

# Town of Windsor Comprehensive Plan



July 2016

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## **ACKNOWLEDGEMENTS**

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**Cover photos by Dennis Carney, Town of Windsor**

# **THE TOWN OF WINDSOR COMPREHENSIVE PLAN 2016**

**Adopted by the Windsor Town Council  
July 12, 2016**

**Preparation of this Plan was included in the  
Hampton Roads Planning District Commission  
Unified Planning Work Program for  
FY 2013-2016.**

**Prepared by the staff of the  
Hampton Roads Planning District Commission**

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## INTRODUCTION

### The Town of Windsor

The land that later became known as the Town of Windsor was first conveyed as early as 1681 by land grants from the King of England. The area was surrounded by tributaries from Corrowaugh Swamp, Beaver Dam Swamp, and Ennis Pond. It was known locally as Frog Level because of the abundance of small frogs living in the heavy wet soils found around the area.



The Town of Windsor began its existence in 1852 when Corrowaugh was established as a post office. Mail was brought once a week by courier until 1859 when the contract for mail service was given to the Norfolk & Petersburg Railroad (now Norfolk Southern). Subsequently, the railroad built a depot at Corrowaugh and called it Windsor Station. Local merchants interested in fair taxation led to the granting of a town charter by the General Assembly on March 15, 1902 and Windsor Station became the Town of Windsor, Virginia. The main road

through town is U.S. Route 460, which was opened in 1929.<sup>1</sup>

The Town of Windsor grew slowly over the next century, making public improvements and expanding town government to meet the needs of its citizens. The most significant change to the Town came on July 1, 2001, when the Commonwealth of Virginia approved Windsor's request to annex 2.82 square miles of Isle of Wight County. As a result, the Town expanded in size from 1 square mile to 3.82 square miles and increased the population to over 2,300 people. The Town of Windsor is also modernizing and diversifying its economy. New residents and new economic development projects promise to help the Town continue to evolve in the 21<sup>st</sup> century.

### Location

The Town of Windsor is located in eastern Isle of Wight County, approximately 2.5 miles west of the City of Suffolk and about 30 miles from the center of the Hampton Roads metropolitan area. The Town is located at the crossroads of two major highways: U.S. Route 460 and U.S. Route 258. U.S. 460 provides Windsor with a direct connection to both Hampton Roads and the Richmond-Petersburg metropolitan area, about 60 miles to the west. U.S. 258 links Windsor with Isle of Wight Courthouse and the Town of Smithfield

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<sup>1</sup> Source: Judith S. Robinson, Town Recorder (Town of Windsor Comprehensive Plan, 2003).

to the north and with the City of Franklin to the south.

## **Scope and Purpose of Plan**

The local planning commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction and every governing body shall adopt a comprehensive plan for the territory under its jurisdiction.

In the preparation of a comprehensive plan the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.

The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

### *Mandatory Review*

At least once every five years the comprehensive plan shall be reviewed by the local planning commission to determine whether it is advisable to amend the plan.

### *Inclusion of Adjacent Territories*

Any municipal plan may include the planning of adjacent unincorporated territory to the extent to which, in the municipal local planning commission's judgment, it is related to the planning of the incorporated territory of the municipality. However, the plan shall not be considered as a comprehensive plan for such unincorporated territory unless recommended by the county commission and approved and adopted by the governing body of the county.

### *Legal Status*

Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the

general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof.<sup>2</sup>

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<sup>2</sup> Title 15.2, Chapter 22, *Planning, Subdivision of Land and Zoning*, Code of Virginia.

## **CHAPTER 1 - POPULATION**

### **Introduction**

The character and dynamics of a locality's population are often good predictors of future development patterns and can act as valuable planning tools for a community making decisions related to growth. Future land use patterns are based, in part, on the trends seen in the existing community and involve an assessment of the need for housing, infrastructure, and other services.

This chapter examines the most recent population estimates, population growth trends, and household information for the Town of Windsor using data from the U.S. Census Bureau, the Hampton Roads Planning District Commission, and local records. Windsor is a community located in a traditionally rural county at the intersection of two important transportation corridors connecting Hampton Roads with points to the west. The Town is part of the Western Tidewater portion of the Hampton Roads Planning District Commission region, which also includes the cities of Franklin and Suffolk and the counties of Isle of Wight, Southampton, and Surry. The region is generally experiencing significant growth and, in order to understand the dynamics affecting growth and development within the Town of Windsor, this chapter also examines regional population trends.

### **Population Trends**

Most of the localities in the Western Tidewater region experienced significant population growth throughout the period from 1970 to 2010 (Table 1-1). During that time, both Isle of Wight County and the neighboring City of Suffolk saw significant population growth, with increases of 93% and 88%, respectively. In addition, both Surry County and the City of Franklin experienced strong population growth ranging from 20% to 25%. The 2010 Census figures indicate that the Town of Smithfield had the largest population increase in the region, also partly due to annexation, up 198% since 1970. This increase included about 350 residents brought into the Town as part of an annexation of territory from Isle of Wight County in 1998. The only exception to the growth pattern in the region was Southampton County, which lost approximately 0.06% of its population from 1970 to 2010.

According to the 2010 U.S. Census, the Town of Windsor is home to approximately 2,626 people with approximately 687 persons per square mile (Map 1-1) (Map 1-2). The Town of Windsor is one of two incorporated towns located within fast-growing Isle of Wight County. The other is the Town of Smithfield, which is located in the northeastern part of the County. In addition to the two towns, Isle of Wight County has an unincorporated population center located in its southwestern corner, just to the east of the City of Franklin. The towns of Windsor and Smithfield have each annexed property from the County in recent years, resulting in dramatic population increases for both towns. Windsor's

TABLE 1-1 POPULATION ESTIMATES WESTERN TIDEWATER REGION						
	1970	1980	1990	2000	2010	Percent Change 1970-2010
Town of Windsor	685	985	1,025	2,347 <sup>1</sup>	2,626	283%
Franklin City	6,880	7,308	7,864	8,346	8,582	25%
Isle of Wight County	18,285	21,603	25,053	28,298 <sup>2</sup>	35,270	93%
Town of Smithfield	2,713	3,718	4,686	6,324	8,089	198%
Southampton County	18,582	18,731	17,550	17,482	18,570	-0.06%
Suffolk City	45,024	47,321	52,143	63,677	84,585	88%
Surry County	5,882	6,046	6,145	6,829	7,058	20%

Source: U.S. Bureau of the Census, 2010 Census of Population and Housing.

1: Includes approximately 1,430 persons annexed from Isle of Wight County in 2001.

2: Excludes approximately 1,430 persons annexed from Isle of Wight County in 2001.

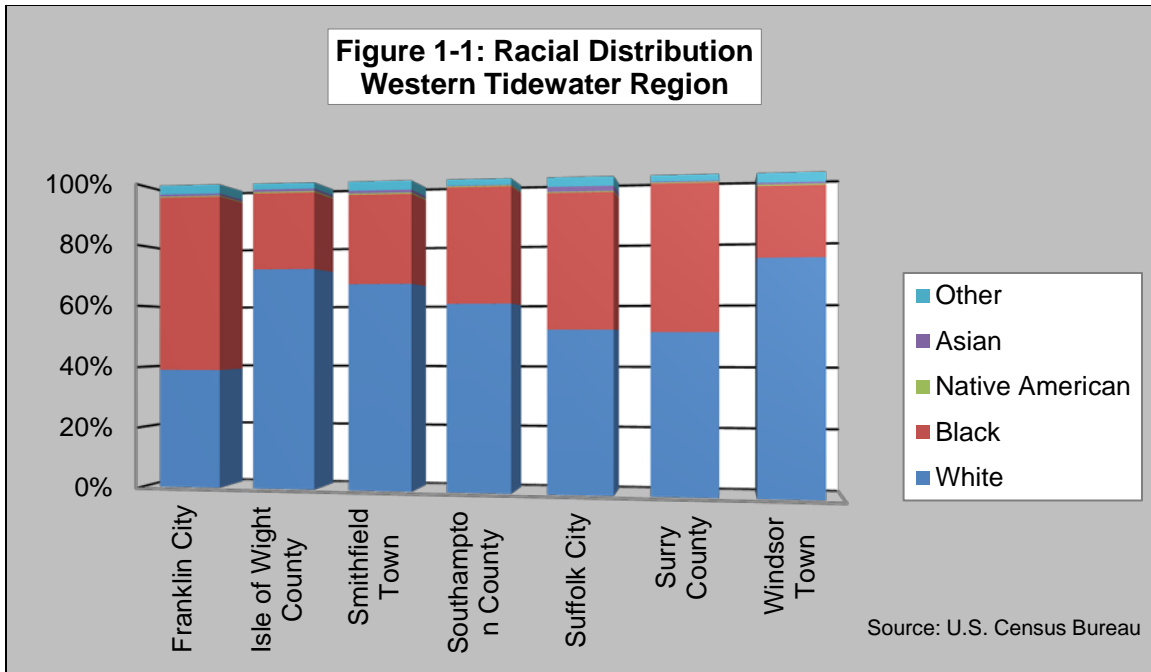
annexation took place in 2001 and added approximately 1,430 residents to the town.

## Population Characteristics

### *Age and Race*

Residents of the Western Tidewater region are older than average when compared to the state and the nation as a whole. The 2010 Census showed that all of the localities in the region had higher median ages than both the state and nation. The median age in the Western Tidewater region in 2010 varied from a low of 37.9 years in Suffolk to a high of 45 years in Surry County. The median age of Windsor residents was 41.8 years in 2010, which is slightly below average for Western Tidewater. By comparison, Virginia residents had a median age of 37.5 years in 2010 while the national median age was 37.2 years.

