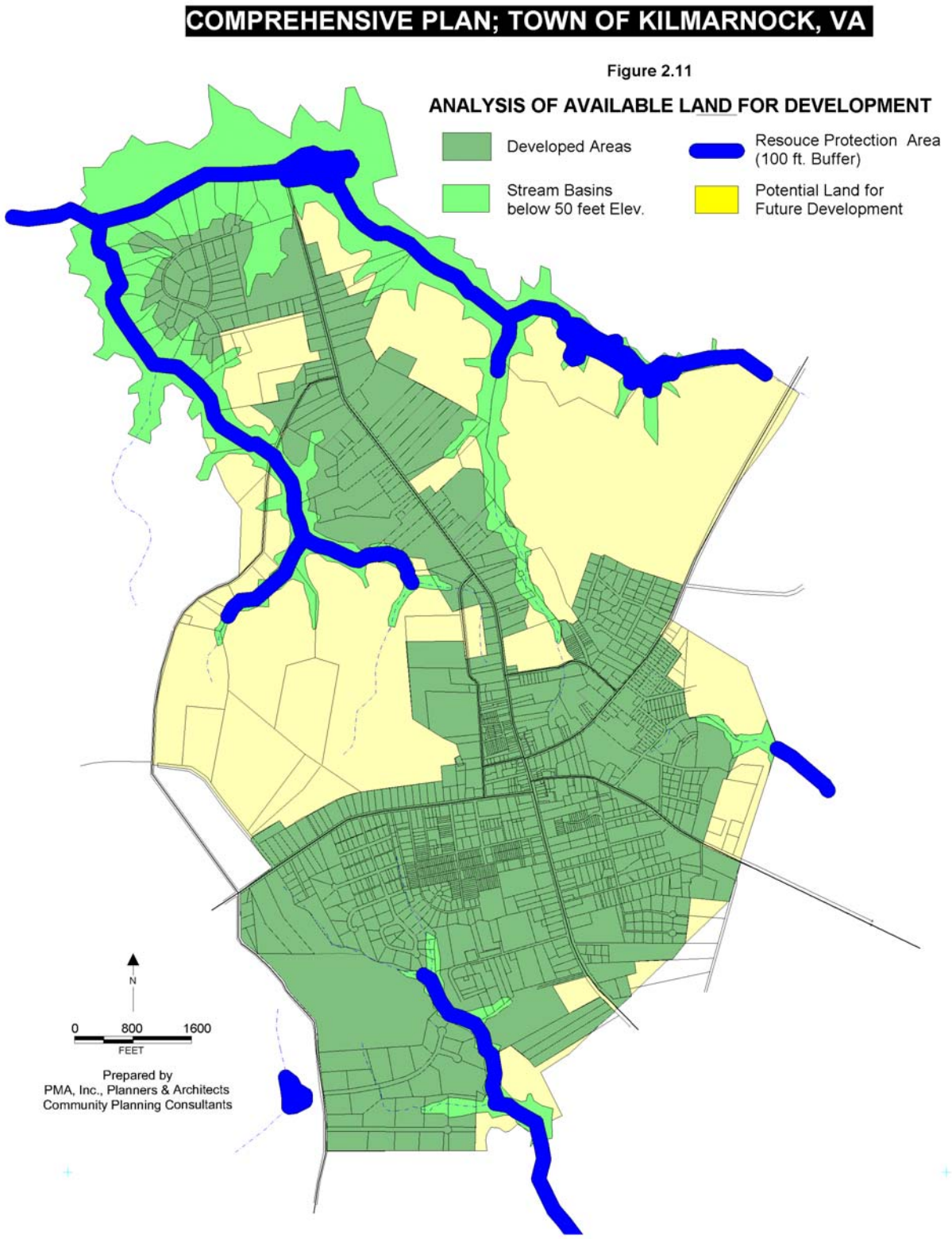
G. ANALYSIS OF AVAILABLE LAND FOR DEVELOPMENT

Figure 2.11 provides a framework for analyzing the land that is available for future development within the Town of Kilmarnock by classifying areas into one of four classifications: developed areas, land with steep slopes, resource protection (100-foot buffer), and potential land for future development. These areas are not mutually exclusive, however, as each may overlap another to some extent. This map brings into focus both the areas that are already developed and the major areas that are (were, as of the date of this study) undeveloped. The Comprehensive Plan in general and the Land Use Plan in particular will focus on preparing strategies for the use and/or development of these areas. Some dominant issues in each area are highlighted below.

a. Resource Protection Area - This area is established by the zoning ordinance pursuant to requirements of the Chesapeake Bay Protection Program and must remain undeveloped according to the principals and criteria established in the zoning ordinance.

b. Steep Slope Area - This area is that defined by the 50-foot contour line indicating that all land within the shaded area is no more than 50 feet above sea level. The streambeds vary in elevation, for example; Norris Prong streambed is at about at the 10-foot level where it leaves the corporate limits. This area defines several conditions that are adverse to development. It is used here because most of the excessive slopes within Kilmarnock lie along these stream basins and are reasonably delineated using the configuration of the 50-foot contour line. This area has limited development potential and is best suited to become a preservation area to further protect the streams from siltation and their banks from excessive erosion.

c. Developed Areas - The area shown as developed on this map occupies about 60 percent of the Town and contains nearly all of the developed uses portrayed on the existing land use map (Figure 2) plus part of the land shown as vacant in Table 2.1.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 2.11
ANALYSIS OF AVAILABLE LAND FOR DEVELOPMENT
Developed Areas
Stream Basins below 50 feet Elev.
Resouce Protection Area (100 ft. Buffer)
Potential Land for Future Development
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Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

Vacant land within the developed area is comprised of numerous vacant lots intermixed among developed properties that the market is yet to claim.[14] It also contains some land that is considered by the market as less desirable for development because of location, conditions or other factors. Kilmarnock should continue to experience a reasonable amount of infill development on quality vacant land within the indicated general development area. Zoning regulations will be the primary legal tool to guide additional development within this mostly build-up community in a way such as to promote the continuation of a convenient, attractive and harmonious community in which there is an appropriate balance between private development and community services.

H. LAND DEVELOPMENT ISSUES DEVELOPED AND UNDEVELOPED AREAS

The major issue in land use planning in Kilmarnock is "how shall the undeveloped land be developed?" There are three principal areas for consideration which for purposes of discussion will be labeled (a) the central tract, (b) the western tract and (c) the eastern tract.

(a) The central tract is served by North Main Street (Route 3) and is bordered on each side by a deep stream basin creating a peninsula which, except for the connection via Route 688 from North Main Street to Irvington Road, effectively prevents development beyond the deep ravines bordering the streams. Public water lines have been extended to this area along North Main Street so that any property within the peninsula would be able to be served. Sewer lines have been extended to serve the commercial area that has developed along North Main Street. Given the past building along this road, it is likely to become even more of a commercial center.

Development strategy within the North Main Street area should focus on the following: (1) selecting the most appropriate mix of uses for the area, (2) managing water and sewer services consistent with growth demands and (3) improving access to businesses for both vehicular and pedestrian traffic. In order to accomplish these objectives a master plan that addresses all three issues should be prepared for the entire commercial area.

(b) The western tract, according to the property lines shown on the County's tax maps consists of several large tracts and some smaller tracts, the latter located along route 688. Conditions in this area - topography, soils, and other physical features- are favorable for

[14]The area includes a large area in the southwestern area of the Town near the Rappahannock General Hospital and, in particular the developing Technology Park.

development using either sewers or septic tanks. The larger tracts lend themselves to development as a coordinated residential development. A typical method of doing this is to establish a basic framework of roads for basic access and circulation and from such a road network, develop individual properties as the market permits. This method requires that the Town either (i) establish the general routes of such a thoroughfare as a major street under the comprehensive plan or (ii) establish an "Official Map" as provided in Section 15.2-2233 of the Code of Virginia (1997 Replacement Volume). Along with the establishment the locations of key access roads to the area, basic policies are also needed to establish the types of development, density and other requirements for developing the area.

The area is ideal for development using the planned unit development (open space community) approach and also lends itself to development with "mixed-use" communities involving a mix of dwelling types and limited commercial. The Major Street Plan in Chapter 4 suggests a network of circulating streets located to assure basic circulation.

(c) The eastern tract virtually duplicates the issues and potential just described for the western tract. It has the additional advantage of fewer ownerships, therefore the coordination of development within the area would be greatly simplified. This area would be served from Church Street and to a lesser extent from extension of existing roads in subdivisions that abut the property; no connection presently exists to North Main Street, as was the case with the western tract. In establishing policy for development of this area, the Town need not have identical policies to those established for the western tract. Density objectives, as well as use mix for dwelling types and support facilities may be tailored to the special needs of each area.

A long-standing concept has envisioned a by-pass road running from North Main Street to Church Street and continuing on to connect with Route 3 south of the corporate line. The general route of such a road is shown on the Major Street Plan (Figure 4.2) and also on the Land Use Plan (Figure 3.1). This street also helps establish the intersection of

North Main Street, Route 688 (James B. Jones Memorial Highway, and the By-Pass Road) as the major hub of North Main Street where a major concentration of business uses are likely to be attracted.

For a detailed summary of the issues presented in this section, the reader will find a table of issues, goals and strategies in the Appendix to Chapter Two at the end of this publication.

CHAPTER 3
LAND USE PLAN

A. THE ROLE OF THE LAND USE PLAN

1. The Nature of the Land Use Plan

This chapter focuses on the preparation of a Land Use Plan for Kilmarnock. A land use plan is that component of a comprehensive plan that establishes the broad framework for managing future growth and change. It does so by: (a) designating areas for various types of development and use; and (b) establishing land use and development policies that represent the town government's vision for the future use and/or development of land within each area. In describing the comprehensive plan, and that portion which addresses the land use plan, the state code (§15.2-2223) reads in part as follows.

> *"The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character and extent of each feature shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned or changed in use as the case may be.*
>
> *The plan, with the accompanying maps, plats, charts, and descriptive matter, shall show the locality's long-range recommendation for the general development of the territory covered by the plan. It may include, but need not be limited to: (1) <u>The designation of areas for various types of public and private development and use, such as different kinds of residential, business, industrial, agricultural, mineral resources, conservation, recreation, public service, flood plain and drainage, and other areas</u>.*"

While the language of the state law covers other elements of the comprehensive plan including public facilities, historic preservation, groundwater protection and more, the land use plan is broadly defined by the underlined portion of the preceding paragraph. In its application to a locality, the land use plan contains two major components: (a) the "a land use plan map" that designates various classifications of development, potential development or land use that appear to be appropriate for the next decade or more; and (b) a set of general land use and development policies for each classification of land use shown on the land use plan map.

Once the governing body has adopted the land use plan element of the comprehensive plan, it serves several functions. The first of these is to provide the vision that community leaders have concerning the future development and use of land within the community. It is important that there be a consensus within the community so that the vision set out in the plan has wide public support as well as official sanction through the act of adoption by the governing body. After adoption, the land use policies expressed in the plan are then used to guide public and private

decisions on proposals that come before the government.

A second function of the land use plan is to provide a foundation for developing, updating or changing the requirements of land use regulations. Numerous court challenges are made each year to local decisions to "change" or "not change" zoning districts or other regulations. In many of these cases, the language of policies stated in the comprehensive plan, particularly those in the land use plan, influences their final outcomes. Land use regulations that are based on a well-reasoned land use plan and policies enhance the probability of successfully defending local decisions. The land use plan is but one of several components of the comprehensive plan, but it is the most indispensable element with regard to establishing regulations to guide physical growth. It contains "broad-brush" policies rather than specific regulations - the latter function being reserved to land use regulations - zoning ordinance and subdivision regulations in particular.

