

## **SPECIAL RECOGNITION**

**This Comprehensive Plan was updated through months of work and dedication of local citizens, business leaders and government staff forming the Essex Tappahannock Comprehensive Plan Steering Committee. Contributors included:**

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# **Town of Tappahannock Comprehensive Plan 2014**

## **Table of Contents:**

Chapter 1: The Framework for Comprehensive Planning	<b>6</b>
Chapter 2: Population Growth Trends	<b>12</b>
Chapter 3: Land Use	<b>18</b>
Chapter 4: Transportation	<b>28</b>
Chapter 5: Environmental Protection	<b>48</b>
Chapter 5: Addendum	<b>77</b>
Chapter 6: Housing	<b>88</b>
Chapter 7: Economic Development	<b>95</b>
Chapter 8: Public Facilities & Services	<b>108</b>
Chapter 9: Recreation	<b>116</b>
Chapter 10: Downtown Revitalization & Urban Design	<b>123</b>

## **Town of Tappahannock Comprehensive Plan 2014 List of Figures/Tables:**

TABLE 2-1: DEMOGRAPHICS AND POPULATION ESTIMATES	<b>13</b>
TABLE 2-2: HOUSEHOLD AND ESTIMATES & PROJECTIONS	<b>14</b>
TABLE 2-3 EDUCATION ATTAINMENT AMONG ESSEX COUNTY RESIDENTS	<b>14</b>
TABLE 2-4: HOUSEHOLD/ FAMILY INCOME DISTRIBUTION	<b>15</b>
FIGURE 2-1 UNEMPLOYMENT STATISTICS	<b>16</b>
TABLE 3-1: EXISTING LAND USE WITHIN TAPPAHANNOCK	<b>18</b>
TABLE 3-2: ESTIMATED DEVELOPABLE LAND BY SELECTED PLANNING DISTRICT	<b>19</b>
TABLE 4-1: AVERAGE DAILY TRAFFIC (ADT) ON PRIMARY ROUTES	<b>38</b>
TABLE 6-1: HOUSING TYPES	<b>86</b>
TABLE 6-2 HOUSING OCCUPANCY AND TENURE	<b>87</b>
TABLE 7-1: LOCAL OPTION SALES REVENUE	<b>93</b>
TABLE 7-2: MAJOR EMPLOYMENT INDUSTRIES IN ESSEX COUNTY	<b>94</b>
TABLE 7-3 AVERAGE WEEKLY SALARY	<b>94</b>
TABLE 7-4: MAJOR EMPLOYERS IN ESSEX COUNTY	<b>95</b>
APPENDIX B: TAPPAHANNOCK COMMERCE CENTER PLAN	<b>97</b>
TABLE 7-5: EDUCATION ATTAINMENT BY AGE	<b>99</b>
FIGURE 8-1: GALLONS/DAY WATER USAGE	<b>106</b>

## Town of Tappahannock Comprehensive Plan 2014 List of Maps:

Map 2-1: Tappahannock Land Use Plan	<b>20</b>
Map 4-1: Functional Classification of Highways	<b>32</b>
Map 4-2: Transportation System Deficiencies	<b>41</b>
Map 4-3: Transportation Plan	<b>42</b>
Map 5-1: Location of Highly Erodible Soils	<b>51</b>
Map 5-2: Location of Highly Permeable Soils	<b>52</b>
Map 5-3: Location of Floodplains	<b>57</b>
Map 5-4: Location of Hydric Soils	<b>58</b>
Map 5-5: Location of Wetlands	<b>60</b>
Map 5-6: Location of Steep Slopes	<b>61</b>
Map 5-7: Areas Designated as Resource Protection Areas under the Bay Chesapeake Preservation Act	<b>62</b>
Map 5-8: Location of Facilities which Provide Access to the Rappahannock Rivers	<b>71</b>
Map 10-1: Tappahannock Commercial Corridor	<b>121</b>

# Chapter 1

## **THE FRAMEWORK FOR COMPREHENSIVE PLANNING**

**A**s Tappahannock grows and changes, policy decisions are necessary to ensure a balanced and sustainable community is maintained. This Comprehensive Plan will serve as a guide for making public and private decisions regarding the Town's growth and development. The plan provides an analysis of the Town's recent changes and trends to determine which direction to proceed in moving forward into the future. The Plan is a culmination of a cooperative effort, pulling together statistical data, knowledge and skills of diverse business leaders, citizens and government staff to ensure that the needs and interests of each sector are represented.

This Plan presents a future vision of Tappahannock into the year 2030 along with recommendations for bringing that vision to fruition. The ideas of the Plan are a distillation of the community's quality of life needs, tempered by what seems feasible and reasonable. This Plan is not intended to be a static document. It should be reviewed and updated periodically to reflect new development trends, shifts in the economy, or changes in the community's goals and objectives.

Tappahannock is a special place with a unique character, culture and history that distinguishes this community from hundreds of towns throughout the country. This Comprehensive Plan particularly addresses the preservation and enhancement of these special qualities and that distinctive personality felt by the citizens who live and work here. This sense of uniqueness and pride of place are the guiding forces and strongest motivation for those who have contributed to the realization of this document.

### **LEGAL BASIS FOR COMPREHENSIVE PLANNING**

The preparation of a comprehensive plan is the legal responsibility of the Town Planning Commission under Virginia Planning Enabling Legislation, Section 15.2-2223 of the Code of Virginia, 1950, as amended. The Plan also serves to satisfy the requirements of Title 9, Section 10-20-171 of the Virginia Administrative Code for Chesapeake Bay Preservation Area Designation and Management Regulations, which establishes standards for local Comprehensive Plan Elements designed to implement Chesapeake Bay Water Quality Improvement objectives. Any ordinance pertaining to the use of land or the growth and development of the County should conform to the goals, objectives, and policies as they are presented in this Plan. Any ordinance pertaining to the use of land or the growth and development of the Town should conform to the goals, objectives, and policies as they are presented in this Plan.

Review of the Transportation Element of the Comprehensive Plan was conducted by the Virginia Department of Transportation in accordance with Section 15.2-2222.1 of the Virginia Legislative Code. The Transportation Plan was found to be in general conformance with the Chapter 729 of the 2012 Acts of Assembly.

## **DEFINITIONS AND PURPOSE**

The Comprehensive Plan is an official public document adopted by the Town Planning Commission and the Town Council. The Plan is a general, long-range, policy and implementation guide for decisions concerning the overall growth and development of the Town.

The Plan is comprehensive because the elements cover the entire range of development issues which can be influenced significantly by the Town Council and other governing authorities and agencies. The recommendations are broad, rather than narrowly defining decisions for land use at specific sites. The plan, like most communities, is ever-changing and should be fluid as changes become necessary.

Although adopted as an official public document, the Comprehensive Plan is not a development ordinance. This plan serves as a catalyst and guide to the establishment of, or revisions to, other ordinances or planning tools. These include the zoning and subdivision ordinances, and the capital budget. The Land Use Plan Map, included in this plan, serves to illustrate the mix and location of land uses where the Plan's policies and recommendations will be applied. This mapped information is general in nature and not appropriate for determining the suitability of specific sites for any specific use.

## **HISTORY OF THE COMPREHENSIVE PLAN**

A planning effort was undertaken by the Town with the assistance of the Urban and Regional Planning Department of the Virginia Commonwealth University in 1989. A Comprehensive Plan was adopted in 1991. In 2001 an addendum was added to conform to requirements of the Chesapeake Bay Preservation Act. The Town's most recent Comprehensive Plan update was adopted in 2007. This plan update is based on review of development trends in the Town which have prompted modest changes to the 2007 Comprehensive Plan.

This Plan is intended to build on those past efforts by updating pertinent data and background information and to expand on and focus the implementation of the Plan. The intended result is implementation strategies that will be acted upon within established time frames. Planning and zoning is administered by the Town Manager and plan implementation is primarily the responsibility of the Town Manager's office.

The update was conducted through a collaboration of local, regional and state agencies, as well as citizens and business leaders of Essex County and facilitated by the Middle Peninsula Planning District Commission.

## **COMPONENTS OF A GROWTH MANAGEMENT PROGRAM**

This Comprehensive Plan provides the basic framework and direction for all components of what may be considered the Town's overall Comprehensive Planning Program. It is not a stand-alone document but is supported and, in turn, supports related planning documents such as the ones listed below. These documents and others, when used concurrently, are the basis for directing and managing growth in Tappahannock.

- Zoning Ordinance
- Subdivision Ordinance
- Capital Improvements Budget
- Comprehensive Water Quality Management Plan for the Middle Peninsula: An Information Search and Review, MPPDC, January 1989
- Soil Survey, MPPDC, June 1998

## **GOALS AND OBJECTIVES SETTING**

The Tappahannock Comprehensive Plan is intended to capture a broad community vision of a future Tappahannock. Written statements that describe future expectations are necessary to describe that vision. These statements are intended to be easily understood and generally accepted among the residents and business interests in the Town.

Goals and objectives are found in this chapter and in the subsequent chapters for each functional area of the Plan, e.g., land use, transportation, community facilities, etc. The goals and objectives formulated by the Town have been incorporated as a basis for the goals and objectives statements in this Plan.

Goals are long-range, generalized statements that represent the ultimate desires of the Town. The situations and conditions called for in the goals would normally be achieved only through a sustained series of actions over a considerable period of time. The goal statements in this Plan are sufficiently broad to remain valid as people's values change over time. As these values change, the interpretation of the goals will change also. When this happens, the goals will remain in effect, but new objectives may be developed.

Objectives comprise a proposed series of broad target issues that require attention in order to achieve the goals. Objectives are intended to be intermediate steps that are taken toward achieving the goals. For each goal, several objectives have been developed.

## **ORGANIZATION OF THE PLAN**

The Comprehensive Plan is organized into ten chapters. These chapters deal with all aspects of planning and development in the Town. Chapter 2 highlights past trends and future projections of population and demographic information regarding the Town makeup and growth trends. The

information sets the tone for objectives and recommendations in the proceeding chapters in the plan. Each of these chapters includes a discussion of background and analysis, identification of issues, a statement of goals and objectives, and a summary of implementation recommendations pertaining to each of the functional areas of the plan. Elements in the plan include the following:

Land Use

Economic Development

Transportation

Community Facilities and Services

Housing

Parks and Recreation

Natural Resources Protection

Downtown Revitalization and Urban Design

Each chapter sets forth implementation techniques including details concerning necessary actions and responsibilities for implementing the goals and objectives outlined in that chapter.

The Plan and, in particular, the Land Use Element indicates the proposed general or conceptual development pattern of the community projected to 2030. However, it is not a detailed blueprint. Local conditions, values, and philosophies change as a result of economic and political pressures and the Plan must subsequently be responsive to these changes. The Plan is not a document which encourages regimentation. It is, however, a guide which encourages patterns of development which permit orderly and economical growth of the community in a manner which can be more efficiently served with a variety of governmental services and facilities. Implementation involves the concerted actions of both town elected officials and certain appointed boards. This chapter addresses two aspects of plan implementation that need additional treatment: Administration and Enforcement; and Development Standards and Design Guidelines.

## **IMPLEMENTATION PLAN**

The actions needed to guide construction of plan implementation tools, particularly the preparation of new land use and development regulations, as well as operational features of future administrative structure are summarized below:

1. Where possible, use clear measurable performance standards in ordinances and policies to minimize interpretive confusion.

2. Provide adequate budget and staff as well as training and support for administrative procedures and inspection functions, and attempt to coordinate and/or integrate inspection and administrative functions to the maximum extent possible.
3. Require the annual revision to the Town's Capital improvements Program to be coordinated with the Comprehensive Plan and any recommended amendments resulting from the annual review of the Plan and planning process.
4. The Plan should be reviewed and updated every five (5) years.

## **DEVELOPMENT STANDARDS AND DESIGN GUIDELINES**

This section addresses many aspects of development design. Development design can be generally defined as the management of the visual and physical development of the built environment. Primary emphasis is placed on the preservation of the town's character. The intention is to respond to growing public concern about the increasing transformation of Tappahannock's traditional townscape to sprawling suburban residential and strip commercial development similar in nature to the land use pattern ringing most of the metropolitan centers throughout the Hampton Roads region and the nation. Concern is that, if measures are not taken now, Tappahannock could become conventionally suburban with only vestiges of the traditional townscape remaining.

Managing development design to maintain and enhance the aesthetics of the town is an important component of Tappahannock's Comprehensive Plan. Application of development design standards is appropriate anywhere human features are present, and where the physical and visual properties of development can significantly influence the character of the town's suburban areas, as well as urban areas. Development design guidance, or the lack thereof, significantly affects real estate values, community pride, a sense of obligation to private property, personal enjoyment and satisfaction, and the overall investment climate in Tappahannock.

This section will discuss and recommend various approaches to positively influencing the development design of areas throughout Tappahannock.

## **ZONING GUIDELINES**

The land use plan and zoning map serves as an additional tool that can be used to manage growth. Together, they indicate the appropriate land use for parcels and areas of land throughout the town. It is recommended that the town reorder the zoning districts, if necessary, to ensure compatibility among land uses and meet the other identified objectives of the town. It may also be necessary to revise the permitted uses within residential zones to ensure that compatibility among land uses is achieved.

Zoning is the tool by which land uses are regulated and is the primary instrument use to carry out growth and development goals of the Comprehensive Plan. Zoning districts identified in Chapter 3, are permitted various land uses and development standards based on a number of factors including uses on adjacent properties and proximity to infrastructure.

## **PLANNED DEVELOPMENTS**

It is the intent that the planned development provisions in the town continue to permit a variety of dwelling unit types within the same development and to permit much more intense clustering. It is not the intent of this plan to permit a higher density by right than the underlying zoning district; however additional density may be made available through bonus densities. Bonuses could be granted for such things as providing additional developed parkland or some other amenity that is in excess of that required or for addressing affordable housing needs.

Residential Planned Developments should permit and even encourage the elements found in traditional neighborhoods so that the new developments become extensions of the town rather than isolated pockets of residential development. The planned developments should be tied to the older parts of town by a street and sidewalk system. Development should be permitted to be oriented around neighborhood services and accessible by pedestrians. A degree of mixed residential and commercial should be permitted in the neighborhood centers within planned developments.

## **LANDSCAPING AND TREE PRESERVATION**

Implementation of landscaping and tree preservation objectives should address the broad issues relating to landscaping in Tappahannock. Landscaping serves many purposes in development. It provides for aesthetics with the existing uses and character of a community as well as reduces the impacts of continuous or excessive use of concrete. Landscaping is also paramount to protecting the natural environment by acting as a storm water management mechanism.

Section 15.2 - 961 of the Virginia Code allows Tappahannock to adopt an ordinance providing for the planting and replacement of trees during the development process. The law appears to prescribe the minimum as well as maximum tree canopies for towns; however, there is some language to suggest that a town could require less stringent regulations. Use of this provision will require State agency interpretation of the law.

## **ADMINISTRATION AND IMPLEMENTATION**

One of the most important, yet often neglected, issues to be considered in the formulation of the Comprehensive Plan, Zoning Ordinance and Subdivision Regulations is administration and implementation. Even the most well conceived plans and ordinances will lose effectiveness (and in some cases be invalidated) without consistent and equitable administration and implementation. The responsibility for administering and implementing the Comprehensive Plan and its associated ordinances and regulations rests primarily with the Town Council, Planning Commission, Board of Zoning Appeals and the town staff with each group playing a different role. These roles will be defined in the context of this plan.

# CHAPTER 2

## BACKGROUND FOR PLANNING

### POPULATION GROWTH TRENDS

**T**appahannock is an incorporated town located in the eastern portion of Essex County, Virginia. The town is situated on the shores of the Rappahannock River within the concave of the urban crescent formed by the metropolitan areas of Washington, D.C., the City of Richmond, and Hampton Roads. In less than three square miles of land area, Tappahannock features a waterfront overlooking the Rappahannock River, a historic downtown, residential subdivisions, public and private schools, public facilities, an industrial center, a business corridor and extensive wetland areas. These characteristics combine to make Tappahannock a regional commercial, industrial, and employment center while keeping a small town feeling.

Settled in the 1600s, the town was first called New Plymouth and grew as a port and trade area due to its proximity to the beautiful Rappahannock. Tappahannock, which currently serves as the county seat, was first incorporated in 1926. Additional territory was annexed in 1939, 1966, and again in 1976. Tappahannock serves as the commercial hub and the economic base of Essex County and its population makes up approximately 22% of that of the entire Essex County.

The Town of Tappahannock and the County of Essex maintain a good relationship, working together to address mutual concerns. The town serves as the governmental seat for the county, affording ease of communication and visibility among the leaders of each. Also, most of the county's health and public facilities are located in the town. This central location of schools, library, health department and social services, provides ease of access for both town and county residents. Also important is the fact that the civic and business interests of the town and county are not exclusive of each other. In addition, the Middle Peninsula Planning District Commission provides a forum for cooperation among local governments, including Tappahannock and Essex. This regional cooperation will likely continue to be an important asset in the future as the Virginia General Assembly's Commission on Local Government Structure and Relationships explores incentives for public service consolidation among local jurisdictions.

In summary, Tappahannock serves as a regional center for the County of Essex as well as portions of the Middle and Northern Neck peninsulas. The business and commercial activity in the town benefit the area by providing employment and a strong tax base. Being the seat of county government, Tappahannock residents enjoy easy access to county services and administrative offices.

## POPULATION & DEMOGRAPHIC TRENDS AND PROJECTIONS

Essex County and Town of Tappahannock has experienced continuous growth throughout the past decade. Recognition of the amount, distribution and timing of population growth and development are fundamental to the Town's achievement of Growth management objectives. These factors are, in turn, directly related to providing the types of services needed to support the projected population and development growth of Tappahannock and the relative costs of those services.

The 2010 Census shows the population of Essex County at 11,151 and increased by 82 residents to 11,233 in 2012. 22 percent of the increase occurred in Tappahannock. Tappahannock, encompassing an area of 2.75 square miles, grew to 2,375 in 2010, an 11.1 percent increase from the population in the 2000 census.

Census 2010 projections estimate that Essex County will grow to 11,884 residents in 2020 and will attain a population approximating 12,479 by 2030. Given this modest rate of County growth, the Town's growth rate is expected to be somewhat higher than the County's since the town is the designated growth center of Essex County.

The data will be used in coming chapters to understand what these various categories and statistics mean to Essex County and how they should be used in future planning and policymaking decisions.

Factors in transportation improvement projects, public infrastructure expansion and economic growth will have significant influence on the pace and variation of change in growth:

New households can be expected to locate in the Town during the next 20-year period. The form, pattern and distribution of new development needed to accommodate this growth in population, together with the qualities of commercial and industrial development to meet these residents' shopping and employment needs, will influence a number of factors which taken together will strongly influence the future quality of life in the Town.

Table 2-1 shows that 22% of the Town's population is under the age of 19. The median age of residents in the Town of Tappahannock is 44 with 19% of the population at retirement age.

**TABLE 2-1: DEMOGRAPHICS & POPULATION ESTIMATES**

Age	Number	Percentage	Age	Number	Percentage
<b>Under 19 years</b>	547	22.1	<b>55 to 59 years</b>	153	6.3%
<b>20 to 24 years</b>	208	8.5%	<b>60 to 64 years</b>	160	6.6%
<b>25 to 34 years</b>	230	9.6%	<b>65 to 74 years</b>	185	7.7%
<b>35 to 44 years</b>	268	11.2%	<b>75 to 84 years</b>	171	7.1%
<b>45 to 54 years</b>	371	15.4%	<b>85 and over</b>	110	4.1%

2010 U.S. Census, American Factfinder 2007-2011

Table 2-2 illustrates composition of Tappahannock households. Notice that 32% of Tappahannock households are comprised of residents 60 years of age and over and 37 % of householder live alone.

**TABLE 2-2: HOUSEHOLDS AND FAMILIES COMPOSITION ESTIMATES**

Age	Number	Married Couples	Single Family	No Family
<b>Total households</b>	1,011	358	239	414
<b>Average Household size</b>	2.24	2.81	3.38	1.08
<b>Average family size</b>	2.81	2.81	2.71	NA
<b>Households with children under 18 years</b>	288	125	163	NA
<b>Under 6 years only</b>	32.6%	27.2%	63.5%	NA
<b>Under 6 years and 6 to 17 years</b>	14.2%	9.6%	20.6%	NA
<b>One or more member 60 years or older</b>	38.2%	44.7%	24.4%	48.8%
<b>Householder living alone</b>	37%	NA	NA	90.3%
<b>65 years and older</b>	12.2%	NA	NA	29.7%

U.S. Census. American Community Survey-2007-2011

Table 2-3 illustrates a significant disparity between the number of residents with high school educations and those with college degrees. Only 26% of Tappahannock residents between the age of 18 and 24 have a high school diploma.

**TABLE 2-3: EDUCATION ATTAINMENT AMONG ESSEX COUNTY RESIDENTS**

Age	18-24	25-34	35-44	45-64	65+	Total
<b>8<sup>th</sup> Grade or Less</b>	33	19	15	154	392	613
<b>Some High School</b>	223	50	220	445	267	1205
<b>High School Grad/GED</b>	391	360	718	1191	602	3262
<b>Some College</b>	325	208	274	692	264	1763
<b>Associates Degree</b>	57	55	106	193	102	513
<b>Bachelor's Degree</b>	48	83	166	466	189	952
<b>Graduate Degree</b>	37	12	35	177	94	355

U.S. Census. American Community Survey-2007-2011

Education has a strong correlation to higher income earnings. Median earnings for a 25 year old in the Town of Tappahannock with high school education or equivalent in 2011 was less than 22000 annually while those with a Bachelors degree earned an average of 41,000 annually. Residents of Tappahannock with a graduate or professional degree showed a median earning of 133,000 annually.

Table 2-4 illustrates the distribution of income in Town households. 49.6 percent of Tappahannock households and 45.5% of families are below median income.

**TABLE 2-4: HOUSEHOLD/FAMILY INCOME DISTRIBUTION**

<b>Total households</b>	1,011		<b>Total Families</b>	
<b>Less than \$10,000</b>	65	6.4%	37	6.2%
<b>\$10,000 to \$14,999</b>	93	9.2%	14	2.3%
<b>\$15,000 to \$24,999</b>	183	18.1%	128	21.4%
<b>\$25,000 to \$34,999</b>	161	15.9%	93	15.6%
<b>\$35,000 to \$49,999</b>	159	15.7%	76	12.7%
<b>\$50,000 to \$74,999</b>	165	16.3%	90	15.1%
<b>\$75,000 to \$99,999</b>	86	8.5%	69	11.6%
<b>\$100,000 to \$149,999</b>	58	5.7%	49	8.2%
<b>\$150,000 to \$199,999</b>	41	4.1%	41	6.9%
<b>\$200,000 or more</b>	0	0.0%	0	0.0%
<b>Median income (dollars)</b>	35,313	(X)	38,533	(X)

U.S. Census. American Community Survey-2007-2011

Indications of the economic stability of the Town of Tappahannock can be seen by looking at data for the county and region. According to the Virginia Employment Commission, the December 2011 unemployment rate for Essex County was 8.1 percent and December 2012 rate stood at 7.7. Both 2011 and 2012 rates were above the state and regional averages of 5.9 percent and 6.0 percent respectively. The unemployment rate for Essex County actually decreased during the period from 2011 to 2012 matching the trend in other areas. While unemployment rates are generally high for the region, income figures on a per capita, family, and median household level historically have been lower than the state average. This is partially due to the large number of retirees and elderly on fixed incomes, and also partly due to the high salaries found in northern Virginia (which skew the average). Another consideration could be that a large portion of the population may be under-employed, a common phenomenon in areas where many people have historically derived their income from farming and seafood harvesting.

**FIGURE 2-1**  
**2011 - 2013 UNEMPLOYMENT STATISTICS**

Locality	December 2011	December 2012	December 2013
United States	8.3%	7.6%	6.5%
State of Virginia	5.9%	5.5%	4.8%
<b>Essex County</b>	<b>8.1%</b>	<b>7.1%</b>	<b>5.9%</b>
Middle Peninsula	6.1%	5.6%	4.8%

Source: Virginia Employment Commission

Perhaps most impressive is Essex County's in taxable sales revenue for 2012. Essex County reported taxable sales of approximately \$1,785,918, an increase from \$1,732,222 in 2009. As the primary commercial and retail center in the County, Tappahannock's taxable sales account for a large portion of Essex County's total taxable sales dollars.

**Table 2-5 Essex County Local Option Sales Tax Revenue**

<b>2008</b>	<b>\$1,912,636</b>
<b>2009</b>	<b>\$1,732,222</b>
<b>2010</b>	<b>\$1,713,418</b>
<b>2011</b>	<b>\$1,731,516</b>
<b>2012</b>	<b>\$1,785,918</b>

Source: Virginia Economic Development Partnership

Other factors showing economic growth in the region are an increased work force and rising income averages, however, these factors are distorted due to residents traveling to major employment hubs for higher wage jobs. In addition there has been an increase in the housing market in the Middle Peninsula. First, the region is within 45 to 90 minutes travel time to the major metropolitan centers of Hampton Roads, Richmond, and parts of Northern Virginia. This allows new residents reasonable commuting time to job centers. Second, the waterfront amenities of the region have attracted many retirees from outside the area to locate here to enjoy the rural and water-related lifestyle.

## **GROWTH MANAGEMENT PLANNING CONSIDERATIONS**

The potential growth of Tappahannock over the next 20 years underscores the need for attention to growth management. A 2005 study of vacant lands zoned for high density residential use found the lands could allow for 987 new housing units housing an estimated 1,995 additional residents. At least 350 new residents in approximately 170 new households can be expected to locate in the Town during the next 20-year period. The form, pattern and distribution of new

development needed to accommodate this growth in population, together with the qualities of commercial and industrial development to meet these residents' shopping and employment needs, will influence a number of factors which taken together will strongly influence the future quality of life in the Town.

# Chapter 3

## LAND USE

**GOAL:** *Produce a sustainable livable environment for all residents of Tappahannock by providing for a balance in land use patterns that promote preservation of the character, contribute to the efficient service delivery and an attractive coexistence of harmonious land uses.*

Objectives:

- Expand and enhance the U.S. 17 Commercial District in the Town.
- Identify areas as “enterprise zones” to attract desired businesses and industries.
- Develop and promote downtown Tappahannock as a historic area.
- Increase industrial land use to retain economic potential for Tappahannock.
- Strengthen and diversify the Town’s economic base by encouraging and facilitating the land use needs of industries associated with higher wages.
- Expand residential further to the west and east of the Route 360/17 business corridor.
- Protect residential neighborhoods from encroachment by commercial and industrial activities and through traffic.
- Implement improved, performance-based development standards and revised site plan review procedures to improve the quality of future development and redevelopment in the Town.

## ANALYSIS

The Tappahannock Land Use Plan expresses the Town's goals, objectives and policies concerning the type, location, intensity and quality of public and private land use.

Residential land uses are found throughout the Town with new residential subdivisions most recently built in the southeastern section of the Town south of Hoskins Creek. The general commercial district extends south from Virginia Street to Bray’s Fork at route 360/17 and has become a major commercial corridor serving the adjacent counties in the region and as such has become a boon to Tappahannock. Industrial growth in the community has been on the decline and is currently not as prominent as it once was in the Town.

A substantial amount of Town land is used for public facilities. Such facilities include county

public schools, Town and county government administration buildings, the sewage treatment facility, limited river access areas, and additional land which is leased to the Virginia Department of Transportation. There is a portion of the Rappahannock River National Wildlife Refuge just north of the Town, and access to most of the refuge trail has been developed as residential.

Undeveloped land throughout the Town provides for future expansion of all land uses. Lands bordering the Town are also largely undeveloped and allow expansion both for industrial use to the west and residential use to the southeast and north. Isolated nonconforming pockets of industrial, residential and business use must be accessed for their limited future development in order to form compatible land uses.

The existing land use pattern of the Town has been influenced by the large tracts of wetlands, associates with Hoskins Creek, which cut through the center of Town. The same situation exists in the northern part of Town along Tickners Creek. These lands have been undevelopable in the past and are now restricted from development by current wetland protection laws. This has created extensive open space for a Town the size of Tappahannock. Steep slopes to the southwest just outside the Town’s borders prohibit large scale development and add to the stock of undeveloped open space lands. New environmental soil conservation laws will also tend to limit future development in this area.

The table below provides estimates of how land uses are distributed throughout the Town.

<b>Table 3-1</b>	
<b>Existing Land Use Within Tappahannock</b>	
Land Use	Percent
Undeveloped	15
Public	10
Residential	38
Business	30
Industrial	7

There are pockets of undeveloped land along the Route 360-17 business corridor that present the opportunity for a unique commercial development. Future expansion of commercial could take place south, out to Bray's Fork and along the Route 627/Airport Road corridor. Undeveloped lands to the southeast and north, out Route 17, provide an area for future residential expansion.

Finally, the extensive wetlands in and around Tappahannock are protected by federal, state and local wetlands laws which will assure open space opportunities well into the future.

Through the land use analysis the following undeveloped/underutilized properties have been

identified:

- The combination of wetlands, county public school lands and the former airport property has provided the Town with a large proportion of land for open space which maintains the character of a rural Town.
- Route 360/17, a major north-south highway, has provided a large business corridor for economic vitality.
- Large tracts of undeveloped lands on the Route 627/Airport Road corridor provide flat and easily accessible lands for industrial use.
- The industrial use between the mobile home park and the residential area across from the former airport location. Once the former airport area is developed with the necessary infrastructure, it will be available for industrial use.

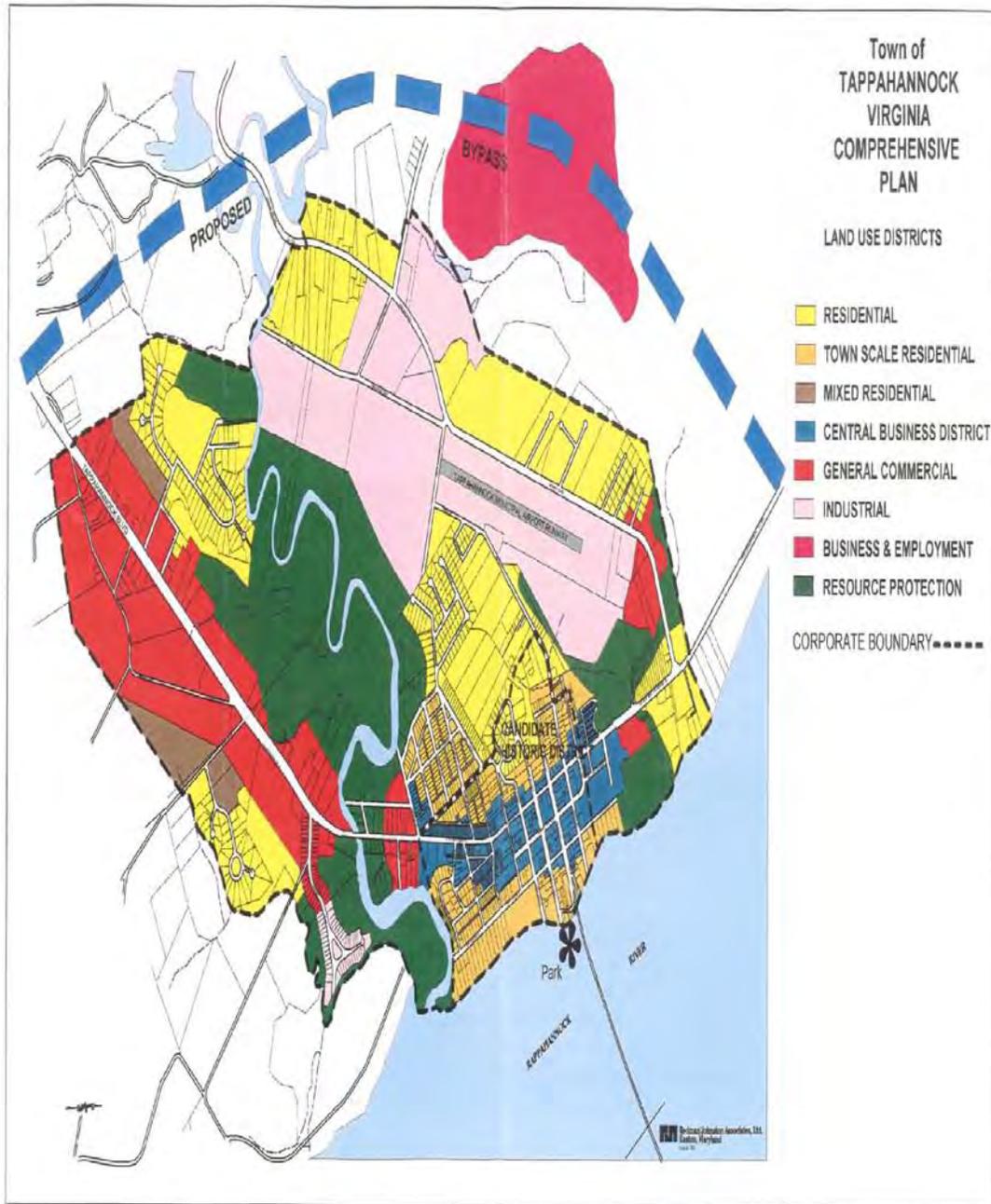
## DEVELOPABLE LANDS

Table 3-2 shows the result of a developable land analysis where existing land use and the Resource Protection Area (RPA) lands (See Chapter 5) were subtracted from the total incorporated area. The developable areas are broken down by planning districts described in the implementation section of this Chapter. From the results of this analysis it can be determined that there is adequate land area within the Town to accept the projected growth over the next twenty years without creating a land monopoly. These acreages are used in subsequent chapters to estimate residential build-out in the Town and to estimate sewer demand during the planning horizon.