U.S. Census Bureau data indicated that the Town of Windsor had a less racially diverse population than other localities in Western Tidewater. The population of Windsor was 74% white according to the 2010 Census, while other populations in the region showed significantly greater racial diversity with white populations ranging from only 39% in Franklin to 72% in Isle of Wight County as a whole (including Windsor). Minority populations in both the Town and region consisted primarily of African American residents, with all areas reporting small numbers of Asian, Native American, and other minority groups. Figure 1-1 illustrates the racial distribution of populations in the Western Tidewater region in 2010.



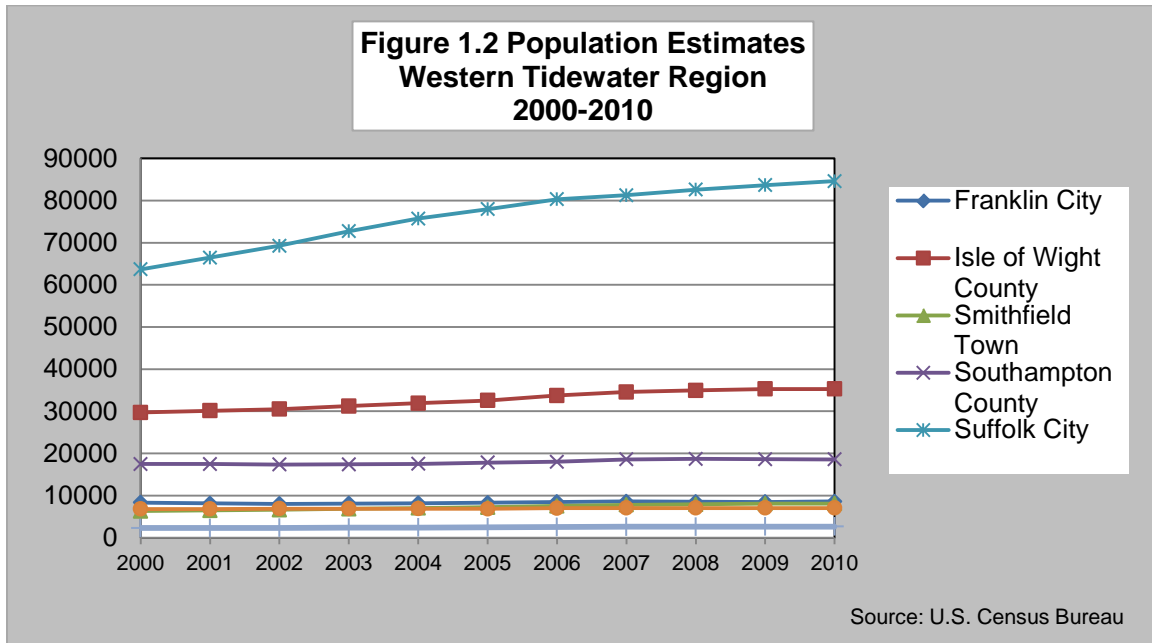
### *Marital Status and Families*

The 2007-2011 American Community Survey indicated that 52.1% of Windsor residents 15 years old and older were married, excluding those who were separated from their spouses. The percentage of married residents in Western Tidewater varied from 41.5% of the population in Franklin to 61.3% in Town of Smithfield. Never married residents 15 years and older accounted for about 26.6% of the population in Windsor. Widowed residents accounted for about 9.3% of the population.

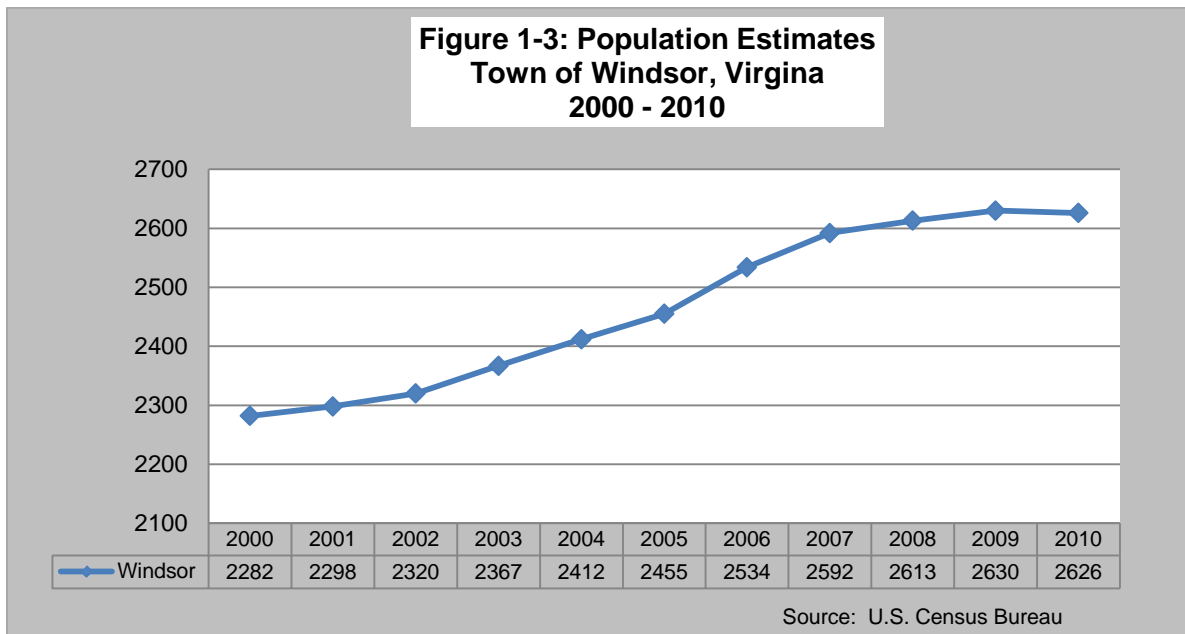
### **Households**

According to the 2010 Census, there were 1015 households in the Town of Windsor with an average household size of 2.48. Family households accounted for an average of approximately 70% of all households in the Western Tidewater region in 2010, and approximately 72% of all households in the Town of Windsor. Traditional married couple families accounted for 46% of all family households in the Town while single-parent households accounted for approximately 18% of all family households. Households made up of single adults living alone made up about 21% of the total households in the Town and an average of 20% of all the households in the region. Map 1-3 illustrates the distribution of households in the Town of Windsor and the surrounding area in 2010.

## Population Estimates and Projections

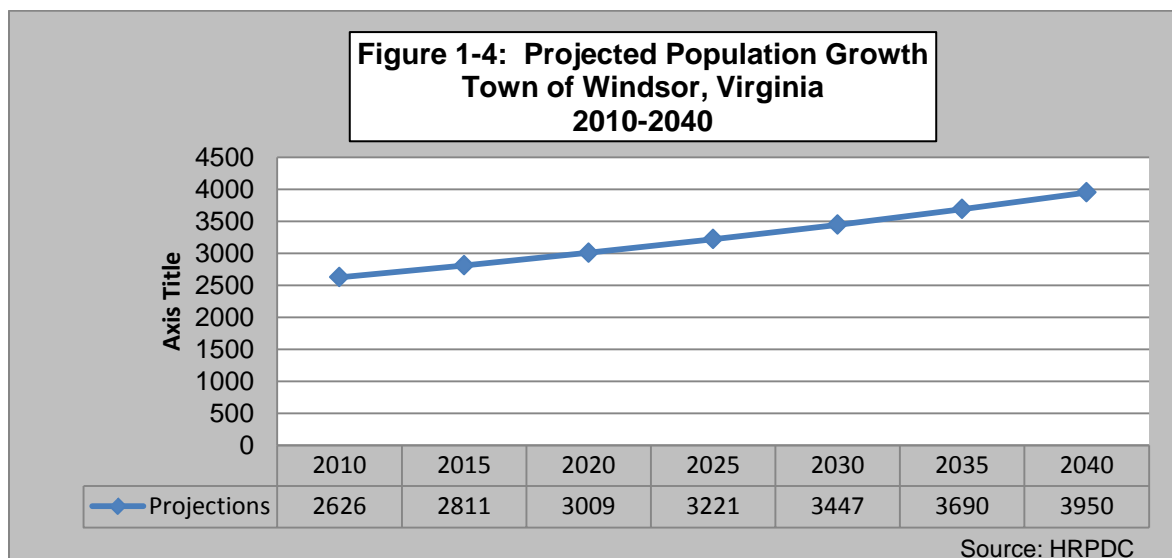


According to estimates from the U.S. Census Bureau, the majority of the Western Tidewater region has shown a pattern of steady and sometimes significant growth over the period from 2000 to 2010 (Figure 1-2). The largest population increase is estimated to be in the fast-growing City of Suffolk while Isle of Wight County also shows significant growth, primarily in the northern areas of the County that are in closer proximity to the Hampton Roads metropolitan area.



Estimates provided by the U.S. Census Bureau indicate that Windsor's population increased by another 15% between 2000 and 2010, based on an adjusted 2000 population of 2,282 (Figure 1-3). Some population fluctuation is shown as part of the Census estimates, but overall growth appears to be steady in the Town. Over the past decade, Windsor's population grew by 335 people (34 persons per year), resulting in an annualized growth rate of 1.37%.

The staff of the Hampton Roads Planning District Commission has developed population projections for the Town of Windsor through 2040 using the straight-line method. The straight-line projection, which is based on previous population data, indicates a gradual upward trend in population growth through 2040 (Figure 1-4). Using this method, total population is projected to increase by approximately 50% by 2040. This would result in a Town population of about 3,950 at that time, an increase of over 1,324 people from the 2010 population of 2,626 assumed by the HRPDC projections.