2. Development of a Land Use Plan for Kilmarnock

The development of a land use plan involves several preliminary steps. First, there is a need to project how much development should be anticipated over the future period of the Land Use Plan. Chapter 1 examines, as one alternative, an assumption that the remaining large vacant areas of Kilmarnock would be developed at about the same overall residential density as found in the currently developed areas. Chapter 2 contains 10 maps showing the wide range of physical conditions that may constrain the pattern of future development. The dominant factors identified are: (a) the pattern of existing land use; (b) constraints to development posed by severe topography and/or soil conditions; and (c) the areas served, or potentially could be served, by public water and sewer lines. While all of the physical maps are shown in Chapter 2, the existing land use map (Figure 2.2) is important enough to warrant additional discussion here. From the analysis in Chapter 2, it was learned that 13 percent of the land in Kilmarnock is in stream basins flanked by steep slopes. Within these areas are also found the Chesapeake Bay Resource Protection Areas, soils that have characteristics unfavorable for development, severe slopes and other conditions that, as a practical matter, render these areas unsuitable or impractical for development. The remaining land within the current town limits is about evenly divided between developed land and vacant land. The dominant features of the existing land use pattern are as follows:

a. A downtown commercial area with a high concentration of retail shops and service establishments

b. An established residential area around Downtown primarily single-family homes but with occasional higher-density projects ranging from assisted living facilities to standard apartment projects interspersed among an otherwise single-family neighborhood.

c. A strip commercial area along North Main Street that contains two shopping centers and a variety of individual businesses ranging from banks to fast food places

d. A major single-family residential development in the northern part of the Town (Forest Hills) that provides 42 single-family lots that have a typical building area of about one acre.

e. An area in the southwestern area of Kilmarnock that has developed and is developing into a business/technology area and a Health Services Area.

f. Two large undeveloped areas north of Church Street and north of Irvington Road both of which have favorable topographic and other conditions for residential development.

After analyzing existing land conditions and development, the next step in producing the land use plan is to establish the linkage between conditions and the elements of the land use plan itself. In this process, major planning issues are identified from prevailing research, including physical mapping and socio-economic analysis. Issues are then converted into development goals and planning strategies which are interpreted to formulate the land use plan. Together the land use map and policies define the town government's vision and intent for the use and/or development each of the areas designated on the land use plan map.

The Appendix to Chapter 3 includes a multiple-page table that links major issues to goals and strategies upon which the land use plan is based.

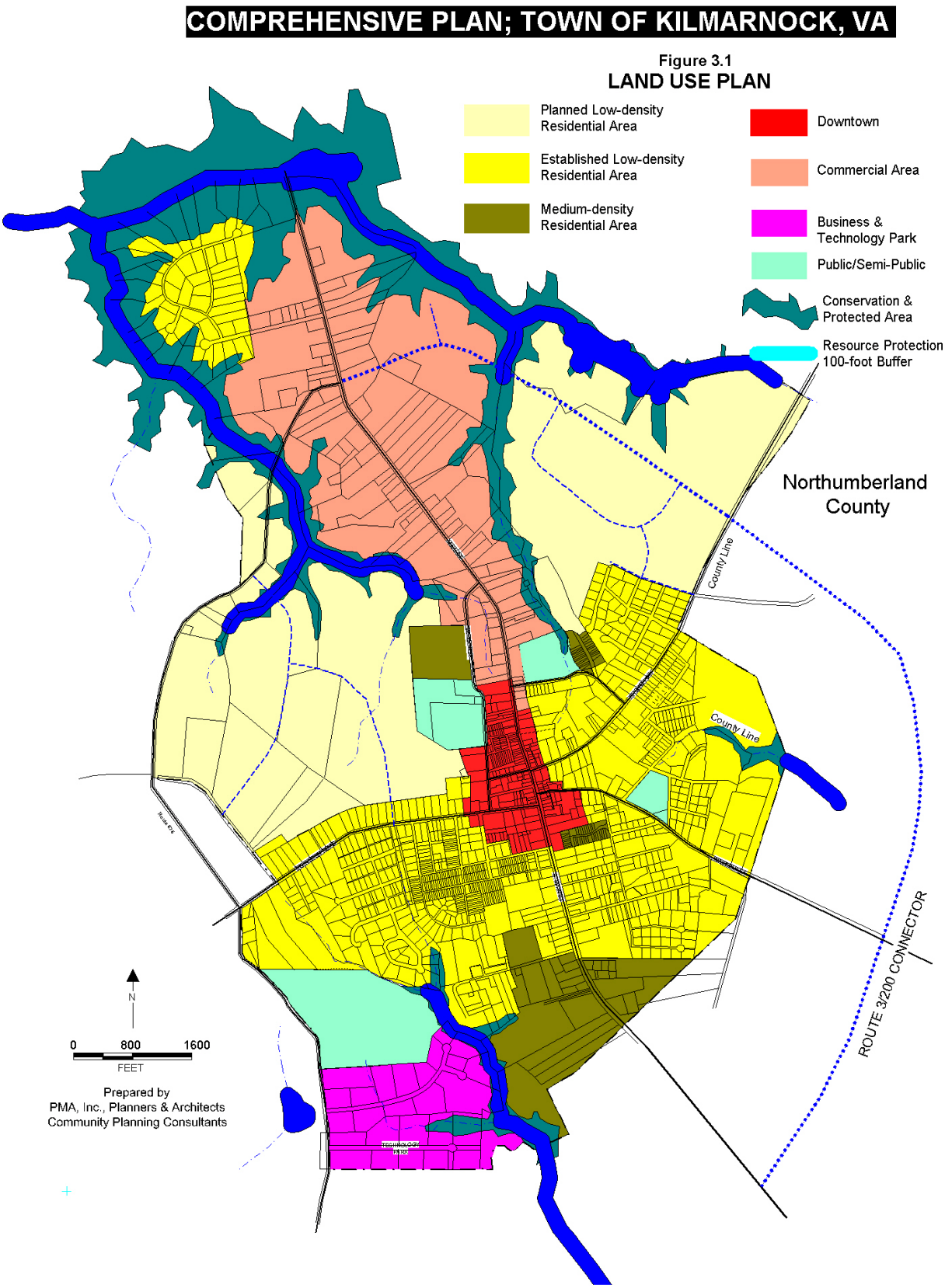
B. PROPOSED LAND USE PLAN AND DEVELOPMENT POLICIES

1. Development Policies in General

It is the intent of the Town of Kilmarnock that future development within the Town is done in an orderly manner and in a manner that protects, enhances or otherwise improves the public health, safety and welfare of the citizens of the Town. To these ends general policies of the Town are as follows:

a. New development is to be carried out in a manner in harmony with the existing community.

b. Residential areas shall be provided with healthy surroundings for family life.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 3.1
LAND USE PLAN
Planned Low-density Residential Area
Established Low-density Residential Area
Medium-density Residential Area
Downtown
Commercial Area
Business & Technology Park
Public/Semi-Public
Conservation & Protected Area
Resource Protection 100-foot Buffer
Northumberland County
County Line
County Line
ROUTE 3/200 CONNECTOR
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Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

c. Appropriate sites are to be designated for the growth and/or expansion of existing businesses, development of new businesses and for establishing technical industries that provide an expanding base of quality jobs for the citizens of the area.

d. That state waters and other sensitive environmental resources be recognized and protected from excesses of development

e. Specific policies for each area designated on the Land Use Plan are presented in the following subsections.

2. Development Policies for the Downtown Business District

The Downtown business district is the original center of commerce of Kilmarnock. The area is almost fully built out except for occasional vacant lots. The buildings in the core of the Downtown are typically one- and two-story constructed without side yards.. They comprise a mixture of original buildings constructed around the turn of the 20th century and replacement or "infill" buildings that have been constructed after about the mid 1900s. Parking space is at a premium consisting predominantly of on-street parking and at three public off-street parking lots. The Downtown business district contains a mixture of retail shops, offices, restaurants, banks and other business uses. A plan for improving the appearance of the streetscape is being implemented during the 2005 and 2006 (see Downtown Plan later in this Chapter).

Because many of the original Downtown firms and newly established firms have established in a new business district along North Main Street, Downtown has lost much of the retail claim that it once held in the eastern portion of the Northern Neck. Yet many excellent places of business still remain in the district enabling Downtown to make an important contribution to the overall business economy of the region. In undertaking the recent improvements, town leaders have seen the need to make the area attractive for new investment, not only in upgrading its appearance but in attracting new businesses to the area. Development policies for the area therefore must create an environment where businesses will have both opportunities and incentives to establish or expand as the case may be within this commercial area. The following policies apply to the Downtown Business District:

a. In general, off-street parking for new or expanded commercial or office buildings will not be required in the core area of Downtown (bound by the east frontage of School Street, and frontages of Main Street, Irvington Road, and Church Street).

b. A variety of commercial and office uses are encouraged to be established within Downtown.

c. The Town is interested in establishing an Enterprise Zone designation for Downtown in order to provide economic incentives that encourage businesses to locate and/or expand within the area.

d. The Town is pursuing the establishment of a historic district in the downtown area to be identified as "Steptoe's Crossing District." This district would be established in the Zoning Ordinance.

e. The Town Planning Commission is interested in establishing an architectural review board to facilitate the enhancement and preservation of our community. The review board should uphold the ideals and objectives set forth in the vision statement of the comprehensive plan, town ordinances and town charter.

3. Development Policies for the Established Residential Community

The term "Established Residential Community" refers to existing development that is predominantly residential and surrounds the central business district on the east, south and west. The area lies within a radius of about 0.7 miles of Downtown and contains nearly all of the residential uses established in Kilmarnock at the time the map shown on Figure 2.2 was prepared. The area is developed almost entirely with residential uses, mostly single-family dwellings on separate lots. Some public and also semi-public uses found within this area are considered historically in land use planning criteria as support uses to residential neighborhoods. Also located within this area are several higher density residential projects including a variety of living styles from regular apartment projects to assisted living facilities. In addition, a few residential buildings along major streets are beginning to be converted to office uses.

Overall, the "established residential community" is a stable residential community, which is substantially built-out except for some random vacant lots that may be found throughout the area. In the future many of these lots are likely to be developed with similar single-family dwellings comparable to those existing, although the area is beginning to experience pressure to convert some of the existing dwellings and vacant lots to other uses. Older dwellings along the main roads may feel much pressure to be converted to non-residential uses in the future. To address this issue the Land Use Plan establishes three "Gateway" corridors along the streets from which the downtown area is approached (see "Gateways Policy below). Also, the Town should expect some pressure to convert larger vacant tracts within the community to higher density residential uses as was seen recently on a vacant lot on South Main Street near the town line.

A major subdivision in the northern part of the Town is also shown on the Land Use Plan as an established residential area but this subdivision is dedicated to single family detached dwellings and is the exception to the policies set out below. Recommended Land Use and Development Policies Applicable to the Established Residential Community are as follows:

a. Continue existing land use policies for the neighborhood that gives highest priority to single-family dwellings, and uses that are compatible with and serve the needs of residential characteristics of the neighborhood.

b. When it can be determined that an existing single-family residential building can serve the objectives of the neighborhood plan better as an alternative use because of its age, size, location or other factors than as a single-family residential facility, a limited conversion of the dwelling may be made to another use. In general when such conversions are approved, they would contain safeguards to assure that the resulting use is compatible with, and not detrimental to, existing uses in the immediate vicinity or the neighborhood in general. Converted uses would be limited to activities that could be undertaken without modification to the external characteristics of the building from its original single-family appearance. Further limitations include limiting the uses after conversion to the following: an increase of no more than one dwelling unit within the building; conversion to a professional office involving no retail trade; and bed and breakfast accommodations for not more than six overnight guests. All conversions would be reviewed for compatibility with neighborhood development policies and existing uses to assure that no adverse impact would result in the quality of the residential neighborhood. One way to implement this policy is to establish a special overlay zoning district which should be limited to properties fronting on the selected streets to be identified in the Zoning Ordinance.

c. In cases where a tract of land: (a) is vacant; (b) contains more than five (5) acres; (c) has not previously been subdivided into residential lots; and (d) because of its location, frontage, shape, adjoining uses, or other relevant physical features, it can be demonstrated by the owner that the parcel is better suited for another purpose than subdivision into single-family lots, an owner may submit a plan for an alternative dwelling use of the parcel. The acceptability of a plan for an alternate use shall be determined on a case-by-case basis after having been found to be compatible with the planning goals of the neighborhood and the Comprehensive Plan.

d. Within the areas designated as “Gateways,” it is the Town’s policy that these areas should be attractive entrances to Kilmarnock from major entrance roads. They should remain predominantly residential in character although limited conversion of some existing uses may be allowed provided that the resulting uses retains the existing character of the area and are carried out under appropriate design guidelines. To implement the “Gateway” project, it is recommended that an overlay district be established within the Zoning Ordinance that sets out the guidelines for the Gateways and provides for oversight review process to assure compliance with the Town’s goals for the area.