**Table 3-2**  
**Estimated Developable Land By Selected Planning District (1)**  
**Tappahannock, Virginia**

<b>Planning District</b>	<b>Acres</b>
Residential District	70
Mixed Residential Cluster	66.5
General Commercial	87
Industrial	172

# MAP 3-1: TAPPAHANNOCK LAND USE PLAN



## **PLANNING DISTRICTS**

The Land Use Plan Map (Map 3-1) delineates areas deemed by the Town to be appropriate locations for private land uses, such as residential, commercial, and industrial uses and public uses such as parks. The Tappahannock Land Use Plan designates eight (8) general areas or Planning Districts (see Map 3-1). The Planning Districts were derived from a combination of determinants including: existing land use patterns; projected growth and development trends; the natural capacity and suitability of the land to support development; the availability or proposed future availability and adequacy of development infrastructure (roads, sewer and water), and the goals, objectives and policies expressed by the Town. Each district description outlines the general type, intensity and character of development that should occur within the district.

## **RESIDENTIAL DISTRICTS**

The primary existing and planned residential areas of the Town have been categorized into the three separate districts: Residential, Town Scale Residential, and Mixed Residential Cluster. Although the goals, objectives and policies for residential development are consistent for each district, as residents in residential neighborhoods have similar requirements, the existing character of each district differs, both as a function of design and density.

### Town Scale Residential Districts

Town Scale Residential includes those existing residential neighborhoods which exhibit urban characteristics, such as a close proximity to the Downtown core, and a manner of addressing the street which instills an urban feel. These existing areas generally exhibit recognizable historic qualities and are subject to pressure for changes in land use. In addition, this category includes existing and proposed developments with urban densities. Densities in existing Town Scale Residential areas range from four to six dwelling units per acre.

The purpose of the Town Scale Residential classification is to recognize the unique problems associated with existing urban residential neighborhoods, particularly older neighborhoods and to provide appropriate areas for infill development at similar densities.

In the case of the former, the primary aim of the Town Scale District is to protect the existing character of those residential neighborhoods from encroachment by adjacent nonresidential uses and from incompatible intensification of residential uses within that may have a deleterious effect on its character and quality.

### Residential (Suburban) District

Existing suburban neighborhoods in Tappahannock are typical of such communities built in the latter half of the 20th century. For the most part these areas consist of detached single family units. Suburban Residential areas have densities ranging from two to five dwelling units acre.

The purpose of the Suburban Residential District classification is twofold. In existing residential area the primary purpose is to identify residential neighborhoods that need protection from encroachment by incompatible, non-residential uses. At the edge of these districts, the objective

is to serve as a buffer, minimizing the impacts of non-residential uses that adjoin residential neighborhoods. In the context of the Transportation Plan, these neighborhoods should be protected from through traffic.

For those vacant lands that occur in these Districts the purpose of the classification is to identify areas wherein the Town will foster additional development of a Suburban Residential character.

#### Mixed Residential Cluster District

The Mixed Residential Cluster District is to provide for areas within the Town where higher density and more intense development can be accommodated. These areas are presently served or can be readily served by sewer and water facilities. Development in this District will differ from traditional forms of development in providing a comprehensive approach to site planning. Development guidelines for this district will permit the planning of a project and the calculation of densities over the entire development, rather than on an individual, lot-by-lot basis. It also involves a process which revolves mainly around site-plan review, in which Town officials have considerable involvement in determining the nature of the development. This form of development is characterized by a unified site design (Master Plan) that addresses the number of housing units, the manner of clustering buildings and providing common open space, the distribution of density, and the mix of housing types and land uses. Development of new sites adjacent or near to established neighborhoods would be required to buffer the edges to minimize impacts on nearby established neighborhoods. This approach acknowledges existing development patterns and recognizes historic development conditions. In short, higher residential densities or mixed use will be permitted only in such areas where infrastructure in the form of water' sewer and transportation systems would not be adversely impacted or could be accommodated within a defined geographic cell.

### **BUSINESS DISTRICTS**

#### General Commercial District

The General Commercial District includes the entire Route 17 highway corridor from Virginia Street to Brays Fork. Where developed, these areas exhibit the general visual characteristic of highway corridors along which piecemeal "strip" development has occurred. Uses include retail sales and business service establishments such as community shopping centers, fast food restaurants, and service stations. This corridor is the primary entrance point to the Town from the south.

The purpose of the General Commercial District is to recognize areas of the Town that, due to their historic development pattern or current zoning, form a continuous commercial corridor along major highway routes. Vacant land in this district is intended to provide sufficient space in appropriate locations for additional future commercial service activities which would generally serve a wide area and need to be located along existing major thoroughfares. For the most part, uses in this District are not characterized by extensive warehousing, frequent heavy truck activity, open storage of material, or nuisance factors of dust, odor, and noise associated with manufacturing.

A large portion of the General Commercial District is already developed. These existing commercial uses have an established form and require a different treatment than will be required of future development. Where possible, service roads and/or other access management policies and techniques should be developed in existing commercial areas adjacent to the major transportation routes. This will help to minimize the effects of local traffic on the capacity of the roads to carry thru-traffic which is the primary function of these routes.

Undeveloped areas within the General Commercial District such as the area around Route 698 (Hobbs Hole Dr. /White Oak Dr.) provide an opportunity for significantly improving the quality of commercial development within the Town. This offers several advantages in coordinating new activities with existing ingress and egress points along the local street system. Traffic controls can be provided in accordance with anticipated volumes. On-site parking facilities and internal traffic patterns are also controlled via the site plan review process. The more detailed zone mapping in this district should emphasize the configuration zones to achieve a greater depth-to-frontage ratio in dimensions.

### Central Business District

The Central Business District, which has historically been the center of commerce and business in Tappahannock, contains a mix of public institutions, as well as business, service, and commercial establishments which comprise a significant portion of the Town's economy.

The Central Business District is an urban area with the dominant feature being architecture; i.e., buildings enclosing spaces and the spaces are places of intense human interaction. Privacy in urban environments requires enclosures, patios, or rooms. In order to provide the intensity and diversity of choices that make urban centers people-magnets, high densities are essential. It remains the classic urban design-type of environment in which buildings define and enclose spaces. The Central Business District in Tappahannock is an example of an urban environment whose scale is in keeping with the rural qualities of the County in general. A mix of commercial shopping facilities, service industries, offices, public and institutional buildings, other intense non-residential uses, and Town scale residential are typical uses.

The purpose of the Central Business District designation is to recognize the unique role of the Central Business District in Tappahannock's land use and to continue to provide for a compatible mixture of commercial, cultural, institutional, governmental, and residential uses in a compact, pedestrian oriented, traditional Town center that serves as the focal point for surrounding residential areas. The primary land use and community facility objectives for the CBD are to maintain and enhance the CBD as a center of governmental, professional, and mercantile activities in the County in the face of changing consumer preferences.

### Industrial District

Included in this District are those areas of the Town which have been developed for industrial uses and vacant land planned for business and industrial expansion in the future. A characteristic of this District is large sprawling buildings with associated parking areas. Due to the large parcel sizes upon which they are located, their visual impact is somewhat lessened. The existence of undisturbed natural areas surrounding these uses also helps soften adverse visual effects.

Generally these areas are located near the former airport site.

The purpose of the Industrial District is to establish appropriate areas that will be reserved for light to medium industrial use and necessary supporting accessory uses and facilities. The site should be large enough to be designed as industrial parks that complement surrounding land uses by means of appropriate location of buildings and service areas, attractive architecture, effective buffering, and substantial site landscaping.

#### Business and Employment District

In recognition of the need to continue to provide additional, diverse job opportunities for residents of Tappahannock and Essex County, it is proposed that areas be reserved for development into business and employment clusters or parks. This district is located in the County on the northwest of the existing industrial area and would be served by the proposed bypass. This district coincides with an area being considered by the County and is roughly four hundred acres, of which some three hundred appear suitable for development.

This area, like the Industrial District, should require sites to be large enough to be designed as industrial parks that complement surrounding land uses by means of appropriate location of buildings and service areas, attractive architecture, effective buffering, and substantial site landscaping.

### **RESOURCE PROTECTION DISTRICT**

The Resource Protection District includes those existing natural areas in the Town which are likely to remain in their natural state, or if used will serve as parkland. These areas include slopes in excess of 25 percent, the 100-year floodplain, Resource Protection Areas (RPA) associated with the Chesapeake Bay Preservation Act, perennial and intermittent streams and stream buffers, non-tidal wetlands, and Town parklands.

The purpose of the Resource Protection District is to recognize general areas where sensitive natural features and other development constraints limit uses, or where special land use development requirements are imposed for the express purpose of protecting and enhancing water quality in the Chesapeake Bay and its tributaries and maintaining or protecting sensitive wildlife habitats. Included in this classification are areas best suited to open space or low intensity recreation uses. Permitted development in these areas should be strictly regulated, to ensure minimum adverse environmental impacts, or limited, with special attention given to maintaining natural conditions.

### **HIGHWAY CORRIDOR DISTRICT**

The Highway Corridor District is intended to address architectural and aesthetic controls as well as special access and buffering requirements along the Town's major highway. The intent of the Highway Corridor District is not to preclude the diversity that already exists; but, rather to encourage and better articulate the variety of visual experiences along the highway corridors of existing and proposed routes classified as major roads in the Town.

The purpose of the Highway Corridor District is to protect and improve the quality of visual appearances along these linear corridors and to provide guidelines to ensure that buffering, landscaping, lighting, signage, and proposed structures are internally consistent and of a quality which contributes to the Town character. Development of parcels within the Corridor should be subject to the policies specific to the particular Land Use District in which they lie (and ultimately the particular zoning district in which they occur), as well as the following policies that are specific to the overlay corridor. These policies are not intended to restrict or prevent the construction of buildings within each Corridor, or to require the removal of existing structures. The Corridor policies are not setback requirements, although certain minimum setbacks will be required to protect highway rights-of-way and maintain sight clearances for traffic safety.

The Highway Corridor District is an area within which certain specific public policies relating to protection of Highway functions and landscape aesthetics would be administered by the Town through overlay zone regulations in the Zoning Ordinance. Views afforded to drivers and passengers, whether residents, workers or visitors, traversing the major transportation routes of the Town provide a lasting visual and, therefore mental, impression of the Town's character.

Corridors within 500 feet of the right-of-way of the major arterial rights-of-way are identified for specific regulatory provisions. The visual character today along these corridors is diverse, ranging from areas primarily rural, natural, and scenic to areas with disorganized and cluttered roadside development.

The corridors along U.S. 17 for a distance of 500 feet from the right-of-way are designated as the Highway Corridor Overlay District. Other routes such as the proposed bypass may be established in the future as determined appropriate.

Policies in place that are specific to the Highway Corridor include:

- Buffering requirements to screen unattractive buildings from view and which provide for a mix of canopy, understory tree and shrub level plantings will be more substantial in the Corridors.
- Special standards for signage height, design, size, materials, and lighting to maintain and enhance visual qualities will be required. Special consideration of new development within this district including assessment of visual impact of development, assessing predevelopment visual conditions and how the proposed development will affect them will be made.
- Consideration will be given to subject new development within the Highway Corridor to review by a Corridor Review Committee (CRC) or an architectural review committee which would make recommendations to the Planning Commission.
- Service roads or at a minimum joint access drives should be required where they would enhance safety and achieve efficient access control within the Highway Corridor District.

- Landscaping should be used to soften lighting and signage impacts and to be located in groupings to identify entrances to sites.
- Traffic calming measures should be implemented within the Highway Corridor to make Tappahannock more livable and pedestrian friendly.

## **IMPLEMENTATION RECOMMENDATIONS**

Require incompatible land uses on property abutting residential areas to provide measures designed to reduce detractive impacts and nuisances to the residential areas. Improvements should be sought in existing situations whenever permits are applied for to permit expansion or alterations

Require nonresidential developments to provide adequate lighting, landscaping and buffer yard abutting residential districts and between incompatible uses within the Town for greater aesthetic appeal. Objective analysis of physical conditions should be made to determine that prospective development can be located safely and harmoniously

Create a Historic Overlay District with boundaries and guidelines for development

Revise Zoning Ordinance to include language that would enforcably create the Highway Corridor District as a zoning overlay district rather than a concept

Acquire the land south of Thomas J. Downing Bridge or other potential waterfront areas in an effort to improve the downtown environment

Draft a cost sharing policy that would require developers to contribute to costs incurred by a higher demand as a result of their development

Update Zoning Ordinance and other development regulations for consistency with the goals and objectives of the Comprehensive Land Use Plan

Expand future industrial use along Route 627/Airport Road. Designate and develop former airport property for a light industrial land uses when necessary infrastructure becomes available. Industrial zoning should be designated along a proposed truck by-pass around the Town

Require developers to contribute to accommodating increased service demands created for the benefit of the new development

# Chapter 4

## TRANSPORTATION

**GOALS:** *Coordinate transportation infrastructure with land uses*

*Provide for a safe, efficient transportation network facilitate traffics while reducing congestion and noise on the primary streets.*

*Promote and provide alternative modes of transportation for people and freight.*

Objectives:

- Reduce through traffic on US 360/17 in Tappahannock by creating alternative routes around the central business district.
- A bypass alignment study should be initiated to examine alternate routes. The Town will cooperate with other agencies to ensure that the new truck bypass, designed by VDOT and any new development that fronts the bypass, is regulated as a controlled access facility. The Town will also work to implement best access management practices on new development.
- Reduce traffic on all roads by imploring transportation alternative methods other than increased capacity that will increase vehicle occupancy and/or decrease reliance on motor vehicles.
- Improve internal circulation of traffic throughout the Town of Tappahannock.
- Coordinate with VDOT to identify and make recommendations on necessary improvements and expansions to the road network.
- To address the lack of public transportation, the Town will work with the County and other agencies to explore rural transit and other transportation demand management options for Town residents.

**A**lthough the Virginia Department of Transportation (VDOT) has primary responsibility for the public highway system, each locality plays a crucial role as a partner in transportation planning. This holds true because of the locality's ability to identify highway improvement needs which coincide with land use and development policies and regulation in the jurisdiction. Tappahannock's growth along with a general increase in travel throughout the region will mean more traffic on local highways. Thus transportation has become a growth management issue for the Town and clearly indicates that the Tappahannock transportation system for the year 2030 will require special consideration.

Transportation planning is an essential link to implementation of the Land Use elements of the Comprehensive Plan and one should be considered when outlining goals of the other. Transportation facilitates growth by providing better accessibility and more visibility. The goals and objectives statement contained in this chapter provides general guidance for developing more specific policies and implementation approaches. Background for transportation planning is provided through an assessment of the existing transportation network, of highway capacity, of safety conditions and of planned improvements and pertinent issues, problems, and opportunities.

Safe and efficient transportation systems for the movement of people and goods remain fundamental to the continued economic growth and development of small urban areas such as Tappahannock. With considerations for certain social and environmental issues, transportation planning for the Town of Tappahannock is an integral part of this comprehensive planning process.

Tappahannock is fortunate to have a navigable waterway and a major river crossing as well. Primary highway transportation routes intersect in the central business district and are a primary contributor to the Town's economic growth.

The Town of Tappahannock is served by the Saluda Residency within the Fredericksburg Construction District of the Virginia Department of Transportation (VDOT). VDOT maintains area maintenance facilities within the corporate boundaries of the town. As the town does not maintain its own roads, VDOT performs the actual work in addition to regular assignments.

## **FUNCTIONAL CLASSIFICATION OF HIGHWAYS**

The skeletal framework of the Town's highway system is the arterial and collector highways shown on Map 4-1. The map also reveals that the majority of the highway system is composed of local roads and secondary highways primarily functioning to provide access to individual properties. The state's classification is based on the Federal Functional Classification of Highways which further classifies highways as rural or urban based on the proportions of vehicle miles of travel and road mileage. Characteristics of the broad classification of highways are as follows:

Principal Arterial: Carries a high volume of traffic for intrastate, inter-county and inter-city travel.

Minor Arterial: These roads normally serve the higher classification roads providing access to and from the arterial.

Major Collector: Serves intra-county and inter-community travel, but at a lower volume, and usually connects to an arterial to provide access to the surrounding land. They may serve community shopping areas, schools, parks and cluster developments.

Minor Collector: Serves intra-community travel at a volume below the major collector and provides access to property using lower order roads and sometimes direct access from itself.

## **PRIMARY HIGHWAYS**

US 360/17, connection in downtown Tappahannock at Church Lane/Tappahannock Boulevard, provides the only means of arterial access for east/west and north/south through traffic in Essex County. US 360/17 also serves as local traffic access in the central business district and the business corridor area. By performing this dual function without a through traffic relief facility, US 360/17 is often overloaded at peak hours of operation. US 17 is currently functionally classified as a principal arterial and is identified as a Virginia Corridor of Statewide Significance (COSS) by the VDOT. VDOT is in the process of drafting a plan to manage and improve those highways identified as COSS. US 360/17 serves as a major freight route and provides direct access to major commercial and employment hubs in the North such as Fredericksburg down to Hampton Roads area in the southeast.

Routes 627 and 659 (Desha Road) are also classified as a Major Collector streets. Commercial land uses extend to Desha Road with plans for further growth.

The only other federally aided functionally classified road is Route 627, Airport Drive, in the industrial park area. It is classified as a major collector.

## **TRAFFIC VOLUMES AND TRENDS**

A 2013 traffic data survey showed the total average daily traffic (ADT) on U.S. 17 through the Town at 22,000 vehicles per day, slightly less than the traffic count of 23,000 vehicles per day in the 2010 study. These volumes reflect the importance of this route as a major arterial highway serving the town. Table 4-1 shows ADT Trends of Primary Highways in the Tappahannock area from 2003 to 2013. Data trends show a slight increase in 2010 however, the numbers were slightly lower in 2013.

**Table 4-1**  
**Average Daily Traffic on Primary Routes**

Route	From	To	2003	2012	Truck Traffic (2012)
17	North of Town Limit	360 E (Tappahannock)	7,200	7,200	4%
17/360	Tappahannock	Bray's Fork	27,000	22,000	4%
360	Queen Street	Richmond County Line	14,000	12,000	2%
17	Bray's Fork	Rte 609	7,300	7,600	4%
17	Rte 609	Rte 684	5,200	5,300	4%

Source: Virginia Department of Transportation

Increase in street capacity has a direct correlation to the increase in number of vehicles on the road and discourages the notion to explore other modes of transport. In other words, the more freely a commuter can travel a road in a vehicle the less likely the commuter is to try other modes such as carpooling or biking.

Although future traffic projections are based on a myriad of factors, increased traffic is certain. Based on information provided by Virginia Department of Transportation, future traffic volume is expected to increase along routes US 17/360 to 24,500 ADT by 2020 and 30,000 ADT by 2040.

Only 17 percent of Tappahannock traffic is considered through traffic according to the VDOT 360/17 Corridor Study. A high percentage of traffic actually stops in Town for a duration of 30 minutes or longer, which illustrates that the Town serves as a destination for most motorists. This further reinforces the notion that the Town is the "hub" for the region.

## CAPACITY ANALYSIS

"Level of service" (LOS) is often used as a measure of system performance in transportation planning analysis and to define public policy concerning highway performance. They are also used in traffic impact analysis to determine local traffic impacts of proposed developments. Definitions of level of service differ for intersections and roadway segments, for city streets, and for controlled access highways.

Highway traffic congestion is expressed in terms of Level of Service (LOS) as defined by the Virginia Department of Transportation Manual and the Highway Capacity Manual LOS is a letter code ranging from "A" for excellent conditions to "F" for failure conditions. The conditions defining the LOS for roadways are summarized as follows:

LOS A- Free-flow (FF) operation

LOS B- Reasonably free-flow, Ability to maneuver is only slightly restricted, Effects of minor incidents still easily absorbed

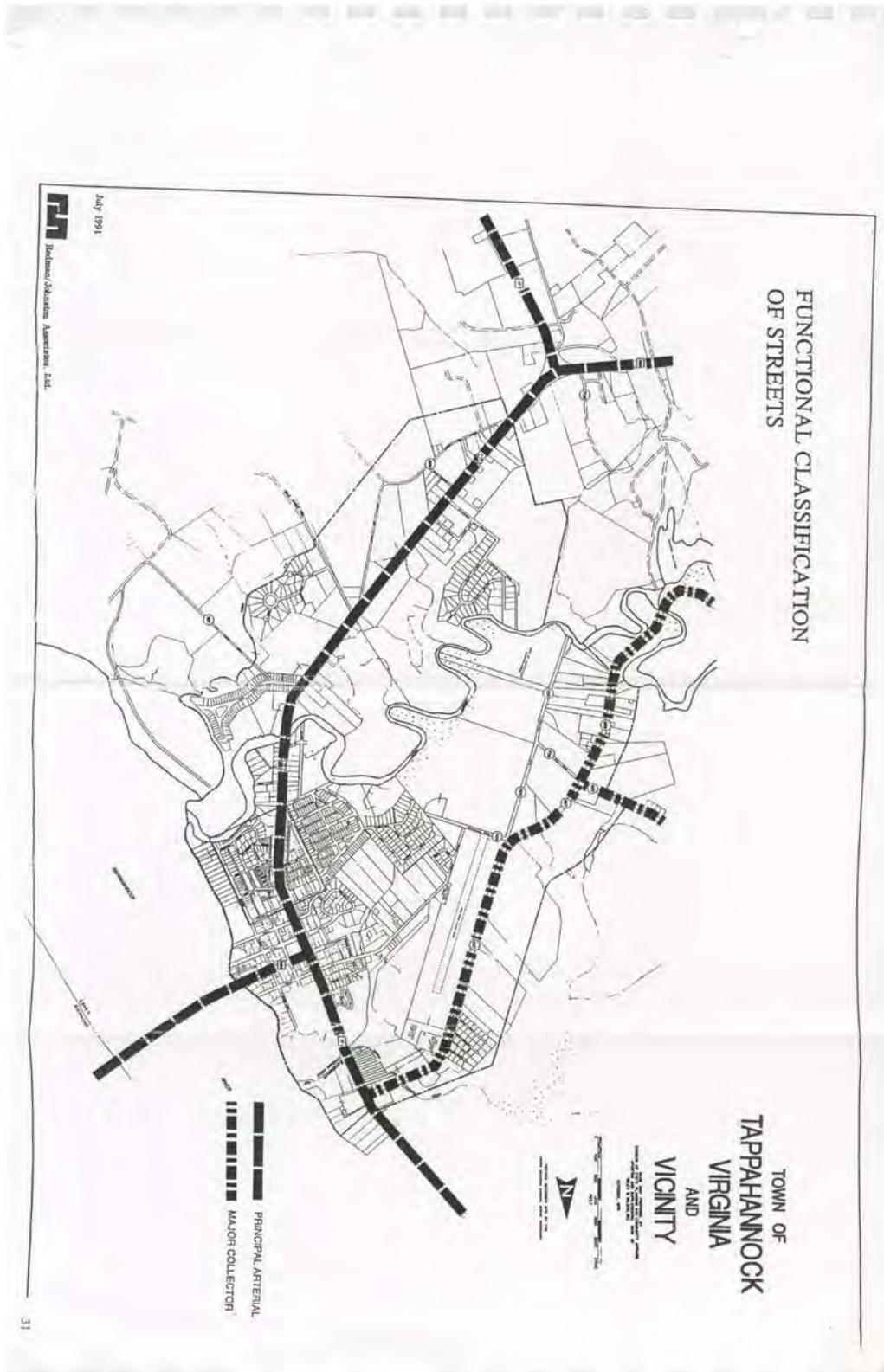
LOS C- Speeds at or near FF, Freedom to Maneuver is noticeably restricted, Queues may form

LOS D- Speeds decline slightly with increasing flows, Density increases more quickly, Freedom to maneuver is more noticeable limited, Minor incidents Create queuing

LOS E- Operation near or at capacity, any disruption causes queuing, no usable gaps in traffic stream

LOS F- Breakdown in flow, demand is greater than capacity

# Map 4-1: Functional Classification of Highways



The LOS for a roadway should reflect the projected demands of the Land Use Map. Circulation systems are generally adopted within the Transportation Element, and traffic volumes and flows generated from the aggregate of the land uses and densities of the Land Use Map must be supported within that LOS.

Intersection level of service is on a six-level scale with "A" being the highest, and "F" being total gridlock or complete failure. The overall level of service for the intersections in the Town is currently LOS B. Level of service B means the average delay per vehicle stopped at an intersection ranges between 5.1 and 15 seconds. All of the intersections in Tappahannock are considered adequate by VDOT standards; however, the time/delay runs were averaged over peak and non-peak hour operation (2 p.m. to 6 p.m.) and may not reflect the peak hour of use operations. The intersection of US 360 and US 17 does experience high traffic volume and queuing at peak hours of the day, however, traffic flows freely and no stacking is accumulated during non peak hours.

The LOS on U.S. 17 could be best categorized as Level C. US 17 through downtown Tappahannock flows freely with little to no congestion except during peak hours of the day. Outside of peak hours traffic flow is rather reasonable with maneuverability moderately restricted. During peak hours, moderate stacking may occur. Motorists generally reduce speed through downtown due to the narrowing of the roadways and the presence of heavy semi truck traffic. The issues regarding free flow of traffic on US 17 is primarily due to the inadequate lane widths and maintenance issues that occur frequently due to major truck traffic. As traffic maneuvers through downtown, vehicle speeds are consistent with posted rate and little to no stacking occurs.

The intersection of 360/17 at Dangerfield Street needs to be evaluated for better access management and may require a traffic study. The residents of the Dangerfield area must travel a circuitous route in order to access US 17 in the morning peak hour although none of the volumes standards are met, and the intersection does not have an abnormal accident rate. This would indicate the need for additional capacity on the Town's arterial system. In addition, it is clear that the Town needs to make judicious use of the existing highway systems to ensure that the remaining capacity is not prematurely depleted as a result of poor access control, particularly along the major arterial corridors.

The Town has expressed a need to improve traffic maneuvering at the intersection of US 17 and Ball Street (*picture 1*).

At this location, traffic turns off the major arterial into the drive aisle of a heavily frequented Mc Donald's restaurant. The McDonald's parking lot also provides access to a large shopping center.



Picture 1

## **SAFETY**

Annually, the Traffic Engineering Division of VDOT monitors and summarizes motor vehicle accidents that occur along various road sections. Accident, injury and death rates are calculated by dividing the total number of accidents, people injured, or people killed by the annual vehicle miles of travel at a location. Rates are expressed per 100-million vehicle miles of travel. The accident rate is used for establishing priorities only and not for comparing the safety performance of different intersection and road design types.

High accident road sections, for the purpose of this analysis, will include those road sections that exceed the State average accident and injury rates. The highest accident and injury rates on a primary road in the County occur on the U.S. 17 corridor in Tappahannock. These sites deserve a closer analysis to determine if there is a definable pattern or cause for the accidents that may be addressed through design modification or increased capacity.

According to information obtained from the Town of Tappahannock Police Department, 198 accidents have occurred on US 17 within the Town of Tappahannock city limits between 2011 and 2014. The top six accident sites in Essex County were within Town Limits. Three other sites, each with nineteen accidents were Church Lane and Queen Street, Tappahannock Boulevard and Hobbs Hole Drive, and Tappahannock Boulevard and Elm Street. Safe accessibility of US 17 from Marsh Street is a concern. There is no connectivity alternative available to the residential community serviced by Marsh Street.

Seventy percent of the motor vehicle accidents within the Town of Tappahannock are minor "fender bender" incidents. The actual severity of the accidents is not worse than the statewide average; however, even a minor accident can seriously impede traffic flow during peak hour demand periods.

There are concerns that the Hurricane Evacuation Route that is currently planned to follow US 17 up through Essex County and the Town of Tappahannock will not provide a safe route for people to escape an oncoming natural disaster. There are areas along this route that are known to flood in strong storms, such as Tickner's Creek by June Parker Marina. If flooding were to occur during an evacuation, the traffic directed up this highway would have to be rerouted along secondary roadways. There are concerns that secondary roads do not have the traffic volume capacity to handle a hurricane evacuation, and the safety personnel in the area would be overwhelmed. US 17 has been designated as a "Hurricane Evacuation Route" for not only the residents of the Middle Peninsula Region, but some of the Hampton Roads area as well.

## **HIGHWAY IMPROVEMENTS**

Current right of way widths through the downtown Tappahannock area are inadequate for consistent use of the streets by heavy commercial traffic. The right of way deficiencies pose safety concerns as identified in the 2035 Middle Peninsula Rural Long Range Plan (RLRP). Created through cooperation with VDOT, the Middle Peninsula PDCs and local governments, the RLRP identifies intersections and road segment deficiencies in Tappahannock and makes

recommendations for improvement. These improvements are prioritized and considered for inclusion the VDOT's Six Year Improvement Plan (SYIP).

The Town and the state have jointly developed a Capital Improvement Project list for the Secondary Highway System. The improvements are ranked and top priorities are added to the SYIP for funding allocation. The SYIP also shows that funds have been allocated for reconstruction of .11 miles west of Intersection Route 671 to .610 Miles east of Intersection Route 671.

The SYIP indicates that improvement projects in Tappahannock include funding allocated for reconstruction of US 17 from .19 miles north of Marsh Street to .11 miles South of Airport roads. Marsh Road improvements are also a priority expressed by Town officials.

Motorists experience significant difficulty when accessing to US 17 from Marsh Street (*Picture 2*) at peak hours. This area experiences significant traffic during peak hours due to heavy truck traffic to and from Richmond County/Northern Neck. The SYIP recommends increasing capacity at the intersection by installing turn lanes.



Picture 2

The SYIP also proposes a bypass linking US 17 North to US 360 outside of the Tappahannock Town limits in an effort to relieve the arterial streets in Town of the heavy truck traffic, increasing internal flow and reducing maintenance needs.

### Thoroughfare Roads

The 2025 Statewide Highway Plan from VDOT indicates a corridor for a bypass route to relieve traffic on US 360/17. The bypass is also identified in the 2035 Rural Long range Plan. The bypass is proposed to run about three miles originating at Rt. 360 and 715 south of Town and terminate at Rt. 17 north of the Town Limits. The alignment proposes to utilize the existing bridge channeling through traffic around the central business district and industrial park, therefore, providing much needed access between the four corners of the Town. A bypass study has been completed recognizing issues such as the alternative truck route. Additionally, the Planning Commission recognizes any HAZMAT related incident within Town limits could be harmful to health and welfare of Town residents. An updated bypass study is needed and should recognize HAZMAT related concerns within the Town.

Wetlands issues, such as mitigation, may prolong planning and construction of the bypass project. With the adoption of the new Chesapeake Bay Preservation Act, the cost of constructing any roadway east of Interstate 95 is substantially more costly.

## TRANSPORTATION DEMAND MANAGEMENT

### Mass Transit

Forty seven percent of Essex County's labor force commutes outside of the county for employment. A significant percentage of Essex County's population resides in the Town, however, fixed route public transit is not available to Tappahannock or Essex County residents. Providing fixed-route service would be beneficial but very expensive. On demand public transportation services are available through Bay Transit and cab service through an independent operation is also available on a limited basis. Without fixed route public transit available, there are not enough transportation opportunities for low-to-moderate income groups, as well as other transportation dependent groups such as the elderly and handicapped.

The Middle Peninsula Planning District Commission administers a Rideshare program which is available to Tappahannock residents. Implemented through the Department of Rail and Public Transit's Transportation Demand Management Plan, the program works to reduce transportation demand needs by offering carpool and vanpool match services to Tappahannock residents and residents of other localities in the Middle Peninsula.

### Park & Ride

VDOT requested recommendations for Park & Ride locations for localities in need of a new location, or expansion or improvements to existing locations. Currently, there are no official Park & Ride locations in Tappahannock. The proposed location is a VDOT lot located off of US 17 (Tidewater Trail) at US 360 across from Hospital Road. (*Picture 3*) The lot is paved and is used for staging of VDOT vehicles. It is an ideal location for commuters taking US 360 into Richmond area or US 17 to Fredericksburg.



Picture 3

### Rail Transportation

No direct access to rail service is available for the Town of Tappahannock. The nearest rail services are those offered in Richmond and Fredericksburg. No proposed extension of rail service to Tappahannock is being considered.