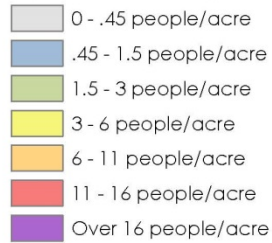


**Town of Windsor  
Comprehensive Plan**

**Map 1-1**

**Population Density  
by Census Block**

**Population Density**



Source: U.S. Census Bureau, 2010

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



Town of Windsor  
Comprehensive Plan

Map 1-2

Distribution of  
Addresses

Address Points by Property Type

- Residential address
- Non-residential address
- Parcels



Source: Isle of Wight County

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, June 2014



**Town of Windsor  
Comprehensive Plan**

Map 1-3

# **Number of Households by Census Block**

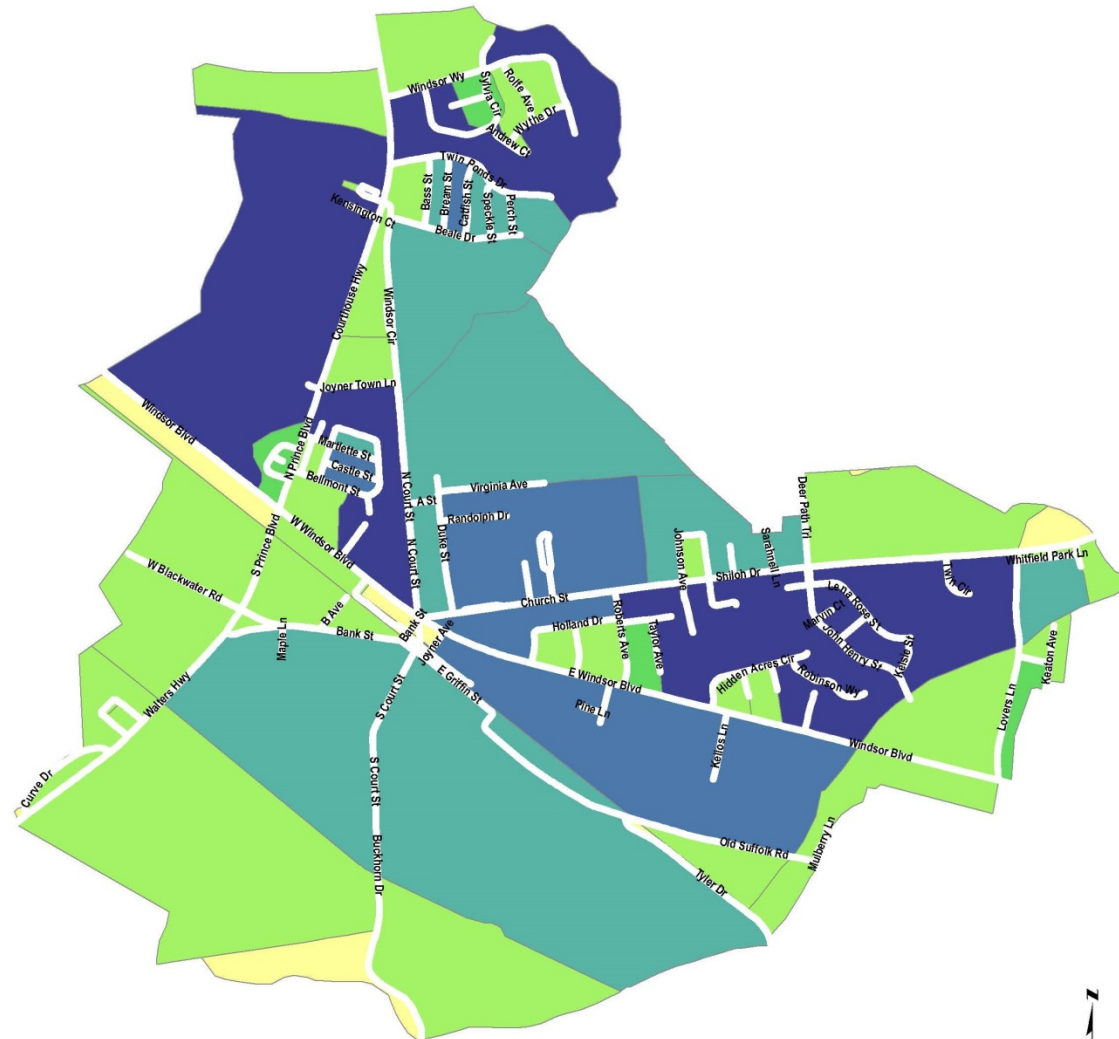
**Number of Households**

- 0 households
- 1 - 10 households
- 10 - 15 households
- 15 - 25 households
- 25 - 40 households
- Over 40 households



Source: U.S. Census Bureau, 2010

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, March 2013



## CHAPTER 2 - HOUSING

### Introduction

Single-family homes represent the majority of the housing market in the Town of Windsor and in the surrounding Western Tidewater region. However, since rural communities with large areas of undeveloped land frequently offer more plentiful affordable home building sites than their urban or suburban neighbors, the manufactured home has become more common in the region over the past twenty-five years.

Because it possesses the amenities of a town and proximity to major transportation routes, Windsor can offer a greater variety of housing than surrounding rural areas. Accordingly, Windsor is home to several manufactured home parks as well as duplex and multi-family developments. As the Town grows and housing demographics shift, a number of factors affecting housing availability and quality in the Town should be considered. These include housing supply, housing condition, and home values.

### Housing Inventory

#### Overview

According to the 2008-2012 American Community Survey there are 1,112 housing units in The Town of Windsor. Of the 1,112 housing units 769 are owner occupied, 253 are renter occupied, and 90 are vacant. Table 2.1 shows a comparison of the Town's occupancy status.

<b>Table 2-1</b>			
<b>Comparison of Occupancy Status</b>			
	2010	2012*	2010-2012 % Change
Total Units	1059	1112	5.0%
Owner Occupied	784	769	-1.9%
Renter Occupied	231	253	9.5%
Vacant Units	44	90	104.5%

Source: 2010 U.S. Census Data & \*2008-2012 American Community Survey

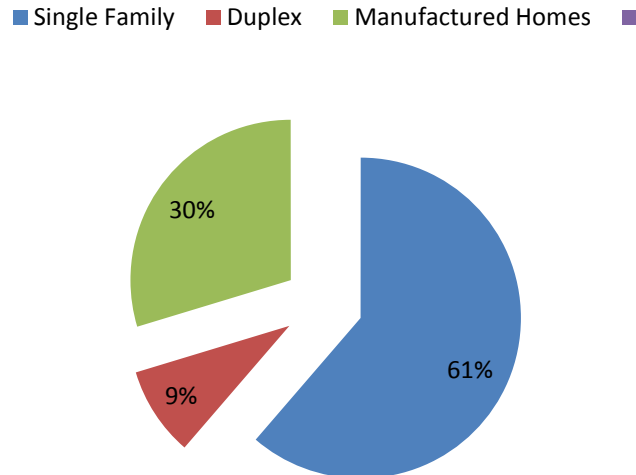
From 2010 to 2012 owner occupancy showed a -1.9% decrease, renter occupancy showed a 9.5% increase, and the total amount of vacant units showed a 104.5% increase. Overall total occupancy has increased by 5%; this increase is believed to be a result of households migrating into the Town.

## Housing Type

The Town of Windsor housing types include single-family housing, multifamily housing, and manufactured homes. Figure 2.1, Windsor Housing Types, demonstrates the current percentage share in each housing type, and Table 2.2, Windsor Housing Type<sup>1</sup>,

**Figure 2.1**

### Windsor's Housing Types



Source: 2008-2012 American Community Survey

Table 2-2						
Windsor's Housing Types						
	2000		2010		2008-2012	
	#	%	#	%	#	%
Single Family	240	57%	696	64%	682	61%
Duplex	12	3%	66	6%	100	9%
Manufactured Homes	172	41%	319	30%	330	30%
Other	0	0%	0	0%	0	0%
Total	424	-	1081	-	1112	-

Source: U.S. Census 2010 & 2008-2012 American Communit Survey

presents actual numbers and percentages to compare. The majority of Windsor's housing is single-family which represents 61% of the housing stock. Multi-family housing represents 9% of the housing units. Finally, 30% of Windsor's housing stock is

<sup>1</sup> Table 2.2 includes both U.S. Census 100 percent decennial data (2000 & 2010) and 2008-2012 American Community Survey (ACS) sample 5-year estimate data.

classified as manufactured homes. According to the 2008-2012 U.S. Census, American Community Survey<sup>2</sup> data, Windsor's housing stock slightly increase by 2.9% when compared to 2010 U.S. Census data.

### **Age and Quality**

Housing age is often used as an indicator of local housing quality. Most of the housing stock in Windsor is less than thirty five years old. As shown in Table 2.3<sup>3</sup>, Windsor Housing Age and Quality, 57% of the existing housing stock has been constructed since 1980, while only 20% of the housing stock was constructed before 1960. Because the majority of the housing stock has been built since 1960, 80% (statistically) meets acceptable standards. Additionally, American Community Survey 2008-2012 sample data estimates that only 4% of housing stock in the Town lack complete plumbing facilities and complete kitchen facilities.