4. Development Policies for the Planned Mixed-Use Areas

The planned mixed-use areas, one located at the west town line north of Irvington Road and the other at the east town line northwest of Church Street provide ample land area to support additional residential growth in Kilmarnock for many years. For the most part, these tracts are located on well-drained high grounds that provide access to major roads. Access to the eastern area is available from Route 675 on the west and possibly from School Street on the east. Access would be desirable from Irvington Road and could be accomplished by acquisition of one or more existing lots now fronting on that road. Access to the eastern tract is readily available since it fronts for approximately 0.6 mile along Church Street. The existence of two major stream beds with steep banks and identified as resource protection areas (RPA) will limit access to Main Street but at the same time provide a buffer between the commercial area along that road and the planned low-density residential areas. This combination makes the areas ideal for high-quality mixed-use residential development, especially those developed as planned unit developments. Recommended Land Use Development Policies are:

a. The area is planned for residential mixed-use development at a density of not greater than two dwellings per acre unless otherwise approved as part of a planned unit development with appropriate proffers or other safeguards to assure that the overall development is consistent with the character of the overall neighborhood.

b. It is the policy of the Town that development within these areas should be served by public water and sewer with such service being extended to each development by the developer from the Town's water and sewerage systems respectively. It is understood that such development may take place only within the capacity limits of the treatment facilities operated by Kilmarnock.

c. Planned unit developments (PUDs) planned with their own open space and recreational facilities operated by a homes association are the preference of the Town and such developments are strongly encouraged. Mixed-use residential land uses are appropriate within the overall density limitation of the area.

d. In order to assure continuity between and among various developments and assure access to all properties within the area, the Town will provide a concept design for basic circulating streets to serve these areas. In the event development occurs incrementally with individual subdivisions, the road network shall be used as a guide when establishing new subdivision streets or access thereto. In the event part or all of a tract is planned as a PUD, the developer may proffer alternate street layouts provided such layouts accomplish the purposes of the layout approved by the Town and in particular provide for the continuation of streets to serve adjoining property.

e. Uses that are acceptable in the Mixed-Use Residential areas include some public and semi-public uses and facilities that are customarily used to support residential areas, specifically: schools, churches, and playgrounds, provided such uses have access to a

principal circulating street and there is sufficient land area to accommodate required offstreet parking.

5. Development Policies for the North Main Street Commercial Area

This area extends from the Central Business District along both sides of North Main Street (Route 3) to the town line and extends east and west between two major streambeds that are identified on the map as Conservation and Protected Areas. The latter areas are comprised of the Resource Protection Area which is defined as a 100-foot buffer along the centerline of each streambed and land below the 50-foot contour line which contains steep slopes on which development should be avoided. Overall this "strip" is about 1.5 miles in length and ranges in depth from about 200 feet to 1,500 feet on each side of the centerline of North Main Street. Major shopping centers have been established in the wide parts of this strip while in the narrow parts, the frontage is developed with a mixture of shops and original dwellings.

While much of the frontage has been developed, there remains considerable vacant land in the area for additional development of businesses and other uses. The area should be considered a general business area because of the range of existing uses that will be found within it. Much of the opportunity to develop major uses in the area will be constrained, however, by the fact that most of the existing frontage consists of platted lots that are individually owned. This establishes some limitation on the types of businesses that may locate in the area. But many lots have connections to North Main Street and also have additional acreage between the commercial front and the protected stream basins. It is on such lots that two shopping centers have already been established. In addition to commercial facilities, these "outparcels" might also be utilized for other uses such as multi-family. The current zoning ordinance places most of this land in a commercial zone which does not allow residential uses. While, in general, it is a current trend to disallow residential uses in commercial areas, in the case of this commercial area, such uses could be justified if they are properly planned to recognize "site-specific" conditions.

Recommended Land Use Development Policies are**:**

a. The dominant uses of the frontage along North Main Street are to be a mixture of commercial and service businesses with emphasis on retail trade, restaurants, offices, motels and other compatible establishments.

b. Lots with excess depth over and beyond that needed for commercial frontage development should be utilized for purposes that establish a satisfactory transition

between the commercial strip and the open protected streambeds and their banks that border these properties. Planned shopping centers have been demonstrated as workable in these locations. With careful planning and oversight, some of these sites may be appropriate for development with townhouses or multi-family housing facilities. In all cases development near these environmentally sensitive areas should avoid excessive impervious surfaces (such as paved areas and roofs).

c. Along both sides of the entire frontage of North Main Street, ingress and egress to and from commercial sites are to be coordinated to reduce the demand for traffic to enter North Main Street. This can best be accomplished by requiring parking lots of adjoining businesses to be interconnected and through the use of turning lanes from the main thoroughfare.

d. A special setback is desired along any Primary State Highway measured from the centerline in order to achieve a safe and consistent setback from these roads.[15] Such a setback would be established in the Zoning Ordinance.

6. Development Policies for Special Business and Technology Areas

This category contains three types of areas. A special "Technology Park" is established at the southern town line of Kilmarnock which provides sites for technology firms. The Technology Park was developed by the Town of Kilmarnock and offers sites for new businesses qualifying under the Town's "Technology" guidelines. Adjacent to and immediately north of the Technology Park, is a business park that offers 14 similar sites for commercial and business development that is compatible with other uses within the area. This area is served by DMV Drive, a hard-surfaced road that serves the existing DMV office, and several other uses. The third, and major use of the area is the Rappahannock General Hospital. In addition to the hospital, this site provides space for several medical-related services. The hospital is also the "anchor" for many other potential uses for both the DMV Drive development area and the Technology Park. The following are recommended Land Use Development Policies:

a. Because the area of the Technology Park and DMV Drive was planned by the Town of Kilmarnock, these areas will be developed and operated under policies that assure that firms that provide quality jobs and that the nature of the enterprise will be in keeping with the Town's goals for these areas. Development policies for these areas will be found in the covenants and restrictions that are established by the Town and incorporated into deeds.

b. Because the primary development of the area around the hospital will be under the jurisdiction of the hospital, firms and businesses will be selected based on the hospital's criteria. It is anticipated, however, that firms with a

[15] A distance of 65 feet from the centerline of the road is suggested. This distance would establish a uniform setback that disregards the variation in rights-of-way width that exists along this portion of Route 3.

medical orientation including physicians' offices and related medical services will comprise the bulk of such development.

7. Development Policies for the Conservation and Protected Areas

The Conservation and Protected areas are those areas within the Town of Kilmarnock formed by streams and the steep slopes that form their banks. These areas have physical features that make them unsuitable for most development. Little development has occurred in the past within these areas (see Figure 2.1). A core area is formed by the Chesapeake Bay Preservation Area which is defined as (i) tidal wetlands; (ii) non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams; (iii) tidal shores; and (iv) a 100-foot vegetated buffer area located along both sides adjacent to and landward of the components listed above.[16] The "conservation area" shown on the Land Use Plan also includes the area defined by land that lies between the 50-foot (above sea level) contour line and the stream basins according to the USGS map of the Kilmarnock area. These policies are recommended for this area:

a. The policies for the Chesapeake Bay Protection Area are defined in Article V of the Town's Zoning Ordinance which was taken for CBLAD's model ordinance.

b. The additional area defined by the 50-foot contour contains much of the area defined as Resource Management Area in Article V of the Zoning Ordinance. The RMA specifically is defined as *"concentrations of the following land categories: floodplains; highly erodible soils; steep slopes; highly permeable soils; and nontidal wetlands not included in the RPA."*[17] This area should be treated as part of the Resource Management Area.

c. Additional policies for preservation are found in Chapter 5

8. Downtown Business District Revitalization Plan

The Downtown (Central Business District) area has been progressing toward an extensive improvement project since the late 1990s. The movement started with a quick study to determine the potential for upgrading the appearance and function of the area that led to an application for a TEA-21 grant to improve the streetscape and related features of the CBD. Subsequent to that study, the Town received appropriations to proceed with a streetscape project that extends for four-block areas from below Irvington Road to Cralle Court. While details of the plan are available at the planning office at Town Hall, the sketch shown here as Figure 3.2 provides the essence of the improvements. They are:

[16]Section 45-482, Zoning Ordinance, Town of Kilmarnock (definition of the Resource Protection Area)

[17](Zoning Ordinance) Article V of the Town Code, Section 54-482 (2) (b)

a. All sidewalks are done in attractive brick paving and widened to make them more attractive and safer for pedestrians.

b. Pedestrian crosswalks are established at major intersections with a clearly discernable different brick pattern.

c. New streetlights are being installed.

d. New street signs as well as directional signs showing routes to public parking areas will be installed.

e. Existing street trees are being replaced with more appropriate trees.

f. On-street parallel parking is retained along the entire distance of the project on Main Street except where interrupted for pedestrian crosswalks.

g. Overhead utility lines and poles are to be replaced by underground equipment.

Other potential improvements that might be considered for the downtown area as capital funds permit are these:

(1) Establish a voluntary building façade improvement program through which owners would receive matching funds to assist with improvements to their buildings.

(2) Replace the aging water mains within the downtown area.

(3) Upgrade the existing sewerage system the extent of which to be determined by a comprehensive evaluation of the system.

(4) Upgrade the storm water handling system consistent with roadway improvements and other changes within the runoff area.

(5) Extend the removable of utility lines and poles from the core main street area.