### Air Transportation

The airport facilities have been relocated five miles west of Tappahannock. The airport opened to the public in 2007 and consists of approximately 421 acres and is developed with public

infrastructure such as water and sewer services and broadband services are available. Plans for redevelopment of the former Tappahannock airport location are underway.

There is a heliport located at Riverside Hospital in Essex County and services the medical facility.

### Water Transportation

Waterways in Tappahannock are navigable however, commercial use of the waterways is limited due to lack of access and facilities. Commercial transport to Newport News from Tappahannock is limited to some light barge activity, although potential exists for the expanded use of this waterway for transport. Presently, water navigation on the Rappahannock is predominantly private pleasure craft. Public ramps are maintained at Dock and Prince Streets. The Town is currently exploring funding opportunities for a waterfront park that would allow water access and other opportunities. As a member of the Middle Peninsula Chesapeake Bay Public Access Authority (PAA), the Town should work closely with the PAA to seek opportunities to acquire additional access to water.

## **PEDESTRIAN & BICYCLE PLAN**

Sidewalk maintenance and improvements are a primary concern among officials and residents in Town throughout the Middle Peninsula. Pedestrian access in Tappahannock is marred by the location and condition of the sidewalks. Sidewalks are located directly adjacent to the US 360/17 roadway, and given the high traffic volumes on the facility, create an unsafe condition for pedestrians. Most of the sidewalks are found in the area of Town between Queen Street and Hoskins Creek and safer access is needed to connect pedestrians to destinations in other parts of Town such as schools, the library, recreational facilities, and shopping. While many of the sidewalks are in poor condition, most intersections do provide curb cut ramps for persons with physical disabilities. Many of the side streets do not have sidewalks, or if they do, they too are directly adjacent to the roadway. Although modern pedestrian crossway signalization has been installed at the intersection of US 360/17 and Route T-1005, Prince Street, much could be done to improve access for foot traffic. Additionally, signalization and cross walks are needed at several intersections. Town staff has identified intersections in need of cross walks and signalizations. Few well-marked crosswalks exist in Tappahannock. A problem area for sidewalks is on the East side of US 17 running north for two blocks. Staff from the Middle Peninsula Planning District Commission will advise Town staff of funding opportunities for a comprehensive pedestrian flow study.

Improvements are also needed to existing pedestrian sidewalks and footpaths in the Church Lane/Queen Street intersection, specifically one that connects the corner of Queen St West and Church Lane North to the library. Pedestrian stoplights and a crosswalk at the corner of Church Lane North and Queen Street East, at the corner of church Lane South and Queen Street East, and at the corner of Queen Street West and Church Lane North providing safe, suitable facilities to accommodate the heavy pedestrian traffic. As a part of the VDOT work program, the Middle Peninsula planning staff is conducting a Sidewalk Gap Study that includes those sidewalks that are damaged beyond safe use and accessibility. The study will be use to prioritize the needs of

the Town pedestrian infrastructure and assist MPPDC and the Town in researching funding opportunities to address the deficiencies.

Bicycle facilities such as paved bicycle lanes and signage along cycle friendly routes are not available in the Town. Heavy traffic and difficulty in providing adequate improvements to existing major thoroughfare presents safety concerns for cyclist along major roadways in Town. Cyclists are encouraged to use less traveled routes in Town.

Tappahannock Boulevard, Airport Road (Picture 4), DeSha Road, and along Queen Street east of Church Lane are ideal for pedestrian and bicycle facilities due to their connectivity to higher density residential neighborhoods and public facilities such as schools and parks. While these roads are identified in the Middle Peninsula Regional Bicycle Plan, most are not adequate to serve bicycle traffic. Roadway widths need to be increased to accommodate multiple users of the roadway. Signage should also be provided along designated bike routes. The Town should also designate local routes which will pull separate bicycle traffic from more heavily traveled roads. At the Town's suggestion, MPPDC staff will seek grant funds for a comprehensive study of sidewalk and



Essex County High School, Airport Road Picture 4

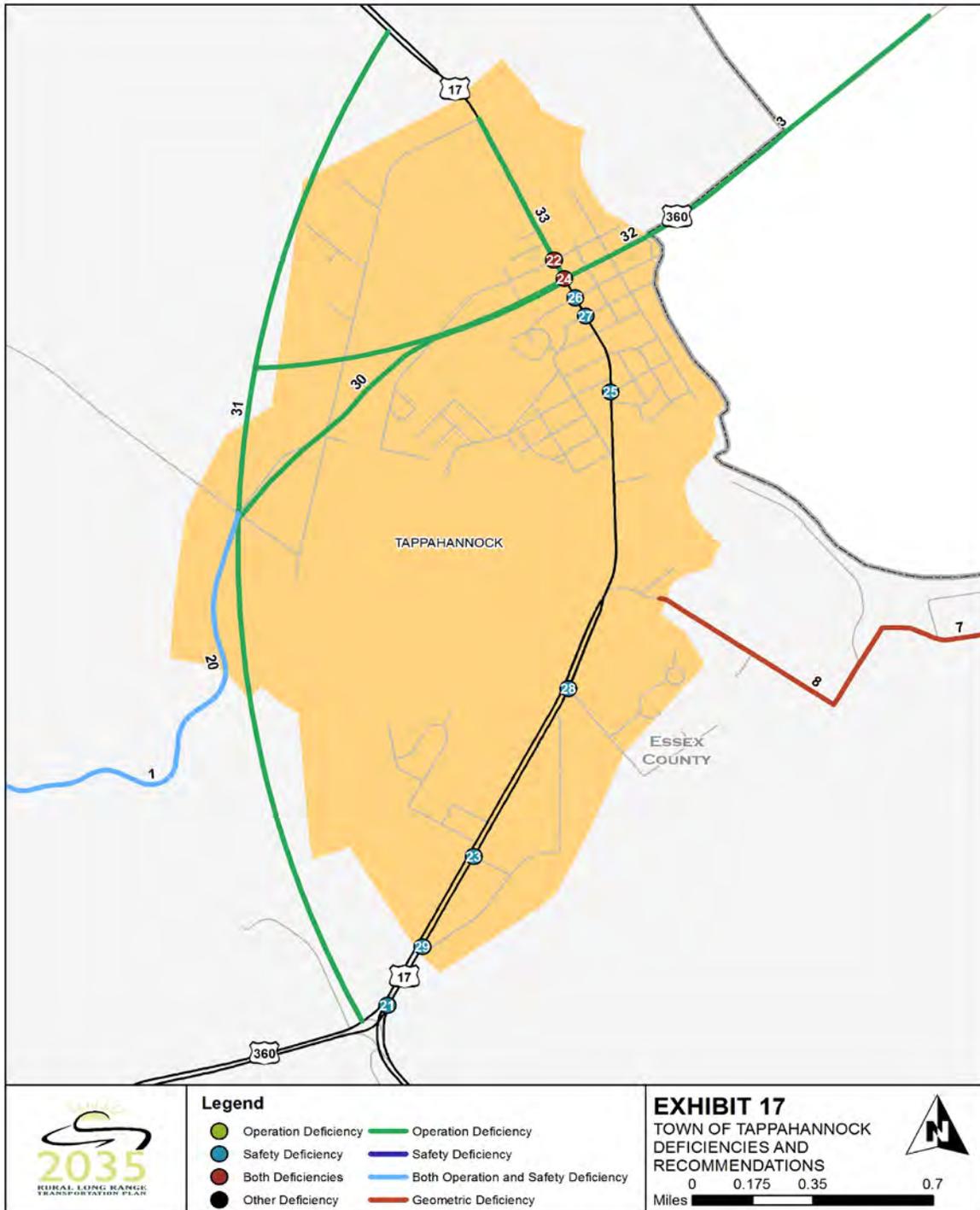
Map 4-2 illustrates highway deficiencies in the Town in terms of capacity as well as safety. The 2035 Rural Long Range Transportation Plan (Map 4-3) shows the improvements needed to address the deficiencies and other transportation objectives. The following are highlights of the plan map.

VA 659 (Desha Road) from South City Limit of Tappahannock to VA 627 / VA706	Safety: Segment has series of short horizontal curves that limit sight distance. Congestion: Turn lanes that could improve operations are missing along segment.	Long-Term: Safety/Congestion: Upgrade to current design standards and install turn lanes where appropriate.
US 17 (Tidewater Trail) at US 360 (Richmond Highway)	Safety: Northbound left turners are permitted to turn right onto VA 708 (Hospital Road) across through lanes. Southbound through traffic allowed to turn right onto VA 715 across through lanes. Sight distance	Mid-Term: Safety: Close access to VA 715 and provide new access south of residences. Close cross-over in the vicinity. Consider converting eastbound right turn to tighter free turn with yield control. Shift access to

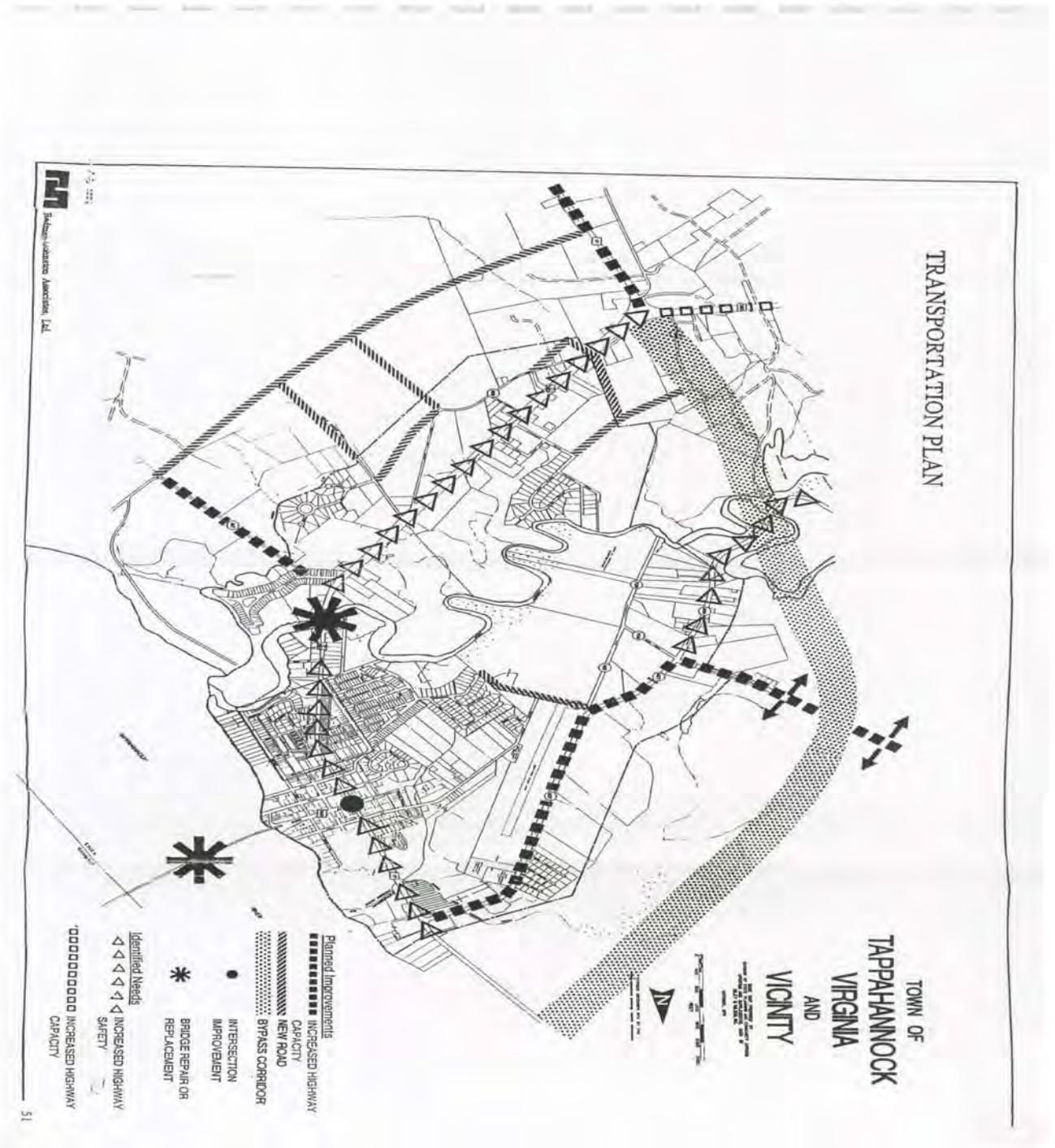
	may be limited for northbound left turners at VA 715. Crashes at this location exceed the planning threshold (nine crashes over three-year period).	and realign Hospital Road west away from intersection to allow northbound left turners more time to merge.
US 17 (Church Lane) at VA 657 (Marsh Street)	Safety: Stop bar missing on westbound approach. Congestion: Heavy truck traffic travelling to/from Northern Neck and Richmond county.	Short-Term: Safety: Install stop bar on westbound approach. Mid-Term: Congestion: Consider providing additional capacity at the intersection by installing turn lanes as needed.
US 17 at VA 1036	Safety: Intersection is located in dense commercial and high activity area with several adjacent signalized intersections. High potential for rear-end and left turn accidents. Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Mid-Term: Safety: Consider optimization of corridor as separate study and continue to monitor for accidents.
US 17 (Church Lane) at US 360 (Queen Street)	Safety: Pavement markings faded. Truck traffic travelling between Northern Neck and Richmond county cannot be safely accommodated. Southbound left turning trucks cross westbound approach stop bar. Trucks cause curb and sidewalk damage in northeast corner. Electric and light poles located on sidewalks restrict full pedestrian access. Congestion: Heavy truck traffic travelling to/from Northern Neck and Richmond county. Left turn vehicle from the westbound experience high delay.	Short-Term: Safety: Repaint pavement markings. Move westbound stop bar back to improve turn radius for southbound lefts. Mid-Term: Safety: Relocate electric and light poles from sidewalks or widen sidewalks to provide full pedestrian access. Congestion: Add an exclusive westbound to southbound left turn lane.
US 17 at VA 1008 (Wright Street)	Safety: Diagonal parking on both sides of Wright Street causes vehicles to back out into street. Location of PARR'S Drive-in creates a less than desirable eastbound approach alignment. Eastbound left turners conflict with westbound left turners. Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Short-Term: Safety: Restrict eastbound left turns out of PARR'S Drive-in. Mid-Term: Safety: Consider access management to define access points to parking areas on both sides on Wright Street. On north side of Wright Street, offset eliminated parking spaces (due to reconfiguration of parking) by seeking additional parking in rear of building.
US 17 at VA 1005	Safety: Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Long-Term: Safety: Deficiency with low priority. Continue to monitor for potential improvements.

US 17 at VA 1003	Safety: Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Long-Term: Safety: Deficiency with low priority. Continue to monitor for potential improvements.
US 17 at VA 725	Safety: Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Long-Term: Safety: Deficiency with low priority. Continue to monitor for potential improvements
US 17 at VA 698	Safety: Crashes at this location exceed the planning threshold (nine crashes over three-year period).	Long-Term: Safety: Deficiency with low priority. Continue to monitor for potential improvements
Proposed US 360 Connector from Proposed Tappahannock Bypass to US 17 / US 360	Congestion: Need for improvement was identified by SMS database.	Long-Term: Congestion: Proposed US 360 Connector.
Proposed Tappahannock Bypass from US 360 / VA 715 to US 17 North	Congestion: Need for improvement was identified by SMS database.	Long-Term: Congestion: Proposed Tappahannock Bypass.
US 360 (Richmond Highway) from US 17/US 360 to Richmond County Line	Congestion: Segment will operate at LOS E in 2035	Long-Term: Congestion: Urban - 4 Lane
US 17 (North Church Lane) from US 360 (Queen Street) to VA 627	Congestion: Project identified in CTB Six Year Improvement Program (UPC 86463).Segment will operate at LOS D in 2035.	Short-Term: Congestion: Reconstruct 0.23 miles of roadway from 0.23 mile to 0.46 mile north of US 360 No. Alleviate flooding during extreme weather conditions by spanning roadway segment with a new bridge. Long-Term: Congestion: Continue to monitor for potential improvements.

# MAP 4-2: TRANSPORTATION SYSTEM DEFICIENCIES



# MAP 4-3: TRANSPORTATION PLAN



## PROPOSED TRANSPORTATION PROJECTS

- **Comprehensive Pedestrian Flow Study**

*It is recommended that this study be combined with other identified studies in the project list into a comprehensive transportation study of the Town. An estimate will be provided for the comprehensive study. Economies of scale are anticipated with the combined study.*

- **Sidewalk and Bikeway Enhancement Study**

*It is recommended that this study be combined with other identified studies in the project list into a comprehensive transportation study of the Town.*

Develop sidewalks along US 17 where possible. Promote pedestrian friendly access between around schools and other high pedestrian traffic areas. Provide means for bicycle and pedestrian access to connect residential neighborhoods to commercial developments.

- **Airport Road Connector:** Connect a road across the former airport facility to allow better access and circulation to areas of Town. The connector could relieve some of the congestion at US 17 and Marsh Road intersection by allowing motorists an alternative. *The discussion focused on a connector across the airport runway that would be open to emergency vehicle access only, rather than general traffic. The extension of Route 700 appears to provide the best opportunity for this connection. If the road is not to be available for travel by the general public, VDOT program funding could not be applied to its improvement.*

## IMPLEMENTATION RECOMMENDATIONS

The Transportation Plan identifies both needs and planned improvements in order to create a transportation network that is consistent with the objectives and implementation of the Land Use Plan. The transportation plan cannot succeed without proper support and leadership from Town government. The following implementation strategies establish the policy framework from which the Town will create and maintain a functioning transportation system within the context of planned growth in the Town.

To improve the current transportation planning process, the State and Town should work closely together to evaluate the transportation system implications of the Town's new comprehensive plan; elected officials should be major participants in this process; and coordinated State and Town transportation management policy should recognize the need to expand upon the current level of commuter ride sharing in order to reduce single-occupant vehicles.

Integrating housing into overall design of large scale employment centers will help reduce the need to travel. Encourage land development that integrates housing into the design of large scale development. Locate residential adjacent to the employment centers to reduce transportation by

creating opportunities for workers to walk or bike to work. Encourage land use patterns within the community that provide multimodal access to open space, public facilities, employment, schools and other recreational and commercial activities while reducing vehicles dependency. Facilities such as bike racks, sidewalks, trails and bike paths should be encouraged to support alternative modes of transportation.

Require a traffic impact analysis of all major new projects as part of the Zoning and/or development review process to determine if post-development traffic levels and patterns will be consistent with the Town's Transportation Plan and highway policies. Minimum standards of the analysis should include techniques used to minimize potential safety and congestion problems.

Coordinate with VDOT to ensure that controlled access management techniques are considered in managing access to principal corridor roadways. An access management plan should be supported by appropriate ordinances to ensure that access is not unnecessarily provided along key road links or near major intersections, particularly along the designated Highway Corridor District.

Highway Corridor Overlay Zoning - Overlay zoning brings to an area additional requirements and standards above those of the underlying zone. Special transportation related improvements in the Highway Corridor District shown on the Land Use Concept Plan should include access controls and transportation impact analysis for high-volume uses.

Preserve right-of-ways for road improvements consistent with the Transportation Plan Map and the State capital improvement programming.

Cooperate and coordinate with transportation agencies and service providers to develop adequate fixed route service to Town residents.

Encourage innovative mechanisms for addressing transportation issues, including private cooperation, and financial support by developers and the business community. Provide incentives to larger employers that reduce the number of employees who drive to work and/or encourage carpooling and ridesharing.

Transportation management strategies selected by employers generally provide employees with incentives either to use alternative commute modes or to commute during non-peak hours. These include:

- instituting flexible or staggered work hours or telework opportunities;
- facilitating car pool and van pool formation;
- setting aside preferred parking locations for car pools and van pools by providing Park & Ride in Town Limits
- providing company-chartered commuter bus service;
- charging employees for parking;
- building on-site bicycle paths and safe storage areas; and
- providing transit passes or other forms of transit subsidy.

Not all businesses will immediately understand how they can benefit from trip reduction. Educating the private sector is an important part of developing and selling the concept of transportation systems management.

This project combines the individual studies identified in the project list for a Comprehensive Pedestrian Flow Study, a Sidewalk and Bikeway Enhancement Study, and a Comprehensive Study of Traffic Flow. Existing and future land use patterns and activity centers would be used in the determination of trip origins and destinations and future improvement needs to better accommodate bicycle, pedestrian, and vehicle traffic would be identified, with cost estimates and service level analysis provided. The study should identify potential funding sources for the improvements and recommend priority projects for implementation. An active public outreach program should be incorporated into the planning process. It is recommended that the plan include a transit component to determine the role public transportation can be expected to have in meeting total transportation demand.

# Chapter 5

## ENVIRONMENTAL PROTECTION

***GOAL: Provide protection for the environment including but not limited to protecting wetlands and other natural resources from erosion and ensuring that shoreline structures are maintained and erosion is minimized.***

### Objectives:

- Promote the use of Water Conservation Measures among Town residents and businesses.
- Maintain and protect the extensive wetlands in and around Tappahannock for open space.
- Protect the non-hardened shoreline from erosion through available laws and regulations.
- Minimize adverse impacts of gas or oil drilling and development activities on public health, safety, welfare, the character of the County's communities, the environment and the Chesapeake Bay.

### ANALYSIS

Tappahannock's growth has been managed with consideration to the sensitive natural environment in which it was developed. The Town's environmental resources contribute to its uniqueness in that it provides both a small urban town and a naturally beautiful scene within a small land area. Though the higher density developments of Essex County are concentrated in the Town, environmental protection is an equal goal of the Town and the County. Water quality, erosion and sedimentation are issues addressed at the federal, state and local levels and will require constant monitoring as growth and development continues.

### SOILS

**T**appahannock is situated mainly on soils of the Tetotum-Tomotley-State Association. This soil association occurs typically at lower elevations of Essex County, on the river terrace paralleling the Rappahannock River. Soil conditions are a major determinant of future development, as soil characteristics affect excavating, road building, the design and construction of buildings and foundations, and the location of sanitary facilities. A fluctuating high water table, characteristic of the Tetotum-Tomotley-State Association, is the major limiting factor of these soils for development. The availability of central sanitary facilities in the Town allows for development in all but the wettest (Tomotley) soils of this association; subsurface drainage and proper surface water drainage may eliminate problems associated with the Tomotley soils.

The remaining area of the Town is on soils of the Rappahannock-Molena-Pamunkey Association. This soil association occurs at elevations below 15 feet, primarily along Hoskin's Creek and Tickner's Creek. The soil association is predominantly Rappahannock soils, which are not suitable for any type of development because of flooding, high water table, and high organic matter and sulphur content. These Rappahannock soils are the tidal marsh areas which serve as a buffer zone along the waterfront, filtering runoff entering the waterways, minimizing shoreline erosion and serving as wetland wildlife habitat.

## **HIGHLY ERODIBLE SOILS**

Highly erodible soils are those soils which have a high potential for erosion and sedimentation. This potential is often related to steepness and length of slope. Both of these factors act to increase precipitation runoff velocity which in turn serves to loosen and remove certain soil particles. The extent to which soil particles are moved or the soils "erodibility factor" varies depending on soil texture, infiltration rate, permeability and other factors. The general locations of soils which are highly erodible in Tappahannock are identified on Map 5-1. Approximately 15 % of the land area within the Town is characterized by the presence of highly erodible soils. Most of these soils are in scattered locations with few areas of concentration in the community. These soils are less frequently present along the Town's Rappahannock shorefront, but are more often located near Hoskin's Creek and inland stream systems.

Tappahannock is designated a Resource Management Area (RMA) as per the Chesapeake Bay Preservation Act. The Town regulates development of sites characterized by the co-occurrence of both highly erodible soils to reduce sedimentation to streams and transport of contaminants which are often attached to soil particles. When development occurs in such locations, plans required for sediment and erosion control should be carefully reviewed and Best Management Practices (BMP's) are required and reviewed in an effort to minimize soil erosion. Additional BMP's should also be considered as may be recommended by the Chesapeake Bay Local Assistance Department.

## **HIGHLY PERMEABLE SOILS**

Highly permeable soils transmit water at such a rate that there is a potential for surface pollutants such as nutrient and other chemicals and sewage wastes to infiltrate, undegraded, into nearby surface water and groundwater systems. Highly permeable soils are those which can be characterized as having permeability equal to or greater than six inches of water movement per hour in any part of the soil profile to a depth of 72 inches. Map 5-2, prepared by the Middle Peninsula Planning District Commission, identifies the general location and extent of highly permeable soils within the Town of Tappahannock. These soils are concentrated in a number of locations which are already developed in the Town including the Central Business District and adjacent residential neighborhoods as well as substantial portions of the Southern portion of the Town where a number of highway oriented commercial uses have developed over time. Highly permeable soils occupy an estimated 50 percent of the Town land area.

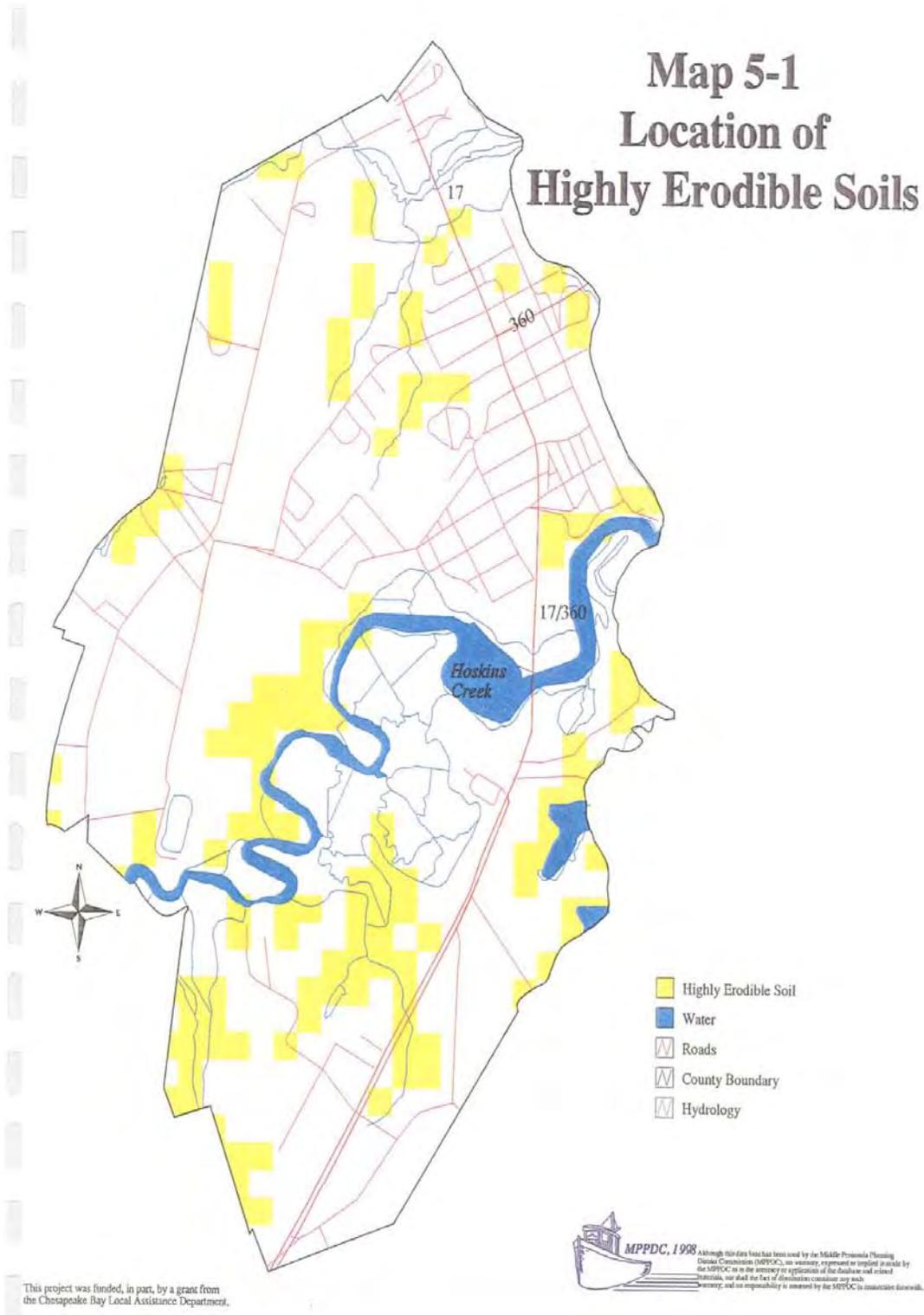
Highly permeable soils are highly susceptible to pollutant leaching, and thus have a greater potential for groundwater pollution as well as pollution of surface waters. Soil permeability is particularly important in relation to design of soil drainage systems. Shallow groundwater resources or surface aquifers are also a source of water for streams in the Town which flow into Hoskins Creek, the Rappahannock and the Chesapeake Bay. The cumulative effects of chemical pollutants leaching into groundwater resources over time can increase the potential for water resource pollution.

## **HYDRIC SOILS**

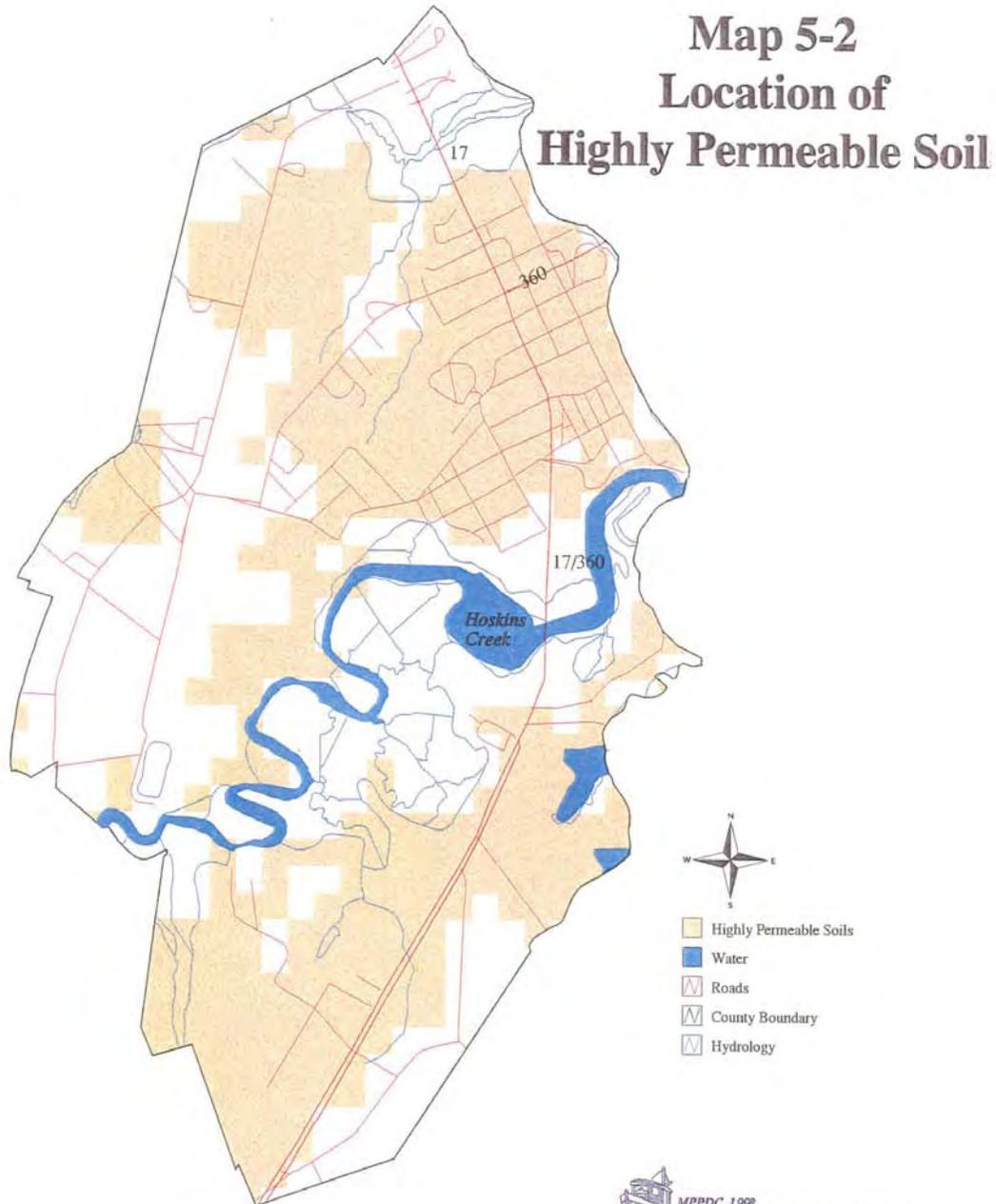
Soils are considered hydric if they are saturated, flooded, or ponded long enough to develop anaerobic (no oxygen) conditions in their upper layers. Chemical changes which result from prolonged saturation (at least one week during the growing season) are reflected in the soil color, composition, and in some cases, its smell. Map 5-4, prepared by the MPPDC with the use of the Essex County Soil Survey, identifies the location of hydric soils in Tappahannock. Hydric soils are located in proximity to stream systems adjacent to Hoskin's Creek and Tickner's Creek and along the west central edge of the Town.