<b>Table 2-3 Windsor Housing Age and Quality 2000-2012</b>					
	2000		2008-2012 (ACS Data)		
	Housing Units	% of Total	Housing Units	% of Total	Margin of Error
Built 2010 or later			9	1%	+/-10
Built 2000 to 2009			148	13%	+/-57
Built 1990 to 1999	58	14%	207	19%	+/-67
Built 1980 to 1989	73	17%	275	25%	+/-74
Built 1970 to 1979	93	22%	112	10%	+/-46
Built 1960 to 1969	56	13%	137	12%	+/-61
Built 1950 to 1959	68	16%	132	12%	+/-68
Built 1940 to 1949	36	8%	28	3%	+/-37
Built 1939 or earlier	40	9%	64	6%	+/-34
Total	424	100%	1112	100%	+/-96
Completed plumbing facilities	99%		96%		+/-89
Lacking complete plumbing facilities	1%		4%		+/-49
Total	100%		100%		+/-89
Complete kitchen facilities	99%		96%		+/-89
Lacking complete kitchen facilities	1%		4%		+/-49
Total	100%		100%		+/-89

Source: U.S. Census Data and American Community Survey

On average, homes and residential lots in the Town are generally larger than other jurisdictions. According to the 2008-2012 American Community Survey, the average number of rooms per housing unit in Windsor is 5.8, which is comparable with the averages for the metropolitan area (5.8) and the state (5.9).

<sup>2</sup> The American Community Survey (ACS) produces annual and multi-year estimates of population and housing characteristics and produces data for small areas, including tracts and population subgroups. The Town of Windsor's American Community Survey data is based on 5-year estimates. In 2010 ACS sample data replaced Summary File 3 and Summary File 4 data sample data.

<sup>3</sup> Table 2.4 includes both U.S. Census 100 percent decennial data (2000 & 2010) and 2008-2012 American Community Survey (ACS) sample 5-year estimate data.

### **Housing Tenure and Occupancy**

Table 2.4 shows The Town of Windsor's Housing Occupancy and Tenure. Approximately 92% of the housing stock in the Town is currently occupied and the County's vacancy rate of 8% is lower than the state average of 11%. Housing Tenure describes the occupants of the units. They are either owner-occupied or renter-occupied. Owner-occupied housing comprises 75% of Windsor's housing market, and rental housing equals approximately 25%.

<b>TABLE 2-4 Windsor Housing Occupancy and Tenure</b>	
Total Housing Units	1112
Occupied Housing Units	1022 (92%)
Vacant Housing Units	90 (8%)
Homeowner Vacancy Rate	2.2
Rental Vacancy Rate	12.2
Owner-Occupied Housing Units	769 (75%)
Renter-Occupied Housing Units	253 (25%)
Average household size of owner occupied units	2.56
Average household size of renter occupied units	2.58

Source: 2008-2012 American Community Survey

### **Historic Resources**

The Code of Virginia provides local governments with a number of tools that support the preservation of historic sites and structures. Included among them are the ability to designate historic districts and the authority to adopt local ordinances that govern the treatment of historic resources. In addition, the Code of Virginia requires that historic areas be surveyed and studied in the preparation of the comprehensive plan. Section 15.2-2224 states that if a locality chooses not to survey and study historic areas, then the locality must include historic areas in the comprehensive plan if they are identified and surveyed by the Department of Historic Resources. The Code also states that zoning ordinances shall be designed to give reasonable consideration to protection against destruction of or encroachment upon historic areas.

There are no sites in the Town of Windsor currently listed on the National Register of Historic Places or the Virginia Landmarks Register. However, there are properties within the town limits that meet the criteria for inclusion on the registers and may be added at a future date.

## Housing Value & Affordability Analysis

### Housing Value

Table 2-5 shows the Town of Windsor's Housing Value. According to the 2008-2012 American Community Survey, which is self-reported by the household, the median value of a single family unit in the County was \$184,800. Of all specified owner-occupied units in the Town for the period 2008-2012, 20% of the units were valued at less than \$50,000, while 2% ranged from \$50,000 to \$99,999. Approximately 15% of the Windsor's total owner-occupied housing units were valued at more than \$100,000; 24% of the total valued at more than \$200,000; and 8% of the total valued at more than \$300,000. Increases in incomes have generally not kept pace with the rapid increases in the cost of housing, thus making it difficult for many households to find safe, adequate, and affordable housing.

<b>Table: 2-5 Windsor Housing Value</b>			
Range	Value	Percentage	Margin Of Error
Total:	1,112	100%	+/-96
Less than \$50,000	227	20%	+/-52
\$50,000 to \$99,999	20	2%	+/-19
\$100,000 to \$149,999	77	7%	+/-45
\$150,000 to \$199,999	94	8%	+/-52
\$200,000 to \$299,999	267	24%	+/-69
\$300,000 or more	84	8%	+/-36
Median Value:	\$184,800		+/-27,220

Source: U.S. Census Bureau, 2008-2012 American Community Survey

### Affordability

Affordability is a constant issue of debate. For many, the question is, "Affordable to whom?" The household earning \$30,000 will define "affordable" quite differently from the household that earns \$120,000 in a year. Nevertheless, each is looking for housing that is affordable. When determining affordability, the U.S. Department of Housing and Urban Development (HUD) suggests that the home be one in which the homeowner or renter pays no more than 30 percent of gross household income toward housing costs. To be a true measure of affordability, housing cost must be based upon more than the simple cost of a home mortgage or rent. Housing costs must include all anticipated payments related to the home, such as taxes, insurance, utilities, phone service, association dues, and commuting cost. While these items may not be considered raw cost, they are necessities that are directly associated with housing. The U.S. Census 2008-2012 American Community Survey data states Windsor's median household income is \$41,210. For housing to be considered affordable to a family earning the median household income, housing costs could not exceed \$1,030 in a month. As noted in Table 2.6 Housing Affordability by Income, a family earning 180 percent of the median could pay \$1,854 per month and still consider housing costs to be affordable.

On the other hand, families earning only 30 percent of the median household income can afford only \$309 in monthly housing-related expenses. When households pay higher proportions of their incomes for housing, they are forced to sacrifice other basic necessities such as food, clothing and health care. Additionally, households that are cost burdened may have trouble maintaining their dwelling. Cost burden is of particular concern among extremely low and very low income households who have fewer housing choices.

<b>Table: 2-6 Housing Affordability by Income</b>		
<b>Percent of Median*</b>	<b>Household Income</b>	<b>Affordable Monthly Home Payments</b>
180%	\$74,178	\$1,854
150%	\$61,815	\$1,545
120%	\$49,452	\$1,236
100%	\$41,210	\$1,030
80%	\$32,968	\$824
50%	\$20,605	\$515
30%	\$12,363	\$309

Source: U.S. Census Bureau, 2008-2010 American Community Survey

## **Housing Projections**

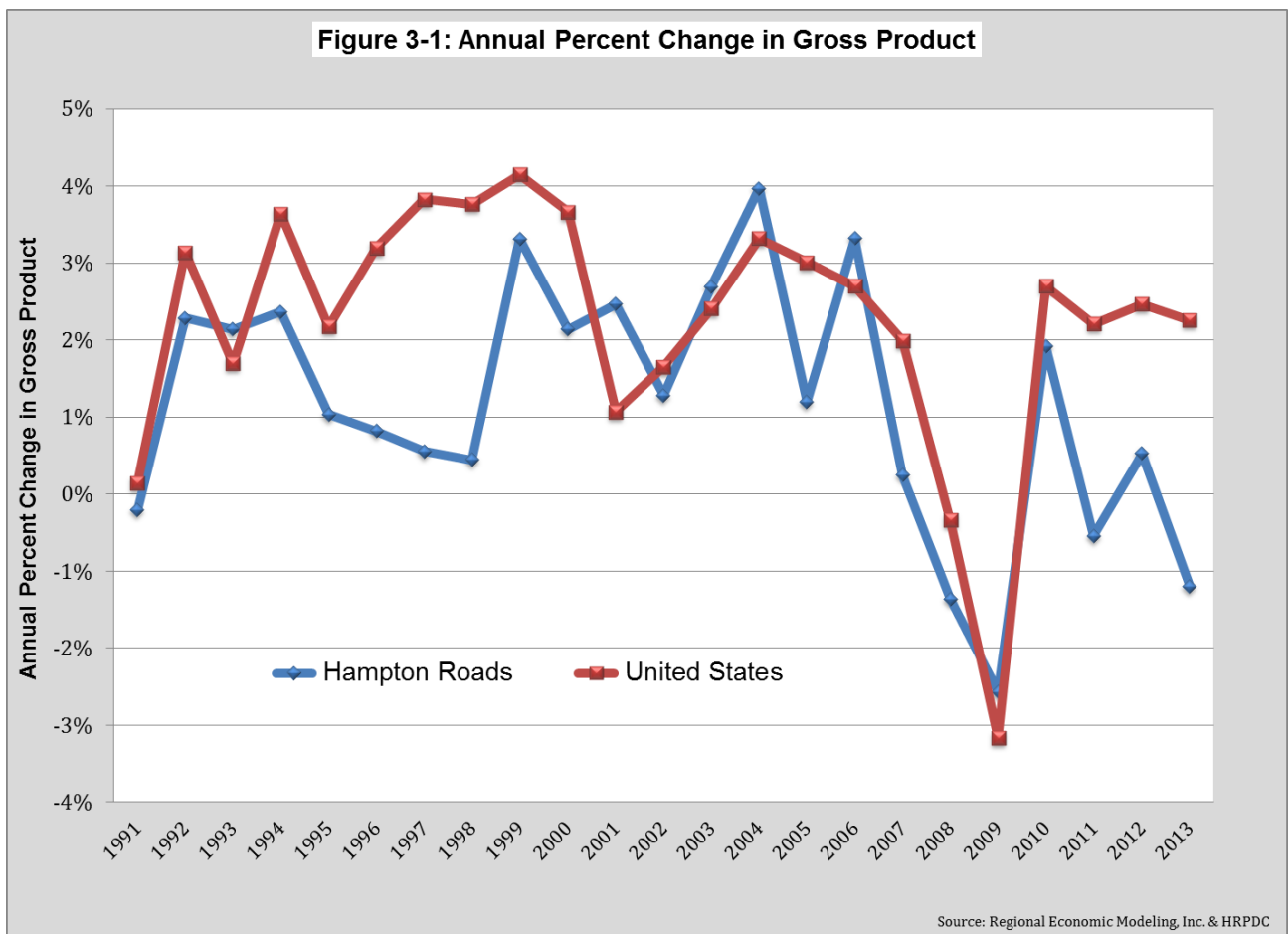
Population projections prepared by the Hampton Roads Planning District Commission indicate that an additional 1,324 people will live in the Town of Windsor by 2040. Given the current average household size of 2.56, another 520 dwelling units will be required to house the population. Consideration of the need for affordable housing for the Town's workforce will also influence the character of this future development.