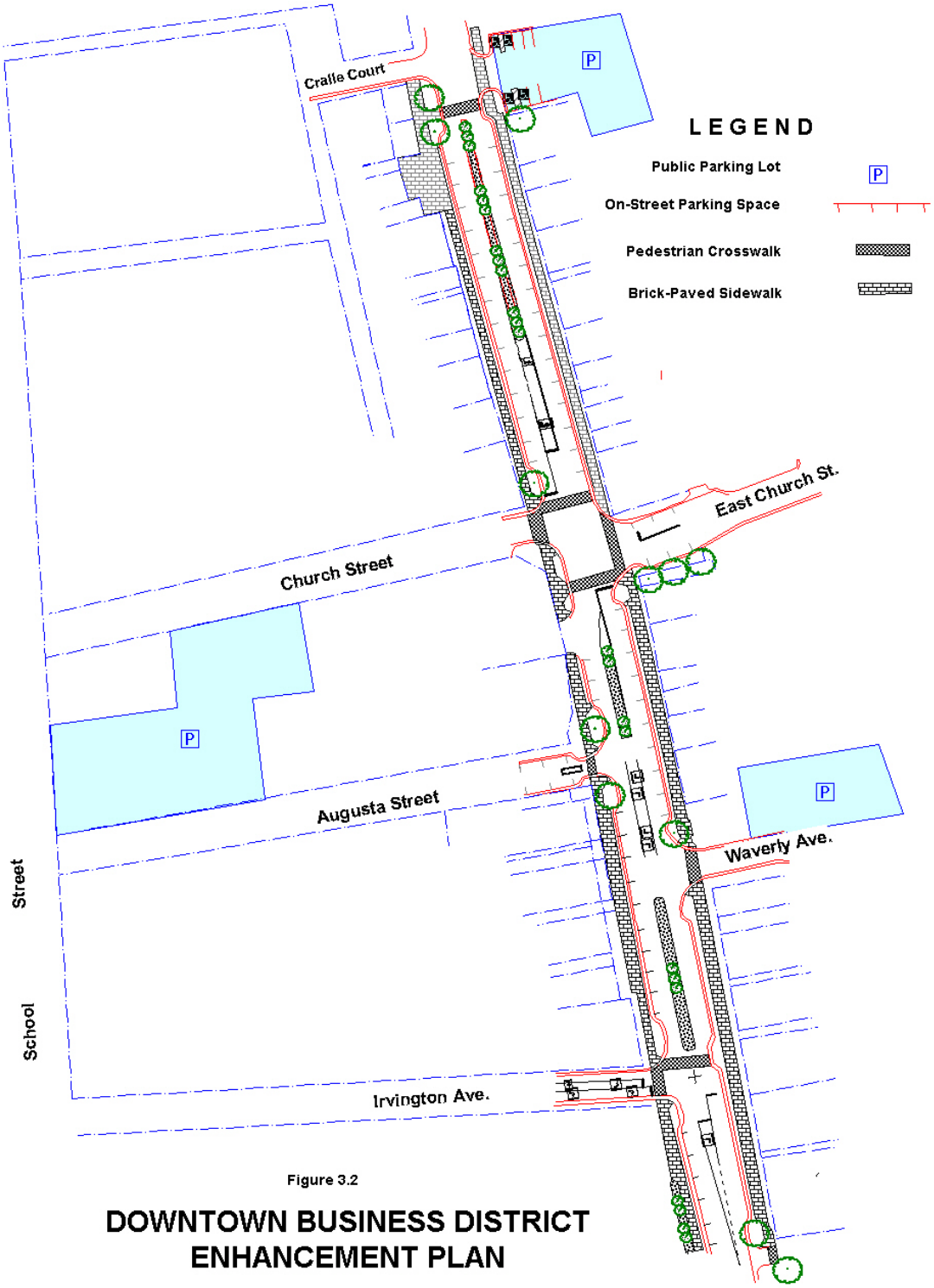


Figure 3.2

DOWNTOWN BUSINESS DISTRICT ENHANCEMENT PLAN

C. IMPLEMENTATION OF THE LAND USE PLAN

1. Adoption of the Plan

This is an essential act required by Virginia Law starting at Section 15.2-2223 of the State Code. This and following sections of the Code establish the process for preparing and adopting a comprehensive plan by a local government. It is to be prepared by the Planning Commission and "recommended" to the Town Council and shall include "a plan for the physical development of the territory within the jurisdiction of the Town." Before a comprehensive plan can be adopted, it must be advertised and public hearings held according to the requirements of Section 15.2-2204 of the Virginia Code by both the Planning Commission and Town Council. The Code provides that the Planning Commission and Council may combine both the required advertisements and public hearings into a single "joint" hearing if desired.

After a comprehensive plan has been adopted, it has certain legal status which is set out in Section 15.2-2232 of the Virginia Code. This section requires that *whenever a comprehensive plan has been adopted, it shall control the general or approximate location, character and extent of each feature shown on the plan.*[18] This section, when read in its entirety, requires what is called a "conformity review" by the planning commission. It serves to ensure that certain proposals are consistent with the comprehensive plan.

2. Establishing Consistency between the Comprehensive Plan and Land Use Regulations

After the comprehensive plan has been adopted, or updated as the case may be, the Town should take steps to coordinate its development regulations with the vision of the future community as defined in the plan. The primary regulatory tools are zoning and subdivision regulations. Zoning establishes how land may be used and the subdivision ordinance focuses on specification for its development. It is important both of these ordinances reflect the policies of the comprehensive plan. Several other ordinances play a role in implementing the goals and policies of the comprehensive plan, among which are those regulating or managing storm water and soil erosion and sediment. After the comprehensive plan has been adopted, it is appropriate to review the various ordinances that are involved in implementing its policies.

[18]The italicized sentence is an abbreviated representation of part of the language of 15.2-2232;

CHAPTER 4
PUBLIC SERVICES AND FACILITIES

Chapters 1, 2 and 3 focused on developing a broad framework of a Comprehensive Plan for Kilmarnock. In Chapter 1 a demographic and economic profile was developed for the Kilmarnock area that included projections of potential growth of the population by 2020 and identified key economic development issues associated with the area's economy. Chapter 2 addresses physical factors, natural and man-made, that play roles in determining what land may be developed, its limitations and opportunities. The heart of the Comprehensive Plan is the Land Use Plan, found in Chapter 3. By considering the findings of the physical analysis and the Town's potential for future growth, the Land Use Plan projects the future spatial arrangement of development within Kilmarnock by designating areas for different types of residential, commercial and preservation uses. In a broad sense, the Land Use Plan establishes a framework around which private sector investment may be organized. Along with maps showing the type of development that appears most favorable, the Land Use Plan includes a set of development policies for each type of land use area. The linkage between the Land Use Plan (Chapter 3) and the public service element (this Chapter) is what enables the document to rise to the level of its name, "Comprehensive Plan." It is comprehensive because: (i) it provides a framework for all investment, private and public; (ii) it covers all of the physical territory under the jurisdiction of the Town of Kilmarnock; and (iii) it addresses the need for different types of use and development as well as supporting infrastructure necessary to support a human settlement; and (iv) future development and (v) coordination with Lancaster and Northumberland counties.

Public services discussed in this Chapter represent a combination of State, County and Town services and even include some private facilities. Because under Virginia's form of government, towns are not required to provide schools, courts, health or social services the dominant services requiring physical facilities provided by Kilmarnock are water and sewer, police protection and governmental administration.

A. WASTEWATER DISPOSAL AND WATER SUPPLY

1. Wastewater

A map of the Kilmarnock's existing sewerage system is found in Chapter 2 as Figure 2.3. The system consists of approximately 13 miles of gravity sewers, two miles of force mains, four

pumping stations and a wastewater treatment plant. Certified to treat 500,000 gallons of wastewater per day, the wastewater plant is currently treating an average of about 180,000 gallons per day (GPD). In 2005, the system had 654 residential and 239 commercial sewer and 691 residential and 254 commercial connections. Based on the town's population of about 1,300[19] plus approximately 200 additional persons served outside the town limits, the average wastewater treatment is about 120 gallons per person daily.

Several issues will determine the amount of wastewater treatment required in the future: (a) Assuming wastewater generation at 120 (GPD) the projected population using trend growth of about 1,600 (within the town limits) by 2020 would require treating about 192,000 GPD. (b) If the predominantly vacant parcels were developed to a built-out density similar to past development to accommodate an additional 600 persons, another 72,000 GPD would be added to the need. (c) Finally, if sewers are extended to serve an estimated 1000 persons outside the present town limits, the treatment need rises by another 120,000 GPD.

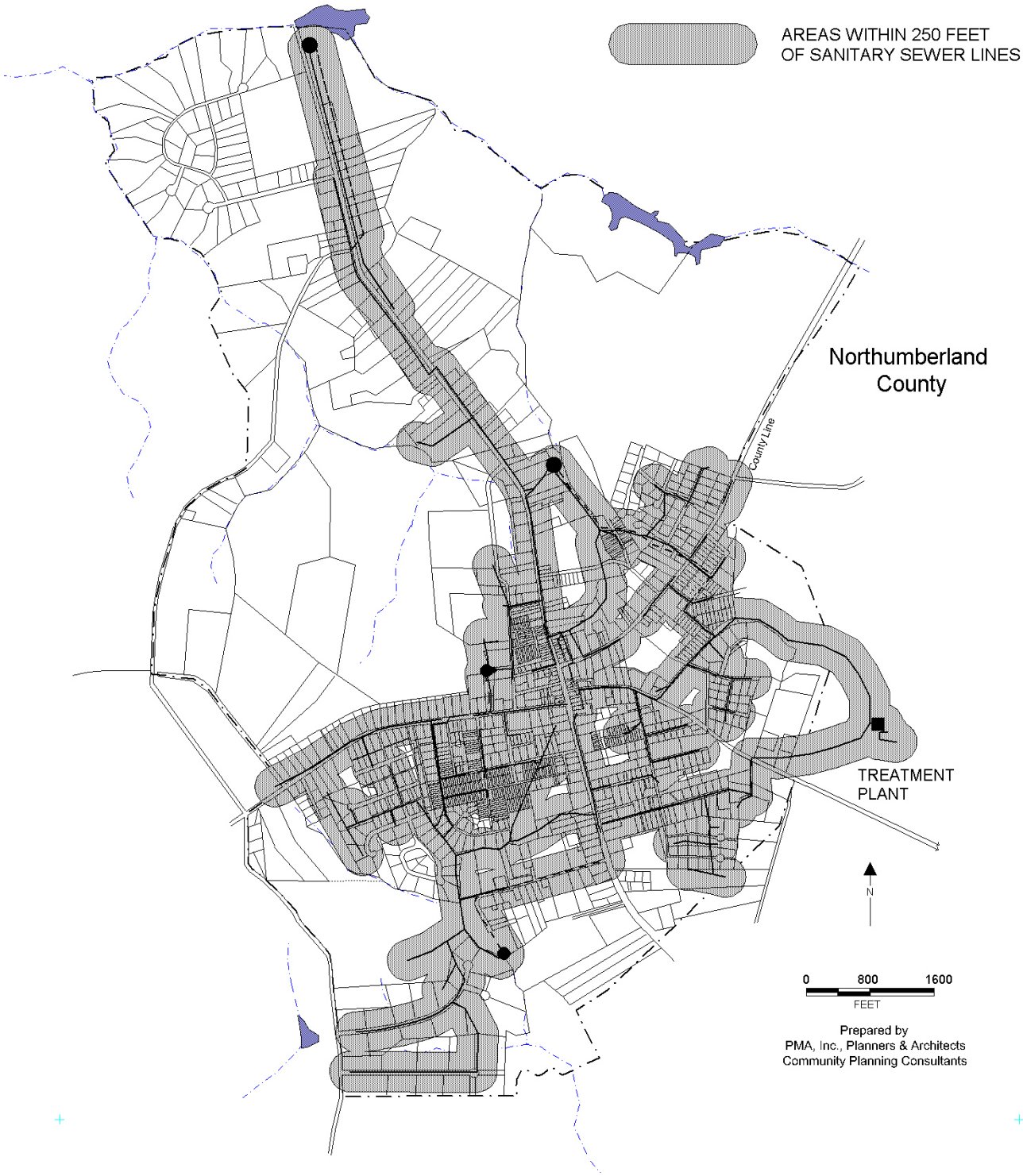
The combined projection of all three scenarios would require treating 384,000 GPD. This activity would utilize 76 percent of the certified capacity of the present treatment system.
The mix of development is an important factor in determining the amount of wastewater that will require treatment in the future. In this respect, development coming on line over the next 20 years in the area around the Hospital, Technology Park, and Route 200 towards Irvington, in contiguous sections in Northumberland is an important key to whether, and when, new wastewater treatment capacity may be needed. Many businesses have special water demands that must be taken into consideration. High-volume water users may need to be omitted from consideration in these areas, particularly if most of the water consumed is discharged into the public sewerage system.

[19] Based on 2000 population of 1,244 adjusted for new dwelling units added since the 2000 census.

COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA

Figure 4.1

AREAS SERVED BY THE EXISTING PUBLIC SEWERS



Water consumption and wastewater generation rates should generally be more predictable for those areas identified on the Land Use Plan (Figure 3.1) as low-density residential. These areas should provide enough residential land to support additional population up to about twice the town's existing population. This suggests that at some point in the Town's future development, additional wastewater treatment capacity will likely be needed, but at least for five to ten years, the present system should be adequate.

Associated with the wastewater issue is the town's policy on septic tanks, which at present requires that where feasible all new subdivision lots, buildings and other facilities intended for human occupancy, shall be connected to the town's sewerage system at the owner's expense. Given that much of the land to be developed in the future is not near existing sewers, in order to promote the orderly development of lands within the jurisdiction of the Town of Kilmarnock; to ensure that it will be served by a public wastewater system; and to minimize potential groundwater pollution the following policies are recommended for the Town of Kilmarnock:[20]

a. Future development involving buildings, structures or subdivision of land that is designed or intended for human occupancy or use shall be connected to the Town's public sewerage system whenever feasible.

b. For buildings and structures that currently and lawfully utilize septic tanks for wastewater disposal, it is the policy of the Town of Kilmarnock that where practical and when public sewer lines are accessible, such septic tanks shall be connected with the town's sewerage system.

c. Considering that growth of Kilmarnock may at times need to extend beyond the current town boundary, it is the intention of the Town of Kilmarnock to offer sewer and/or water services to areas beyond the town limits where such services may by provided within the capabilities of the town's systems and where the provision of the services is beneficial to both parties and consistent with the long-term growth potential of the Town.[21]

In addition to identifying areas served by sewer lines, by omission Figure 4.1 reveals areas in which sewer lines are likely to be required in the future

2. Water Supply

The water system serving Kilmarnock is illustrated on Figure 2.4 in Chapter 2. Water lines generally follow the routes of existing development and almost duplicate the pattern set by sewer lines. For this reason, Figure 4.1, showing areas served by the town's sewerage system, also is a

[20] These recommended policies may require language adjustment in the Town Code.

reasonable representation of the area served by water lines. The Kilmarnock water system connects to approximately 691 residential and 253 commercial establishments. The water supply comes from two wells and is stored in three elevated tanks. Existing wells have a combined capacity of approximately 854,000 gallons of potable water per day and the elevated storage tanks provide a combined capacity of 560,000 gallons. They are located generally as follows and also shown on Figure 2.4.

Existing Water Storage - Kilmarnock, Va.

General Location	Capacity
Near Downtown and North of Church Street	60,000 gallons
Near the hospital	250,000 gallons
In the northern part of town, south of Hawthorne Ave.	250,000 gallons

Note: The town code prohibits drilling or digging of private wells except in unusual circumstances in which case special authorization is required by the town council (Section 50-2).

The town's records indicate that the existing system is currently pumping about 200,000 gallons of water per day, or about 180 gallons per person per day. If this rate were continued, the projected 2020 population of about 1,600 persons (trend growth), plus an estimated 600 within the large undeveloped areas within the town along with usage by approximately 1,000 residents in the contiguous areas, would require service to approximately about 3,200 thus requiring about 575,000 gallons per day or about 375,000 gallons per day more than is presently used. This suggests a consumption rate of approximately 400,000 gallons per day in 2020.

Under the three scenarios described above for wastewater, the need for water in Kilmarnock would be as follows:

To Serve	Population	Water Requirements (@ 180 GPD)
Current Population	1,200	216,000
Trend Growth	400	72,000
Infill Growth	600	108,000
Beyond Town Limits	1,000	180,000
TOTAL	3,200	576,000

[21] Refer also to water policies.

Whether the present system could provide this level of service depends upon factors such as: (i) how much reserve capacity is needed to provide back-up for unusual water usage and fire protection and (b) whether future water commercial/industrial uses have high or low water consumption requirements. Careful evaluation of new business and industrial uses will enable the town to avoid enterprises that require unusually large amounts of treated water.

Similar policies to those that apply to sewer extensions concerning installation, approvals and connections, also apply to water line extensions. All new development is required to be provided with water, which is to be connected to the Town's water system. Water serving new lots is to be installed at the expense of the owner or developer and after acceptance by the Town, the extensions are dedicated to the Town and thereafter the Town assumes the responsibility for their operation and maintenance.

The following policy modifications are therefore recommended concerning the water system:

a. Continue existing polices requiring new buildings and facilities intended for human occupancy to be provided with public water from the Town's water system. Under such policies, developers (owners) are required to provide water to each new building by extending where necessary water lines to the buildings from the public system at their own expense. Once completed and found acceptable to the Town, the water lines and all associated equipment, including easements, shall be dedicated to the Town of Kilmarnock.

b. With a finite existence of a shallow aquifer, Kilmarnock officials may question a particular business, industry or use on the anticipated water consumption and/or wastewater discharge as necessary to evaluate the impact of the use on the water and/or wastewater systems. This evaluation should precede the issuance of permits for construction or establishment of the use

c. Where physical growth may at times need to extend beyond the current town boundaries, it is the intention of the Town of Kilmarnock to offer sewer and/or water services to areas beyond the town limits where such services may by provided within the capabilities of the town's systems and where the provision of the services is beneficial to both parties and consistent with the long-term growth potential of the Town. [22]

[22] Refer also to sewer policies.

3. Additional Water Quantity Issues and Strategies[23]

While water conservation measures do not appear to be of imminent concern, the Town should develop a water conservation plan to ensure the long-term viability of its public water supply system. Recently, the Town has taken steps to address failing and leaking sewer mains. These repairs have greatly reduced the infiltration and inflow rates and have resulted in lower volume of wastewater that the sewage plant must treat. As a goal Kilmarnock should develop methods and procedures to ensure the long-term viability of the Town's water supply through appropriate water conservation efforts. To accomplish this goal the following strategies should be considered:

a. Adopt a provision to the Town Code to restrict water use in emergency situations. The provision could be enforced by the Town Manager with the Town Council defining what equates an emergency situation. During the emergency situation, restrictions on watering lawns, car washing, and other nonessential uses of water could be enacted.

b. Adopt an ordinance to prevent the excessive waste of water from private plumbing failures such as broken water lines that are privately owned. An option of fining violators could be incorporated into the ordinance as a means to ensure that violators address the problem.

c. Maintain an active infiltration and inflow (I/I) program to identify and repair broken or leaking sewer pipes.

d. Coordinate future water and sewer demands and system requirements with a long-term capital improvements program to respond to future growth and change in land use.

e. Create a water conservation brochure available at the Town office and distributed to applicants requiring a zoning permit from the Town for any proposed construction that involves plumbing fixtures.

B. TRANSPORTATION: STREETS AND HIGHWAYS

Transportation in Kilmarnock is provided predominantly by automobile on roads owned and maintained by the Virginia Department of Transportation (VDOT). State roads may generally be classified as primary or secondary. Primary roads (those with numbers lower than 600) carry the majority of traffic and receive the highest priority for improvements. Two such primaries, Routes 3 and 200 intersect in Downtown Kilmarnock and provide linkages to other towns and

[23] The text in this paragraph is in compliance with the Chesapeake Bay Local Assistance Board's (CBLAD's); requirements. This issue is covered in more detail in Chapter 5.

cities. The origin of Kilmarnock as a town can probably be traced to the Cross Roads of these two routes and they continue today as the Town's primary traffic arteries. Secondary roads are those roads with numbers 600 or greater. For the most part, roads with numbers from 600 to 999 form the network of rural roads throughout each county and in a few cases; they carry volumes of traffic at levels of some primaries. Roads with higher numbers, 1000 and above usually designate local streets in towns, villages and subdivisions. While VDOT roads are identified according to the above numerical classification, most local governments have given them street names in order to comply with 911 emergency operations.

While VDOT classifies roads according to their status in the state system, the amount of traffic using a particular road is more of a function of location with respect to traffic generators. This is illustrated on Figure 4.2 where the pattern of traffic flow within Kilmarnock is illustrated. The width of the shaded band describes graphically the relative amounts of traffic on each road and in so doing highlights the location of recent vehicular circulation.[24] Here, School Street, (Route 1026) carries about the same level of traffic as Route 3. Additional characteristics include:

- Practically all traffic flows through downtown Kilmarnock from Routes 3 and 200. Each of these roads carries about 6,000 vehicles per day from town limit to town limit. Congestion is experienced in the downtown area where these streets converge.
- School Street also carries more than 6,000 vehicles per day while functioning as an alternate route from the North Main Street commercial area to Downtown. Together the corridor formed by North Main Street and School Street carry about 12, 000 vehicles per day.
- Congestion is particularly noticeable on Main Street between Church Street and Irvington Road where Route 200 merges with Route 3 for about two blocks.

1. Major Features of the Street Plan

a. Existing Major Streets

State highways form the framework of vehicular circulation throughout Kilmarnock. They are mostly Virginia Primary Highways that connect Kilmarnock with other communities and include:

Route 200 – running along Irvington from the easterly corporate line to Main Street, then along Main Street to Church Street and along Church Street to the corporate limits on the east.

[24] According to VDOT's traffic Counts: 1997 for primary roads; 1994 for secondary roads.

Route 3 - (Main Street) running north and south through the entire corporate area of Kilmarnock.

Route 608 - (Waverly Avenue) running from Downtown at Main Street in a southeast direction to and beyond the corporate line.

Route 688 – (James B. Jones Memorial Highway) from Irvington Road north to Route 3 (North Main Street)

Route 1026 (School Street) - running north from Irvington Road to North Main Street.

Route 1036 (Harris Road) – Irvington Road south to Route 3.

b. Proposed Routes 3/200 East Connector

This connector extends from North Main Street near James B. Jones Memorial Highway around the east side of Kilmarnock crossing Church Street and Waverly Avenue, finally connecting back into Route 3 about one-half mile below the present southern town line near Fleet's Bay Road. The proposed east connector of Routes 3 and 200 is part of the long-range vision for completion of a network of major street arteries serving Kilmarnock. It will serve several functions. First it will provide an alternate route for Route 3 traffic, especially trucks, to avoid the downtown area therefore removing much congestion caused by through traffic that at present is forced through the narrow downtown streets. Second it will provide an anchor for development in one of the major undeveloped areas within the town as well as in the area east of the Kilmarnock town boundary between Church Street and Waverly Avenue.