Because the identification of hydric soils provided in the soil survey includes soils that are either drained or undrained, not all hydric soils are wetlands although in many cases they provide an indication of the possible presence of non-tidal wetlands. Determination of the presence of wetlands ultimately requires field verification. Any development proposal on lands identified as hydric soils should be required to verify the location of non-tidal wetlands to assure such areas are not impacted by development disturbances.

# MAP 5-1: LOCATION OF HIGHLY ERODIBLE SOILS



# MAP 5-2: LOCATION OF HIGHLY PERMEABLE SOILS



This project was funded, in part, by a grant from the Chesapeake Bay Local Assistance Department.



Although this data has not been used by the Middle Peninsula Planning District Commission (MPPDC), no warranty, expressed or implied, is made by the MPPDC as to the accuracy or application of the data and related materials, nor shall the data of third parties constitute any such warranty; and no responsibility is assumed by the MPPDC in connection with the use of this data.

## **SHORELINES**

Shorelands are a limited resource and, for the most part, are nonrenewable. Shoreline erosion control has been the responsibility of private property owners and assistance to them in coordinating efforts is a recently developed service. It is desirable to preserve beaches for their beauty and recreational function and for protection of the marshland.

The entire Rappahannock shoreline in Tappahannock has been artificially stabilized, contributing to further erosion downstream. This is a temporary, ineffective means of beach protection. In order to reestablish or maintain existing beaches, the only course of action currently available is a program of beach nourishment and structures specifically designed to trap moving sand at particular sites

## **RECREATIONAL AND COMMERCIAL FISHERIES**

The Rappahannock River, which flows adjacent to the Town of Tappahannock, serves each year as a spawning ground to millions of shad, herring and yellow perch during the months of April and May. Below the fall line at Fredericksburg, the river broadens into a tidal estuary where fish, oysters, and crabs are abundant. Fish such as shad, rock fish and catfish support recreational fishing activities in tributaries of the Rappahannock and in particular larger creeks such as the Piscataway near Tappahannock.

## **WATER**

Water activities which serve as major attractions to tourists as well as present and potential residents of the area are dependent upon high standards of water quality. Runoff from ground areas, sewage treatment discharge and construction activity along the shoreline all affect water quality. Tappahannock residents take pride in the beautiful Rappahannock and support its preservation.

Adequate groundwater supply for present and future residential, commercial, and industrial uses exists in the upper artesian and principal artesian aquifer systems. The upper artesian aquifer system is 150 to 200 feet below surface, consistently, and is a good source of domestic water supply. Currently, water of good quality is being tapped from this system for individual use around Tappahannock. Tappahannock's central water system is drawn from the principal aquifer at depths greater than 200 feet. Though it is costly to bring to the surface, this aquifer has potential for unlimited use of good quality water.

Given the population served by the Town's municipal water supply facilities and expected growth in the Town, it is the policy of the Town that potential sources and effects of pollution on the Town's water supply be investigated. Sources may include storm water runoff, leaking petroleum storage tanks, abandoned wells, former refuse sites, and on-site sewage deficiencies. The Town has promoted research, education, and action for the management, conservation, and protection of the Middle Peninsula's water resources.

The Town should explore developing controls for future high volume water users

The Department of Environmental Quality (DEQ) currently monitors above and below ground petroleum storage tanks in the Town of Tappahannock.

Water and sewer service is available town wide. Several on-site systems remain within the Town (Map 1). At such time when these systems require repair, it is the policy of the Town to investigate the cost of public service hook up. The Town desires to have 100% town wide public water and sewer hookup.

The Town is sensitive to the role water conservation plays in the community. Groundwater protection and conservation is an incremental process. Community leadership will be responsible for developing, coordinating, and implementing the conservation activities. Following on the recommendation to inform the general public about contamination and threats to water resources, the Town will look towards the Middle Peninsula Planning District Commission's Water Resource Program to provide guidance to the Town.

## **PROTECTION OF POTABLE WATER SUPPLIES**

The Town of Tappahannock provides the only municipal water supply system in Essex County. Given the large concentration of residents and businesses which are dependent on Municipal water supply facilities and expected growth around the Town of Tappahannock, the potential effect of pollution sources on the Town water supply should be investigated in cooperation with the County. Such sources include abandoned wells, former dump sites, and underground storage tanks, urban run-off and any activities that directly or indirectly affect the Town's water supply.

Site planning practices assure that proposed developments are designed to preserve as much of the original site vegetative cover as possible. Vegetative buffers along streams can do much to minimize the impact of development disturbances to wetlands, floodplains and other sensitive areas. Although there is presently no indication of stream bank erosion along Tickners Creek and Hoskins Creek, protection of streamside forest cover along both these water bodies and their tributary streams should remain a priority to minimize the erosion and sedimentation impacts of future development disturbances in the Town on both bodies of water. Conserving vegetation, particularly trees along streams and other natural waterways can minimize the impacts of stream bank erosion and stormwater on groundwater supplies and tidal waters.

Measures for streamside buffering include requiring protection of streamside (riparian) forest cover where it exists and encouraging re-establishment of forest cover or forestation where it does not presently exist along streams when development is proposed on sites adjacent to stream corridors.

## **DEVELOPMENT CONSTRAINTS ANALYSIS**

The presence of sensitive environmental features on lands within the Town of Tappahannock clearly influences the development pattern of the community. Certain natural features or environmental resources (notably floodplains, wetlands, hydric soils, and steep slopes) pose limitations for development. The following discussion is provided to establish some

understanding of which lands in the Town contain sensitive environmental features which may limit development. A series of maps, prepared by the Middle Peninsula Planning District Commission identify their general location in the Town.

## **FLOODPLAINS**

Floodplains are those areas along streams and rivers where flooding is likely to occur in the area. While protection of life and property provide the initial basis for protection of floodplains, there has been a growing recognition in recent years that limiting disturbances within floodplains can serve a variety of additional functions with important public purposes and benefits. Floodplains are critical environmental resources due to their function as a natural and economical storm water management system as well as their value as wildlife habitats and recreational areas. Floodplains moderate and store floodwaters, absorb wave energies, and reduce erosion and sedimentation. Wetlands found within floodplains help maintain water quality, recharge groundwater supplies, protect fisheries, and provide habitat and natural corridors for wildlife movement. Construction in floodplains is subject to damage by floodwaters however substantial change to existing terrain can also affect the conveyance of storage of the natural channel to the detriment of upstream and downstream landowners. Development in the floodplain is not prohibited by the County or Town and there are no special provisions for development. Most of the town is elevated above the Severe Flood Hazard Area (SFHA).

The minimum requirements of the National Flood Insurance Program do not prohibit development within the 100-year floodplain. However, to adhere to the minimum Federal requirement, the Town requires development and new structures in the floodplain to meet certain flood protection measures including elevating the first floor of structures a minimum of one foot above 100 year flood elevations and utilizing flood-proof construction techniques. Moreover, where alternative building sites on a parcel are available for construction outside the 100 year floodplain, construction outside of the 100-year floodplain is preferred.

Map 5-3 identifies the general location of floodplains in Tappahannock. These areas are generally located along the Rappahannock shoreline. Portions of the 100 year floodplain are also located along the Town's northwestern and southwestern edges. The most current flood data can be found online at the Federal Emergency Management Agency website ([www.fema.gov](http://www.fema.gov)).

Federal Emergency Management Agency (FEMA) is in the process of updating floodplain maps for Essex County. In May 2013, Essex County received preliminary Flood Insurance Rate Map (FIRM) changes and proposed effective date for new FIRMs is May 2015.

## **WETLANDS**

In the 20th century, well-intentioned public and private efforts to provide flood protection, mosquito control, greater agricultural productivity, better highways, and many other benefits to society have often resulted in filling or draining of wetlands for farming, forestry, industry, and development. In more recent years, research has concluded that wetlands play a vital role in the environment. Wetlands are valuable for the many physical, hydrological, biological, and cultural functions which they provide.

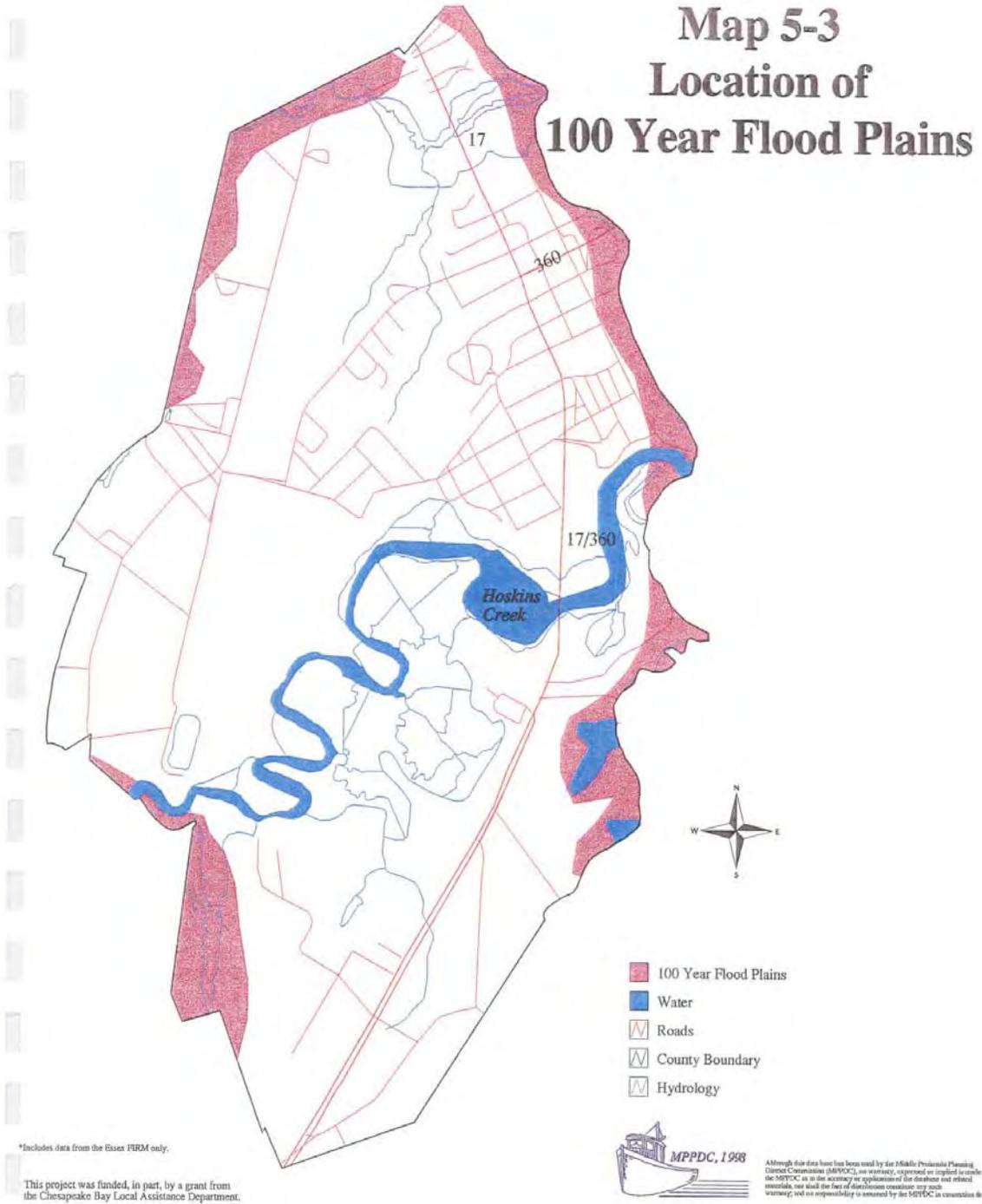
In light of the benefits, tidal wetlands in the Commonwealth are protected by the 1972 Wetlands Protection Act, as amended. This law requires a special permit prior to starting construction, dredging, or filling tidal wetlands. The Act also empowers local jurisdictions to establish Wetlands Boards which may review and decide permit requests. Essex County has a Wetlands Board. The Virginia Marine Resources Commission has the ultimate authority to administer the Wetlands Protection Act and reviews all decisions issued by local boards.

Nontidal wetlands are currently federally regulated by Section 404 of the 1977 Clean Water Act, as amended, which prohibits disposal of dredged or fill material into "waters of the United States" and adjacent wetlands. This has been broadly interpreted by the Environmental Protection Agency (EPA) to include virtually all surface waters in the nation, regardless of size.

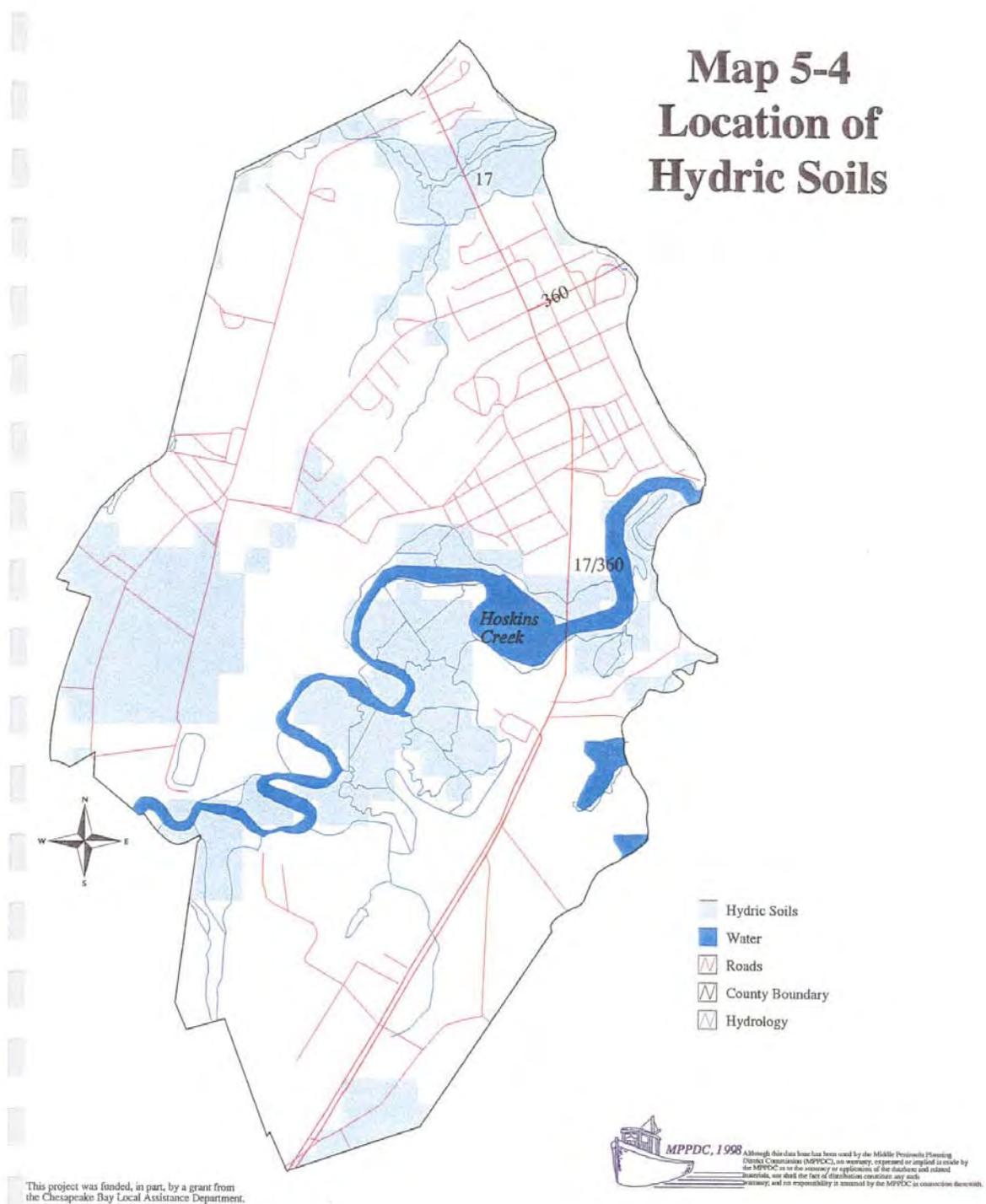
The Chesapeake Bay Preservation Act and Chesapeake Bay Preservation Area Designation and Management Regulations establish mandatory requirements for the Town to obtain evidence from a developer of all wetland permits required by law prior to authorizing any site grading or other on-site land disturbing activities. Wetlands located in the Town of Tappahannock are shown on Map 5-5 prepared by the Middle Peninsula Planning District Commission. The most extensive area of wetlands co-occurs with the location of Hoskins Creek which bisects the Town. Comparison with Map 5-4 suggests there are a number of locations where the presence of hydric soils does not necessarily indicate the presence of wetlands.

# MAP 5-3: LOCATION OF FLOODPLAINS

## Map 5-3 Location of 100 Year Flood Plains



# MAP 5-4: LOCATION OF HYDRIC SOILS



Analysis of the location of sensitive resources including wetlands, steep slopes, highly erodible and highly permeable soils, and hydric soils indicates that with the exception of hydric soils near the Town's western border, should pose few limitations for the nature and types of development to be accommodated in land use plan (see chapter 3). The presence of hydric soil conditions in on the 70 acre tract along Airport Road, planned for industrial development (see land use plan map #3-1) may limit develop in these areas. Proposals for development in this area should be required to conduct soils analysis to determine their suitability for development. The presence of hydric soils in this area suggests the possible location of nontidal wetlands. Where their location can be confirmed by field investigation, development proposals should be designed to avoid any disturbances to wetlands and minimize impacts to their hydrology.

Finally areas designated as Resource Protection Areas under the terms of the Chesapeake Bay Preservation Act represent areas of severe constraint to development and should remain undisturbed. These areas are identified on Map 5-7.

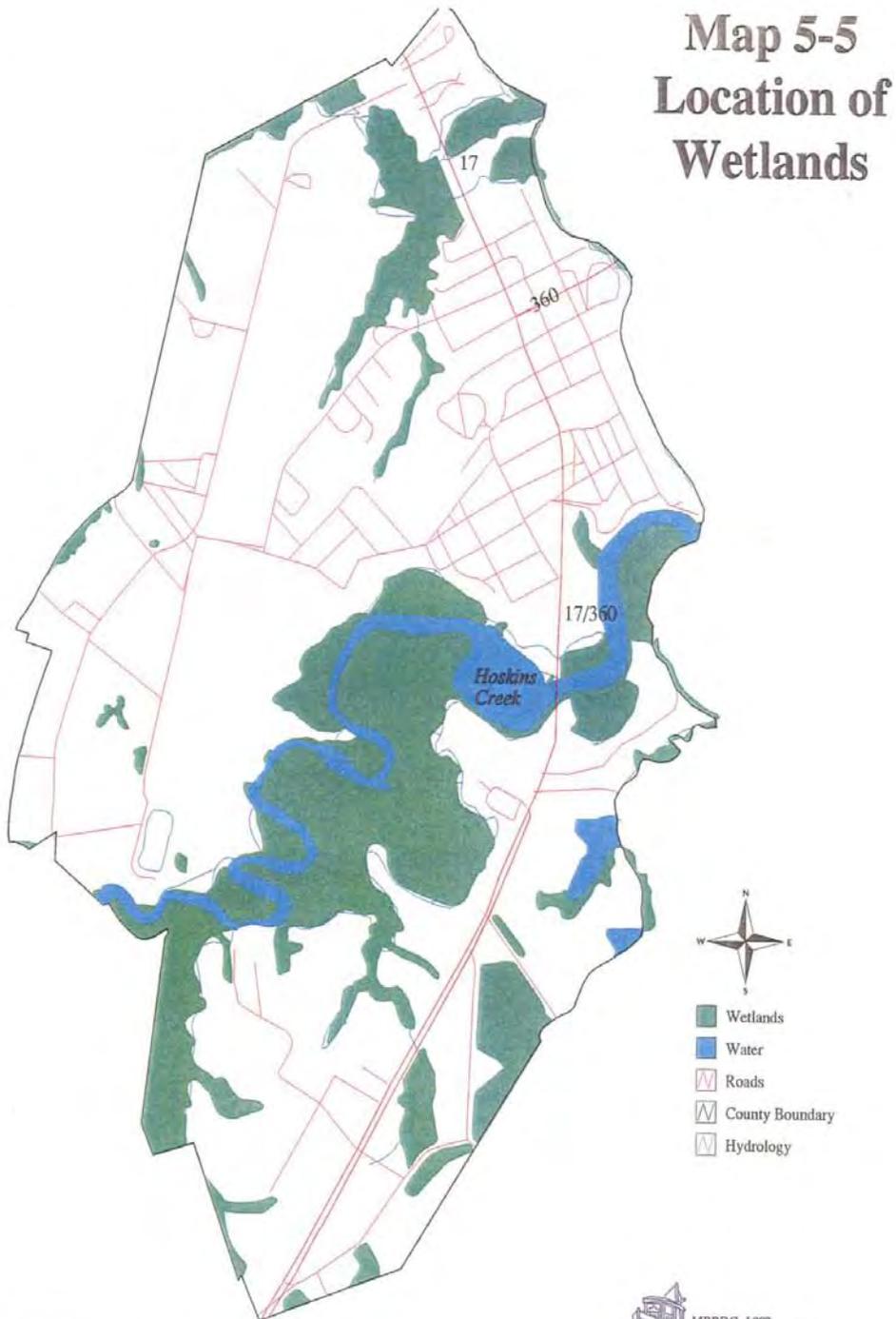
## **COMPREHENSIVE COASTAL RESOURCE MANAGEMENT**

Coastal ecosystems reside at the interface between the land and water, and are naturally very complex. They perform a vast array of functions by way of shoreline stabilization, improved water quality, and habitat for fishes; from which humans derive direct and indirect benefits.

The science behind coastal ecosystem resource management has revealed that traditional resource management practices limit the ability of the coastal ecosystem to perform many of these essential functions. The loss of these services has already been noted throughout coastal communities in Virginia as a result of development in coastal zone areas coupled with common erosion control practices. Beaches and dunes are diminishing due to a reduction in a natural sediment supply. Wetlands are drowning in place as sea level rises and barriers to inland migration have been created by construction of bulkheads and revetments. There is great concern on the part of the Commonwealth that the continued armoring of shorelines and construction within the coastal area will threaten the long-term sustainability of coastal ecosystems under current and projected sea level rise.

In accordance with section §15.2-2223.2 of the Code of Virginia, regarding shoreline management in Tidewater Virginia, all local governments shall include in their comprehensive plan guidance prepared by Virginia Institute of Marine Science (VIMS) regarding coastal resource management and the appropriate selection of living shoreline management practices. The legislation establishes the policy that living shorelines are the preferred alternative for stabilizing eroding shorelines. Research continues to support that these approaches combat shoreline erosion, minimize impacts to the natural coastal ecosystem and reinforce the principle that an integrated approach for managing tidal shorelines enhances the probability that the resources will be sustained. Therefore, adoption of new guidance and shoreline best management practices for coastal communities is now necessary to insure that functions performed by coastal ecosystems will be preserved and the benefits derived by humans from coastal ecosystems will be maintained into the future.

# MAP 5-5: LOCATION OF WETLANDS



This project was funded, in part, by a grant from the Chesapeake Bay Local Assistance Department.

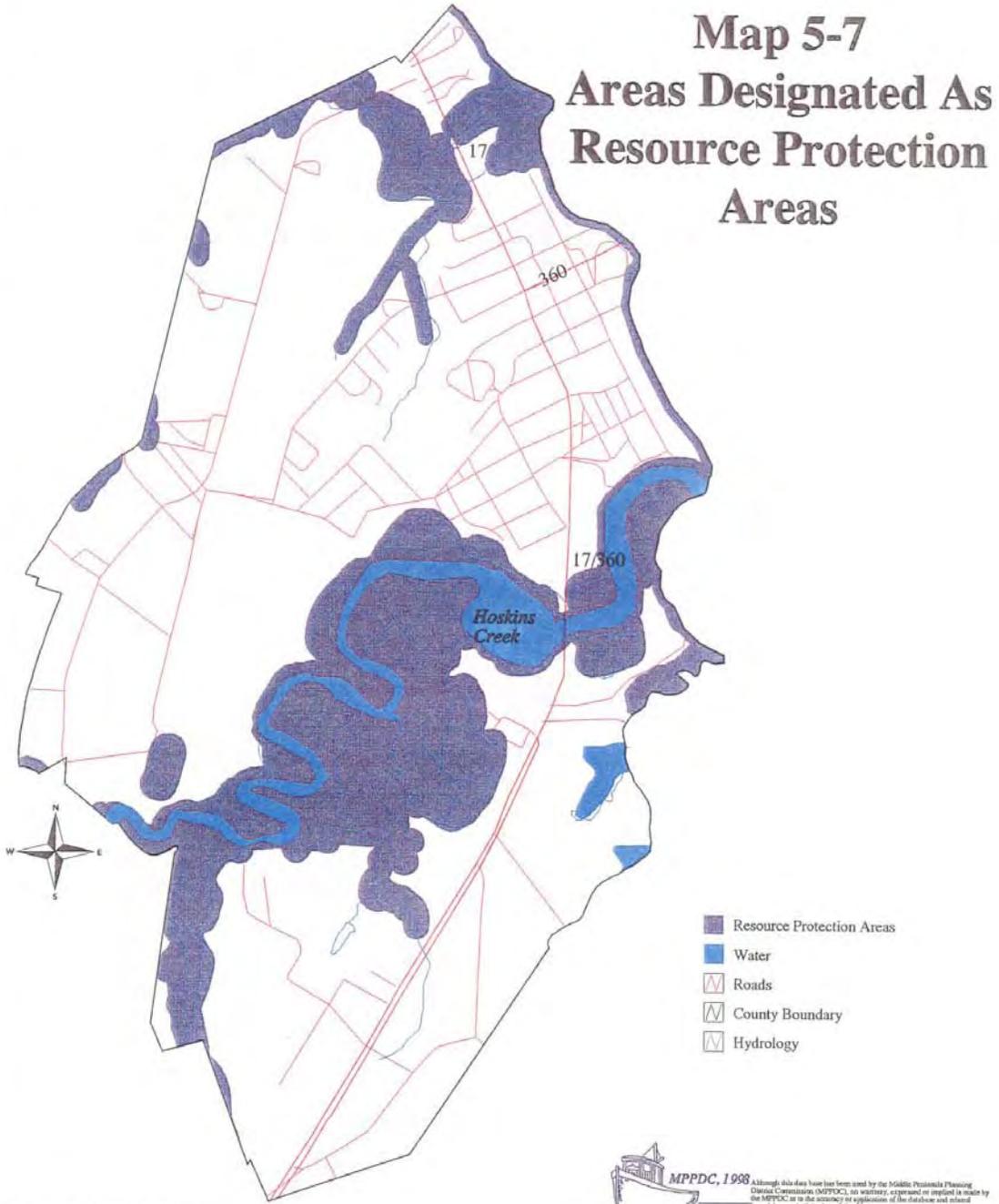


Although this data has been used by the Middle Peninsula Planning District Commission (MPPDC), no warranty, expressed or implied, is made by the MPPDC as to the accuracy or applicability of the data and other materials, nor shall the fact of distribution constitute any such warranty, and no responsibility is assumed by the MPPDC in connection with its use.

# MAP 5-6: LOCATION OF STEEP SLOPES



# MAP 5-7: AREAS DESIGNATED AS RESOURCE PROTECTION AREAS UNDER THE TERMS OF THE CHESAPEAKE BAY PRESERVATION ACT



This project was funded, in part, by a grant from the Chesapeake Bay Local Assistance Department.

## **THE CHESAPEAKE BAY PRESERVATION ACT**

The primary tool for implementing the resource protection objectives of the Town is the Chesapeake Bay Preservation initiative. The Chesapeake Bay Preservation program launched by the state in 1988 establishes a baseline for protection of Town resources that disturbance or overutilization can and often have adversely impacted water quality in those Bay system tributaries that border and penetrate the Town.

The State of Virginia has adopted the Chesapeake Bay Preservation Act which mandates all Tidewater Virginia localities to establish program, plans, and ordinances to protect and improve Bay water quality. These "local programs" must be in conformance with the Chesapeake Bay Preservation Area Designation and Management Regulations adopted by the Virginia Legislature in September, 1989.

The purpose of the regulations is to protect and improve the water quality of the Chesapeake Bay, its tributaries, and other state waters by minimizing the effects of human activity upon these waters and implementing the Chesapeake Bay Preservation Act, which provides for the definition and protection of certain lands called Chesapeake Bay Preservation Areas, which if improperly used or developed may result in substantial damage to water quality of the Chesapeake Bay and its tributaries.

The regulations establish the criteria that Tappahannock has used to determine the extent of the Chesapeake Bay Preservation Areas within its jurisdiction. The regulations establish criteria for use by the Town in granting, denying, or modifying requests to rezone, subdivide, or to use and develop land in Chesapeake Bay Preservation Areas. Regulations identify the requirements for changes which local government like Tappahannock must incorporate into their comprehensive plans, zoning ordinances, and subdivision regulations to protect the quality of state waters pursuant to the Chesapeake Bay Preservation Act.

The purpose of the Tappahannock Chesapeake Bay Preservation Program Comprehensive Plan Element is to collect and analyze data, explore issues and alternatives, and develop policies and implementation strategies, providing a basis to take local action to protect and improve the water quality of the Chesapeake Bay, its tributaries, and other state waters.

## **DATA COLLECTION AND ANALYSIS**

The Chesapeake Bay Preservation Program for Tappahannock relies on the collection and analysis of water and land use data and characteristics. The information sources utilized for the adoption of the program are those which are the best in accuracy and currently available. Recognizing that in some areas data may be incomplete or on a reduced level of accuracy, the county/town, in conjunction with the Department of Conservation and Recreation Division of the Chesapeake Bay Local Assistance Department (CBLAD) and the Middle Peninsula Planning District Commission (MPPDC), will strive to produce future inventories and studies to best reflect the current and changing characteristics of the lands and waters.

The goal of the inventory of natural and manmade features is to identify the areas within the Town which require and should be considered for preservation under the Chesapeake Bay Preservation Act (CBPA) regulations. These areas include: tidal wetlands, nontidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams, tidal shores, floodplain, highly erodible soils, highly permeable soils, other nontidal wetlands, and other lands whose characteristics may have a significant impact on water quality protection.

Tappahannock contracted with the MPPDC to produce an inventory of the land categories identified above. The MPPDC utilized the following information sources in conjunction with an automated geographic information system to analyze, compile, and map the inventoried features:

- United States Geological Survey - Digital Line Graph: includes tidal wetlands, tributary streams, tidal shores, roadways, and county boundaries.
- U.S. Fish and Wildlife Service - National Wetlands Inventory: includes tidal and nontidal wetland and classification of each.
- Virginia Geographic Information System - Digital Information of the U.S. Department of Agriculture Soil Conservation Service Soil Survey of Essex County, Virginia: includes soil characteristics necessary to determine permeability and erodibility of soils.
- Federal Emergency Management Agency - Flood Insurance Rate Map: includes 100-year event floodplain for Essex.

The MPPDC has published the Comprehensive Water Quality Management Plan for the Middle Peninsula which provides water quality and issues data, analysis, and policy review. Specifically, the two elements of the Management Plan provide information relevant to Middle Peninsula localities' on-site wastewater treatment, potable water supply, boating facilities, living resources, waterfront access, existing land use and water quality (including pollution sources), and a general economic analysis of the region.

Other documents referenced directly or through familiarity include the CBLAD's Local Assistance Manual; the Virginia Institute of Marine Science's (VIMS) Shoreline Situation Report for Essex County; and other federal, state, and local studies.

## **SHORELINE EROSION**

The Town recognizes shorelines as a valuable asset that should be managed appropriately. With financial assistance from the Chesapeake Bay Local Assistance Department, Essex County, and the Town of Tappahannock were surveyed for a comprehensive shoreline situation report.

Since the Town of Tappahannock is bordered by the Rappahannock River and contains both Tickner's and Hoskins Creek's, shoreline erosion management is of critical concern. Soil erosion along shorelines occurs when water or wind carries off soil particles. The transport of soil particles is generally referred to as runoff. Runoff can wash fertilizer and other pollutants into Hoskin's Creek and the Rappahannock River and should be kept to a minimum. The Town

uses the Virginia Erosion and Sediment Control Handbook for guidance related to overland flow and erosion control. Additionally, the Department of Conservation and Recreation's Shoreline and Erosion Advisory Services (SEAS) provides guidance for tidal and non-tidal erosion. These following characteristics generally identify erosion activity:

- Bare spots on land
- Exposed roots
- Small rills or gullies on slopes
- Sediment collects in low areas

Shoreline and streambank erosion are caused by wave and water energy, and can vary from low to moderate or high levels. Permanent structures, such as bulkheads and revetments, have been established along many parts of the Town's shoreline where moderate to high levels of erosion occur. Permanent erosion control structures built in the past have sometimes caused the erosion of downstream wetlands and the disappearance of downstream beaches, as the movement of sand or sediments is impeded by these structures. Unified treatment of whole reaches of shoreline can improve opportunities to assure that solutions to erosion conditions on one site do not create greater rates of erosion on adjacent sites.