## CHAPTER 3 - ECONOMY

### Introduction

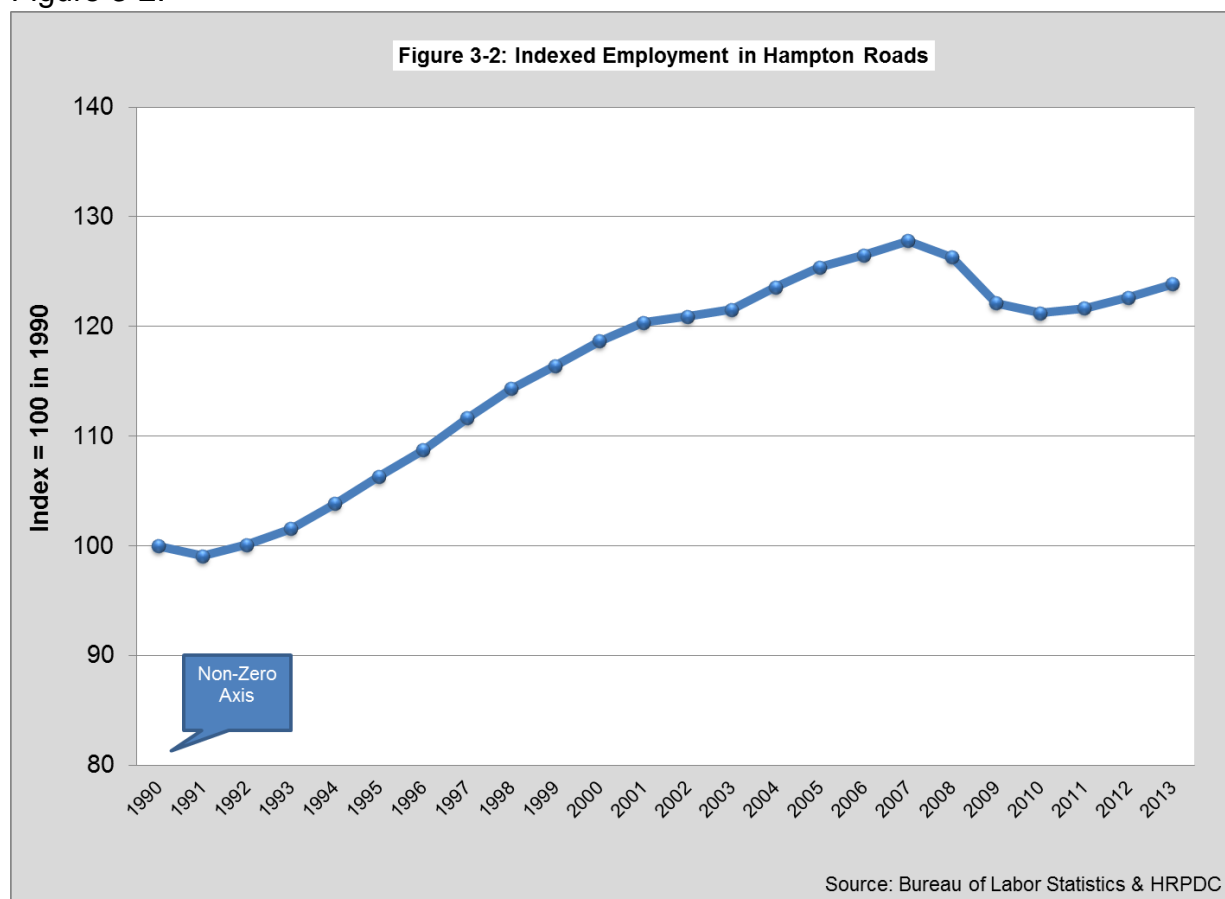
To understand the economy in the Town of Windsor, it is necessary to consider economic activity in both the Town and in the surrounding region. Each component of the local economy must be considered: production, development, and management of material wealth. By developing a general understanding of the local economy, one may better comprehend the fiscal impact of planning decisions and, conversely, the impact that the economy might have on planning for the Town's future. Consequently, understanding the dynamics of the local economy is a vital part of the planning process.

Many of the same factors that impact on the national economy, such as interest rates, consumer confidence, and inflation, also affect the local economy. By comparing trends, the relationship between the regional economy and the national business cycle can be identified.



The relationship between the economy in Hampton Roads and the national economy is illustrated in Figure 3-1. As is evident in the chart, the regional economy tends to track the national cycle.

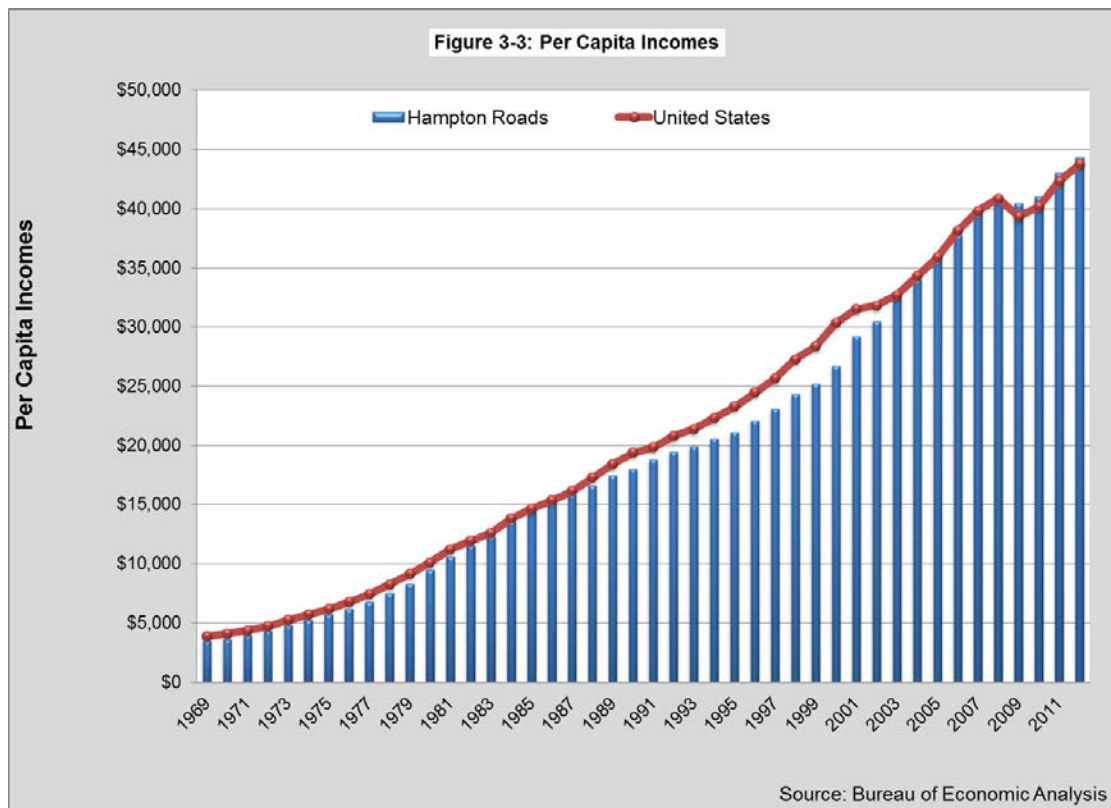
Just as the national economy is reflected in the regional economy, the well-being of the regional economy plays an important role in Windsor. The Hampton Roads' economy has been expanding since 1991. The region was able to push through the national recession in 2001 and again in 2009. However since 2010, the Hampton Roads economy has grown at an annualized average rate of 2.5%. A variety of factors including strong sector employment, low unemployment rates, and recent increases in military spending have helped to sustain this growth. Indexed employment in Hampton Roads is illustrated in Figure 3-2.



One of the most important employment sectors in the Hampton Roads economy is the military. Hampton Roads boasts the second largest concentration of military personnel in the United States. Department of Defense expenditures generate approximately 30% of gross product in the Tidewater region and are directly responsible for one out of every nine jobs. Tourism also plays an important role in the regional economy. Hampton Roads has multiple attractions that draw hundreds of thousands of tourists to the region each year. The travel industry generates significant state and local tax revenues, provides abundant employment opportunities, and contributes billions of dollars to the gross regional product.