In the undeveloped area between Main Street and Routes 688/675 a pattern of feeder roads is also suggested as a framework around which future development can take place.[25]

This "loop road" will serve other functions to improve the amenities available to citizens of Kilmarnock. It should be planned to include separate lanes for bicycles and at various intervals waypoints may be established for various recreational purposes such as small playfields, picnic spots and other points of interest.

c. Selected Feeder Roads

The Major Street Plan also proposes a set of lesser feeder roads for areas within Kilmarnock that are suggested as a guide for the internal circulation of traffic within these areas as they development with urban uses. The feeder roads are expected to carry more traffic than residential streets and therefore should be planned accordingly.

d. Other Transportation Issues

In a recent workshops on comprehensive planning , several recommendations were made: Among these were:

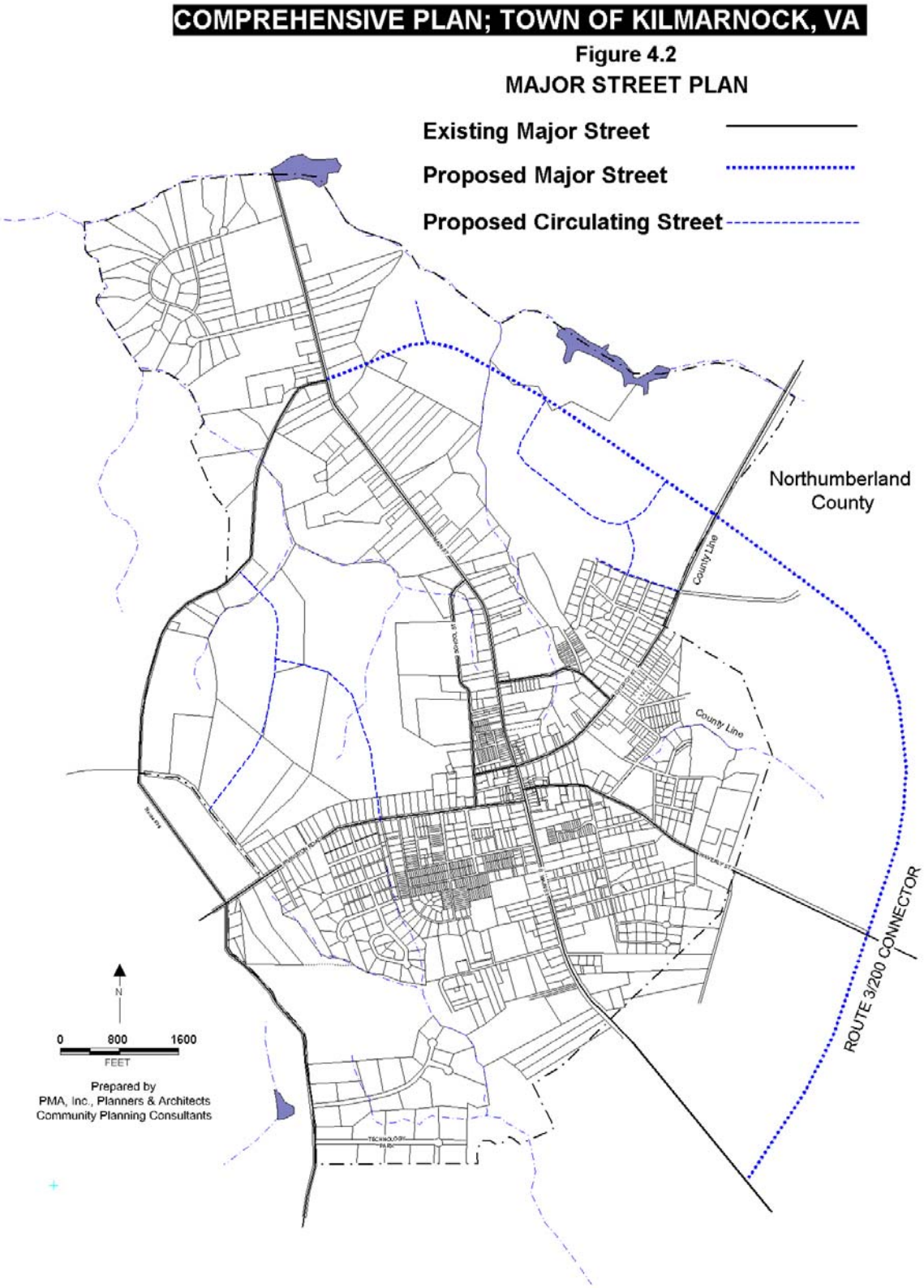
- Establish historic Steptoe Crossing District.
- Provide more public parking areas within The Steptoe Crossing District where space for onsite parking is limited.
- Improve pedestrian circulation and landscaping along Main Street and other public areas.

To achieve road consideration identified in the Comprehensive Plan, the town must assure these road impact areas are a part of VDOT's plan. In other transportation matters, VDOT includes in its Six-Year Plan the establishment of a bicycle route, to be called the "Lancaster Trail," running between Kilmarnock and Irvington. This route will consist of a paved shoulder along Route 200 between the two towns.

C. OTHER PUBLIC SERVICES AND FACILITIES

Other than the water and sewer services described previously, services provided by the Town of Kilmarnock are limited to administrative services, a police department and the utilities department. Administrative services consist of the Town Manager, Town Treasurer, Town Planner and Town Clerk. The police department consists of a Chief and officers. Jail facilities are provided through arrangements with Lancaster and Northumberland Counties. The utilities department operates the town's water, sewerage systems, and maintenance group. Many other community services that are available to the citizens of Kilmarnock are provided by other governmental levels or by semi-public or private sources. Some of the more significant of these are identified below.

[25] One feature of the State Code allows for mapping future "official" streets, an act that would establish actual rights-of-way for future streets. Short of mapping streets officially, principal feeder streets shown on the Major Street Plan may be used in reviewing plans and therefore to guide the locations of new streets in new subdivisions.


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 4.2
MAJOR STREET PLAN
Existing Major Street
Proposed Major Street
Proposed Circulating Street
Northumberland County
County Line
County Line
ROUTE 3/200 CONNECTOR
N
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

1. Schools

Educational services and facilities are provided by the Lancaster and Northumberland County Public School Systems under the administration of an elected school board. The Lancaster County Middle School, located on School Street, is the only school facility located within the corporate limits of Kilmarnock. While the town government has no role in the operation or financing of local schools, they provide resources that are of immense benefit to the citizens of Kilmarnock. The Middle School has facilities that, with arrangements through the School Board, may be shared with the community for non-school functions; for example, the playgrounds or gyms offer recreational resources when not in use for school purposes and auditoriums may be used for performing arts programs.

2. Recreational and Environmental Resources

The Town of Kilmarnock does not operate a recreational program nor does it own a park. However, within the next five years the town has plans to develop a park/recreational program. Likewise, Lancaster County has no recreational department - it was discontinued in 1993. Except for recreational sites on public school grounds, recreational facilities and services available to county and town residents are provided by various private and non-profit agencies:

a. The Fair Grounds on Waverly Street at Bellview Drive is a five-acre site owned by the Kilmarnock Volunteer Fire Department and is used approximately two weeks per year. Permanent fixtures on the site include a number of carnival rides and small buildings. The fire department operates a carnival here during mid-summer with rides, games and food.

b. The Middle School Site on School Street has a sports field equipped for playing soccer and could be used for other open field games. There is also a small children's area equipped with swings, climbers, and related equipment.

c. The YMCA with offices located on School Street between the Middle School and Library operates a variety of programs at many locations throughout the County. Activities include swimming, roller-blading, T-ball, volleyball, basketball, karate, and soccer. They have a summer camp, and ACE programs (learning and games). The YMCA also coordinates programs with social services to reach youth, teens and adults.

d. The Gloria L. Goodman Youth Park (Dream Fields) located about one-half mile west of the town limits on Route 200 has six baseball fields four of which are lighted. This park is owned by the Youth Club of Lancaster County, Inc. (Lancaster County Little League). The club has 20 teams and approximately 400 participants and runs baseball programs during spring to late summer.

e. The Chesapeake Boat Basin, a private marina located on Indian Creek approximately one mile east of Kilmarnock at the end of Route 608 (Waverly Street extended) has a launching ramp with fuel and other boating supplies.

f. The conservation area defined by the stream basins and their banks provide a large area of "greenway" space which has recreational potential for nature study, hiking trails connecting points of interest, and in the occasional lakes, fishing. There are more than 350 acres in the conservation area shown on the map of which more than half is within Kilmarnock's town boundaries.

3. Emergency Services

The Kilmarnock Volunteer Fire Department located on School Street serves the Town and portions of Lancaster County and Northumberland County. The Kilmarnock Volunteer Rescue Squad located on Route 1036 near the Rappahannock General Hospital serves an area similar to that served by the Fire Department. Both are non-profit volunteer organizations.

4. Library

The Lancaster Community Library is located on School Street just north of the Lancaster County Middle School. It is a modern library with approximately 40,000 volumes that is operated by the non-profit organization, Lancaster Community Library, Inc. Financial support comes from a combination of State and local governments with about half of its operating budget contributed by the local community and police department. This building also contains a meeting room for the council, planning commission and other groups with seating capacity of approximately 100 persons. There has been discussion concerning enlargement or relation of this facility.

5. Medical Services

Medical services are provided by the 76-bed Rappahannock General Hospital located within the southeastern area of Kilmarnock on Route 1036. Doctor's offices, the Northern Neck Free Health Clinic and a rehabilitation center are also located along this route.

6. Solid Waste and Recycling services

These services are provided by private contractors and Lancaster County.

7. Town Administration

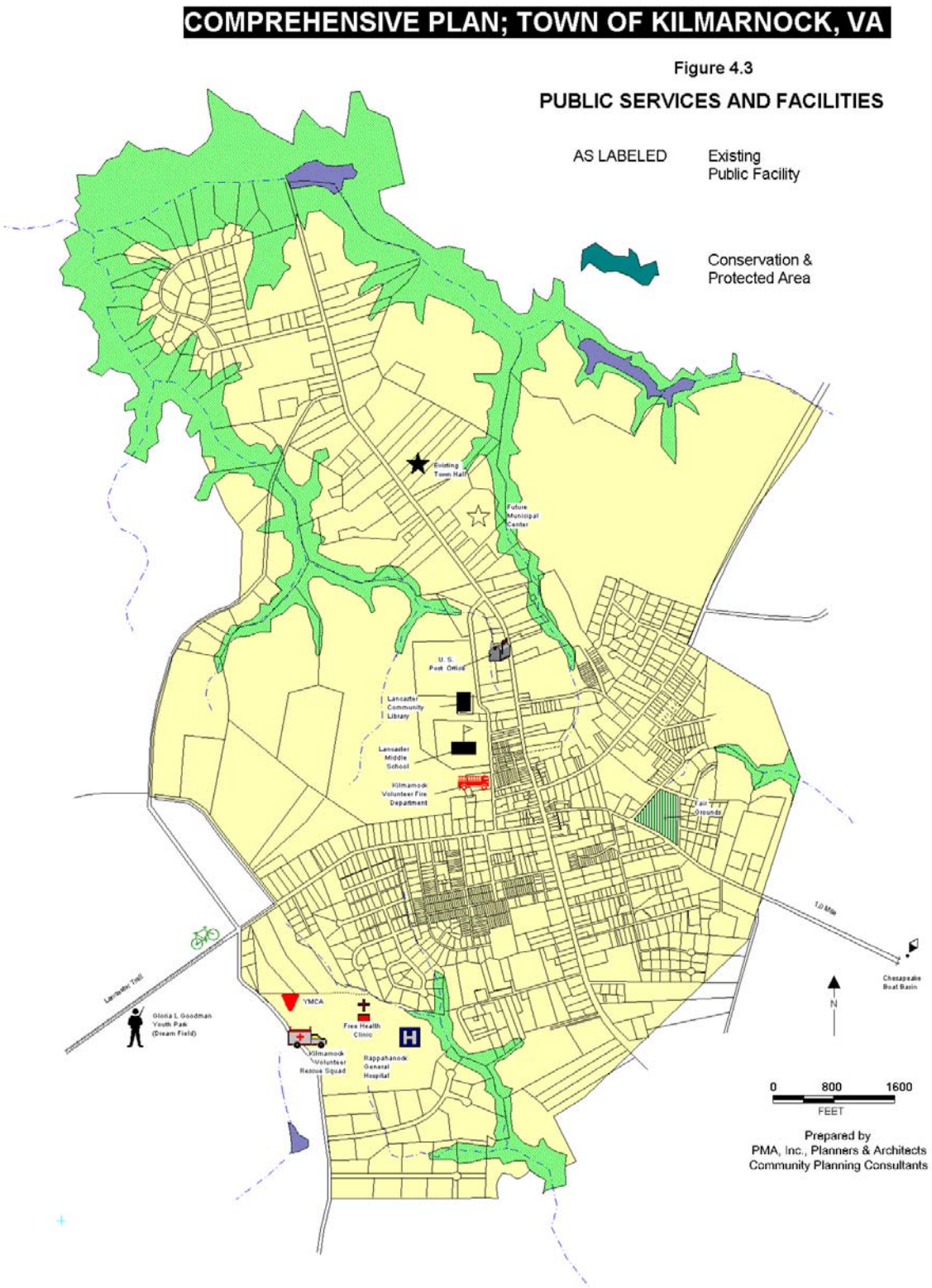
Town administration and operational facilities are located at the Town Hall on North Main Street. They house the offices of the town manager and supporting administrative staff, police and utility departments.