Shorefronts subject to low and moderate rates of erosion may often represent candidate sites for non-structural shore protection through the use of wetland plantings and sills (continuous small rock breakwaters used to slow wave energy to establish inter-tidal marshes). Marsh vegetation and plantings in such areas can provide long term stabilization at a fraction of the cost of conventional structures such as bulkheads and stone revetments. Such treatment of shore erosion conditions also improves water quality and increases habitat availability.

The Virginia Institute of Marine Science completed a shoreline and erosion study of Essex County and the Town of Tappahannock in 2001. Several classifications of erosion are present along the shoreline of the Town boundary, but there are few areas where high erosion rates are present (APPENDIX A).

Most of the Town shoreline along the Rappahannock River has minimal erosion activity. The majority of the river shoreline is classified as greater than 10ft. bank height/low erosion. One 500ft. section around the Route 360 Bridge is classified as 0-5ft. bank height/low erosion area. Two small sections totaling 300ft. are classified as 5-10ft. bank height/low erosion area. The shoreline also includes about 400ft. of beach/low erosion area around the Route 360 Bridge and 1000ft. of marsh/low erosion area near Tickner's Creek. Most of the shoreline is hardened. Bulkheads are the most common form of hardening. Groinfields are found along 1000ft. of shoreline and there are scattered sections of riprap. There are numerous piers and wharfs along the river.

Hoskin's Creek has several levels of erosion activity. The majority of shoreline is classified as 0-5ft. bank height/low erosion with marsh conditions. Two sections with a total of 2000ft. of shoreline are classified as 5-10ft. bank height/low erosion. Two shorter sections totaling about 400ft. are classified as greater than 10ft. bank height/low erosion. There are two isolated sections of high erosion, one with bank heights from 5-10ft. and one with bank heights greater

than 10ft. These areas contain bulkheads, one associated with a pier and one with a boathouse. Bulkheads are present on the north shore near the mouth of the creek and there is a small bulkhead on the south shore. There are many piers and boathouses along this section of the creek.

Tickners Creek has two levels of erosion activity. Most of the shoreline is classified as 0-5ft. bank height/low erosion with marsh conditions. There is a 100ft. section of 0-5ft. bank height/high erosion associated with riprap on the north side of the creek. This area is found on the downdrift side of a jetty at the mouth of the creek. There is a marina on the south side of the creek.

Overall the Town does not view erosion as a problem. However, if at such time erosion activities expand or citizens request assistance in dealing with erosion issues, Town staff will be available to assist citizens with mitigation strategies.

It should be noted that the 2001 erosion study of Essex County and the Town of Tappahannock did not contain data addressing the condition of shoreline structures or how these structures impact water quality. The Town will assist VIMS in the future with the collection and assessment of this data.

## **RESOURCE PROTECTION AREAS**

Resource Protection Areas (RPAs) perform natural pollution control functions. Biological activities and physical characteristics in these areas are especially effective in controlling runoff, trapping sediment, and recycling nutrients and pollutants. Components of RPAs are certain wetlands, tidal shorelines, and buffer areas.

The tidal shoreline interface where water meets the land is the scene of dramatic changes caused by the natural forces of wind and water. Tidal shore stability is generally governed by three main determinants; the amount of beach material, the intensity of natural and human forces, and the stability of sea level. The occurrence of tidal shore erosion is considered a natural process and becomes a serious problem only when human structures and activities unnaturally intrude into this process. Buffer areas are zones of undeveloped vegetated land that are managed to reduce the impact on water quality of land disturbing operations in adjacent areas. Vegetated buffer areas provide a wide variety of environmental benefits, including sediment control, nutrient assimilation, stream bank stabilization, in-stream temperature maintenance, flood control and protection, groundwater recharge area protection, and runoff volume reduction.

The RPA serves the purpose of protecting environmentally sensitive land and water areas from the adverse effects of human activities to thus improve and protect the quality of water both locally and regionally. The components of the RPA are prescribed by Virginia statute, with the local option to include other lands within the RPA designation as necessary to provide a high level of protection to the quality of state waters.

Tappahannock has designated a RPA which consists of all tidal wetlands; nontidal wetlands, including impounded lakes and ponds connected by surface flow and contiguous to tidal

wetlands or tributary streams; tidal shores; and an additional buffer area of 100 feet in width, except where reductions are allowed, so located within its jurisdictional boundaries. The extent of the Town's RPA is shown on Map 5-7.

The intent of RPA designation is to limit land disturbance and development to only those activities classified as "water dependent" or otherwise exempted in the Town Chesapeake Bay Preservation Area Overlay District. The integrity of the RPA and associated mechanisms with the CBPA Program will serve the goal of preserving those features most associated with the high standard in quality of life in Tappahannock, namely clean water and attractive landscapes for the beneficial use by both society and the natural ecosystem.

The implementation of the RPA goals will be through an overlay district contained in the Tappahannock Zoning Ordinance. The zoning ordinance will include a general designation RPA map in addition to the performance criteria to be included on specific site plans. The subdivision, erosion and sedimentation control, and floodplain ordinances will also include provisions to preserving water quality as related to CBPA.

## **RESOURCE MANAGEMENT AREAS**

The Chesapeake Bay Preservation Act and Criteria Regulations establish the Resource Management Area (RMA) as the landward component of Chesapeake Bay Preservation Areas. Lands to be considered for designation as RMA include the following: nontidal wetlands, floodplain, highly erodible soils, highly permeable soils, and other lands at local discretion.

RMAs are important in terms of water quality primarily because if improperly used or developed, they could release significant amounts of non-point source pollutants into the surface and ground water systems. The regulations do not limit the types of land use and development that may occur within the RMA. Instead, a variety of performance criteria will be applied to any proposed use or development within RMAs to ensure that those land disturbances that do occur will minimize the adverse impact on water quality. The performance criteria apply to stormwater control, on-site sewage disposal, and land disturbance/stabilization.

The designation of RMAs in Tappahannock has been based on the consideration of the sensitive land types listed above and described below.

Floodplains are areas which are subject to predictably recurring overflows from nearby bodies of water, including streams, rivers, bays, and oceans. A floodplain acts as a natural reservoir for such an overflow by storing water and thus reducing the volume and speed of the flood water's effects downstream. The removal of natural vegetation through land development within a floodplain diminishes the natural flood control capacity of the area. The result can be an increase in non-point source pollution of the water body through severe soil erosion.

Highly erodible soils, if improperly disturbed or exposed, can contribute to water quality degradation through sedimentation and siltation of water bodies. In addition, nutrients and toxicant may be attached to soil particles which can be transported and released to the aquatic environment through erosion.

Highly permeable soils transmit water at such a rate that there is a potential for surface pollutants such as nutrient, sand, other chemicals, and sewage wastes to infiltrate, undegraded, into the nearby surface water and groundwater systems. This possibility of the highly permeable soil becoming a "highway" for pollutants indicates the need for management of development in these areas.

Local designation of other lands to be included in the RMA classification is based on several factors, including the distribution of the other land types listed above, the hydrology of the locality, and the general characteristics of the landform in the locality. The regulations of the CBPA also require the RMA to be contiguous to the RPA.

Tappahannock has chosen to designate the entire Town as a Resource Management Area (RMA). The extent and distribution of the land features considered as RMA components are such that few areas of the Town are lacking one or more of these features. It is also recognized that all lands within the Town are contained within the Chesapeake Bay watershed and activities upon these lands can act to impact the water quality of the Bay. In order to maintain the goal of high water quality within the Town, county and region, the policy of the Town is to include all lands as RMAs when those lands are not designated as RPAS.

The implementation of the RMA goals will be accomplished by specific provision in the Town zoning, subdivision, erosion and sedimentation control, and floodplain ordinances. Implementation will rely on an effort to improve the capacity of staff and the general public through supporting educational opportunities related to managing and enforcing the Chesapeake Bay Program.

## **DEVELOPMENT SUITABILITY**

The lands and waters within Tappahannock are varied in characteristics and natural function. Features such as topography, hydrology, soil type, vegetation, and geographic location all serve to influence land development. With advances in construction methods and materials and sewage disposal technology together with the increase in population and property values, land which once may have been considered undevelopable is being engaged for development pursuits.

The Chesapeake Bay Preservation Act has highlighted the concern of land disturbing activities which cause water quality degradation through non-point source pollution. In addition, the use of methods of limiting or preventing non-point source pollution, such as Best Management Practices (BMP's), indicate that there are reasonable means to manage the potential impacts of most development. To further explore the compatibility of development to the land site, an additional step of analyzing the suitability and capacity of the site is needed.

Perhaps the most obvious factor to consider when analyzing a site for development suitability is the characteristics of the soils present. Soils play the important role of determining weight loading capacities, on-site sewage treatment assimilation, erosion potential, and vegetation growth.

An additional factor of importance is the location of "poorly" or "marginally" developable soils in relationship to streams, water bodies, and wetlands. Development on such soils, in close proximity to designated RPAS, can produce negative impacts on water quality. A development suitability analysis can provide the necessary detailed information on both the most and least desirable portion of a parcel for development. With this information in hand, the Town and the land developer can arrive at the development design solution which presents the highest compatibility of the use and the environment.

A detailed, site-specific soils survey would provide the information necessary to match the suitability with the uses proposed for the site. The topography and hydrology of the site should be detailed enough to predict overland sheet flows of stormwater. Knowledge of the vegetation and wildlife habitat is important for a site as well as for the surrounding areas. The comprehensive analysis of all these features can lead to development sensitive to the natural resources of Tappahannock.

To preserve the development rights of land owners, options to mitigate impacts and utilize BMPs should be allowed. It is envisioned that the level of detail of the suitability analysis will provide the owner with the information to balance the management options presented by the site.

Tappahannock has determined a comprehensive development suitability analysis to be necessary to the optimum function, design, and environmental preservation of land development sites. The comprehensive development suitability analysis should include a detailed inventory of soils with the capacities for on-site sewage treatment, weight loading, erosion potential, and vegetation growth documented. Discussion of wildlife habitat and other significant environment should be included. Mitigating factors, such as the use of BMPs should be included. This analysis should be conducted for all proposed development exceeding 10,000 square feet in land disturbance within Chesapeake Bay Preservation Areas.

The requirement to conduct a comprehensive development suitability analysis will be implemented through the Town's plan of development procedures, including zoning and subdivision ordinances.

## **WATERFRONT ACCESS AND BOATING FACILITIES**

The Rappahannock River and Hoskin's Creek are resources belonging to the citizens of Virginia. The use of these waters for recreation and commerce are traditional and acceptable as the economic base for the area. With the subdivision of large tracts of waterfront property into numerous privately owned smaller lots, comes the competing interest of those owners seeking privacy and the upland residents and tourists seeking use of the waters. The increasing use of our waterways leads to concern of environmental damage due to improper or reckless activities causing pollution or habitat destruction. This concern leads to the need for greater management capability over waterfront access and uses.

The only actual Marina facility in Tappahannock is the June Parker Marina or Tappahannock Marina located at the edge of the Town along the Rappahannock shorefront just north of the Bridge. The facility provides slips for some 48 boats. Boat storage facilities are also provided to

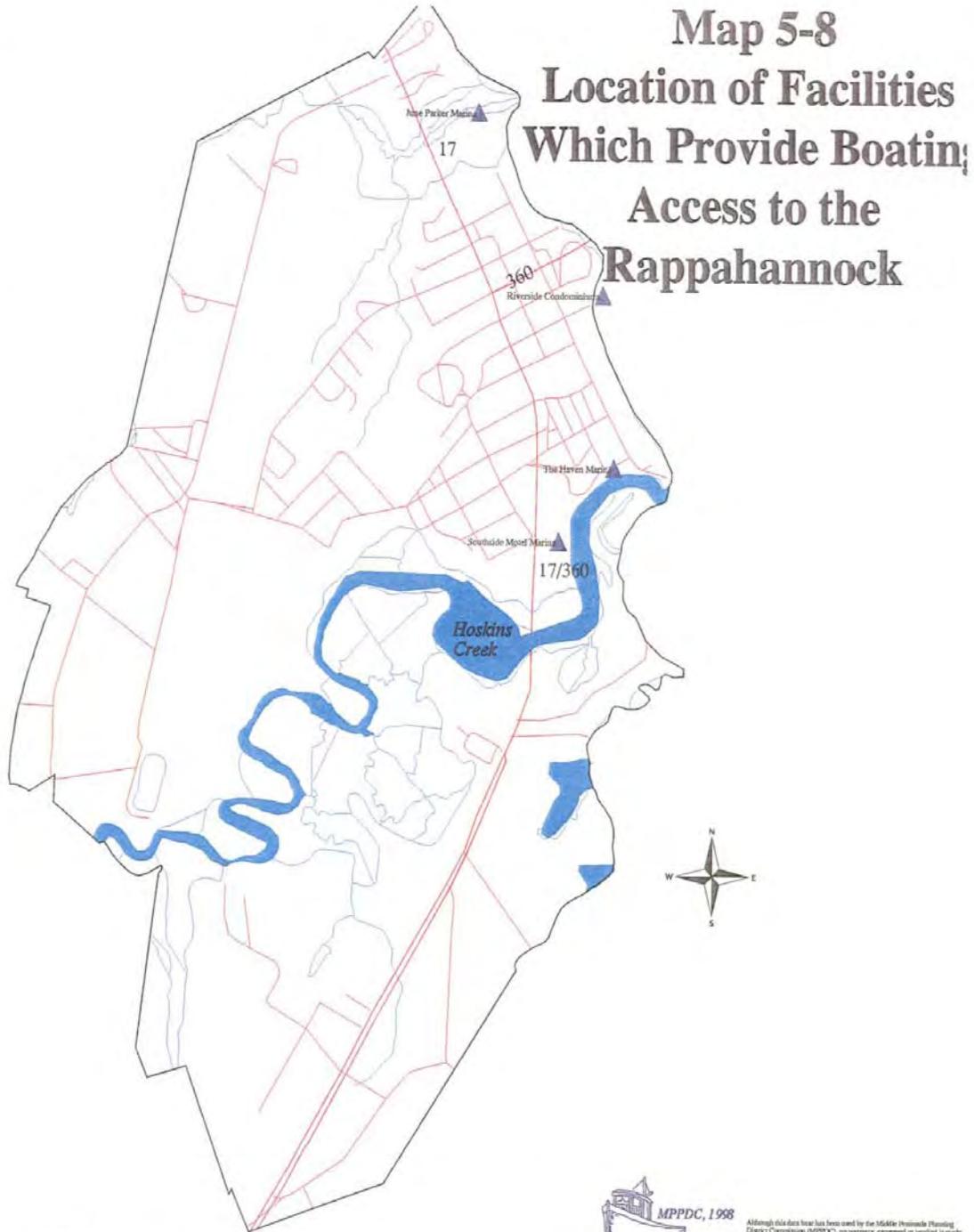
accommodate up to 96 watercraft. Services provided at this facility include fuel sales, a launching ramp, a hoist and hull repairs. Containers are provided on the site for solid waste and sanitary facilities are provided. Boat holding tank pump-out facilities consist of a portable pump with holding tank. A dump station is also provided for emptying portable marine toilets. Final disposal of sewage from boats and on-shore sanitary facilities is by connection to the Town wastewater treatment plant.

Other privately owned facilities or publicly owned lands in the Town provide only limited boat launching or swimming/fishing beach facilities. These facilities which are largely unimproved include:

- Riverside Condominiums (maximum of 14 privately owned slips)
- The Haven Marina located on Hoskins Creek (maximum capacity of 20 slips)
- Southside Motel Marina located on Hoskins Creek (maximum capacity of 8 slips)
- Boat Launching facilities at Dock Street in Tappahannock.
- Boat Launching area at the foot of Prince Street in Tappahannock:

The location of these facilities which provide boating access to the Rappahannock is shown on Map 5-8.

# MAP 5-8: LOCATION OF FACILITIES PROVIDING BOAT ACCESS TO THE RAPPAHANNOCK



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There are two broad uses involved in the waterfront issue. First is the use of the waterfront for boating access, whether at a marina, a boat dock, ramp and pier, or car-top boat landing. Second is the utilization of the shoreline and near-shore areas for recreational activities such as swimming, bank fishing, nature studying, and picnicking. Either public or private facilities can provide these activities. Both boating and shore recreation are allowed exemption as "water dependent facilities" under the requirements of the CBPA, provided that non-water dependent components are located outside of the RPA.

## **EXISTING POLLUTION SOURCES**

The Virginia Water Control Board (VWCB) regulates existing point source pollution dischargers. Essex has little role in the enforcement of existing permit conditions however, compliance is tied to land use ordinance approvals. The Town Chesapeake Bay Preservation Program, Erosion and Sedimentation Control Ordinance, and participation in the activities of the local Soil and Water Conservation District are means of local management of non-point source pollution. A periodic review of the effectiveness of these local ordinances can determine where changes or amendments may be needed to achieve the goals of reducing non-point source pollution.

## **AIR QUALITY**

In 1990, Congress passed and the President signed into law amendments to the federal Clean Air Act. These amendments require cleanup of polluted areas in accordance with a specific schedule, tighten emissions standards and grant federal agencies greater powers to enforce the Act's requirements. Those portions of the Act having the most direct impact on Essex County and the Town are those relating to ozone pollution. Ozone is formed by chemical reactions in the atmosphere when hydrocarbons and nitrogen oxides emitted by motor vehicles, industries and power plants combine in sunlight. Ozone at ground level is particularly dangerous to human life. Ozone levels are continually monitored at various locations in the Richmond metropolitan area.

Land uses that increase ozone emissions are relatively low in the county and the town. Automobiles would contribute more to ozone emissions than industrial uses in and around the town. As of 2012, the Richmond area was attainment for all applicable national air quality standards including ozone.

## **IMPLEMENTATION RECOMMENDATIONS**

The following is a list of specific recommendations to achieve environmental quality goals and objectives set forth in this Chapter. These recommendations are in addition to the federal, state and local regulations that are currently in place.

- A review of criteria and requirements of Town ordinance and local regulations for site planning to assure standards and requirements are designed to minimize run-off and its impacts on water quality to both surface waters and groundwater supply

- Coordinate with state and federal agencies and non-profit conservancy organizations to protect environmentally sensitive lands through acquisition and/or protective easement programs
  - Coordinate with the county, the Middle Peninsula Planning District Commission and the Virginia Institute of Marine Science to develop a comprehensive shoreline management plan that provides a coordinated strategy for managing the impacts of shore erosion, including appropriate wetland planting programs, recommend maintenance practices for existing waterfront property owners, and better assess the impacts of current structures protecting the Town shoreline and downstream county areas. Correct any failing shoreline stabilization structures.
  - Plan to and budget for repair or replacement of sections of municipal water system and promote waste water connection of remaining houses to municipal water system, as needed.
  - Undertake community level education programs to promote better understanding water quality, regarding proper fertilizer application, safe disposal of hazardous household and industrial waste.
  - Identify opportunities for developers to construct stormwater management facilities to eliminate the impact of existing as well as proposed discharge of untreated effluent into the Rappahannock River.
  - Encourage minimum disturbance of vegetation during construction and development and the planting of new trees and vegetation, where possible.
  - Institute education efforts to inform the general public about contamination and threats to water resources and air quality. Improve the capacity of the county, staff and the general public through supporting educational opportunities related to Chesapeake Bay Program enforcement and management.
  - Develop an amnesty day for the disposal of unwanted chemicals, home hazardous waste, fertilizers, etc.
  - In an effort to address leaking underground storage tanks and other pollutant sources and improve the quality of water resources within the Town of Tappahannock, The Town will:
    - Coordinate with the Department of Environmental Quality to develop appropriate programs to mitigate any water quality problems associated with leaking petroleum storage tanks and identify resources what can be used to financially assist property owners to support onsite remediation in the Town and nearby county locations.

- Work with Town businesses and residents to develop appropriate mitigation strategies on a case by case basis.
- Promote the use of water and shoreline conservation measures by residents and businesses in the community. Seek public outreach opportunities to educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.
- Existing marinas and boat repair facilities are encouraged to adopt operational procedures consistent with BMPS. When existing marinas remodel or expand their facilities, structural BMPs should also be constructed. For proposed boating facilities, BMPs should be required as a condition of development approval.
- Study the needs for waterfront public access in conjunction with state, federal, regional, and private agencies. Coordinate with the Middle Peninsula Public Access Authority for assistance with local efforts in planning water access, open space, and park facilities which will benefit education and habitat vital to water quality.
- Revise local regulations to discourage and/or limit development in the floodplain, especially SFHA areas.
- Educate staff and the public on the Community Rating System (CRS) and partnering with the county to possibly obtain CRS designation.
- Utilize VIMS' CCRMP Shoreline Best Management Practices for management recommendation for all tidal shorelines in the jurisdiction. Consider a policy where the above Shoreline Best Management Practices become the recommended adaptation strategy for erosion control, and where a departure from these recommendations by an applicant wishing to alter the shoreline must be justified at a hearing of the board(s).
- Follow the development of the state-wide General Permit being developed by VMRC. Ensure that local policies are consistent with the provisions of the permit.
- Evaluate and consider a locality-wide permit to expedite shoreline applications that request actions consistent with the VIMS recommendation.
- Follow the development of integrated shoreline guidance under development by VMRC.
- Evaluate and consider a locality-wide regulatory structure that encourages a more integrated approach to shoreline management. Consider preserving available open spaces adjacent to marsh lands to allow for inland retreat of the marshes under rising sea level. Evaluate and consider cost share opportunities for construction of living shorelines.

**COMPREHENSIVE PLAN  
CHAPTER 5- ADDENDUM**

**ENVIRONMENTAL PROTECTION**  
**Shoreline Erosion**  
**and**  
**Water Quality Issues**

## Table of Contents

Analysis	69
Recommendations	72
Appendix A	74
Appendix B	75

# Chapter 5- Addendum

## Shoreline Erosion and Water Quality

### ANALYSIS

Shoreline erosion and groundwater issues will be addressed within this addendum and will serve as a supplement to the Environmental Protection chapter of the Town's Comprehensive Plan, titled Shoreline Erosion -Water Quality Issues.

The 1998 Comprehensive Plan identified a need for additional shoreline management and groundwater and surface water planning and management. As a result, two strategies have emerged. In 2001, the Virginia Institute of Marine Science Comprehensive Coastal Inventory Program has undertaken an Essex County Shoreline Situation Report that serves as a tool to identify shoreline issues within the Town. The Middle Peninsula Planning District Commission formed a subcommittee, the Middle Peninsula's Water Resource Study Committee, which completed a strategic plan for each Middle Peninsula town and county addressing groundwater and surface Water issues and recommendations. The Town of Tappahannock and Essex County are collaborating to comprehensively approach water resource issues in the County. As such, many of the issues, suggestions, and recommendations cross jurisdictional lines. The following are recommendations are offered to assist in addressing these issues.

### SHORELINE EROSION

Previous Comprehensive Plans for the Town of Tappahannock have indicated a need for coordinated collaboration between the Middle Peninsula Planning District Commission (MPPDC) and the Virginia Institute of Marine Science (VIMS) to develop a comprehensive shoreline management plan. Financial assistance from the Chesapeake Bay Local Assistance Department allowed a survey to be performed for Essex County and the Town of Tappahannock. The County and Town recognize shorelines as a valuable asset and should be managed appropriately.

Since the Town of Tappahannock is bordered by the Rappahannock River and contains both Tickner's and Hoskins Creek's, shoreline erosion management is of critical concern.

Soil erosion along shorelines occurs when water or wind carries off soil particles. The transport of soil particles is generally referred to as runoff. Runoff can wash fertilizer and other pollutants into Hoskins Creek and the Rappahannock River and should be kept to a minimum. The Town uses the Virginia Erosion and Sediment Control Handbook for guidance related to overland flow and erosion control. Additionally, the Department of Conservation and Recreation's Shoreline and Erosion Advisory Services (SEAS) provides guidance for tidal and non-tidal erosion.

The following characteristics generally identify erosion activity:

- Bare spots on land
- Exposed roots
- Small rills or gullies on slopes
- Sediment collects in low areas

Shoreline and streambank erosion are caused by wave and water energy, and can vary from low to moderate or high levels. Permanent structures, such as bulkheads and revetments, have been established along many parts of the Town's shoreline where moderate to high levels of erosion occur. Permanent erosion control structures built in the past have sometimes caused the erosion of downstream wetlands and the disappearance of downstream beaches, as the movement of sand or sediments is impeded by these structures. Unified treatment of whole reaches of shoreline can improve opportunities to assure that solutions to erosion conditions on one site do not create greater rates of erosion on adjacent sites.

Shorefronts subject to low and moderate rates of erosion may often represent candidate sites for non-structural shore protection through the use of wetland plantings and sills (continuous small rock breakwaters used to slow wave energy to establish inter-tidal marshes). Marsh vegetation and plantings in such areas can provide long term stabilization at a fraction of the cost of conventional structures such as bulkheads and stone revetments. Such treatment of shore erosion conditions also improves water quality and increases habitat availability.

The Virginia Institute of Marine Science completed a shoreline and erosion study of Essex County and the Town of Tappahannock in 2001. Several classifications of erosion are present along the shoreline of the Town boundary, but there are few areas where high erosion rates are present (APPENDIX A).

Most of the Town shoreline along the Rappahannock River has minimal erosion activity. The majority of the river shoreline is classified as greater than 10 ft bank height/low erosion. One 500 ft section around the Route 360 Bridge is classified as 0-5 ft bank height/low erosion area. Two small sections totaling 300 ft are classified as 5-10 ft bank height/low erosion area. The shoreline also includes about 400 ft of beach/low erosion area around the Route 360 Bridge and 1000 ft of marsh/low erosion area near Tickners Creek. Most of the shoreline is hardened. Bulkheads are the most common form of hardening. Groinfields are found along 1000 ft of shoreline and there are scattered sections of riprap. There are numerous piers and wharfs along the river.

Hoskins Creek has several levels of erosion activity. The majority of shoreline is classified as 0-5 ft bank height /low erosion with marsh conditions. Two sections with a total of 2000 ft of shoreline are classified as 5-10 ft bank height/low erosion. Two shorter sections totaling about 400 ft are classified as greater than 10ft bank height/low erosion. There are two isolated sections of high erosion, one with bank heights from 5-10 ft and one with bank heights greater than 10ft. These areas contain bulkheads, one associated with a pier and one with a boathouse. Bulkheads are present on the north shore near the mouth of the creek and there is a small bulkhead on the south shore. There are many piers and boathouses along this section of the creek.

Tickners Creek has two levels of erosion activity. Most of the shoreline is classified as 0-5 ft bank height/low erosion with marsh conditions. There is a 100 ft section of 0-5 ft bank height/high erosion associated with riprap on the north side of the creek. This area is found on the downdrift side of a jetty at the mouth of the creek. There is a marina on the south side of the creek.

Overall the Town does not view erosion as a problem. However, if at such time erosion activities expand or citizens request assistance in dealing with erosion issues, Town staff will be available to assist citizens with mitigation strategies.

It should be noted that the 2001 erosion study of Essex County and the Town of Tappahannock did not contain data addressing the condition of shoreline structures or how these structures impact water quality. The Town will assist VIMS in the future with the collection and assessment of this data.

## **WATER QUALITY ISSUES**

Given the population served by the Town's municipal water supply facilities and expected growth in the Town, it is the policy of the Town that potential sources and effects of pollution on the Town's water supply be investigated. Sources may include storm water runoff, leaking petroleum storage tanks, abandoned wells, former refuse sites, and on-site sewage deficiencies. Since the last comprehensive plan update, the Town has taken many proactive steps addressing water quality issues. Elected, appointed and citizen representatives from the Town participated in a two year planning process facilitated by staff from the Middle Peninsula Planning District Commission. The mission was to research, educate, and promote action for the management, conservation, and protection of the Middle Peninsula's water resources. Town representatives undertook a Strengths–Weaknesses–Opportunities-and-Threats (SWOT) analysis and developed a management / recommendation plan for consideration by Town Government (APPENDIX B). Committee members from the Town comprehensively analyzed water quality issues from the following areas: water resources, contaminations and threats, and local planning tool effectiveness. Each section illustrates what participants viewed as important groundwater and surface water issues. The Town Council is considering final recommendations for adoption.

The Town Council understands that many types of land uses and practices within the Town can affect the quality of both surface and ground water supplies. Runoff from lands adjacent to surface water reservoirs may contain chemical and biological contaminants. Pollutants can originate from agricultural practices, residential lawn care, pesticides, petroleum spills, and failing septic systems. Groundwater can be contaminated by these sources by infiltration through the soil to the water table.

The Department of Environmental Quality (DEQ) monitors above and below ground petroleum storage tanks in the Town of Tappahannock. Currently there are no active underground storage tanks in the Town limits that are being monitored by DEQ. More information can be obtained from the Department of Environmental Quality web site at [www.deq.state.va.us](http://www.deq.state.va.us) or by calling the Department of Environmental Quality Piedmont Regional Office.

On-site wastewater failures have been practically eliminated within the town. Water and sewer service is available town wide. Few septic systems remain within the Town. At such time when these systems require repair, it is the policy of the Town to investigate the cost of public service hook up or directing the homeowner to the Middle Peninsula Planning District Commission's On-site Wastewater Revolving Loan Program which offers financial assistants for the repair or replacement of failing on-site systems. The Town desires to have 100% public water and sewer hookup town wide or when necessary require engineered on-site waste treatment systems with the Town overseeing operation and maintenance. This strategy will ensure 100% public sewer management by the Town.

The Town is sensitive to the role water conservation plays in the community. Groundwater protection and conservation is an incremental process. There are seldom any fast solutions. Rather, step-by-step changes lead to strong and lasting results. Community leadership will be responsible for developing, coordinating, and implementing the conservation activities. Following on the recommendation to inform the general public about contamination and threats to water resources, the Town will look towards the Middle Peninsula Planning District Commission's Water Resource Program to provide guidance to the Town. MPPDC's Water Resource Program has received financial assistance from the Department of Health, Drinking Water State Revolving Fund Program. The PDC will be introducing localities to the Groundwater Guardian Program. This program supports, recognizes, and connects communities protecting groundwater. It is designed to empower local citizens and communities to take voluntary steps toward protecting their groundwater resources. Groundwater Guardian can be a catalyst for groundwater protection programs such as a local wellhead protection or a source water protection program.

## **IMPLEMENTATION RECOMMENDATIONS**

The Town considers several recommendations critical to protection of the shorelines and water quality and proposes to incorporate these recommendations into its current planning efforts:

- Encourage the use of non-structural shore line protection such as wetland plantings and sills to provide long term protection. Promote unified treatment of shoreline to assure that solutions to erosion conditions on one site do not create greater rates of erosion on adjacent sites;
- Develop community level educational programs to promote conservation of the Town's natural resources and community assets. Programs should include understanding of high water table issue, proper fertilizer application, safe disposal of hazardous household and toxic industrial waste, and the necessity of inventorying and monitoring underground storage tanks.
- Coordinate and cooperate with local, regional, state, and federal agencies to implement policies to protect Tappahannock's natural resources. Work with local businesses and residents to assess development impacts and if necessary create appropriate mitigation strategies on a case by case basis.

- Explore and employ stormwater management strategies associated with development of a waterfront park to use as a demonstration project for innovative storm water management techniques.
- In an effort to address leaking underground storage tanks and other pollutant sources and improve the quality of water resources within the Town of Tappahannock, coordination between state and local agencies should focus on close monitoring of existing tanks and their condition. Both agencies should also work with property owners to minimize the impacts of leaking underground tanks on soil and water resources.
- Work with Town business or residents to develop appropriate mitigation strategies on a case by case basis. Revise local ordinances as needed to protect the Town’s natural resources.
- Explore the development of a Wellhead protection ordinance and develop a program to provide citizens with assistance for well closures.
- When financial resources are identified, the Town will conduct a “Reach Assessment” study to determine where erosion process and response mutually interact. The reach assessment achieves the following:
  - Determine the reach limits.
  - Determine historic rate and pattern of erosion and accretion for the reach.
  - Determine within the reach which sites supply sand.
  - Determine wave climate and the direction of net littoral sand drift.
  - Identify factors causing erosion, and other than waves.
  - Estimate potential and active sources of nutrient loading (nutrients do not impact erosion, but do impact water quality).
- Maintain an infrastructure improvement plan that prioritizes repair or replacement of older sections of municipal water system;
- Develop an amnesty day for the disposal of unwanted chemicals, home hazardous waste, fertilizers etc.