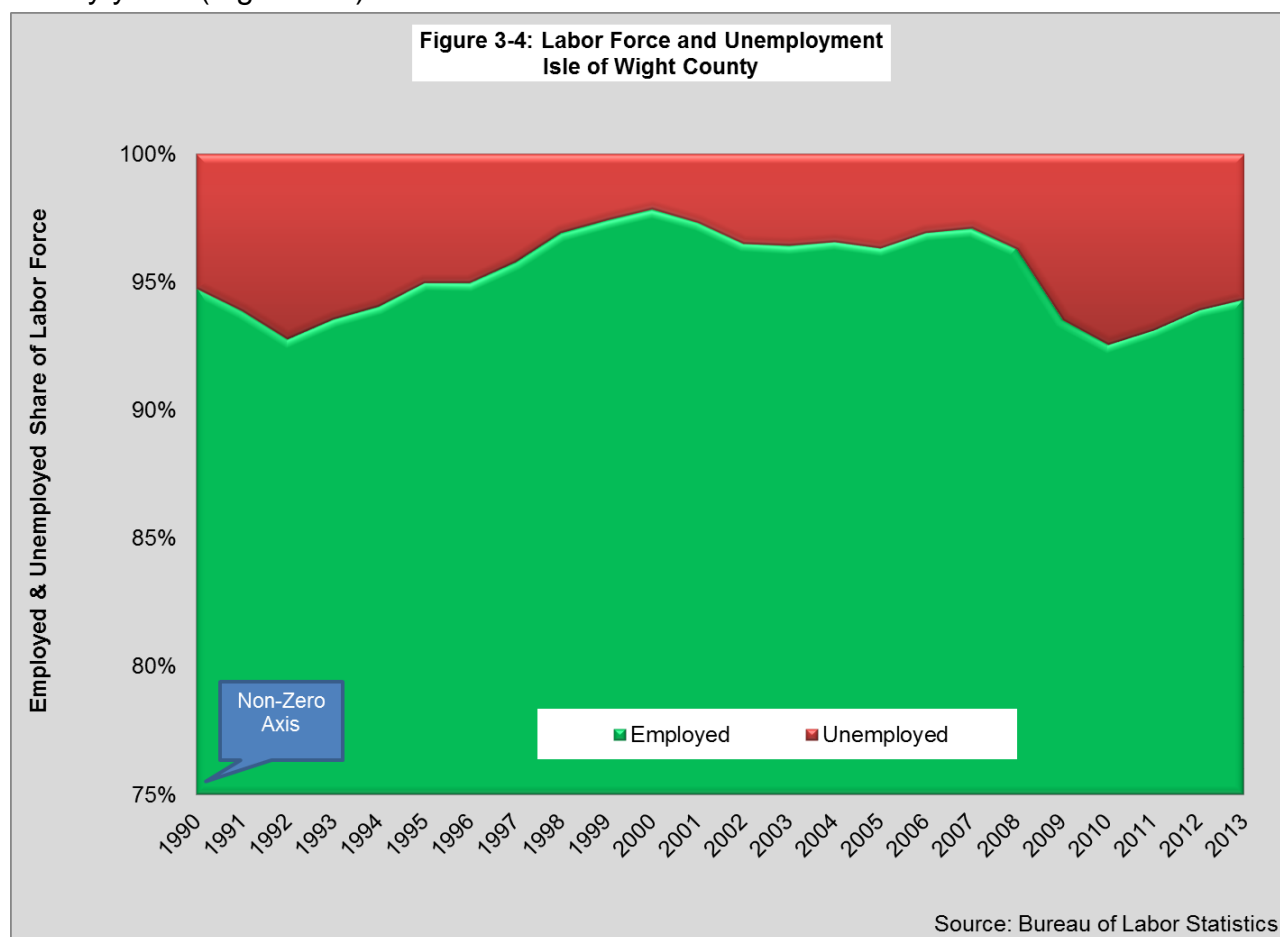
Hampton Roads is also home to one of the nation's premier ports. In 2011, over 47 million short tons flowed through the Port of Hampton Roads, making it the nation's 15<sup>th</sup> largest port. Over the past decade general cargo in Hampton Roads has grown at an annual average rate of over 3.5%. The success of the local port has stimulated other industries in the region, such as transportation and warehousing. Port expansion may also act as a catalyst to future economic development in Isle of Wight County. The regional facility where distribution centers would be located along with ancillary businesses related to the movement of imported cargo – for the U.S. 460 corridor just to the east of Windsor is underway.

Where employment and industry are often used to describe the general health of an economy, incomes are used to describe the wealth of an economy. Incomes in Hampton Roads have historically been below the national average. Between 1969 and 2008 per capita income in Hampton Roads averaged approximately 7% less than the national per capita income. However, since 2009 per capita income in Hampton Road average approximately 2% more than the national per capita income, as shown in Figure 3-3. The positive aspect of having low incomes is that the area has the competitive advantage of cheap labor. Economic developers cite the region's low wages when attempting to attract new business to the area. Favorable labor costs may be beneficial for business interests; however, below average incomes restrict the wealth of Hampton Roads residents and provide an incentive for mobile job seekers to look for employment outside of the community. In the past, low wages were somewhat offset by the below average cost of living. However, according to the Annual Average Data contained in the ACCRA Cost of Living Index the regions Cost of Living was 3.1% above the national average.



## Labor Force and Unemployment

According to the Virginia Employment Commission, Hampton Roads had a Civilian Labor Force of 848,262 in August 2013. The unemployment rate at that time was 5.9%. Unemployment rates in the Hampton Roads region are traditionally lower than the national unemployment rate, and this holds true in the Western Tidewater region as well. While much of the area is still dominated by agriculture, Isle of Wight County boasts a more diverse economy anchored by a number of major industrial and retail employers that play a prominent role in the region's job market. Although the job market is shifting to some degree, manufacturing currently accounts for 42% of all jobs in Isle of Wight County. In addition, the retail trade and government serve as major sources of employment in the County. The County has also had a consistently low unemployment rate over the past twenty years (Figure 3-4).



The Town of Windsor offers limited employment opportunities, and the majority of its residents travel to work elsewhere. According to the 2008-2012 U.S. Census American Community Survey, about 21% of residents lived and worked in the Town. The remainder of the Town's workforce commuted to other localities for employment. Approximately 49% of those commuters traveled thirty minutes or more to work.

## Private Sector Employment

Because the job market in Windsor is limited, Town residents depend largely on the surrounding region for employment. Three of the largest private sector employers in the Western Tidewater region – companies with over 1,000 employees – are located in Isle of Wight County. The twenty largest employers in the County are listed in Table 3-1. The largest employer in the Town of Windsor is Tandem Health Care, which employs 96 full-time equivalents according to Virginia Health Information. Other major employers in the Town include Food Lion and the Community Electric Cooperative.

TABLE 3-1 TWENTY LARGEST EMPLOYERS ISLE OF WIGHT COUNTY	
No.	Employer
1	Gwaltney of Smithfield
2	Isle of Wight County School Board
3	Isle of Wight County
4	Green Mountain Coffee
5	International Paper Company
6	C R England Inc.
7	Food Lion
8	Riverside Regional Medical Center
9	Cost Plus Inc.
10	Packers Sanitation Service
11	Smithfield Foods
12	Farm Fresh
13	Consulate Health Care of Windsor
14	Peninsula Metropolitan YMCA
15	Isle of Wight Academy
16	Town of Smithfield
17	HumanKind
18	St Tissue LLC
19	Smithfield Station
20	McDonald's

Source: Virginia Employment Commission

As the regional economy continues to diversify, Isle of Wight County anticipates attracting distribution and logistics businesses related to the proposed expansion of the Port of Virginia. The Shirley T. Holland Industrial Park, which is located just outside of the Town of Windsor, is situated adjacent to land with access to both rail and highway transportation corridors. In July 2007, Moffatt & Nichol completed analysis of expansion options for the park and development options for the neighboring properties. The report, *Isle of Wight Intermodal Park Concept*, recommends that the County pursue development of an

intermodal park that would include three properties with about 2,200 acres and 20 million square feet of space. The study further indicates that the intermodal park could generate employment for up to 25,000. Because of the proposed park's proximity to the Town, there is great potential for significant impacts to Windsor. The development of the intermodal park is also tied to the proposed expansion and realignment of U.S. 460, which will offer additional commercial development opportunities to the Town.

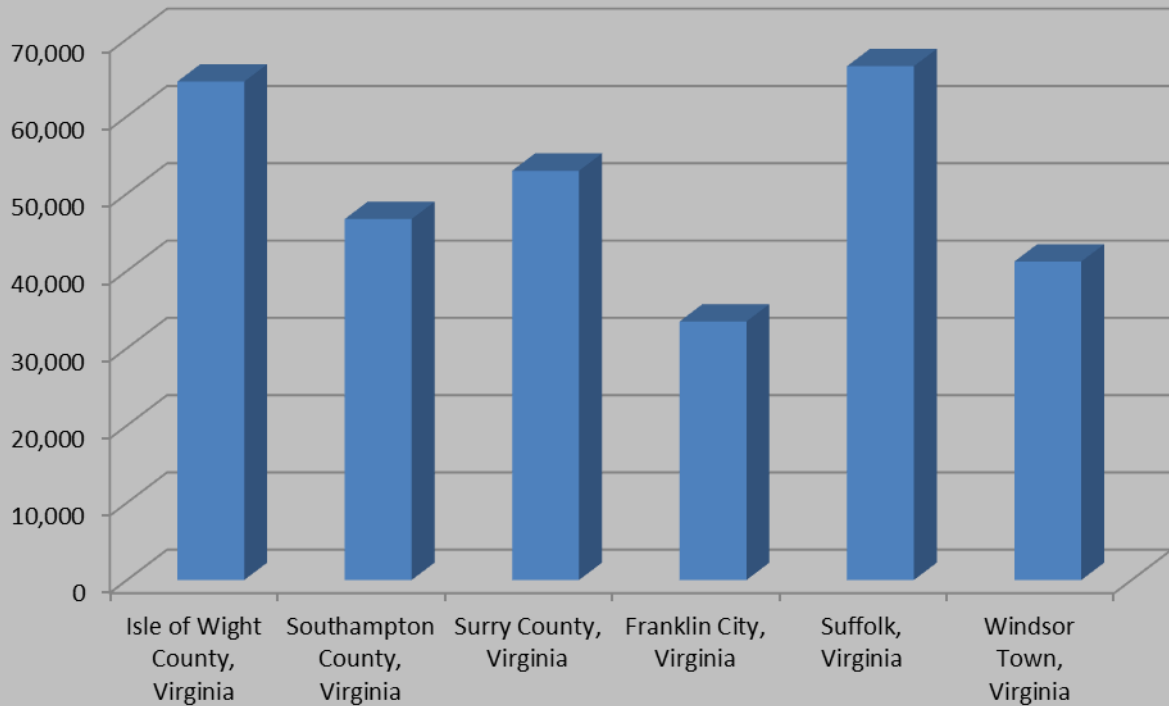
### **Government Employment**

According to data from the Virginia Employment Commission, government jobs are also a major source of employment available to residents of the Town of Windsor and the surrounding region. In Isle of Wight County, 28 governmental establishments employed approximately 1,204 persons in the third quarter of 2007. This is approximately 10% of the County's total employment. The majority of these jobs, 964 or 80%, were provided by local government. Another 240 jobs, or 20% of all government employment, were found at the state and federal levels. By comparison, much of the rest of the Western Tidewater region is more heavily dependent on government sources of employment. In neighboring Suffolk, all levels of government provided a combined 5,632 jobs (23% of all jobs) in the third quarter of 2007. In Southampton, government provided 44% of all jobs in the same quarter.