D. SUMMARY OF PUBLIC SERVICES ISSUES

Because it is part of Lancaster County, many public services that are available to citizens of Kilmarnock including schools, courts, social and health services are provided by county or state agencies. Except for new subdivisions, roads are constructed and maintained by the Virginia Department of Transportation. In new subdivisions, roads are built by the developer to state standards and dedicated to VDOT; after that, the state assumes the operation and maintenance of the roads. Non-profit fire or rescue companies provide fire protection and ambulance services. Various private or non-profit groups provide recreational services.

As presently structured, services offered by the town government are focused primarily on providing a water and sewerage system, police protection and administrative services. The information presented in this Chapter and analysis thereof will help to identify additional opportunities and potential resources for developing additional community services.

Since the majority of public services are provided by other governmental levels or by private and non-profit agencies, Kilmarnock is not required to provide most public services that usually are the responsibility of local government Its status as a town means that it is not required to provide schools, health services, courts or social services. There are several areas in which Kilmarnock could be involved in initiating, or supporting or promoting the establishment of supplementary services. In addition to water and sewer issues, others identified in issue tables in the remaining pages of this Chapter cover downtown improvements, traffic circulation, and recreation. By focusing on serving new development with public water and sewer, thereby discontinuing the use of septic tanks and private wells, the town's goals as well as those of the protecting state waters are well served. Downtown improvements are directed toward upgrading the function and appearance of downtown as well as making the area more "pedestrian friendly."


COMPREHENSIVE PLAN; TOWN OF KILMARNOCK, VA
Figure 4.3
PUBLIC SERVICES AND FACILITIES
AS LABELED
Existing Public Facility
Conservation & Protected Area
Existing Town Hall
Future Municipal Center
U. S. Post Office
Lancaster Community Library
Lancaster Middle School
Kilmarnock Volunteer Fire Department
Fair Grounds
1.0 Mile
Chesapeake Boat Basin
N
Lancaster Trail
Gloria L Goodman Youth Park (Dream Field)
YMCA
Free Health Clinic
Kilmarnock Volunteer Rescue Squad
Rappahanock General Hospital
0 800 1600
FEET
Prepared by
PMA, Inc., Planners & Architects
Community Planning Consultants

The final issue raised is one of recreation. The town is considering establishing recreational areas. There is an opportunity to establish one or more neighborhood parks in areas that are not extensively developed. The classic method of acquiring public parks is direct acquisition of sites but another way to do this is to incorporate recreational areas into the planning of new residential developments. This is often done by exchanging additional density (of housing) for open space. Still another opportunity to increase recreational opportunities in Kilmarnock is through use of portions of the stream basins. While these areas have qualities that are adverse to development, they could offer considerable recreational opportunities by development as nature trails, picnic areas and similar passive recreation. The Town should continually search for opportunities to acquire property for recreational purposes.

PRESERVATION OF RESOURCES [26]

The town of Kilmarnock has a long rich history like many other American towns that developed because of some transportation routes. As noted previously, at the beginning of Chapter One, Kilmarnock probably had its beginning at the intersection of Indian paths which later became the locations of the present day Routes Virginia State Highways 3 and 200. "First settled in the mid 1600s, Kilmarnock was originally known as "The Crossroads." It seems as though somewhere between 1676 and 1697 the town was known as "Steptoe's Ordinary" when 278 acres were conveyed to Anthony Steptoe (Steptoe's Ordinary Kilmarnock).[27] It is thought that, perhaps, William Steptoe may have been "the first commercial entrepreneur in the town that was to be Kilmarnock, operating an ordinary and a store." As land changed hands throughout the years, by 1764 there is mention that some of it was "near the Crossroads at Steptoe's Ordinary." By 1778 the first reference to "Kilmarnock" can be found in deed records when several acres of land changed owners.

Although Kilmarnock was ravaged by two fires in the early and mid 1900s, the town has grown and has become the major town within Lancaster County and, perhaps, Northumberland County. Because Kilmarnock has a long and rich history, it should take advantage of its role as a "destination" for the Northern Neck in planning to shape the future as well as striving to preserve the past by keeping the feel of a small town as one enters Main Street area whether it be by Church Street, Irvington Road, or Virginia State Highways (VSH) from either direction.

This Chapter addresses the preservation of the historical downtown and other historical resources; it also provides an in-depth discussion on how to preserve water quality and quantity of water. It is based on the Vision of "Shaping the Future while Preserving the Past."

A. HISTORIC RESOURCES

1. Downtown Historic Area.

The Downtown area has varied architecture and preserving such will help add a "flavor" to the town proper. It has been suggested that this original area of town be named "Steptoe's Crossing Historic District", in recognition of the earlier names from the late

[26] Note: This Chapter is based on the Preservation Committee's Report; the committee consisting of: Jane Ludwig, Skeeter Penley, Betty Mill and Beth Baldwin (of the CBLAD staff). The text was edited to be consistent in format with this overall Comprehensive Plan document. It was the intent to preserve the substance of the committee's report in this version although some of the text was edited and/or supplemented. (Jack Stodghill, PMA)

[27] Edmonds, B. Brainard, 1976, p 1).

1600s, and that area of town be designated historic. The plan to designate a Historical District in downtown started in about 2003 and is a priority to help maintain the town's visual and physical appeal.

While the area of this proposed district is that area of downtown that lies on both sides of the recent streetscape project (see Figure 3.2) in Chapter 3, the specific area should be defined by a detailed survey of the area.

2. Historic Sites along Approach Roads

Historic Structures within the following area: (coming from White Stone west of Magnolia Lane to The Kilmarnock Museum on the right to what was last called "Pipers Pub"…Church Street (North VSH 200) from the light to Indian Creek Road (VSH 608) on the right and stopping just before the brick apartment units on the left, down Waverly Avenue to the end of the Fair Ground on both sides including the Anti-Bellum home behind the Bank of Lancaster with its driveway off of Waverly. Individual structures should be designated as historic landmarks.

3. Historical Structures and/or Properties

Another distinct aspect of the town important to preserve includes any historic structures and/or properties including historic buildings or sites outside the boundaries of any designated historical area but still located within Kilmarnock's corporate area. There are several structures within Kilmarnock still standing that will fit this definition.

These descriptions are of general areas that have the potential for historic districts. In order to establish them officially as historic areas, or to designate a specific building or site within the areas as an "historic site," a detailed survey must be conducted. Such a survey would document each building according to criteria established by the Virginia Department of Historic Resources (VDHR). Then, based on the survey results the Town of Kilmarnock would have established the basis for creating one or more historic districts as provided by state law.[28]

There are incentives and grants available through the DHR which offers a variety of financial assistance for town preservation. One such program is the Certified Local Government (CLG) grants. Originally created by the National Historic Preservation Act of 1966 and later amended, these grants establish a partnership between local governments, the federal historic preservation program, and the DHR. Once a local government is certified, it can participate more formally in the state and national historic preservation programs. The goals of the Virginia CLG program are:

[28] Section 15.2-2306, Code of Virginia.

To promote viable communities through preservation.
To recognize and reward communities with sound local preservation programs.
To establish credentials of quality for local preservation programs.

These grants can, in part, be used to survey architectural and archaeological resources. They also can help prepare nominations to the National Register of Historic Places and finance the creation of public education programs.

Another program available through the Department of Historic Resources is the Survey and Planning Cost Sharing Program. Through this program, according to the description, "localities can partner with DHR to take stock of their historic resources." The town can get partial funding and full administration of any of these projects, thereby freeing up local officials who may be too busy to complete the surveys. Further information about incentives and grants can be found at www.dhr.virginia.gov.

In beginning the process of designating historical districts in Kilmarnock, the following goals and strategies are offered:

Goals

a. Ensure protection of historical assets of the community.
b. Conserve the charm and appeal of the existing town areas.
c. Maintain viability of shops in the historical area as a basis for an ever-growing community.
d. Educate public about the historical district with printed materials.

Strategies

a. Establish historic district to be listed on the National Register of Historical Places and the Virginia Landmarks Register.
b. Monitor federal and state legislation related to historic preservation and development.
c. Place historical markers.
d. Publish a historical area handbook that includes guidelines for maintenance and restorations.
e. Create a brochure for the public describing the various buildings and the history of each.
f. Create a website of information about historic Kilmarnock.
g. Coordinate efforts with/through Kilmarnock Museum and Lancaster County.

B. PRESERVATION OF WATER QUALITY

Located in the Northern Neck in southeastern Virginia, Kilmarnock is dependent upon ground water for drinking water needs. According to the Northern Neck Groundwater Management Plan, "there are currently no surface impoundments for drinking water in the four northern neck counties and the entire populace is served either by private residential wells or by community public water system that rely upon deep wells for water supply." It is important to identify sources of possible contamination to potable water supplies and to preserve aquifers that have a future impact on water supply as well as water quality.

There are seven major confined aquifers, one unconfined aquifer, and eight confining units underlying the general region of the coastal plan. All of these are at different depths. Kilmarnock is located in an eastern part of this coastal plan. There are certain things the town of Kilmarnock can do to directly affect the shallower aquifer, both in quality as well as quantity (Ibid, p.2).

Cleaning up contaminants and pollution is much more costly than preventing it. Potential sources of pollution to our ground water quality include chemical leaching, residential lawn care, auto pollutants, biosolids (fertilizers, etc.) applications, abandoned wells, landfills and/or private waste dumps. Some of these may be more important to address within our local community. As noted in the Groundwater Management Plan, there are no known private waste dumps locally.

Protection of the town's water supply has to be a priority. The water from the deep wells in our region comes from the shallowest artesian aquifer which, in turn, is the most vulnerable to contaminants and pollution. Protection of the public wells is paramount. Virginia has done a source water assessment program. Surrounding grounds, 1050 feet from all public wells were tested for contamination. Public wells are defined as a well with 15 or more connections and/or 25 people using the source for 8 months a year. (source: Water Assessment Program). The study points out that land around public wells must be kept safe of contaminants. With town growth, Kilmarnock will have to be cognizant of land use around the public wells so that contamination can be avoided. More information is available at www.vdh.state.va.us/dw/swap.asp.

Contaminants that should be addressed in our area include insecticides, pesticides, herbicides that could find their way into the shallow aquifer and definitely into the ground water. The

relationship between these and ground water pollution is well known. More can and should be done to educate the public about the cumulative effect on our water quality.

Much of our under developed land is in farms. The use of fertilizers high in nitrogen is a common practice for the crops grown locally. When the farmland is near a waterway and the land is farmed up to the water, runoff can be a major pollutant. Developed lawns are sprayed with insecticides, pesticides and/or herbicides. Many homeowners use many of these products in order to have beautiful lawns or gardens. All of these products can be washed from lands in this area into drainage ditches where they can be absorbed into the ground and find their way to ground water sources. The major goal of preservation is to stop as much pollution as possible before it reaches the water table aquifer. Use of environmentally safe products can decrease the pollution of the streams, rivers and the Bay.

Another potential source of contamination to ground water may be underground gasoline and/or heating oil storage tanks. Some older homes in our area may not have been upgraded and their tanks, throughout the years, may be contaminating the soils. Regulations from the Environmental Protection Agency (EPA) called for replacement by 1999 of single-walled underground storage tanks with double-walled tanks. (Northern Neck Groundwater Quality Management Plan, page 13). Even though the state does not require old, unused storage tanks to be removed, these tanks, according to the above- mentioned plan, can become a source of contamination if they collapse. According to several authorities, citizens could fill abandoned wells with non-toxic materials, e.g., stone or dirt.