# **TOWN OF TAPPAHANNOCK: SHORELINE EROSION AND WATER QUALITY**

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## ***Appendix A***

This appendix contains a study prepared by the Comprehensive Coastal Inventory Program of the Virginia Institute of Marine Science, College of William and Mary. The data includes shoreline assessment and mapping of shoreline features. For further information, refer to the complete study:

Comprehensive Coastal Inventory Program. *Essex County and the Town of Tappahannock: Shoreline Situation Report*. Gloucester, Va.: Virginia Institute of Marine Science, College of William and Mary, 2001.

# **TOWN OF TAPPAHANNOCK: SHORELINE EROSION AND WATER QUALITY**

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## ***Appendix B***

### **Strengths-Of General Water Resources in the Town**

- Town's wastewater and water system.
- Town is Resource Management Area wide
- Good water quality/quantity water in deep wells.
- Active planning process.
- 1,000,000-gallon industrial user is the largest consumer of water resources within the town.

### **Strengths-Of the Towns Contamination and Threats to Water Resources**

- Existing and expanding recycling facilities for chemicals, gas, anti-freeze, etc.

### **Strengths- Of the Towns Land Use Controls to protect Water Resources**

- Land use plans have targeted future industrial and commercial development to area within and adjacent to the Town where municipal water treatment and water services are planned or available.

### **Weaknesses- Of General Water Resources in the Town**

- No land use controls in place for future high volume users.
- Very limited sewage over flows to river due to older sections of systems.
- Not all houses in Town on water and sewer system.

### **Weaknesses- Of the Towns Contamination and Threats to Water Resources**

- Improper application of home/residential lawn fertilizer could be a problem.
- Improper disposal of home hazardous waste (motor oil, pesticides, etc.).
- Improper disposal of toxic chemicals could be a problem.

**Weaknesses- Of the Towns Land Use Controls to protect Water Resources**

- Little control in place for future high volume water users.

**Opportunities- Of General Water Resources in the County and Town**

- Population growth stable leaving time for better water planning.
- Town capacity two times present use.

**Opportunities - Of the Towns Contamination and Threats to Water Resources**

- New septic system technology available if few remaining on-site septic system fail.
- Education efforts to inform the general public about contamination and threats to water resources

**Opportunities – In the Towns Land Use Controls to protect Water Resources**

- Inventory and map locations of underground storage tanks in the County. Target these locations for monitoring and protection of nearby wells.
- Utilize citizen groups as a means of educating the public about proper disposal of home hazardous waste and toxic industrial waste.
- Utilize existing citizen groups, VPI SU Extension, in educating the public about the proper application of residential and agricultural fertilizer.

**Threats- To General Water Resources in the County and Town**

- No controls in place for future high volume industrial and/or agricultural users.

**Threats – Of the Towns Contamination and Threats to Water Resources**

- Improper disposal of many types of chemicals, hazardous waste, and other chemicals.

**Threats- In the Towns Land Use Controls to protect Water Resources**

- Comprehensive plans do not address educational programs about proper fertilizer application, safe disposal of hazardous household and toxic industrial waste, and the necessity of inventorying and monitoring underground storage tanks.

**Strategic Groundwater Matrix Results: Strategic Plan Action Items:**

**Strengths /Opportunities (Use the strengths of the town to exploit the opportunities of the county related to water resources)**

- Encourage Virginia’s River Country and other economic development groups to market the town’s excess water capacity and planned expansion of sewer and water to appropriate users.
- Due to the stable nature of growth of the town, explore strategic planning efforts to repair older sections of sewage lines before development exceeds the capacity of older section of the current system.

**Strengths /Opportunities (Use the strengths of the town to exploit the opportunities of the county and town concerning sources of contamination and threats to water resources)**

- Establish a planning committee to identify the benefits of expanding water and sewer into different communities based on water quality factors, cost, residential density and current land use activities.
- Encourage the health department, PDC and other agencies to assist Town with repair and replacement of the few remaining on-site wastewater treatment system through financial assistance and technical assistance programs.

**Strengths / Threats (Use the strengths of the town to defuse / avoid the threats related to water resources)**

- Provide water quality educational material to Town residents requesting to locate a new shallow well for lawn irrigation or other non-potable applications

**Strengths / Threats (Use the strengths of the Town to defuse / avoid the threats to the county concerning sources of contamination and threats to water resources)**

- Increase educational programs about proper fertilizer application, safe disposal of hazardous household and toxic industrial waste, and the necessity of inventorying and monitoring underground storage tanks.

**Weaknesses / Opportunities (Overcome the weaknesses of the Town by taking advantage of the opportunities related to water resources)**

- Due to the stable nature of growth in the Town, the town should develop a program to abandoned wells while the growth rate is static.
- Leverage existing BMP program success to develop BMPs for storm water management in town.

- Due to the stable nature of growth, explore planning efforts to repair older sections of sewage sections before development overwhelms current system.

**Weaknesses / Opportunities (Overcome the weaknesses of the Town by taking advantage of the opportunities concerning sources of contamination and threats to water resources)**

Encourage continued and expend use of the recycling facilities for chemicals, gas, anti-freeze, etc.

**Weaknesses / Opportunities (Overcome the weaknesses of the Town by taking advantage of Land Use Controls to protect water resources)**

- Utilize existing citizen groups to educate public about affects of high water table and poor septic suitability on water quality. Specifically, what can local citizens do to protect groundwater from threats caused by these physical constraints?

**Weaknesses / Threats (Minimize the weaknesses of the Town by avoiding threats to water resources)**

- Provide educational material to new shallow well user for lawn irrigation use in an effort to protect water quality in areas where contamination is most likely.

**Weaknesses / Threats (Minimize the weaknesses of the Town by avoiding threats to sources of contamination and threats to water resources)**

- Undertake community level education programs to promote better understanding of high water table issues
- Develop an amnesty day for the disposal of unwanted chemicals, home hazardous waste, fertilizers etc.

**Weaknesses / Threats (Minimize the weaknesses of the Town by avoiding threats to Land Use Controls to protect water resources)**

- Increase educational programs about proper fertilizer application, safe disposal of hazardous household and toxic industrial waste, and the necessity of inventorying and monitoring underground storage tanks.
- Update the Town's Subdivision and Zoning Ordinances to allow open space type development, which would give developers the flexibility to cluster development on that part of the site most suitable for development, while preserving large areas for open space.

# Chapter 6

## HOUSING

**Goal:** *Provide for a balanced community by promoting safe, efficient, quality and affordable housing options for all Town residents.*

Objectives:

- Encourage an adequate mix of housing types and sizes to accommodate all Town residents through local code and various programs and incentives.
- Encourage development of infill housing in existing subdivisions to maintain the housing balance.
- Explore options that will help identify and address substandard housing issues.
- Explore alternative means of meeting the housing needs of low, moderate and fixed income residents.
- Encourage the preservation of historic and/or architecturally significant buildings, homes, and properties.

Housing is arguably one of the most important aspects of a community. Housing provides shelter, security and protection from the surrounding elements and helps to provide a sense place and pride which shapes quality of life. Housing is also important to the local, state and national economy as it provides for local jobs and revenue through sales and real estate taxes. Housing also impacts the micro economy being that it is the generally the largest investment an individual makes. Because of its importance to the stability of our communities, it is necessary to understand the impacts that growth has on housing cost and how the potential lack of affordable housing may impact future socioeconomic growth in the Town. Some of these impacts are indicated in the housing analysis provided in this section.

The purpose of this chapter is to provide an analysis of the Town's housing and occupancy makeup and determine what methods, if necessary, are needed to ensure adequate housing availability to accommodate current residents and future growth.

### HOUSING TYPES

Housing in Tappahannock consists primarily of single family, multi-family and mobile homes. (See Figure 6-1) In 2000, approximately 58 percent of the total year round housing stock consisted of single family homes. Multi-family homes accounted for 32 percent of the total housing stock while mobile homes comprised 10 percent of the total year round housing stock in

Tappahannock's Town limits. Since 2000, 180 new multiple family dwellings and 35 single family dwellings have been added in various Town locations.

**Table 6-1 Housing Types**

<b>Type</b>	<b>2000 Number of Units</b>	<b>2010 Number of Units</b>	<b>2013 Number of Units</b>
Total Single Family Dwelling	541 (58%)	578 (58%)	582 (50%)
Total Multi Family Dwelling *	362 (32%)	413 (32%)	415 (35%)
Mobile Homes	103 (10%)	157 (10%)	174 (15%)
<b>Total</b>	<b>946</b>	<b>1,138</b>	<b>1,171</b>

\*includes two or more units.

Source: 2010 Census, American Factfinder and the Town of Tappahannock Water Billing Accounts

Housing growth has been slow since 2000, however, a number of additional housing units have been completed within the Tappahannock Town limits. The new housing has provided more of a variety of single and multi-family housing affording housing options. The table above shows a slight increase in housing units, noting an 80 percent increase in mobile homes and a 40 percent increase in multifamily housing in the past 13 years. Single family residence still remains the dominant housing type in the Town although the gap is closing relatively quickly.

## **NEW HOUSING TRENDS**

The Town of Tappahannock has a large rental market. The 2010 Census data indicates that of the 1,131 housing units available in the Town, 13 percent were vacant, up from the 9 percent vacant in 2000. Of the 87 percent or 986 units that were occupied, 57 percent were renter occupied up from the 42 percent renter occupancy rate in 2000. This means that more people in the Town rent than own their current residence. It also shows the dramatic decrease in owner occupied residences in the Town since 2000. The high rental percentage in the Town is also an indicator of the inability of residents to afford to purchase homes. Table 6-2 provides a look at the housing occupancy characteristics in the Town.



**TABLE 6-2 HOUSING OCCUPANCY AND TENURE**

<b>Total housing units</b>	<b>1,131</b>	<b>100.0</b>
<b>Occupied housing units</b>	<b>986</b>	<b>87.2</b>
<b>Vacant housing units</b>	<b>145</b>	<b>12.8</b>
<b>TENURE</b>		
<b>Occupied housing units</b>	<b>986</b>	<b>100.0</b>
<b>Renter occupied</b>	<b>561</b>	<b>56.9</b>
<b>TENURE BY ORIGIN OF HOUSEHOLDER BY RACE OF HOUSEHOLDER</b>		
<b>Occupied housing units</b>	<b>986</b>	<b>100.0</b>
<b>Owner-occupied housing units</b>	<b>425</b>	<b>43.1</b>
<b>Not Hispanic or Latino householder</b>	<b>421</b>	<b>42.7</b>
White alone householder	310	31.4
Black or African American alone householder	107	10.9
Two or More Races householder	2	0.2
Hispanic or Latino householder	4	0.4
<b>Renter-occupied housing units</b>	<b>561</b>	<b>56.9</b>
<b>Not Hispanic or Latino householder</b>	<b>548</b>	<b>55.6</b>
White alone householder	220	22.3
Black or African American alone householder	320	32.5
Asian alone householder	3	0.3
Two or More Races householder	4	0.4
Hispanic or Latino householder	13	1.3
White alone householder	7	0.7
Some Other Race alone householder	4	0.4

Source: 2010 Census, American Factfinder

Home ownership is vital to a sustainable community. The housing market in the Town is driven by the large percentage of commuters to higher wage labor markets outside the Town. The inability of those residents who live in the Town to afford housing is impacted by wages earned outside the county and the region.

Characteristics such as median income and demographics are important factors that determine the housing makeup of a community. Low wages and high rental rates generally signifies a transient based population while a high owner occupancy rate indicates a stable base and an affordable community. Later in Chapter 7 on Economic Development, you will see the parallel in the average income and wages of Tappahannock residents and the housing tenure of residents illustrated above.

The 2005 Buildout Plan and the change in residential zoning district density provisions will have a significant impact on the variation of change in the figures above and what adjustments will need to be made to provide the correct balance of housing for the community. The 2005 Buildout Study shows the maximum number of residential housing units that could be accommodated by current facilities. The study indicates that the two designated areas, Areas 1 and 2 will be developed with higher density allowing for 1,995 new residents and/or 887 new housing units. This constitutes a more than 94% increase in the current housing stock in Tappahannock.

## **HOUSING CONDITIONS**

To evaluate housing in Tappahannock from a land use standpoint, knowledge of the structural condition of the housing inventory in the Town is important. To meet its housing objectives, the Town of Tappahannock initiated a Rehabilitation Planning Program. The Program was designed to identify and address substandard housing units and assist the Town in applying for financial support from either the state or federal government to improve those units.

The report for the planning grant stated that some of the low - middle income residents live in houses that are well constructed but they lack modern enhancements such as adequate heating and insulation, ventilation, lighting, electrical wiring, fire resistance and sanitary facilities. The program determined that 25 percent of the houses are rental units. In addition, 1.6% of the units lacked complete bathroom facilities, 1.2 percent of the units were not on the public sewer system and approximately one percent lacked complete kitchen facilities. These numbers are relatively low compared to countywide figures.

Also it can be assumed that these households are on the lower end of the economic scale and have fewer resources available for home improvement or the ability to move to more suitable housing. At the present time, the area between Virginia Street and Airport Road has been targeted for improvements.

## **AFFORDABLE HOUSING**

As evident in the economic and occupancy makeup of the Town's housing population, affordable housing is an important issue that affects the social and economic stability of a community. Statistics show a significant disparity between household income and housing pricing throughout the County but especially in the Town. This disparity indicates a serious issue of housing affordability to Town residents. While affordable housing is influenced by many factors that are beyond local government control, factors such as local job market, public attitudes, regulatory and policy barriers and available public infrastructure are all areas that the Town should strongly examine when looking at affordable housing issues.

The number of mobile home permits that have been issued by the Town has experienced a significant increase over the past several years. Since 2007 the Town has consistently issues more mobile home permits than new construction permit for single family residents. With the average rental rate for a standard two bedroom apartment at \$750 per month and median home prices at 150,000 to 200,000, mobile homes have become the housing type of choice for many Town residents. Mobile homes, or manufactured housing, tend to be less expensive than most other types of single family homes and, consequently, serve as a practical alternative to affordable housing. Mobile homes provide a low to moderate income housing option for Town residents. There is currently one mobile home parks located in the Town.

## **RENTAL HOUSING SUBSIDY PROGRAMS**

There are federal and state programs that are available to assist localities with providing a balance of affordable housing options. Affordable rental housing subsidies are available in the Town of Tappahannock through the following programs:

### **Department of Housing and Urban Development (HUD)**

- Section 221 (d)(3) provides mortgage insurance to help finance the construction or substantial rehabilitation of large multi-family (5 or more units) rental or cooperative housing projects for low and moderate income families.
- Section 8 Existing Certificates and Moderate Rehabilitation Housing provide assistance on behalf of households occupying physically adequate, moderate-cost rental housing of their own choosing in the private market. This Program is administered through the Rental Assistance Office. Section 8 New Construction and Substantial Rehabilitation subsidizes rent of lower-income households occupying public and privately developed projects. Federal payment per unit equals the difference between the government-established Fair Market Rents and thirty (30) percent of the tenant's income. The Rental Assistance Office located in Gloucester County, Virginia serves the Town of Tappahannock.

### **Farmers Home Administration (FMHA)**

Section 515 of the Housing Act of 1949 authorizes FMHA to make or insure loans to finance the purchase, construction, or rehabilitation of rental and cooperative housing in rural areas for occupancy by the elderly, the handicapped, or low and moderate income families. The purchase of a site and the provision of essential housing-related facilities may be included in a loan where appropriate.

The Tappahannock Greens Apartments, a 40-unit rental housing complex for the elderly and disabled, was developed and financed through the FMHA 515 Rural Rental Housing Program and is operated under the program. The complex includes five buildings with 8 one-bedroom units each, a community building, walkways, sitting areas, and recreation facilities.

The Homeless Solutions Grant (HSG) is a state-funded program to assist households experiencing homelessness to obtain and maintain housing stability. This program replaces the State Shelter Grant (SSG). HSG is designed to assist households experiencing homelessness to quickly regain stability in permanent housing.

The program goals are to provide effective and efficient assistance to reduce the length of time households experience homelessness and to reduce the number of households returning to homelessness. It is intended to be administered as a community-based resource that maximizes mainstream resources.

The Neighborhood Stabilization Program (NSP) was authorized under the Housing and Economic Recovery Act (HERA) of 2008 to provide emergency assistance to state and local governments in acquiring and redeveloping vacant and foreclosed properties that might otherwise become sources of abandonment and blight within their communities.

## IMPLEMENTATION RECOMMENDATIONS

In addition to techniques and policies already established, the following recommendations have been selected to implement the Town's identified objectives.

- Foster land use patterns that reduce unit land costs and encourage flexibility in housing types. This can be achieved through infill development, planned residential development and cluster development provisions in the Town's zoning ordinance.
- Review and, if necessary, update the 2005 Buildout Plan for consistency with housing and growth projections and the zoning ordinance.
- Explore the use of Federal and State programs to help meet Tappahannock's housing needs. These Programs include:

**Congregate Housing Loan Program** - Funds from this program are specifically for projects which provide housing for such low or moderate income disabled or elderly persons.

**Virginia Housing Partnership Program** - Tappahannock is eligible to apply for either a block grant or a grant for a specific project under this program. Eligible activities include single and multi-family rehabilitation, energy loans, and funding for emergency home repairs.

**Small Cities Community Development Block Grant** - (CDBG) Funds are passed through the State Department of Housing and Community Development for a variety of housing related projects such as housing rehabilitation programs.

**HUD Section 202 Housing for Elderly and Handicapped** - provides direct loans for the development of rental housing for the elderly and handicapped. Projects also receive Section 8 subsidies.

**Bonus Densities for Affordable Housing** - Grant bonus densities to planned development projects to encourage the provision of more affordable housing.

- Adopt and enforce a process of evaluating housing conditions on a nuisance or health and safety complaint basis that will provide the Town with a mechanism for policing substandard housing.

- Create and implement programs to encourage and assist property owners of substandard housing to bring property up to minimum standards or replaced where renovation is not feasible through available Federal, State and local programs
- Smart and sustainable growth should be considered when assessing housing and zoning needs for the Town to create a wider range of housing opportunities and choices. Smart and sustainable building utilizes existing structures rather than creating new ones, thereby reducing sprawled development.

# Chapter 7

## ECONOMIC DEVELOPMENT

**GOAL:** *Provide and maintain a positive environment that fosters economic and employment growth.*

Objectives:

Encourage commercial and industrial development while supporting the preservation and expansion of existing industries in order to strengthen and diversify the economic base and provide necessary jobs.

Promote Tappahannock in conjunction with the County as an attractive and available location for higher wage industries.

Encourage existing businesses to maintain and improve their appearance so as to preserve the attractiveness of the central business district, and shopping centers.

Revitalize the Tappahannock Main Street to attract and retain new businesses while also promoting the area for tourism.

### LOCAL ECONOMY

**T**he Town of Tappahannock is the nucleus of Essex County's economy. Business and employment activity in Essex County is mostly confined to the town limits of Tappahannock. Over the past several years, Essex County and the Town of Tappahannock experienced some significant changes in the unemployment rate. Since 2006, the unemployment rate increased to a high of 9.2 percent in 2010, then subsequently decreased to 6.1 percent in 2013. While the Commonwealth's employment rate is currently at 4.8%, down from 7.1 percent in 2010, the data reveals absorption of available labor is reflective of the trend during this period. It is noteworthy to mention that over 70 percent of the unemployed claimants as of February 2014 are those laborers with less than a two year degree.

The Middle Peninsula region has significant pockets of isolated distressed communities with higher than average Supplemental Nutrition Assistance Program (SNAP) participation designations. Essex County is listed as exceeding the 18% SNAP participation rate, the highest ranking in the Commonwealth.

In 1980, the major industry in Tappahannock was manufacturing. At that time, 41 percent of all workers in Essex County were employed in some kind of manufacturing industry. However, by

1990 this figure dropped to 31.7 percent. With the closing of the SouthTech Plant just outside the Town only 11.2 percent of workers within Essex County were employed in manufacturing in 2003. Over the same time period, retail trade employment increased to become the dominant employment industry in Essex County. Other major employment sectors in the area include health services and government.

The shift in employment coincides with the general trend which has occurred in the United States over the past twenty years. The United States is shifting from an industrial based economy to a more service oriented economy. It is evident by the shift in employment from manufacturing to retail trade and services that Tappahannock is also experiencing this trend but at a rate less than the United States as a whole.

While the area has gained in population, the area has lost jobs. In 2000 employment had reached at 5,306 but had dropped to 5,059 in 2003. In 2013, employment among residents had reached 5,389. Total employment in the County has increased slightly due to residents commuting outside the county for employment.

Local sales tax revenue decreased substantially since 2008; however the past three years show a steady increase. This is a strong indication of the gradual recovery of the County’s economy.

**Table 7-1 Essex County Local Option Sales Tax Revenue**

<b>2008</b>	<b>\$1,912,636</b>
<b>2009</b>	<b>\$1,732,222</b>
<b>2010</b>	<b>\$1,713,418</b>
<b>2011</b>	<b>\$1,731,516</b>
<b>2012</b>	<b>\$1,785,918</b>

Source: Virginia Economic Development Partnership

## **ECONOMIC COMPOSITION**

It is important to the stability of a community to have a diverse economic base. If a community is dependent upon a few industries, then those industries will largely affect the economy of that community. If an industry is doing poorly, then the economy of that community will do poorly. On the other hand, if the economic base is diverse, then the downturn of one industry will not greatly affect the community's economy.

While Tappahannock's has a fairly diverse economic base boasting 16 different industries, the Town’s economy is largely made up of retail trade jobs. More than 35 percent of the County’s employment industry is retail, not including the food service industry such as McDonald’s, Applebee’s, etc. More importantly, the retail employees are among the lowest wage earners compared with employees in other industries.

Healthcare is the second major industry in the County due to the presence of Riverside Regional Medical Center in Tappahannock. The healthcare industry employs more than 600 employees and experienced the highest net gain in employees. Wages in the healthcare industry are among the highest in the town and county averaging over \$871 weekly. The healthcare industry

statewide is projected to increase 2 percent annually over the next six years. Table 7-1 illustrates the major employment industries in the Town of Tappahannock and Table 7-2 provides the average weekly wage for each as of 2013.

**TABLE 7-2 TOP 5 EMPLOYMENT INDUSTRIES IN ESSEX COUNTY AND TOWN OF TAPPAHANNOCK (IN EMPLOYEES)**

Retail	793
Health Care and Social Assistance	609
Government	572
Manufacturing	535
Accommodations and Food Service	426

Source: Virginia Economic Development Partnership, Community profile. 2<sup>nd</sup> Quarter 2013

**TABLE 7-3 AVERAGE WEEKLY SALARY BY INDUSTRY**

Finance and Insurance	\$969
Government	\$898 (federal)
Health Care and Social Assistance	\$871
Wholesale Trade	\$876
Agriculture and Forestry	\$732
Government	\$659(local)
Professional and Technical Services	\$657
Construction	\$556
Manufacturing	\$493
Retail	\$453
Transportation	\$344
Accommodations and Food Service	\$275

Source: Virginia Employment Commission, Quarterly Census of Employment and Wages, 3<sup>rd</sup> Quarter 2013.

The manufacturing industry in Tappahannock is among the top employers. In 2012, the county's manufacturing industry experienced significant gain in new hire employees but also experienced the highest turnover of any other industry implicating its instability. Manufactured goods include farming and forestry which are exported nationally and internationally. Manufacturing makes up 13.2 percent of Essex County's labor which is a fairly significant portion however, the wages from manufacturing jobs are among the lowest. While the farming and forestry industry employs only 1.4 percent of the county's labor market, these industries are significant contributors the local and state economy. Another significance of the export industry in the Town is that it manufactures and ships those goods that are in excess of local consumers demand, therefore, goods are exported to larger geographical markets and the costs of producing goods are distributed to consumers outside the county.

The economic analysis also shows that Tappahannock is a regional center. Export employment was present in six retail trade industries. Since production in these industries exceeds local demand, consumers are coming into Tappahannock to purchase these goods. Unlike manufacturing industries that produce goods which most likely will be sold outside the area, retail trade products are sold within the immediate area. With the growth of the retail sector,

combined with declines in retail activity in other areas, Tappahannock is a regional center. There has been an increase in employees, export employment, and base industries in retail trade as a whole. Table 7-3 is an illustration of the major employers in Essex County.

<b>Table 7-4 MAJOR EMPLOYERS IN ESSEX COUNTY REGION</b>		
<b>Business</b>	<b>Product/Service</b>	<b>Employees</b>
Riverside Tappahannock	Hospital	500+
Wal-Mart	Retail and Groceries	411
Essex County Schools	County School System	255
Quality Automotive Corp.	Brake Shoes	160
Lowe's	Building/Hardware	120
CLC Tappahannock	Retirement Home	115
Lowery's Restaurant	Food Service	100
Eastern Virginia Bank (EVB)	Banking	95
William W. Cooke, Developer	Essex Concrete, Aylett Sand & Gravel, Hobbs Hole Golf Course and Restaurant	90
FDP Virginia	Brake Shoes	83
Food Lion	Groceries	75
St. Margaret's School	Private Education	70
Shoney's	Food Service	60
Applebee's Bar and Grille	Food Service	55

Source: Virginia Employment Commission, 2012

## **BUSINESS CORRIDOR**

The Town of Tappahannock is an active trade center for the region which is reinforced by the crossroads of Highways 360/17. Also, the fact that sixty-three percent of retail and business services along the corridor is regional and thirty-seven percent is local activity is another factor that reinforces the statement that Tappahannock is clearly an active trade center for the region.

The three existing shopping centers of Tappahannock create a regional center for the town. The Tappahannock Town Center, White Oak Village, and Essex Square shopping centers all provide convenient shopping for the neighborhood, community, and regional area. All three shopping centers have an appropriate mix of commercial uses which establishes a well-developed regional center. The combination ranges from retail, office, and restaurant facilities. Fast food services,

family stores, and card and gift stores of these tenant types are available in the shopping centers in Tappahannock, which is typical of regional shopping centers

The central business corridor of Tappahannock plays an important role to its businesses, shoppers, and the community. Data indicates a greater portion of the regional retail and service businesses being conducted along the corridor which provides a stable economy for the community. Presently, the corridor has produced a valuable and active center for conducting regional business activities. These shopping centers offer a wide variety of services to local and regional shoppers, which is important to the community because it brings revenue into the local economy. This past trend represents growth in retail trade at the local and regional level that will remain strong and stable in the future.

## **CENTRAL BUSINESS DISTRICT**

The Central Business District (CBD) will remain the focal point of community life in Tappahannock. The CBD currently serves as a government, office and specialty retail center. Commercial activities in the CBD are going through a metamorphosis from general retail to smaller, upscale, tourism-oriented specialty retail shops mostly catering to out-of-town tourists. The historic character of the CBD has made it an attractive location for specialty retail shops whose products are oriented towards the area's tidewater heritage. The majority of general commercial retail activity which serves Tappahannock and Essex County residents has, over the years, moved from the CBD to outlying, adjacent shopping centers.

## **TAPPAHANNOCK MAIN STREET**

Tappahannock Main Street is located in downtown Tappahannock from Queen Street to Duke Street and consists primarily of retail and service providers for the local community with some retail services directed towards the regional community. A review of the business inventory suggests that nearly sixty percent of the consumer base is derived from the local community. Approximately twenty-six percent are a mix between local and regional users and 13 percent are dedicated to the regional markets.

The Town of Tappahannock has affiliate status as a Virginia Department of Housing and Community Development (DHCD) Commercial District through the Tappahannock Main Street Program with the purpose of planning for and promoting downtown revitalization with the support of the Virginia a Main Street Program administered by DHCD. Virginia Main Street Program is a preservation based economic and community development program that follows the National Trust Main Street Center's Main Street Approach. The program offers a range of services and assistance to meet the variety of needs of communities interested in revitalization. Aspects of the Main Street approach may be applied successfully in other commercial settings such as Downtown Tappahannock. The Tappahannock main street program is working toward applying for full designation as a Main Street community.

The Tappahannock Main Street Program provides leadership, assistance and resources for the revitalization of downtown Tappahannock. Their goal is to promote the town's quality of life and unique downtown shops, while enhancing the visitor's experiences related to historic and

cultural resources. Main Street continues to thrive with the success of the Revitalization Plan, the Farmer's market, the Historic District street sign initiative and the Tappahannock concert series.

In 2009, the Revitalization Plan was developed in a joint effort with the town and technical assistance through Virginia Commonwealth University. The plan covered the traditional business district in the Town and analyzed existing building use and spatial layout, vacant buildings and lots, infrastructure and pedestrian facilities and existing and potential business for the local market.

The local market is comprised of professional services such as realtors, banks, lawyers, insurance offices, local government offices, and hair salons/barber shops. A small percentage of uses are dedicated to specialty retail uses such as children's clothing, books, antiques, crafts and bridal accessories.

The range of service providers could become diverse if plans are developed which encourage more tourist interaction in the downtown area. In the future, Tappahannock is looking toward seeking a community design element that will create visual similarities throughout the Town to encourage more tourist interaction.

## **STRENGTHENING THE LOCAL ECONOMY**

A primary strategy for strengthening the economy is to diversify the tax base. Tappahannock has many characteristics and resources that are available to move its economy to the next level. Its location as a waterfront Town allows for working waterfront businesses and tourism. Route 360/17 intersects the town connecting travelers and freight carriers to employment hubs and attractions from Northern Virginia to those in Hampton Roads. Water and sewer infrastructure in place throughout the Town provides an attractive incentive for industries to relocate to undeveloped properties. Other incentives include low business tax rates for the area, low real estate taxes and the relatively low cost of labor compared to more urbanized areas

The focus of future industry should be on attracting new businesses and enhancing work skills. The first phase will capitalize on the existing industrial park. The existence of an already developed industrial park with infrastructure needs, provided by the town should serve as an incentive to attract new industries to the area. New industrial development should be limited to the area in and immediately surrounding the designated industry park area. Remaining parcel sizes in the industrial park will limit new development. The Tappahannock Essex Airport complex outside of town offers a large amount of land that may be available for light industrial use.

While the current mix of industry is good, the mix can be improved upon with diversification. Diversification will provide some protection for jobs in the event of an economic recession. Firms which do not compete with existing employers for labor should be targeted. Large industrial employers such as manufacturers and lumber suppliers should be encouraged to relocate and expand existing operations within the county. Feeder industries are industries which supply technology, parts, or supplies to an industry which then produces the goods. These

industries along with additional distribution and sales organizations related to health care should also be encouraged.

Examples of target industries include food and related products, furniture and fixtures, paper and allied products, printing and publishing, fabricated metal products, machinery, electric and electronic equipment, and instruments and related products. One area with great potential is manufacturing industries which combine manufacturing facilities with a showroom to sell goods directly to local and regional consumers and tourists, in addition to exporting goods to regional and national markets.

If the suggested truck route linking the industrial park with Route 17 is built, development in the industrial park area and corridor has the potential to expand. It is essential that growth be controlled and planned so that the existing services will not be overwhelmed.

## **JOB GROWTH**

In recognition of the need to provide additional, up-graded and diverse job opportunities for residents of Tappahannock, it is proposed that several areas be reserved for development into industrial clusters. Proposed land areas are sufficient to meet future needs of the community. A variety of sites are necessary to permit the location of industrial uses which provide employment opportunities. Several industrial clusters are necessary to provide for the location of industry according to their specialized needs while protecting the environment of the community.

In the event of an economic recession, Tappahannock would certainly suffer economic hardship. Industries which supply lumber and building materials and automobile parts would see a drastic decline in demand for goods. Therefore, the town should encourage the location of new industries which will not be as affected should a recession occur.

### Tappahannock Commerce Center

The former municipal airport site has been planned and approved for redevelopment as an industrial complex. The Town of Tappahannock in conjunction with the College of Architecture and Urban Studies at the Virginia Polytechnic Institute and State University created a conceptual master plan for the seventy acre tract referred to as The Tappahannock Town Center. The master plan proposes development of the property for industrial and office uses and provides a proposed layout of the property to include buildings, streets, parking, and pedestrian and bike facilities. The goal of the development as is to strengthen the local economy by creating jobs, diversifying the local tax base maximizing the use of the property and providing community amenities. Water and sewer services are currently unavailable on the property however, Town official are exploring options to extend services to the area.

# Tappahannock Commerce Center Tappahannock, Virginia Conceptual Master Plan

## 2014 Comprehensive Plan Appendix B

Tappahannock Commerce Center  
Tappahannock, Virginia  
drawing title: Master Plan  
sheet number: 2  
drawn by: G. S. Strieder and K. Raghurathin  
scale: 1"=200'

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This drawing is conceptual and was prepared to show approximate location and arrangement of site features. It is subject to change and is not intended to replace the use of construction documents. The client should consult appropriate professionals before any construction of site work is undertaken. The Community Design Assistance Center is not responsible for the inappropriate use of the drawing.