### **Income and Poverty**

According to the 2008 – 2012 American Community Survey, the Town of Windsor had a median household income of \$41,210 (in 2012 dollars). Figure 3-5 illustrates the median Town income as compared to the other localities in the Western Tidewater region. The highest median income in the region was \$66,479 in the City of Suffolk. Windsor's median income ranked below average for the Western Tidewater Region, behind Isle of Wight County, Southampton County, Suffolk, and Surry, but ahead of Franklin.

**Figure 3.5**  
**Median Household Income, 2012**  
**Western Tidewater Region**



Source: U.S. Census, 2008-2012 American Community Survey

In 2012, Windsor had a per capita personal income of \$23,213. The Town's per capita income was approximately 22% below the per capita income in Hampton Roads as a whole (\$28,954), and about 36% below the State per capita income of \$33,326.

In 2012, there were approximately 330 people reported to be living below the poverty level in the Town of Windsor. The Town's poverty rate of 12.6% is higher than the state average of 11.1% but lower than the national average of 14.9%. Adults 18 years and over accounted for approximately 67% of those living in poverty, while adults age 65 and over accounted for approximately 10% of the total. Approximately 33% of impoverished town residents are 17 or younger. Many factors contribute to poverty, including under-employment, limited access to employment, poor wages, and lack of opportunity.

## CHAPTER 4 - TRANSPORTATION

### Introduction

The Town of Windsor's transportation system depends heavily upon its highway and road network. The Town is located along the vital U.S. 460 corridor connecting the Hampton Roads region to major north-south highways to the west. The main rail line carrying Norfolk Southern coal and freight trains passes through the Town and provides a primary rail link to rural mining areas as well as major inland container shipping origins and destinations. While freight is moved on both road and rail, the availability of public transportation for Town residents is limited. There is no passenger rail service in Windsor, and the closest commercial airports are located in Newport News, Norfolk, and Richmond.

### Existing Roadway System

The existing roadway system in the Town of Windsor includes one primary arterial route (U.S. Route 460), one U.S. primary route (U.S. 258), and a system of secondary roads serving the remainder of the Town. Important primary and secondary roads are shown on Map 4-1. U.S. Route 460 is currently a four-lane road that links Windsor to metropolitan Hampton Roads in the east and to Interstate Highways 85, 95, and 295 in the west. U.S. 258 connects the area with State Route 10 and U.S. 17 to the north and with U.S. 58 and North Carolina to the south. The Virginia Department of Transportation (VDOT) conducts traffic counts using sensors along streets and highways in order to determine daily traffic volumes on specific road segments. The resulting two-day averages provide an illustration of demand on particular stretches of road. Table 4-1 provides a listing of the highest daily volumes for streets within the Town, along with the length of the segment studied. Included are those with 1,000 or more vehicles per day.

As shown on Map 4-2, the busiest road segments in the Town are located on U.S. Route 460, followed by U.S. 258. The road that showed the greatest increases in daily

<b>Table 4-1</b> <b>Daily Traffic Volumes, 2010-2012</b> <b>Town of Windsor, Virginia</b>							
ROUTE NUMBER	LOCATION	SEGMENT FROM	SEGMENT TO	2010 WEEKDAY VOLUME	2011 WEEKDAY VOLUME	2012 WEEKDAY VOLUME	PERCENT CHANGE
610	Court St	46-1802 Blackwater Rd; N & W St	US 460 Windsor Blvd	1,200	1,100	1,100	-8.3%
603	Church St	46-1805 Roberts Ave	ECL Windsor	1,600	1,500	1,500	-6.3%
460		46-610 Court St	ECL Windsor	13,000	16,000	16,000	23.1%
460		US 258 Prince Blvd N; Prince Blvd S	46-610 Court Street North; Court Street	14,000	15,000	15,000	7.1%
603	Church St	US 460 Windsor Blvd	46-1805 Roberts Ave	2,400	2,300	2,300	-4.2%
610	Court Street North	US 460 Windsor Blvd	NCL Windsor	1,800	1,800	1,800	0.0%
258	Prince Blvd N	US 460 Windsor Blvd	NCL Windsor	5,900	5,600	5,700	-3.4%
603	Bank St	WCL Windsor	US 460 Windsor Blvd	2,200	2,100	2,100	-4.5%
258	Prince Blvd S	WCL Windsor	US 460 Windsor Blvd	5,300	5,200	5,200	-1.9%
460		WCL Windsor	US 258 Prince Blvd N; Prince Blvd S	9,400	10,000	10,000	6.4%

Source: Virginia Department of Transportation

traffic volume from 2010 to 2012 is U.S. 460 between Court Street and ECL Windsor. While many areas saw increases in traffic volumes, some saw decreases in volumes between 2010 and 2012. The road that showed the greatest decrease in daily traffic

volume from 2010 to 2012 is State Route 610 between Blackwater Road and Windsor Blvd.

## **Isle of Wight County Pedestrian and Bicycle Facilities Master Plan**

Pedestrian facilities in the Town of Windsor generally consist of sidewalks in the older parts of Town and in the new Holland Meadows development. Currently, there are no bicycle facilities in the Town.

In August 2009, the County updated the July 2006 Isle of Wight County Pedestrian and Bicycle Facilities Master Plan, which addresses these needs in the Town. The study describes existing conditions in the Town and addresses barriers to walking and bicycling that should be addressed. These include the lack of sidewalks in some areas and the lack of separation between sidewalks and the high-speed, high-volume traffic on U.S. Route 460. Numerous curb cuts also create conflicts with pedestrians.

The County recommended a number of improvements to sidewalks, pedestrian crossings and bicycle facilities in the Town. These include:

- ❑ **North Windsor/Heritage Park Pedestrian and Bicycle Pathway:** Provide a pathway to provide pedestrian and bicycle access between US 460 in Windsor and Heritage Park. This pathway would consist of several distinct facilities. In the town of Windsor, bicyclists could follow a signed on-roadway bike route and pedestrians could follow the sidewalk. A multi-use path or paved shoulders could be provided along the road in the area near Georgie D. Tyler Middle School. Between VA 610 and Heritage Park, a multi-use path should be provided along the east side of US 258 to allow pedestrians to access the mobile home park, new developments, ball fields, and Heritage Park.
- ❑ **US 460 & VA 603 & VA 610 Intersection Pedestrian Crossing Improvements:** Provide high visibility crosswalks on all legs of the intersection, provide pedestrian signals, improve lighting, and add pedestrian warning signs. The timing of traffic signals should ensure that pedestrians have enough time to get across the street. This crossing serves as a vital connection for pedestrians walking to businesses on US 460 and nearby residences, parks, and the high school, as well as for bicyclists traveling through Windsor.
- ❑ **Sidewalks:**
  - A five-foot sidewalk on the north side of U.S. Route 460 between Holland Drive and Lovers Lane.
  - Sidewalks on the east side of U.S. 258 between U.S. Route 460 and VA 610 and completion of sidewalks on both sides of the road along VA 610 between U.S. 258 and U.S. Route 460.
  - US 460 in Windsor (Court Street to Lovers Lane)
  - US 258 in Windsor (US 460 to Court Street North)

- Court Street North (US 460 to US 258—add sidewalk to side where missing)

❑ **Roadway Crossing Improvements:**

- US 258 & US 460 (pedestrian signals, marked crosswalks, pedestrian warning signs, improved pedestrian lighting, connecting sidewalks)

A sidewalk has been completed from the ballfields, operated by the Windsor Athletic Association, to the present end of the sidewalk on the east side of North Court Street. There remains the other numerous public infrastructure projects described above that will make the Town of Windsor more pedestrian friendly and implement the Pedestrian and Bicycle Plan. Finding funding for these projects is the daunting task.

## **Other Transportation Systems**

### *Rail Service*

Norfolk Southern Corporation offers freight service to the Town, which is particularly important for supporting local industry. Amtrak service is currently provided through Windsor along the Norfolk Southern line. However, Amtrak does not provide a stop in the town; the nearest stations are provided in the City of Norfolk, approximately 30 miles to the east, and the City of Newport News, approximately 30 miles to the northeast.

### *Air Service*

Air service is available in several locations within an hour's drive of Isle of Wight County and the Town of Windsor. Norfolk International Airport is located approximately 40 miles from the County, and offers passenger service on five major airlines. Newport News-Williamsburg International Airport is also located approximately 40 miles to the northeast in the city of Newport News. The airport offers regular passenger service on four airlines. Also nearby is Richmond International Airport, which is located approximately 70 miles away in Henrico County and offers regular passenger service on six major airlines. Airfreight service is available at the Norfolk and Richmond airports.