Since our region is experiencing rapid growth and we are seeing more and more cars, pollution from products used to maintain these ever rising numbers of automobiles may also be a concern in preserving water quality. Proper disposal of oil, cleaners, etc must be enforced. Schools should be asked to include this information in general science educational courses. Education of the public is paramount. The town should provide a scheduled place and time for disposal of such products.

Since the town of Kilmarnock requires new and future building to be connected to town supply of water, the problem of old abandoned wells is not a major problem. However, this may become more of a problem should the town expand its boundaries since incorporated properties may in fact have such wells. It is important for citizens to know that there are proper procedures

to be followed when wells are abandoned. There is grant money available for such programs through the DEQ/EPA. More information can be found at www.bewatersmart.org/capit.

Deep artesian wells in our area provide much of the water that is used in homes. This water is usually high in mineral and salts, and is often times, found unsuitable for gardening or watering landscape plants. Shallow wells, much of the time, do not have as much minerals in the water, and are used to maintain local environments and landscapes. These shallow wells, if abandoned, may need maintenance to prevent disrepair. They also are a source of possible contamination

Pollutants could find their way to the ground water quite freely. There are two publications, Wellhead Protection: A handbook for Local Governments in Virginia (1992), and Implementing Wellhead Protection: Model Components for Local Governments in Virginia (1998) that have recommendations for preserving water quality and are pertinent to use as a guide for Kilmarnock's Comprehensive Plan.

Goals

a. Provide a water quality plan and minimize pollution to local ground water.
b. Protect current and future water sources of potable water supplies.
c. Identify current informational gaps in a plan to preserve water quality.
d. Educate the public about safety and conservation of water supplies.
e. Increase public awareness of contaminants.
f. Identify and study the feasibility of establishing a reservoir.

Strategies

a. Become a co-member of the Lancaster County's emergency operation plan for water contamination.
b. Publish a booklet listing the various contaminants in local water sources.
c. Educate public about the timing of fertilizer applications.
d. Recommend environmentally safe products.
e. Peruse state and federal grants for protection of water supplies.
f. Create a website for public use regarding pollution.

C. PRESERVATION OF WATER QUANTITY

Important as water quality is the issue of water quantity in our area. Even though we live in an area, some with shared boundaries to the large body of water of the Chesapeake Bay, our water

supply comes from a shallow aquifer and is used by several localities. They include the Northern Neck, southern Maryland, and some of the Tidewater region. The water in that aquifer is decreasing at a rapid rate. It was recently reported that the entire Northern Neck uses fewer gallons of water a day (5 ½ million) than the paper mill in West Point (19 million gallons), and southern Maryland region (26 million gallons) put together.[29]

Once our water supply is reduced, there will be little that can be done to replenish it. The artesian aquifer is not being replenished. [30]Kilmarnock, in a proactive move, needs to cooperate with surrounding counties to ensure water supply. They could invite each participant who uses the same aquifer to meet and to talk about ways to save the aquifer and research grants that provide funding for future water preservation. Asking the Department of Environmental Quality to extend the Ground Water Management Area to our side of the river is one thing that can be done.

Virginia has mandated that each district start a water supply planning program encompassing planning for the next 50 years. There are competitive grants available for planning and instituting such a program. Joining with surrounding communities and counties and writing proposals that affect all of the citizens in the area is a way of applying for grants.

Reservoirs can be developed as a means of collecting water. As land is acquired in Kilmarnock, certain areas fed by springs can be designated for reservoir use and these locations can be posted so the public knows the importance of keeping these areas free from contamination. Desalination, although an expensive alternative, may be considered as a future process to ensure water quantity. Kilmarnock may develop a water-sharing plan where particular areas have designated water use days/times.

Goal

Maintain future water quantity.

Strategies:

a. Conference with other major users of water from shallow artesian aquifer.

b. Research methods of funding for future water preservation.

[29] (Communication with Gayle Fowler, Lancaster/ Northumberland SAIF water committee).

[30] (Declining Groundwater Levels in Virginia's Northern Neck, Dr. Frank Fletcher, Hydro geologic Consultant SAIF Water, Inc).

c. Create water-saving options such as reservoirs in our area.

d. Establish local or regional water saving plans.

e. Educate the public about thoughtful water use.

f. Create a website for public use.

g. Coordinate efforts with surrounding counties in developing strategies for grants.

h. Coordinate efforts with surrounding counties in developing reservoirs.

Our area of Kilmarnock, as all areas along the Bay, is subject to the provisions of the Chesapeake Bay Act and is required to look at impacts on water quality and water needs as a result of development. When adopted, the Chesapeake Preservation Act was to improve water quality entering the Chesapeake Bay. State and local government requirements for protecting water and watershed into the Chesapeake Bay were established with defined deadlines for completion. Some aspects of the original requirements have been revised.

In order to meet the revised requirements of the Chesapeake Bay Preservation Act, the town of Kilmarnock hereby includes the following general water quality protection measures as part of the updated Comprehensive Plan.

D. WATER QUALITY PROTECTION MEASURES FOR KILMARNOCK[31]

1 Water Quality

The Northern Neck Groundwater Management Plan is expressly incorporated by reference into this chapter. The plan includes information on the eight aquifers within the Northern Neck and outlines the hydrogeologic characteristics and water quality constituents of each aquifer. The plan also contains a detailed discussion of point and nonpoint sources of pollution and how they may degrade water quality. Included in the plan are maps that identify existing and potential sources of both types of point and nonpoint source pollution throughout the Northern Neck Region.

The Town of Kilmarnock relies on groundwater for its drinking water supply. For this reason, protection and conservation of its groundwater supply is vital to the Town's livelihood. While

[31] Adopted on November 21, 2005 in order to comply with the Chesapeake Bay Preservation Local Assistance Board's requirements.

current drinking water quality standards have been and continue to be met, there are several potential threats to groundwater, which could potentially impact the Town's drinking water supply at some point in the future. These threats include improperly abandoned wells, leaking underground storage tanks, and improperly disposed household hazardous waste.

Goal

Protect groundwater from potential sources of contamination to ensure the long-term viability of its water supply.

Strategies

a. Consider establishing, perhaps in conjunction with Lancaster and Northumberland County, a semi-annual Household Hazardous Waste pick up day where residents could drop off spent solvents, used oil, paint thinners, and other hazardous wastes that should be disposed of properly and not poured down sink or toilet or dumped on the ground.

b. Consider adopting a wellhead protection program to protect the Town's drinking water supply (wells).

c. Consider inventorying abandoned wells within the Town and establish a means to ensure proper abandonment.

d. Consider requiring the registration of all residential underground storage tanks. At this time, such tanks are not required to be registered nor monitored by the state; however, leaks from these tanks may pose a significant threat to groundwater water quality and an inventory of their location may help to resolve any future contamination events.

2 Water Quantity

Currently the Town of Kilmarnock uses only approximately 40% of its calculated water supply. While water conservation measures do not appear to be of imminent concern, the Town should develop a water conservation plan to ensure the long-term viability of its public water supply system. Given the potential of new development within the Town, a proactive approach to water conservation would be beneficial.

Recently, the Town has taken steps to address failing and leaking sewer mains. These repairs have greatly reduced the infiltration and inflow rates and have resulted in lower volume of wastewater that the sewage plant must treat.

Goal

Develop methods and procedures to ensure the long-term viability of the Town's water supply through appropriate

water conservation efforts.

Strategies:

a. Consider adopting a provision to the Town Code to restrict water use in emergency situations. The provision could be enforced by the Town Manager with the Town Council defining what equates an emergency situation. During the emergency situation, restrictions on watering lawns, car washing, and other nonessential uses of water could be enacted.

b. Consider adopting an ordinance to prevent the excessive waste of water from private plumbing failures such as broken water lines that are privately owned. An option of fining violators could be incorporated into the ordinance as a means to ensure that violators address the problem.

c. Continue to maintain an active infiltration and inflow (I/I) program to identify and repair broken or leaking sewer pipes.

d. Consider coordinating future water and sewer demands and system requirements with a long-term capital improvements program to respond to future growth and change in land use.

e. Create a water conservation brochure that could be distributed to applicants who are proposing any construction that involves plumbing fixtures.

3. Shoreline and Stream Bank Erosion

While stream bank erosion occurs naturally as part of the hydrologic cycle, the rate of erosion may be accelerated through development if the pre-existing hydrologic conditions are not properly addressed during the plan of development and adequately enforced during the construction phase. Most development increases the area of impervious cover and this increase of impervious cover usually increases the volume and rate of stormwater runoff. The increased rate and volume of runoff, in turn, may scour stream banks and introduce a significant amount of sediment into the stream. For this reason, stream bank erosion must be considered in any development plan.

Within the town limits of Kilmarnock are two named streams (Dymer Creek and Norris Prong) and a few unnamed tributaries. With respect to erosion, most of the streams appear to be stable

with active floodplains and fully vegetated buffers. A random review of stream segments identified only one area of concern. There appears to be some limited stream bank erosion of an unnamed tributary located along the curved section of Oak Ridge Drive. The slopes of the stream are steep and the stream channel itself is deeply incised. While the drainage area of this stream segment has not been delineated, it is located in an area that appears to have a higher percentage of impervious cover than the other segments reviewed. In addition, this particular section does not possess a wide swathe of a fully vegetated buffer to slow the rate of stormwater runoff or reduce its volume.

Goal

Protect both groundwater and surface water resources of the Town of Kilmarnock from any increased pollutant loads as a result of stream bank erosion and other means of sediment transport.

Strategies

a. Continue to identify and monitor any areas within the Town where erosion appears to be a critical problem. If an area is identified where stream bank erosion appears to be a problem, seek means to delineate the drainage area of that stream bank and identify opportunities to reduce the rate and volume of stormwater runoff for that drainage area.

b. Identify funding opportunities for stream bank restoration projects

c. Continue to work closely with the County and improved coordination where applicable for enforcing the County's sediment and erosion control ordinance.

d. Establish a strong working relationship with Virginia's Department of Transportation (VDOT) resident engineers to rectify any existing stormwater management and erosion problems arising from road construction and drainage.

e. Discourage development on highly erodible soils and/or slopes greater than 15% and prohibit development on slopes greater than 25%.

f. Encourage citizens to establish adequately vegetated buffers with the three trophic layers instead of grassed lawns along streams to reduce the potential for stream bank erosion.

Many sites within Kilmarnock were developed prior to consideration of stormwater runoff and its effects on water quality. The impervious cover from these sites, including their buildings,

parking lots, and driveways, transport a variety of contaminants that may degrade water quality. Consequently, redevelopment of these sites provides tremendous opportunities for improving or protecting water quality. These improvements may be achieved through a number of practices such as repairing improperly maintained Best Management Practices (BMP), replacing inefficient sewer lines, retrofitting improperly suited or designed stormwater outfalls, and ensuring proper maintenance and inspections of all BMPs especially those from commercial and industrial development sites.

Goal

Achieve water quality improvement through redevelopment opportunities

Strategies

a. Ensure that the 10% reduction in pollutant loads required by the Town's Bay Act overlay district for redevelopment sites is enforced.

b. Encourage a 10% or greater decrease in the area of impervious cover for redevelopment sites. Decreases may be achieved by reducing the number of parking spaces or through improved building design.

c. Recommend the use of filter strips or bioretention areas for treating stormwater runoff especially on those redevelopment sites where the impervious cover extends to the edge of the wetland or stream.

d Strongly encourage the use of Low Impact Development (LID) practices for redevelopment sites especially for those sites that historically had not considered water quality or quantity during their original construction and as a consequence have drainage problems.

e. Maintain or improve upon the vegetation of the RPA buffer for redevelopment sites. The fully vegetated buffer effectively reduces the rate of runoff, retards erosion, and filters pollutants from runoff.