## Education

A skilled and educated workforce is essential to attracting industries. Studies show that employers are targeting Generation Y due to their advanced knowledge and capabilities in the area of technology. The average age of Essex County resident is 44 years old. Tappahannock's present labor force could prove to be a disincentive in attracting industries which demand workers with a higher skill level.

As stated in Chapter 8, institutions of higher education are in relatively close proximity and are accessible to Tappahannock residents. Many of these institutions offer certification and training programs necessary for advancement in industries such as healthcare, business and technology, communications and professional and technical fields. With the current job market in Tappahannock, students in these disciplines have limited incentive to stay in the area to seek employment and typically look elsewhere.

Vocational/technical training is offered through Essex County High School at the Northern Neck Vocational Training Center in Warsaw. Rappahannock Community College in Richmond County also offers vocational and training courses in areas such as civil engineering, drafting, computer science, and mechanical engineering. The Middle Peninsula Comprehensive Economic Development Strategy identifies several major projects in close proximity to the Town of Tappahannock including the need for a technical training facility at the Rappahannock Community College. The proposed building would provide state of the art training and preparation of students for the current demands of the labor market. The proposed project is vital to the success of economic growth and diversity of the Town of Tappahannock's labor force.

**TABLE 7-5 ESSEX COUNTY RESIDENTS EDUCATION ATTAINMENT BY AGE**

Age	18-24	25-34	35-44	45-64	65+	Total
<b>8<sup>th</sup> Grade or Less</b>	33	19	15	154	392	613
<b>Some High School</b>	223	50	220	445	267	1205
<b>High School Grad/GED</b>	391	360	718	1191	602	3262
<b>Some College</b>	325	208	274	692	264	1763
<b>Associates Degree</b>	57	55	106	193	102	513
<b>Bachelor's Degree</b>	48	83	166	466	189	952
<b>Graduate Degree</b>	37	12	35	177	94	355

Source: 2010 Census, American Factfinder.

## Infrastructure

The provisions of infrastructure and adequate facilities are essential to attracting businesses and promoting job growth which strengthens the local economy. Tappahannock has much to offering in this area however; some facilities would require improvement to meet the demands of certain industries, particularly those associated with higher wages.

The Tappahannock Essex Airport complex outside of town offers a large amount of land which

may be available for light industrial use.

Amenities including pedestrian and bicycle facilities are necessary to a diverse labor force and promoting economic development. Studies show that the younger generation is less likely to afford automobiles and more likely to use alternative modes of transportation. The younger generation is also that target market for employers in major industries. In Chapter 2 and subsequent chapters, it was noted that population of residents between the ages of 18 and 34 is declining.

### Water and Sewer

Water and sewer infrastructure is available and is adequate to service existing demand with some availability for additional capacity to accommodate future growth. The Town will evaluate the need for maintenance and coordination of improvements as necessary for future growth.

Water supply is currently operating at sufficient levels to meet the needs of current uses. Water reuse and reclamation allows for used water to be treated and safely used for other purposes, decreasing the demand for fresh water. Measures to increase supply and reduce wastewater through water reuse and water reclamation to facilitate future demands need to be addressed. Developments with higher consumption rates will be urged to employ strategies and techniques to increase supply by conserving while reducing waste water runoff.

### Broadband Facilities

Broadband services are available to Town of Tappahannock businesses and residents, however, the majority of the customers have digital subscriber loop (DSL) service which transmits through phone lines. Essex County and the Town of Tappahannock are active participants on the Middle Peninsula Broadband Authority and are currently looking for options to provide broadband facilities in the Middle Peninsula. Broadband is considered the better option because it can help to diversify the economy by allowing for various types of businesses that rely heavily on internet services that cannot be supported by DSL. Broadband facilities would make the Town of Tappahannock more competitive in attracting jobs in industries such as customer care call centers and information technology.

Broadband would also allow for more home based startup businesses such as internet based businesses. The Virginia Department of Economic Partnership shows that Economic growth while slight has been continuous in the town over the past five years. In 2011 there were 14 new businesses started in the town, 7 in 2012 and 11 new businesses in 2013. With the installation of broadband these numbers could increase significantly.

Broadband would also provide higher opportunities for education. Tappahannock's current skilled labor force is lacking. As illustrated earlier in the chapter and in previous chapters, the majority of the labor force possesses education below a two year degree. Broadband would provide an alternative for those residents who find it difficult or are unable to commute to academic institutions.

The transportation system is adequate with provisions being considered to address higher demand. As growth and development occurs, the Town of Tappahannock will coordinate with the Virginia Department of Transportation to ensure that adequate facilities remain available in the town. In addition, the town is continuing to look for ways to improve traffic conditions and decrease transportation demand as growth and development occur and will seek cooperation from the business community with addressing the issue.

## **Resources Available**

There are resources available for implementing economic development efforts other than the organizational strategies already described. These include a number of state programs that provide assistance with financing, infrastructure, and training.

### **1. Community Development Block Grants**

CDBGs are available to eligible cities, counties, and towns for industrial or commercial revitalization, site development, access road construction, railroad span construction, and water and sewer projects.

### **2. Economic Development Revolving Loan Fund**

The Economic Development Revolving Loan Fund provides loans to Industrial Development Authorities (IDAS) within communities eligible for Community Development Block Grant non-entitlement funds. The loans may be re-lent to private businesses within the IDA service areas.

### **3. Tax Increment Financing**

The purpose of the Tax Increment Financing (TIF) program is to remove blighted conditions by improving the real estate tax base and by attracting private investment to the area. A local government may adopt TIF by passing an ordinance designating a blighted area as a development project area. This may be useful in redeveloping the area associated with the existing airport.

### **4. Virginia Revolving Loan Fund**

The Virginia Revolving Loan Fund (VRLF) provides loans to assist eligible Virginia localities in efforts to create or retain permanent jobs. The loans may be used for asset financing for manufacturing and related uses and may include the acquisition of land and buildings, development or redevelopment of real estate, rehabilitation and renovation of buildings, and purchase of equipment and other fixed assets. The loans may be used for on-site and off-site public facilities supporting manufacturing and related uses.

## **5. Industrial Access Road Program**

Virginia Department of Transportation (VDOT) administers a program to assist in constructing industrial access roads to serve new and expanding manufacturing or processing companies. The program may be used to improve existing roads, construct a new road, and to maintain the access road after completion as part of the secondary highway system or road system of the locality. The Town intends to explore this option for development of the Tappahannock Commerce Center.

## **6. Shell Building Initiative**

This initiative provides funds for selected cities and counties to construct industrial shell buildings to attract basic employers to the community. The funds are awarded on a competitive basis. The Virginia Supplemental Retirement System has agreed to loan sufficient funds for the initiative to the Virginia Department of Economic Development (VDED). VDED will then loan the funds for a shell building to a selected locality and the Commonwealth of Virginia will make the interest payments on the loan. Upon the sale or lease of the building by the locality or at the end of five years, whichever is first, the locality will repay the principal and interest to the commonwealth.

## **7. Industrial Training Programs**

The Industrial Training Division of the Virginia Department of Economic Development will prepare and coordinate an industrial training program tailored to meet the specific needs of new or expanding companies seeking to increase employment in Virginia. Industrial training will recruit prospective trainees, provide specialists to analyze job training requirements, develop and implement training programs, conduct "Train the Trainer" programs, arrange for adequate training facilities, and prepare instructional audiovisual materials for in-depth training orientation. These services are provided at no cost to the employer and may be helpful in meeting the town's job retention objectives.

## **IMPLEMENTATION RECOMMENDATIONS**

- Provide adequate quantity of zoned land and improve the physical appearance and attractiveness of the corridor. Encourage proposed redevelopment to come into compliance with appearance and landscaping requirements.
- Promote the existing businesses and actively work to attract new businesses which will complement the existing businesses by marketing and incentives. Coordinate with the County and the EDA to obtain the state Enterprise Zone designation which provides incentives for targeted industries to operate in the Town. Maintain an up-to-date listing of all available store space to facilitate expansion or relocation efforts;
- Develop and implement a Plan that includes the promotion of tourism as a tool for economic growth in Town of Tappahannock. Partner with the Middle Peninsula Planning District Commissions and other agencies to create a regional tourism plan.

- Create and implement design guidelines to promote a unified image of a downtown district as discussed in Chapter 3 Land Uses. This includes provisions for a Historic Preservation District and Downtown Development guidelines.
- Actively market and promote local businesses and downtown events such as an arts festivals or outdoor music productions in the summer, and a sidewalk sale.
- Industrial locations should provide large land areas suitable for horizontal expansion, of sufficient size to provide on-site storage, parking and landscape areas. The character and aesthetics of adjoining residential areas should be preserved by requiring industrial activities to meet strict performance standards.
- Create and adopt an ideal approach to training and developing a skilled labor market with possible collaboration between the Chamber of Commerce, Economic Development Authority and the local Workforce Development Center partnering with local businesses to provide training to local residents.
- Coordinate with MPCB PAA to explore options for obtaining additional access to the water in an effort to promote working waterfront businesses and recreational use associated with tourism.
- Revitalize Tappahannock Main Street, including the waterfront to attract and retain business in the old downtown area. Coordinate with the Middle Peninsula Planning District Commission to explore funding options to implement the current revitalization plan.
- Continue to work with the Middle Peninsula Broadband Authority and other agencies on local and regional efforts to bring broadband facilities to Essex County.

# Chapter 8

## **PUBLIC FACILITIES AND COMMUNITY SERVICES**

**E**nsuring that the provision of community services and facilities is phased with the demand or need is a major component of growth management. Community facilities and public services are those minimum facilities and services the town provides for the common good. Town of Tappahannock facilities include land, buildings, equipment and whole systems of activity provided by the town on the behalf of the public. The quality of public facilities contributes to the quality of life in the town as well as the Towns ability to grow and thrive economically. Some facilities, such as clean drinking water and adequate sewage disposal are necessities while others, such as theaters and parks, are highly desirable for cultural and educational enrichment.

**Goal:** *Adequate and efficient public services and facilities should be ensured for all town residents.*

Objectives:

- Ensure adequate accessibility to its library and recreational facilities via a variety of transportation modes.
- Maintain, expand and improve Tappahannock’s central water and sewer systems to adequately accommodate future demands
- Support shared services and facilities such as the library, rescue and fire services and continued to collaborate with the County on future needs and improvements to these services.
- Provide efficient public safety services for Tappahannock residents.
- Encourage recycling and reuse of refuse through town’s recycling program.

## **ANALYSIS**

Tappahannock provides a variety of public services and facilities for its residents which include water and sewer, solid waste disposal, libraries, and public safety. As growth occurs, so does the need for services.

A survey of existing services and facilities, in conjunction with population and economic data on which to base projections of need, provides an indication of what future improvements and additions might be necessary. In order to accurately anticipate needs, all projected figures should be updated constantly as new population and economic data become available. This section will focus on identifying existing facilities and identifying future needs based on growth projections. The following is a discussion of the existing capacities and levels of service for selected community facilities and services as well as projected demands. Planned facilities included in the town's annual financial planning process are noted.

## **WATER SERVICE**

A number of laws control the use and quality of water in the Commonwealth of Virginia. The Riparian Rights Doctrine allows for landowners to make reasonable use of the water resources adjoining their land. Secondly, the Groundwater Act of 1973 allows the Water Control Board to designate management areas in which water withdrawals are regulated. This allows the Board to assert state ownership and have control of the water beneath a landowner's parcel of land. Areas outside of those management areas are controlled by common law. Thirdly, the State Water Control Law mandates the protection as well as the restoration of state waters. The standards are continuously reviewed and revised as appropriate. Lastly, the State Health Department regulates the water supply or waterworks permit is to be issued, and assists applicants in completing all necessary paperwork pertinent to water supply. These are just some of the laws and agencies that help protect and regulate water.

## **WATER SUPPLY PLANNING**

The town presently has four water supply wells. All wells have had pump tests run on them. Well #1 with a yield of 145 gpm, Well #2 yielding 250 gpm, Well #3 yielding 350 gpm and Well #4 with a yield of 275 gpm.

The town presently has three water storage tanks, a 500,000 gallon tank at the Riverside Tappahannock Hospital, a 200,000 gallon storage tank, and 100,000 gallon elevated tank at LaGrange Industrial Park for a total of 800,000 gallons of storage. According to the 2005 Buildout Study, well capacity is 1,000,000 gallons per day.

The Town of Tappahannock has one community water system servicing approximately 1,171 residences. Table 8-1 illustrates the water use projections for the Town of Tappahannock through the year 2040.

**TABLE 8-1 ESTIMATED POPULATION ON COMMUNITY SYSTEMS IN TOWN  
AND PROJECTED WATER DEMAND**

<b>Year</b>	<b>Population</b>	<b>Estimated population served by community systems*</b>	<b>Estimated water demand (mgd)**</b>	<b>Estimated water demand as% of permitted system capacity+</b>
2010	2335	2335	.393	50.4
2020	2723	2723	.450	57.7
2030	3111	3111	.508	65.1
2040	3449	3449	.538	69.0

Source: Middle Peninsula Water Supply Plan, 2009.

## STORAGE REQUIREMENTS

The water supply and storage requirements must meet the recommended fire flow demands, plus normal daily operating storage needs, plus an emergency reserve. The recommended fire flow duration for Tappahannock (based on the "Guide for Determination of Required Fire Flows" from the Insurance Services office) is 2 hours at a flow of 1,500 gpm, a total flow of 180,000 gallons. The recommended operating storage is 15 percent of the average daily water consumption. For the 2005 average flow of 251 gpm, 15 percent of the average daily use is 54,216 gallons. The emergency reserve is designated as 25 percent of the total of these numbers of 90,360 gallons.

Based on these criteria, the required storage under normal conditions is 281,700 gallons. The available effective storage which can be provided with existing facilities includes 675,000 gallons of storage plus 1010 gpm of pumping for two hours (121,200 gallons), less the 54,216 gallons of daily operating storage. The available storage is 741,984 gallons which more than adequately meets the requirements.

Daily water consumption is approximately 300,000 gallons. Present well and storage capacity should be sufficient for the expected demand for some time unless industrial uses are greatly increased.

## SEWER

Located south of the industrial park, a new sewage treatment plant was constructed in 2001. The capacity of the plant was upgraded to allow 800,000 gallons per day. Of the total capacity, 200,000 gallons are reserved for usage by Essex County as part of its allocation in exchange for participation in the sewer system expansion.

Under the 2005 Buildout Study, the Treatment Plant would be able to accommodate about 355 additional housing units under the Town's current capacity of 600,000 gallons per day. All of the current pump stations are sufficient to accommodate effluent.

The Buildout Study provided recommendations aimed to protect the ability to meet growth under the current capacity of the sewage treatment plant. Those recommendations are included under the implementation recommendations.

## **SOLID WASTE**

Presently, the Town of Tappahannock employs three full-time personnel to operate the curbside and green box collection of solid wastes. Based on estimates by the Planning District Commission, there is about 3,000 tons of waste generated per year in the town. Seventy percent of this is from commercial and industrial sources (UTPDC, 1989). Two trucks collect trash throughout Tappahannock on a regular schedule and disposal is done at the BFI Landfill in King and Queen County, Virginia. Residential (937) and commercial (276) collections each take place two times a week for a total of 2,426 weekly collection stops and 126,152 collection stops each year.

The town also provides curbside pickup of recyclable materials once per week. Disposal is through the Regional Solid Waste Authority.

## **STORM WATER MANAGEMENT**

Town of Tappahannock will be participating in the Virginia Storm water Management Program and is currently drafting storm water management regulations to be administered on future development requests. The program includes development standards and suggests best practices designed to reduce erosion and sediments that negatively impact water quality. The regulations are implemented by the Town officials through a plan review process which also entails onsite inspections by Town officials.

## **SAFETY AND EMERGENCY SERVICES**

The town operates its own Police Department which includes a Chief, Captain, Lieutenant, one investigator and six patrolmen, and one support person who enforce the law within the town limits. Jailing is handled through the county and prisoners are housed at the regional jail in Saluda. Dispatching is provided by the county. The town operates a fleet of twelve vehicles.

The Tappahannock-Essex County Volunteer Fire Department serves the Town of Tappahannock and Essex County from a main facility located in Tappahannock. The Fire Department is equipped with three Class A pumpers, two large capacity water tankers, three brush trucks and one mini pumpers and two staff vehicles. There are three fire stations located throughout the county with the newest addition located in the Occupacia District.

Essex County formed a combination EMS system consisting of career and volunteer EMS providers. Essex County EMS was formed in Sept 2011 and employs full time personnel. Tappahannock Rescue Squad, INC. consists of volunteers who work closely with Essex County EMS to meet the service needs of both Essex County and the Town of Tappahannock. The county-town rescue squad is composed of about forty members operating four (4) rescue vehicles. The units are dispatched county-wide from the County Sheriff's Department. Both EMS agencies are funded by the county; Tappahannock Rescue Squad, INC. still receives private donations and local contributions.

Marsh Street Pool and Park, located in the Tappahannock, is a public park with pool amenities and is operated by Essex County Parks & Recreation. The facility is less than two acres and

provides Town and County residents with on site activities such as Fun Day, splash parties, swimming lessons other special events. The County also organizes volleyball, little league basketball, aerobics, soccer, kite flying, and tennis.

## **LIBRARY**

The Essex Public Library is operated by the county in a facility located in the old elementary school complex on Route 17 north of Tappahannock. The library staff includes a Director, Assistant Director and Children's Curator. The library is open Monday through Saturday. Monday, Tuesday and Friday hours are 9:30 a.m. to 5:00 p.m.; Wednesday and Thursday hours are from 9:30 a.m. to 8:00 p.m. and Saturday hours are from 10:00 a.m. to 4:00 p.m.

The library contains more than 18,000 volumes and is mainly funded by the county. Some additional funding comes from the Town of Tappahannock, the State, Federal grant-in-aid monies and private donations.

Access to the library needs to be improved for children. The site is difficult to reach by pedestrians and bicycles. Children must be driven to the library in order to have access to the facility.

## **EDUCATION**

Public education is provided to Town of Tappahannock residents by Essex County schools which are located in the Town of Tappahannock. Funding for public schools is provided by the county, state and federal government. Private schools in Tappahannock include St. Margaret School and Tappahannock Junior Academy.

School facilities in the county are adequate to accommodate both the Town and County schools age population. Based on population projections, the Town of Tappahannock is experiencing growth at a faster rate than the County. As the Town's growth continues, existing facilities will need to be evaluated for their suitability to accommodate future demands.

## **BROADBAND FACILITIES**

Broadband services are critical to the continued growth and economic development of Tappahannock. Known as a regional commercial hub, many businesses and employers rely on broadband service for businesses and strongly consider the service when deciding to expand or relocate. Whether the town attracts much needed job industries relies on the services that are available. In the age of technology, the availability of fast and reliable broadband services can be the deciding factor.

Due to the density and commercial concentration, Town of Tappahannock businesses and residents have the benefit of access broadband service which is sparsely provided to the rest of the County. Majority of the internet broadband is digital subscriber line or DSL, a slower less accessible internet service.

Enhancement and expansion of broadband services is necessary to advance the education and economic goals of the Town of Tappahannock.

## **GOVERNMENT SERVICES**

Offices of the county government are located in Tappahannock in and around the county courthouse. The town utilizes the services of the county building inspector for enforcing the Uniform Statewide Building Code within the town.

Town offices on Church Lane house the Tappahannock administrative offices. The police department is housed on Duke Street. From these offices are administered all local ordinances, water and sewer system operations, trash collection and all regular town operations. Additional space within these buildings will be available for expansion, as needed.

## **CAPITAL IMPROVEMENT PROJECTS**

The capital improvements plan will provide the vehicle for the town to set priorities and to make the most efficient use of available funds. Capital programming is the tool which should be used to guide growth toward predetermined areas of the town and county and at predetermined rates. The town should use the capital improvements program to guide developers in proffering conditions for the provision of public facilities. The CIP is also necessary to leverage funds needed to implement development and infrastructure projects.

## **IMPLEMENTATION RECOMMENDATIONS**

There various alternatives available for achieving the objectives relating to the provision of public services and facilities to accommodate growth. This section provides a brief discussion of the general techniques recommended. More specific recommendations are included as needed for individual public services.

- Coordination between the County and the Town to provide adequate sewerage capacity, water, roads and schools in order for the district to accommodate anticipated county growth. Some of the issues to be considered are:
  - equitable funding mechanisms
  - sources of revenue
  - timetables for the extension of services
  - safeguards to insure that existing and future town residents have adequate services and facilities and that they in no way bear additional costs for the extension of services.
- Develop a formula calculating the per unit fiscal impact of residential and commercial development to provide a rational basis on which to accept proffers from developers. The

formula can be used to determine impacts on water and sewer facilities, parks, roads and schools, as well as, for more public welfare needs such as police, fire, and emergency medical facilities.

- Develop a Capital Improvement Plan (CIP) in conjunction with the comprehensive plan and any agreements for utility extension made with the county. For example, a well-designed capital improvements plan will provide for the orderly extension of sewer and water at a rate needed to accommodate anticipated growth.
- Seek to form partnerships with other stakeholders in the County to advance needs. The Town will communicate and cooperate with local businesses as well as agencies such as the Economic Development Association to understand the needs of industries that the Town seeks to retain and attract to the area. The Town will also work in conjunction with federal and state agencies to explore and obtain various funding sources available such as impact fees, application fees and grant funding to finance projects identified in the capital improvement plan.
- Consider the acceptance of voluntary proffers as a means of obtaining revenue for capital improvements to service new developments. A proffer normally involves the donation of property or improvements by an applicant seeking a rezoning on a property which will offset the capital costs incurred to the locality by allowing the increased development to occur. (Section 15.2 - 2297 Code of Virginia.)
- Adequate facilities standards will help control the development process by showing that sufficient infrastructure and services are present or will be provided. These standards can ensure that land development coincides with the location and timing of capital facilities. Standards for water, waste treatment, transportation, and educational facilities guide the development review process. Consider adequacy of existing facilities such as fire suppression, roads, schools, sewerage, storm drainage, and water and set minimum standards to determine adequacy need to be established for Tappahannock.
- Annexation is a viable way to serve areas adjacent to the town with traditional municipal services. Application can be made to the Virginia Commission on Local Government for the requisite hearings and processing.
- Services are localized within the town limits and are convenient to citizens. As population increases, however, additional employees and departments will be necessary and additional departmentalization may be practical. Coordination with county programs may also provide more effective and efficient delivery of services as they become more complex.
- Correct deficiencies in the Tappahannock Zoning Ordinance that are inconsistent with the 2005 Buildout Plan. The Zoning Ordinance should be evaluated for inclusion in order to ensure the Town is able to accommodate growth under the current capacity of the water and sewage facilities. Specific recommendations include:

- Require household water saving equipment and technologies in high density residential areas.
- Consider changing the Zoning Classification of undeveloped areas under the 2005 Buildout Study to a less intensive use.
- Implement policies that encourage long-term water use reduction practices such as water reuse and reclamation within the review process for public infrastructure connection requests.

# Chapter 9

## RECREATION

**Goals:** *Develop and improve recreation services, facilities and programs for the citizenry of Tappahannock.*

*Provide safe public access for the residents of Tappahannock to public lands, government buildings, schools and open spaces and to a system of parks and facilities for recreation.*

Objectives:

- Provide recreation programs in association with a system of neighborhood parks, pocket parks, public lands, playgrounds and open spaces.
- Provide public access and water trails to the waterfront on the Rappahannock River or on Hoskins Creek or both.
- Develop along Hoskins Creek or the Rappahannock River, or both.
- Designate an urban trail system in the Town of Tappahannock utilizing the existing street system.
- Provide pedestrian and bicycle access to public lands and open spaces for those areas of town not connected by the existing street system and for future development in the southern part of town via an expanded trail loop system.
- Develop an urban park at the end of Prince Street as part of a Central Business District revitalization effort.
- Encourage development of other neighborhood parks and playgrounds as a part of development requests.
- Explore possibilities for the acquisition, development and maintenance of waterfront acreage for public use.

## ANALYSIS

**R**ecreation plays an important role in the quality of life of the Town and its economic development growth. Recreational activities lend to the existing traditional character of the natural environment while providing alternative means of transportation, decreasing demand on transportation facilities. While the Town has a number of recreational enhancement options available, those opportunities are strengthened through the numerous recreational facilities in the County in close proximity to the Town limits. The Town currently does not own or manage any recreational facilities for the use of town residents. Future land use plans identify public and semi-public areas for a neighborhood park system and waterfront access sites for the public. The county-owned sites are comprised of public schools and a public swimming pool, as well as the library and government buildings.

Schools are located primarily in the northern end of the town. The high school is located on Airport Road, the middle school at the end of Marsh Street, and the elementary school adjacent to Route 17. Although these facilities form the majority of Tappahannock's public use facilities, they are not connected by a non-vehicular transportation facility, such as a bike path or designated walking trail.

Water access is presently provided by two public boat ramps. One ramp is at the end of Prince Street, having poor access, inadequate parking, and no pier facilities. The other ramp is located along Hoskins Creek at Dock Street. The Dock Street facility has both ample parking and a docking area; repairs to the dock are needed. The Hoskins Creek ramp is owned by the Virginia Department of Game and Inland Fisheries with policing and maintenance services provided by the Town. Pilings from an historic wharf provide evidence of previous public access to the Rappahannock riverfront. This area however, has potential for a waterfront park facility.

No public beach access to the Rappahannock presently exists in the town. All public use facilities exist on the north side of town, with none south of Hoskins Creek. Publicly owned land exists at the base of the Thomas Downing Bridge between the overpass and Prince Street, but is presently undeveloped. The Town is currently in the process of acquiring interest in the property with intentions of converting it into a park.

The Town is a member of the Middle Peninsula Chesapeake Bay Public Access Authority. The Authority was formed in 2003 for the purpose of acquiring and managing public water access opportunities in the region that can be used by the general public for passive and active activities.

Privately owned recreation areas in the Town that are open to the public consist of ball fields located in the northern end of town, a fitness center near the Southern States sites. The property on which they are situated is for sale and a change in ownership may discontinue their use. The June Parker Marina has been evaluated as a possibility for conversion from private to public use. Numerous marinas, a golf course, overnight camping, and a private membership park are within close proximity to Tappahannock. A portion of the Rappahannock River Valley National

Wildlife Refuge is located just north of Town and the Essex County Museum is located on Water Lane.

## **WATERFRONT PARK**

The town recognizes the opportunities for public shoreline enjoyment made available due to the proximity of the Rappahannock River. The following program for waterfront park development has been considered at the foot of Prince Street.

Potential Waterfront Park Development actions would include:

- Acquire 2 parcels between bridge and condominiums for development as a passive urban park
- Provide limited parking for park

### Additional Activities Envisioned with this Proposed Park Concept

- Farmers market, produce market, seafood emporium
- Festival event for "kick-off" and annual follow-up
- Antiques "Alley" in downtown
- Dock activities: crabbing, fishing, walking, itinerant boat use

While opportunity for waterfront park development exists in this location, the site size is limited and the location of nearby residents suggests use should be limited to passive recreational offerings. This park concept is further discussed in the implementation recommendations of this section.

## **ASSETS**

- Many historic structures and landscape features of high aesthetic value throughout the town.
- The Rappahannock River bordering town holds significant promise for future access, vistas, active recreation, marine activity, etc.
- Presence of Hoskins Creek meandering through town offers unique potential natural setting for passive recreation and aesthetic enjoyment.
- The upland area west of town at the head of Hoskins Creek offers future potential for a park facility.

- The dock on Hoskins Creek meets current access demand for boat use and could potentially be expanded and improved for mixed recreational use.
- Presence of commercial marina immediately north of town suggests possible downtown/wharf boat link for visitors by water or potential use of part of the Marina site as a small waterfront park facility.
- Town history is strongly linked to the waterfront and creeks. The history suggests possible festival or special event focus to increase tourism into the downtown commercial district.

#### Problems Identified

1. Lack of parks and recreation facilities for Tappahannock.
2. Lack of publicly-owned land south of Hoskins Creek, in the downtown and in the far western reaches of the town.
3. Lack of pedestrian access between public spaces, particularly evidenced by the Route 360/17 safe-crossing problems and the airport crossing conflict between the middle and high school sites.
4. Lack of neighborhood parks denies the town an important motivational tool for achieving developer-associated improvements for recreation in the town comprehensive plan and zoning ordinances.

### **CONSIDERATIONS FOR PARK DEVELOPMENT**

1. Parks system should be explored that relates to the downtown waterfront park.
2. Existing schools should be incorporated into park planning for programs and facilities development.
3. Every effort should be made to relate the downtown dock/park component to the historical record of wharves or docks for accuracy in restoration, if possible and practical.
4. Early park support and visibility could be enhanced by building on an established festival event, such as the annual RivahFest, and supported by service organizations. Food sales, proceeds, and commissions would be associated with vendor activity. A parade, contest, or water competition would complete the "Water Day" event.
5. Another boat trip venture, of a local nature and brief in duration, might be introduced and linked to a historical town walk.

### **MANAGING PARKS AND RECREATION**

A Parks and Recreation Authority can be developed to carry out the task associated with a system of open spaces for public use. Among the structures to consider for implementation are a Parks Authority, a Parks Commission, and a Parks and Recreation Department. A Parks Authority, whether it is a town authority or a joint City/County Authority, is the political structure that sets rules and regulations, establishes development priorities and funding mechanisms, and provides for comprehensive management and overall system maintenance. A Parks and Recreation Department would be responsible for the day-to-day operation and maintenance of facilities and for programming events and activities.

## **UTILIZING PUBLICLY OWNED LAND AND FACILITIES**

Given the history of excellent cooperation between Tappahannock and Essex County, it seems logical to presume that this cooperation will certainly extend to County-owned land located in the town. For Tappahannock, this suggests with a minimum of public expense that the town can anticipate reasonable access to adequate publicly owned land to form the basic "spine" of a system of parks and open spaces for public use.

The town owns the property on which the Dock Street dock is located, the prominent statue downtown as a street focus, and the parcel currently maintained by, and leased to, the Virginia Department of Game and Inland Fisheries near Hoskins Creek. While the town holds other properties as well, these parcels appear most suitable for inclusion in a system of parks and open spaces.

The County operates the three schools, as well as the library and the downtown government buildings and grounds, all of which are suitable for inclusion in the proposed system.

The airport facility has strong potential for a mixed-use designation, which could in the future make some portion of that land available for use in a system of open spaces and parks. The airport property consists of over 70 acres of land that the Town envisions becoming a mixed-use district within the town. There is the potential there for light industry, office spaces, more parking areas, and open space to be used for recreational purposes such as a recreational trail or a cross country course for the schools. Please see the Figure 2 (Analysis Plan) and Figure 7 (District Use Plan) following this section that illustrates what the property and surrounding area looks like now and what the Town envisions for the future of the airport property. The figures are taken from an analysis report created for the Town by the Community Design and Assistance Center of the College of Architecture and Urban Studies of the Virginia Polytechnic and State University.

The considerable wetlands areas that adjoin Hoskins Creek provide an extremely rare and exciting conservation land area, highly suitable for inclusion into the proposed open space system. This large area presents a great opportunity for use as a passive observation area for wildlife and the natural environment, as well as an excellent location for pedestrian use and access via the urban trails system.

## **LEASING/ACQUIRING ADDITIONAL PUBLIC LANDS**

While the inventory of publicly owned land in Tappahannock is substantial, a comprehensive and balanced system of parks and open spaces implies the need for additional lands. This is particularly acute in the case of the need for a waterfront access park facility downtown, and similarly important in the town at or south of Hoskins Creek where no public lands are currently held except for the leased VDOT land.

## **WATERFRONT PARK FACILITY DEVELOPMENT**

The property immediately south of the Downing Bridge at the end of Queen Street offers potential for a waterfront park site. Specifically, there are two small lots of green open space between the waterfront and eastern edge of the existing residential use, bounded on the south by the Atkins Oil property. Acquiring the described open space could serve to provide access for the public to the waterfront, and potentially serve as a vital interest component for a revitalized downtown commercial district. However, the site size and configuration will limit parking opportunities and water depths will preclude development of boating facilities. Recreational offerings that should be provided include passive uses such as picnic facilities, pedestrian seating and opportunities for enjoying views of the waterfront. More intensive uses on the site could be disruptive to the area's peaceful residential character and are not recommended.

As an alternative or in addition, the town may consider locating a passive waterfront park on portions of the June Parker Marina property. The existing marina could complement public recreation offerings and at the same time afford an opportunity to enhance the visual quality of this entry point to the town by creating a town gateway statement through park design.

The Town can work with the Middle Peninsula Chesapeake Bay Public Access Authority to address needs for access to the water within the Town.

## **IMPROVEMENTS TO LAND AND FACILITIES FOR PARK USE**

While designation of publicly owned lands and the dedication of leased or acquired properties together provide a network of parks and open spaces, the facilities appropriate for a parks system will not necessarily be distributed evenly or satisfactorily given the current status of each parcel. Improvements to the sites and the addition of equipment and facilities are essential to meet the needs of the community in recreation programming.

Depending on the specific site and the programmed use, essential improvements would include:

1. Safety considerations: drainage, improved sod or groundcover, safe sidewalks, curb ramps, parking surfaces, traffic control devices for pedestrians, bicycle racks, and lighting.

2. Use considerations: signage, traffic flow pattern, traffic barriers, benches, tables, trash cans, waste spigots, lights, bathrooms, swing sets, jogging and exercise trail stations, and storage buildings.
3. Aesthetic considerations: trees for shade and definition, shrubs for space control definition, fences, planter boxes, flowers for beauty, hedges, preparation of vistas or views, etc.

The input of the citizenry in Tappahannock via a Parks Department, Commission, Board, or Authority would provide valuable guidance for town leaders in assessing and inventorying existing facilities and developing a capital improvements budget for long term development and improvements.

## **IMPLEMENTATION RECOMMENDATIONS**

- Designate existing publicly owned lands shown on the land use plan as park lands/open space lands. These sites would include the elementary, middle and high schools, the Dock Street dock, the parcel under lease to VDOT that is managed by the U.S. Fish and Wildlife Service and owned by the Town, the government building sites and the Downtown statue, as well as the conservation lands associated with Hoskins Creek.
- Continue to plan and develop a waterfront park facility. Seek funding mechanisms required for the downtown waterfront park land acquisitions and development as a cooperative effort between the town and Adkins Oil Co.
- Explore a town/county collaboration as one approach to planning and maintenance for future park and recreational facilities.
- Establish a program to upgrade all park sites for appropriate public use as recreation facilities.
- Develop a pedestrian and bicycle plan that includes facilities located in the Town and County. These facilities should be planned and designed to encourage use of existing and proposed recreational facilities and connection to downtown area.

# Chapter 10

## DOWNTOWN REVITALIZATION

**GOAL:** *To maintain and support a thriving downtown economy by promoting the environmental, cultural and historical aspects of Downtown Tappahannock and diversifying business options.*

Objectives:

- Create a visual gateway in the northern section of the town and strengthen the visual image of the town's gateways located at Hoskins Creek and the monument within the historic district.
- Develop design standards for the historic district for all new construction and exterior renovations to existing structure
- Encourage redevelopment of compatible uses and structures adjacent to the downtown historic area that lend to its character
- Encourage the location of new businesses in the downtown area while retaining and expanding existing businesses.
- Encourage and support the identification and preservation of historic landmarks within the town.

One of the key concerns mentioned in the Tappahannock Comprehensive Plan is the enhancement of the visual appearance of the town. This chapter includes a definition of the urban design districts and their attributes. It will also identify the alternative methods available to the town for protecting or enhancing community appearance and the legal basis for doing so. It is the intent of this chapter to focus on the town's appearance by clearly defining the town's urban design districts and evaluating the elements which can influence their appearance, and by offering a framework by which the town's character will be preserved or enhanced.

## **ANALYSIS**

Through observation and evaluation, four distinct design districts have been identified and were found to be appropriate for assigning different levels of treatment to the commercial corridor area of the town:

1. The Northern Business District
2. The Historic District
3. Central Business District
4. The Southern Business Corridor

## **THE SOUTHERN BUSINESS CORRIDOR**

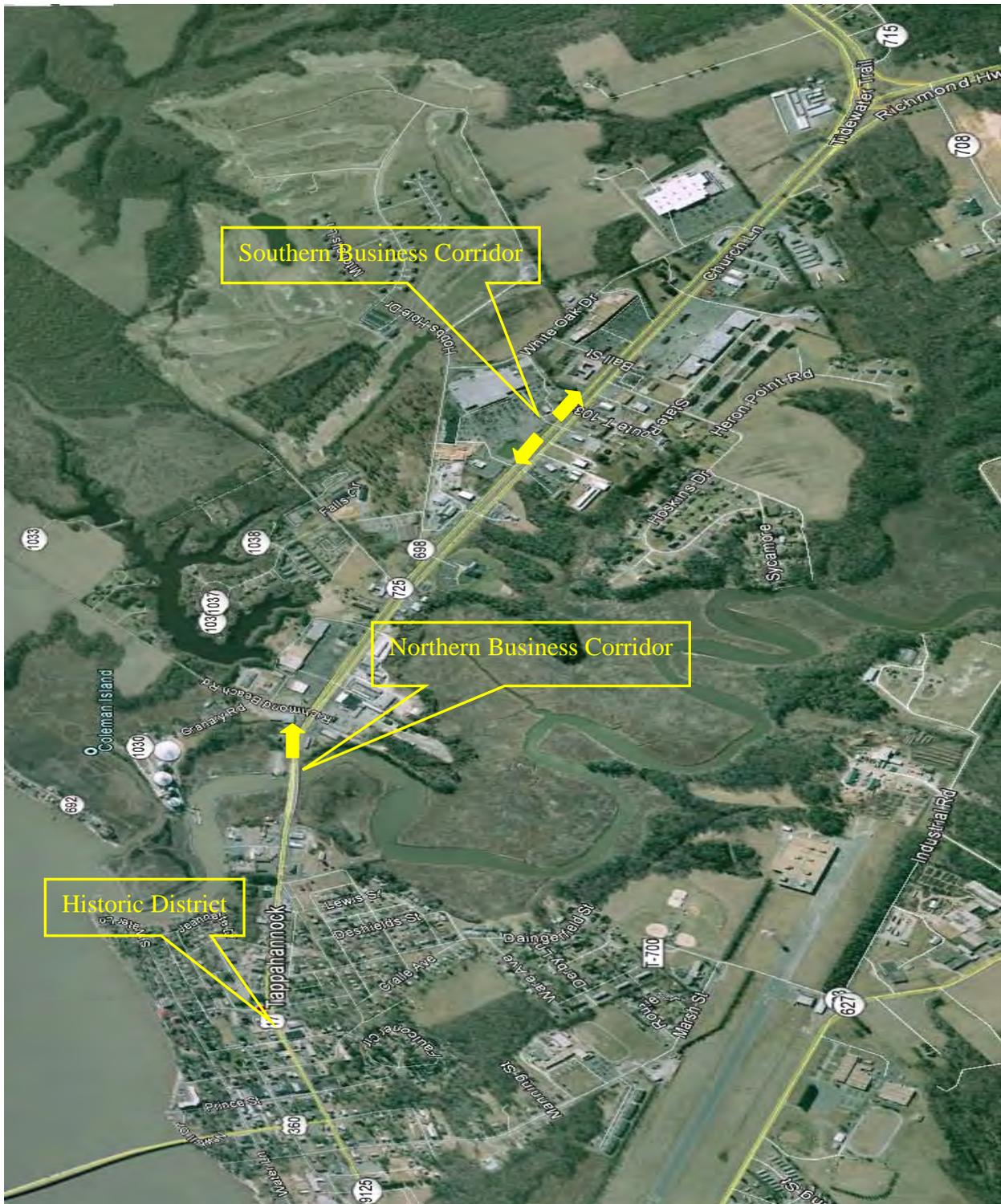
The Southern Corridor is comprised of two miles of commercial business and service uses along Route 360/17 in the southern section of Tappahannock south of Hoskins Creek. The Southern Business Corridor is easily identified by the mid to large box commercial uses with vast parking areas, and signage designed to attract travelers passing through town. Businesses located in this area, such as Lowes, Wal-mart and shopping centers are destination oriented in that local and regional shoppers seek to frequent these businesses specifically. There are numerous convenient stores and services for shoppers in the region and travelers passing through Tappahannock. The convenience stores are oriented closer to Route 360/17 and attract both local and regional customers. The recently constructed buildings in the Southern Business Corridor are one or two stories, large in scale, and built of concrete, metal, brick, and glass.

In analyzing the Southern Business Corridor it becomes apparent that two major problems exist. Numerous signs at different scales and styles tend to confuse motorist looking for a particular business. The number of curb cuts on Routes 360/17 creates traffic issues due to the high volumes of vehicular traffic. The Virginia Department of Transportation has since developed access management regulations that require future development to restrict the number of entrances and exits along the corridor.

Large shopping centers and big box businesses in the Southern District are design with sparsely landscaped parking lots. Stringent landscape standards would help commercial development blend more with the character of the area and provide for less impervious surface reducing water runoff.

Addressing these issues is essential to the Town's goal of providing an attractive impression for travelers and potential tourists traveling along Route 360/17. Sidewalks are developed sporadically along the roadway adjacent to commercial development limiting pedestrian friendly access. In addition, this section of town is economically important because it draws people from surrounding areas for shopping.

**MAP 10-1**  
**TOWN OF TAPPAHANNOCK COMMERCIAL CORRIDOR**



The visual elements of the Southern Business Corridor should be enhanced in several ways. A variety of low maintenance trees and shrubbery should be planted in the median strip to narrow the field of vision for those traveling on

Route 360/17. Narrowing the field of vision will reduce distractions from the intense activities surrounding the traveler. Furthermore, the space in which people are moving is made smaller which identifies more closely with the general character of a small town. Trees also provide a small town feel as opposed to lanes of traffic experienced in more urban areas. Help in enhancing this corridor may be achieved through a highway corridor overlay zone (see Chapter 3) and the Development Appearance Standards set forth below.

## **THE NORTHERN BUSINESS CORRIDOR**

The Northern Business Corridor is situated along Route 360/17 between Hoskins Creek and the intersection of 360/17 in the northern section of town. This design district is different from the Southern Business Corridor because the road narrows, the buildings are smaller in scale and are closer to the road. Businesses along the Northern Business Corridor consist of more small scale retail, restaurant and services.

Entering into the area from the south across Hoskin's Creek Bridge provides the first view of water and activities associated with it including Captain Thomas's Cruise line and commercial boats. Hoskins Creek bridge acts as a gateway into the Northern Business Corridor from the south, while a second gateway is formed at the intersection of Route 360 and Route 17.

The signage is comprised of different sizes and styles; the lighting is oriented to automobile traffic. Sidewalks are provided beginning at Hoskin's Creek Bridge then narrow and deteriorate as you travel north towards the downtown area.

## **THE CENTRAL BUSINESS DISTRICT**

The Central Business District (CBD) encompasses the Tappahannock Main Street and the historic commercial area downtown from the waterfront back to adjacent residential areas that compose the older residential neighborhoods of Tappahannock. The CBD, which has historically been the center of commerce and business in Tappahannock, contains a mix of public institutions, as well as business, service, and commercial establishments which comprise a significant portion of the Town's economy. Any effort to improve the visual quality of this area must of necessity deal with economic realities, i.e., the competitive nature of the large commercial centers located in the town and the impact they have had on the economic viability of the older commercial district. The CBD designation provides for the significant role that commercial land uses continues to provide in blending compatible mixture of commercial, cultural, institutional, governmental, and residential uses in a compact, pedestrian oriented, traditional town center that serves the regional business needs in the area.

The CBD contributes to the Town's urban feel in the midst of the rural character of the county. In order to provide the intensity and diversity of choices that make urban centers attractive to visitors, high densities are essential. Revitalizing this area will require a concerted effort to attract shoppers and visitors to the downtown to purchase goods and services that cannot be obtained in the commercial centers, i.e., specialty items. Making the downtown an especially attractive area for visitors can best be achieved by capitalizing on the positive qualities of this

area, e.g., the waterfront, the historic charm and the contrast it presents to urban centers along U.S. 17.

A vibrant and thriving downtown is indicative of a growing local economy. The county, town and the Economic Development Authority have partnered to work towards obtaining the state Enterprise Zone designation to foster growth in the CBD. Under this program, targeted businesses have the ability to take advantage of local and state incentives for locating in one of the three Enterprise Zone designated areas. The goal is to use the Enterprise Zone designation to attract a broader range of businesses and services to the downtown area, making it more attractive for residents and tourist alike.

In order to serve its purpose, the CBD must be highly accessible to shoppers and tourists with adequate public access and amenities. Sidewalks, trails and bicycle facilities should be provided to promote alternative means of access and reduce the demand for automobiles and parking. Street and intersections that provide local access must be managed so as to permit convenient access to the shops and other attractions of the downtown.

Collaboration between the town, local businesses and downtown stakeholders should be undertaken to create a Central Business District revitalization plan. The Central Business District Plan should address ways of revitalizing the area and include actions for implementation on by both the private and public sectors. Among other things the plan should include a detailed development evaluation and plan for increasing public access to the waterfront starting with development of the recommended Prince Street Park.

## **TAPPAHANNOCK MAIN STREET PROGRAM (TMSP)**

Tappahannock Main Street consists of properties from June Marina south to Hoskins including historic downtown. TMSP has an organized citizen group working towards building and promoting a more vibrant main street. In 2009, a Tappahannock Main Street Revitalization Plan was developed in a joint effort with the town and technical assistance through Virginia Commonwealth University. The plan consisted of a Four Point approach to revitalizing Main Street: Organization, Design, Economic Restructuring and Promotion.

Organization requires the creation of a coalition of merchants, residents, property owners, officials, and other interested stakeholders to pursue revitalization activities in the district. The activities should increase the capacity of the TMSP to achieve the revitalization goals. These goals include enhancing the Town and County's ability to strengthen and retain existing businesses by offering resources and support to apply for national and state recognized designations that will open the area up to more funding resources, such as pursuing Main Street Status with the Department of Housing and Community Development.

The design aspect includes making the area attractive physically with cohesive and unifying design elements and amenities between Prince Street, Queen Street and Church Lane while preserving the historic assets present. It also includes necessary renovation of downtown buildings that is consistent with the architectural theme and character of the area and providing pedestrian friendly amenities that are essential to pedestrian oriented commercial centers.

Economic restructuring is crucial in transforming downtown into a more active business district. The efforts will require recruitment of new businesses and businesses looking to expand that are in keeping with the land uses desired downtown, as well as developing cultural and entertainment attractions in the traditional business district. The Town in partnership with the County and the Essex Economic Development Authority seeks to facilitate restructuring downtown through the Enterprise Zone program. The program will be used to target and attract niche commercial businesses and leverage services that will help strengthen and diversify business options that are available downtown.

Promotion consists of increasing local business activity through the identification and adoption of new business marketing ideas and activities, as well as increasing the number of special events held downtown. Rivahfest, an annual event showcasing the Town, attracts more than 12,000 visitors providing a first-hand look at the community and is offered free of charge. Installation of new signage is also another tool proposed as a part revitalization plan that will assist in marketing the downtown area.

The Town of Tappahannock has acquired the land between the end of Prince Street and Downing Bridge for use as a waterfront park. The Town is also in the process of acquiring the end of Prince Street with the intent to install infrastructure such as a pier to access the Rappahannock River waterfront for recreational use. Plans for the Prince Street road ending were designed and outlined in the Tappahannock Main Street Program developed in December 2012. These plans not only provide for more tourist and recreational activities but also help to protect water quality by minimizing water runoff from development of the waterfront. The plan also discusses and provides recommendations for downtown area including three phases of program improvements:

- Phase 1: Rappahannock River Waterfront Pier Access:
  - Pier access to deep water channel
  - Pierhead boat and cruise landing facility
  - Intermediate pier shell building for services
  - Tidal floating docks for transient boat visitors
  - Dedicated fishing pier upstream of Downing Bridge
  - Handicap accessible from land and water
  - Configure utilities and services to pier
  - Establish a long term plan for waterfront park
  
- Phase 2: Prince Street Improvement Project:
  - Develop comprehensive downtown landscaping plan
  - Placing all utilities underground
  - Repaving sidewalks and associated hardscapes
  - Reduction in curb cuts
  - Street lights and banner support
  - Street trees and related landscaping
  - Crosswalks with decorative hardscapes
  - Alternative parking solutions
  - Wider pedestrian sidewalks
  - Public art

- New street furniture
- Divided street median landscaping
- Phase 3: Church Lane and Queen Street Additional Improvements:
  - Placing utilities underground
  - Provide street lights and banner support
  - Street trees and related landscaping
  - Divided street median landscaping

The Town wishes to improve the walkability of the downtown community, which will require improvements to existing sidewalks. Improved pedestrian facilities will also help to relieve traffic demand on inadequately designed roads in the Northern Business Corridor and downtown area. Presently, it is an activity center for both local citizens and regional visitors and as such, can boost tourism in Tappahannock, strengthening the local economic base.

A plan is needed to study the feasibility and impacts of widening sidewalks throughout the improvement area and a comprehensive landscaping plan to unify the project areas. Funding for the planning and improvement of the downtown area may come from various funding sources, including but not limited to:

- Transportation Alternatives Program (TAP): The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. This project is administered by the Virginia Department of Transportation (VDOT).
- Land and Water Conservation Fund (LWCF): The Land and Water Conservation Fund Act of 1965 established a federal reimbursement program for the acquisition and/or development of public outdoor recreation areas. The Land and Water Conservation Fund (LWCF) is administered in Virginia by the Department of Conservation & Recreation (DCR) for the National Park Service. The program represents a federal, state and local partnership. A key feature of the program is that all LWCF assisted areas must be maintained and opened, in perpetuity, as public outdoor recreation areas. This requirement ensures their use for future generations.
- Department of Game and Inland Fisheries (DGIF) Grants to Localities Program for Public Boating Access Facilities: The Department of Game & Inland Fisheries (Department) has funds to assist localities in providing public opportunities for boating access facilities. The funds are derived from the sale of hunting and fishing licenses, and from boat sales tax and registration fees and federal funds from the U.S. Fish and Wildlife Service. The grants are available for new development or the renovation or improvements to boating access facilities. This grant program's first year was 2013.

## **THE HISTORIC DISTRICT**

The historic district extends from Duke Street north to Queen Street and Route 360/17 east to the Rappahannock River and is a part of Tappahannock Main Street. The historic district consists of a cluster of structures which have been identified as historically significant, the majority of which are located in the old town section around the Courthouse green. The Old Debtor's Prison on the Courthouse green was built before 1769 and now serves as the Essex Treasurer's Office. County-owned Beale Memorial Church on the Courthouse Square contains the original walls of the 1729 Courthouse. Anderson House on the St Margaret's campus is located on one of the oldest occupied tracts in Tappahannock, the Robert Coleman property.

In general, the buildings and structures located within the historic district reflect a colonial design. The main street within the historic district is the portion of Prince Street east of Route 360/17. Two significant structures, the monument dedicated to Civil War soldiers from the region and the Essex County Courthouse Complex, are found in this section of Prince Street. One of the concerns identified within the district is that many of the structures along Prince Street have either been altered or constructed in a way that the colonial character has been lost. Also detracting from the historic character is the inconsistent size and style of the signs used by the commercial establishments. Finally, there exist no strong or consistent visual linkages from one side of Prince Street to the other

The built environment plays a significant role in the quality of life a community enjoys. The purpose of the design element of the plan for Tappahannock is to provide a vision for the future and a framework for improving the town's man-made environment. Such a vision includes well trimmed and landscaped public areas which enhance the style, color and texture for the surrounding buildings. The buildings themselves should complement one another and reflect the mark of history on the town in their design. For example, the historic district represents Tappahannock colonial past; the Northern Commercial Corridor, through its eclectic architectural style, reflects the town's gradual economic growth and expansion. The Southern Commercial Corridor reflects Tappahannock's current regional economic importance through its newer and more modern architectural style.

Tourist entering Tappahannock should be able to recognize the boundaries of the town by gateways that visually welcome them into town. Gateways help to identify district boundaries, each district having its own identity and importance. The civil war monument should serve as a gateway into the historic district and the island in which the monument sets should be enhanced with plants and flowers and/or attractive masonry work. This will draw attention to the monument as a focal point. If illuminated, the monument's importance as a landmark and gateway would not be diminished at night.

In addition to the general appearance standards presented above, the scale of design within the historic district is geared towards the pedestrian. As such, special emphasis on details will be placed on the urban and architectural design plans for this area. The street furniture should reflect a colonial character with street lighting designed to replicate traditional soft lighting. The

benches and trash containers should also reflect the style used in colonial periods. The sidewalk planters should consist of a uniform style and should be rigorously maintained.

The character of the storefronts should be enhanced. Mullions and shutters should be used in windows which will enhance the traditional colonial style and appearance of downtown and reinforce the pedestrian scale of the area. Awnings of a uniform style can be utilized by the stores located in the historic district.

Although the style of several buildings within the historic district may not be the same, all structures blend well in terms of texture and color. Brick is the predominant material used to face the buildings. In addition to brick, wood siding may also be found. The colors of the paint used are also complementary, consisting mainly of warm earth tones such as tan, soft grey and white.

The historic district also contains many positive yet subtle features that are not readily identified but add to the picturesque atmosphere of the district. The chiming of the bells in the courthouse complex along with the historic markers on the buildings serve to create a sense of time and place for residents and visitors the area.

This rich history is only one of several assets that attract people to Tappahannock that cannot be replaced once destroyed. Historic areas should not be viewed only as attractions for tourists, but as elements that enrich the experience of living in a community and make it more attractive for others. The preservation of an area's historical heritage is an important economic development strategy that contributes to the enrichment of the quality life of residents and the local economy.

## **HISTORIC PRESERVATION PROGRAMS**

Historic preservation programs are designed to assist with preservation efforts by providing funding as well as guidance on proper procedures for altering, improving and maintaining historic structures and amenities. Historic preservation efforts on behalf of a community display character and show a sense of pride and self-awareness. There are several methods available by which communities can make historic preservation a reality. While much has been done to preserve local architecture and history, many opportunities still exist to further preservation effort programs.

A number of existing programs provide assistance in protection or preservation, through tax benefits, professional historical/architectural consulting and so forth. More detailed information on programs including the National Historic Landmark, National Register of Historic Places, Conservation and Preservation Easements, and Historic Overlay Districts can be found from various historic preservation organizations and such publications as Virginia's Heritage: A Property Owner's Guide to Resource Protection, published by the Virginia Department of Conservation and Historic Resources.

National Historic Trademark - A historical resource is generally a site over fifty years old. The criteria for determining these sites has been established by guidelines set forth by the Secretary of the Department of the Interior. A district, site, building, structure or object can be considered

a historic resource. The criterion is that the resource must be noted to be significant in American history, architecture, archeology, engineering or culture.

This program, run by the National Park Service, is the primary federal means of recognizing the exceptional national significance of historic properties. The program is also one of the major tools used to scrutinize proposals for additions to the National Park System and to select nominations to the World Heritage List.

In recognition of the historic significance of a property, the owner receives a certificate of designation and a plaque bearing the name of the property and attesting to its national significance. Ownership and use of the property is not changed by being listed as a National Historic Landmark. Instead, an honor is granted.

National Register of Historic Place - In 1966, Congress established the National Register of Historic Places as the Federal Government's official list of properties, including districts, significant in American history and culture. In Virginia, the Register is administered by the Virginia Landmarks Register. Some benefits resulting from a listing in the National Register include the following:

1. National recognition of the value of historic properties individually and collectively to the public.
2. Eligibility for Federal tax incentives and other preservation assistance.
3. Eligibility for a Virginia income tax benefit for the approved rehabilitation of owner occupied residential buildings.
4. Consideration in the planning for federally and state assisted projects.
5. Listing does not interfere with a private property owner's right to alter, manage or dispose of property.

Virginia Landmarks Register - The Virginia Division of Historic Landmarks (VDHL) surveys historic buildings, structures and archeological sites to determine eligibility of being listed on the Virginia Landmarks Register. As with being on the National Register of Historic Places, listing does not limit or regulate the property owner in what can or cannot be done with the property. In order to be considered for listing on the National Register or having an easement on the property to be accepted by the VDHL, the site usually must first be listed on the Virginia Landmarks Register.

Virginia Historic Preservation Easement - A state-held historic preservation easement monitored by the Virginia Division of Historic Landmarks (VDHL) is an excellent means of perpetually preserving a historical structure and property for future generations. The benefits for a property owner to donate his land to the VDHL include income, estate, inheritance, and gift and property tax benefits. In exchange, the owner gives the VDHL the final word regarding proposed alterations.

Local Historic Overlay Zone - A third, but separate designation is the local historic district which is generally an overlay over a specified area created by the governing locality. This district, allowed by the Code of Virginia, Title 15.2-2306, is designed to maintain the architectural character of a historic community. It may allow an appointed commission or board to review alteration and demolition requests of architectural or historic significance. The main purpose of historic overlay regulations is to safeguard the heritage and character of the town by preserving the District therein which reflect elements of its cultural, social, economic, political or architectural history;

There are well-publicized design guidelines that the committee should employ when assisting the applicant in obtaining a certificate of approval for alteration or new construction. The government supports these owners' efforts through tax benefits and other programs. By creating such districts, a community can look forward to being able to maintain its identity in the face of advancing new developments.

The following criteria should be included in the criteria for determination to designate an area for classification as a Historic Overlay District.

A. Historic and Cultural Significance

The historic resource:

1. has significant character, interest or value as part of the development, heritage, or cultural characteristics of the town, county, state, or nation;
2. is the site of a historic event;
3. is a site that has yielded, or may be likely to yield, information important in prehistory or history;
4. is identified with a person or a group of persons who influenced society; or,
5. exemplifies the cultural, economic, social, political, or historic heritage of the town and its neighborhoods.

B. Architectural and Design Significance

The historic resource:

1. embodies the distinctive characteristics of a type, period, style, or method of construction;
2. represents the work of a master craftsman, architect, or builder;

3. represents a significant and distinguishable entity whose components may lack individual distinction; or,
4. represents an established and familiar visual feature of the town, due to its singular physical characteristics or landscape.

Non-Profit Preservation and Conservation Organizations - A number of organizations exist throughout the State of Virginia whose objective is to preserve and conserve archeological and historical resources. These include, but are not limited to, the Archeological Society of Virginia, the Association for the Preservation of Virginia Antiquities and the Council of Virginia Archaeologists. Individuals can contact the Virginia Department of Conservation and Historic Resources in Richmond, Virginia for a more complete listing of existing organizations

## **ARCHITECTURAL DESIGN STANDARDS**

Architectural design standards promote an aesthetically sound development. Aesthetics help to protect and enhance real estate values, foster civic pride, and improve the overall appearance of a community. All future development within the identified urban design districts should be subject to design review for compliance with minimum architectural design and development standards. The minimum standards that should be achieved are performance standards rather than inflexible and stringent criteria. The intent of these performance standards is to promote quality development that will compliment the community character of Tappahannock.

These standards are not intended to restrict imagination or development creativity, but rather, to assist in focusing on development design principals which should result in enhancing the visual appearance of the built environment in Tappahannock. The development appearance standards relate to such factors as: relationship of buildings to the site; relationship of existing buildings and site to adjoining areas; landscape and site treatment; building design; signs; and maintenance. These standards should not be considered cost prohibitive or overly restrictive since they embody common sense design principles which were traditionally employed throughout the country prior to the advent of post-war suburbanization.

The following are recommended development appearance standards for future multi-family, commercial and industrial development in identified urban design districts of Tappahannock:

### **RELATIONSHIP OF BUILDINGS TO SITE**

- The site should be planned to accomplish a desirable transition with the streetscape and to provide for adequate planting, safe pedestrian movement, and screened parking areas.
- Site planning in which setbacks and yards are in excess of zoning restrictions is encouraged to provide an interesting relationship between buildings. Buildings in the downtown and community centers are encouraged to minimize front setbacks to enhance the traditional street/building relationships typically found in rural villages.

- Parking areas should be treated with decorative elements, building wall extensions, plantings, berms, or other innovative means so as to screen parking areas from public ways.
- Without restricting the permissible limits of the applicable zoning district, the height and scale of each building should be compatible with its site and existing (or anticipated) adjoining buildings.
- Newly installed utility services and service revisions necessitated by exterior alterations should be placed underground wherever possible.

## **RELATIONSHIP OF BUILDINGS AND SITE TO ADJOINING AREA**

- Adjacent buildings of different architectural styles should be made compatible by such means as screens, site breaks, and materials.
- Harmony in color, texture, lines, and masses should be required. Monotony of design should be avoided.
- Adjacent incompatible land uses should be screened from one another by landscaping, berms, walls, and fences.

## **LANDSCAPE AND SITE TREATMENT**

- Where natural or existing topographic patterns contribute to beauty and utility of a development they should be preserved and developed. Modifications to topography should be permitted where it contributes to good appearance, or where it is necessary.
- Grades of walks, parking spaces, terraces, and other paved areas should provide an inviting and stable appearance for the pedestrian. Emphasis should be placed on facilitating pedestrian traffic in the historic/downtown area of the Town, especially traffic moving to and from parking lots to walkways.
- Landscape treatment should be provided to enhance architectural features, strengthen vistas and important axis, and provide shade.
- Plant material should be selected for interests in its structure, texture and color, and for its ultimate growth and maintenance expectancy. Plants that are indigenous to the area and others that will be hearty, harmonious to design, and of good appearance should be used.
- Parking areas and traffic ways should be enhanced with landscaped spaces containing trees, tree groupings or shrubbery.
- Where building sites limit planting, the placement of trees in parking or paved areas should be required.

- Screening of service yards and other places that tend to be unsightly should be accomplished by use of walls, fencing, enclosures, plantings, or combinations of these. Screening should be effective in winter and summer.
- In areas where general planting will not prosper, other materials such as fences, walls, and pavings of wood, brick, stone gravel, and cobbles should be used. Carefully selected plants should be combined with such materials where possible.
- Exterior lighting, when used, should enhance the adjoining landscape. Lighting standards and building fixtures should be of a design and size compatible with the building and adjacent areas. Lighting should be designed to avoid excessive brightness.

## **BUILDING DESIGN**

- Architectural style should not be restricted. Evaluation of the appearance of a project should be based on the quality of its design and relationship to surroundings.
- Buildings should have good scale and be in harmonious conformance with permanent neighboring development.
- Materials should have good architectural character and should be selected for harmony of the building with adjoining buildings. Materials should be of durable quality. Materials should be selected for suitability to the type of buildings and the design in which they are used. Buildings should have the same material, or those that are architecturally harmonious, used for all building walls and other exterior building components wholly or partly visible from public ways. In any design in which the structural frame is exposed to view, the structural materials should be compatible within themselves and harmonious with their surroundings.
- Building components, such as windows, eaves, doors, parapets, should have good proportions and relationships to one another.
- Mechanical equipment or other utility hardware on roof, ground, or buildings should be screened from public view with materials harmonious with the building, or they should be so located as not to be visible from public ways.
- Exterior lighting should be part of the architectural concept. Fixtures, standards, and all exposed accessories should be harmonious with building design.
- Refuse and waste removal areas, service yards, storage yards, and exterior work areas should be screened from view of public ways.
- Monotony of design in single or multiple building projects should be avoided. Variation of detail, form, and siting should be used to provide visual interest. In multiple building projects, variable siting of individual projects should be used to prevent a monotonous appearance.

## **SIGNS**

- Every sign should have “good” scale and proportion in its design and in its visual relationship to buildings and surroundings.
- Every sign should be designed as an integral architectural element of the building and site to which it principally relates.
- The number of graphic elements on a sign should be held to the minimum needed to convey the sign's major message and should be composed in proportion to the area of the sign face.
- The colors, materials, and lighting of every sign should be restrained and harmonious with the building and site to which it principally relates.
- Each sign should be compatible with signs on adjoining premises and should not compete for attention.

## **MAINTENANCE - PLANNING AND DESIGN FACTORS**

- Materials and finishes should be selected for their durability and wear as well as for their beauty. Proper measures and devices should be incorporated for protection against the elements, neglect, damage, and abuse.
- Provisions for washing and cleaning of buildings and structures, and control of dirt and refuse should be incorporated in the design. Configurations that tend to catch and accumulate debris, leaves, trash, dirt, and rubbish should be avoided.
- Provisions for landscape maintenance and replacement should be added.

## **IMPLEMENTATION RECOMMENDATIONS**

In order to achieve the goals and objectives outlined for downtown revitalization, the town should implement the following recommendations into its planning efforts.

Establish a Historic District with regulations to enforce development, redevelopment and alterations to buildings in the Historic district boundaries. Include guidelines for restoration, alteration, improvement and removal of damaged Historic buildings. Encourage the renovation of building facades where appropriate within the historic district.

Create and implement design and architectural standards for those developments adjacent to the Historic District. The design standards should encourage colors, mass, scale and architectural styles that compliment that of adjacent structures and uses.

Establish a Historic Preservation or Architectural Review board to review requests in the Historic District.

Implement design standards for signage for all business establishments within the town. Sign guidelines for the Historic District should be separate from those developed for other commercial districts. Signage in the Historic district should vary from hanging to V frames to all for consistency with its small town character.

Implement programs for the improvement of window and awning treatments to all structures, as well as improve landscaping in all public places within the historic district and the Northern Business Corridor.

Pursue national and state recognized designations which will allow access to resources that will help to promote the cultural, economical and historical aspects of downtown Tappahannock as a tourist location.

Coordinate with other local agencies and organizations to promote tourism, business growth and diversity in the downtown area. Promotion efforts should include enhancements of the existing buildings and streetscape, marketing of downtown events and revision of land use regulations to include a broader use of downtown buildings and structures.