In addition to the commercial airports, several general aviation airports are located near the Town. The closest of these is John Beverly Rose Airport, which is located approximately 16 miles away in southern Isle of Wight County. The airport offers a paved and lighted runway, three T-hangars, and four large aircraft hangars. Slightly farther away are the Suffolk Executive Airport, which is located about 18 miles from Windsor on U.S. 13, and the Hampton Roads Executive Airport, which is located about 20 miles from Windsor on U.S. 58 in the City of Chesapeake. All three facilities offer fuel and maintenance services.

Also easily accessible is the Wakefield Municipal Airport, which is located about 19 miles to the west near the Town of Wakefield and offers fuel and aircraft tie downs. There are also two private airfields located in Isle of Wight County: Orbit Air Strip and Aberdeen Field Airport.

### *Bus Service*

There is no commercial bus service in Windsor or Isle of Wight County, although Greyhound Bus Lines does provide service to several nearby cities in Hampton Roads. No public bus system currently exists in the Town.

## **Future Conditions and Planned Improvements to the Transportation System**

### *Hampton Roads 2034 Long-Range Transportation Plan*

The Hampton Roads 2034 Long-Range Transportation Plan contains projections of traffic volumes for U.S. 258 and U.S. Route 460 in Isle of Wight County and the Town of Windsor for the year 2034. These projections indicate that for the most part congestion on these roads will be in the low to moderate range. The segment of U.S. 258 between U.S. Route 460 and the Windsor Town boundary is projected to experience moderate congestion. Traffic counts on this segment are projected to increase from 11,000 trips per day in 2012 to approximately 24,000 trips per day in 2034. It is important to note that these projections assume the construction of the U.S. 460 realignment project by the year 2034.

### *U.S. Route 460 Bypass Proposals*

The Virginia Department of Transportation and the Federal Highway Administration have been involved in a long protracted process for a potential U.S. Route 460 Bypass. Currently, a review of a project north of the Town is being studied. Other proposals have also been brought forward. Due to the lack of finality of their studies and lack of funding for construction for such a project at this time, the U.S. Route 460 Bypass proposal is not being made a part of this Comprehensive Plan. If and when either a firm Bypass proposal is moving forward with funding or if major rerouting or improvements are being proposed, then either a revision of this Plan or in a future Comprehensive Plan, the proposals will be incorporated into the Plan at that time with all of its ramifications being studied.

### *VDOT Six-Year Plan*

The Virginia Department of Transportation's Six-Year Improvement Program (SYIP) for Fiscal Year 2015 contains one project in the Town of Windsor. This projects shows sidewalk improvements on the north side of Windsor Boulevard (U.S. Route 460) and Shirley Avenue along the property owned by the Town of Windsor and earmarked to be the future Town Hall Center for the Town.

### *Isle of Wight County Transportation Planning Issues*

The Isle of Wight County 2008 Comprehensive Plan provides an overview of the County's land use and transportation priorities. The Windsor Development Service District Land Use Plan, contained in Chapter 4 of the plan, identifies a Business and Employment corridor on the west side of Windsor and an extensive Planned Industrial zone on the southeastern edge of the Town. The remainder of the area surrounding the Town is identified for Suburban Estate and Conservation Development. This land use plan will bring a mix of commercial, industrial and residential uses to the lands surrounding Windsor. Over time this development pattern will increase traffic volumes in and around the Town. To deal with this increase in traffic volume, the Isle of Wight Transportation Chapter identifies the following transportation planning principles for the County:

1. The capacity of the major arterials is key to growth management of the County and should be carefully conserved. This implies strict access control and residential and nonresidential design standards that emphasize internalization of circulation systems.
2. Within the designated growth areas, pre-planned expansion of the highway system is required to ensure that the function and viability of the growth centers do not impact negatively on the quality of life.
3. Increasingly, the private sector will have to be part of the solution of transportation issues, including financing and other transportation system modifications.

The Implementation section of the Transportation Chapter identifies several priority projects for the County including the preparation of a County Transportation Plan and the construction of realignments and improvements for U.S. 258. It is essential that the Town of Windsor continue to coordinate the planning and implementation of transportation projects with the County.

The Town of Windsor is most concerned with addressing the 6-way intersection of U.S. Route 460, VA 610, and VA 603, which has blind corners and lacks a center turn lane. Intersection improvements are needed to improve visibility and safety at this intersection and will be a priority for the Town until upgrades are made. In addition, a traffic light with dedicated turn signals is desired for the intersection of U.S. Route 460 and Roberts Avenue.

### *Richmond/Hampton Roads Passenger Rail Project*

The Virginia Department of Rail and Public Transportation completed a Tier 1 Environmental Impact Study (EIS) which considered a set of options for enhanced

passenger rail service between Richmond and Hampton Roads. The Selected Alternative includes establishment of high-speed passenger rail service in the Norfolk Southern corridor that parallels U.S. Route 460 between Petersburg and Hampton Roads. Enhanced passenger rail service along the Norfolk Southern route would include six daily round trips serving Richmond, Petersburg, Norfolk area stations, and a new station at Bowers Hill in Suffolk. Funding for the project has not been identified, and a construction schedule has not been established.

Town of Windsor  
Comprehensive Plan

Map 4-1

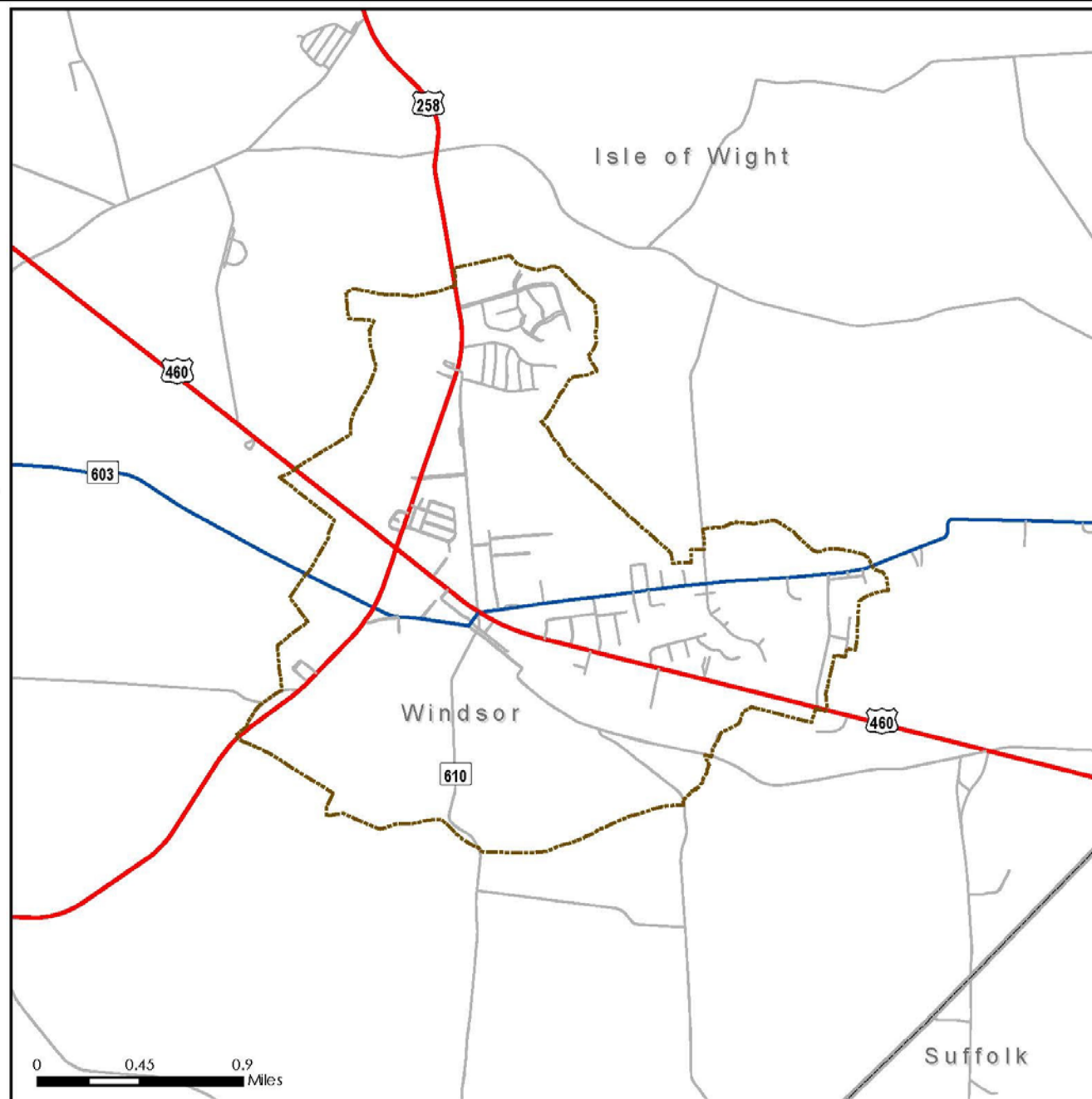
Primary Road  
Network

-  County Boundaries
-  Town of Windsor Boundary
-  US Highway
-  Virginia Secondary
-  Local Roads



Source: U.S. Census Bureau, 2010

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



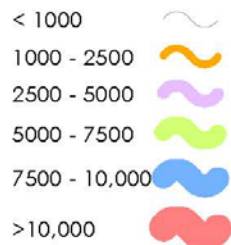
Town of Windsor  
Comprehensive Plan

Map 4-2

Annual Average  
Daily Traffic  
Volume Estimates

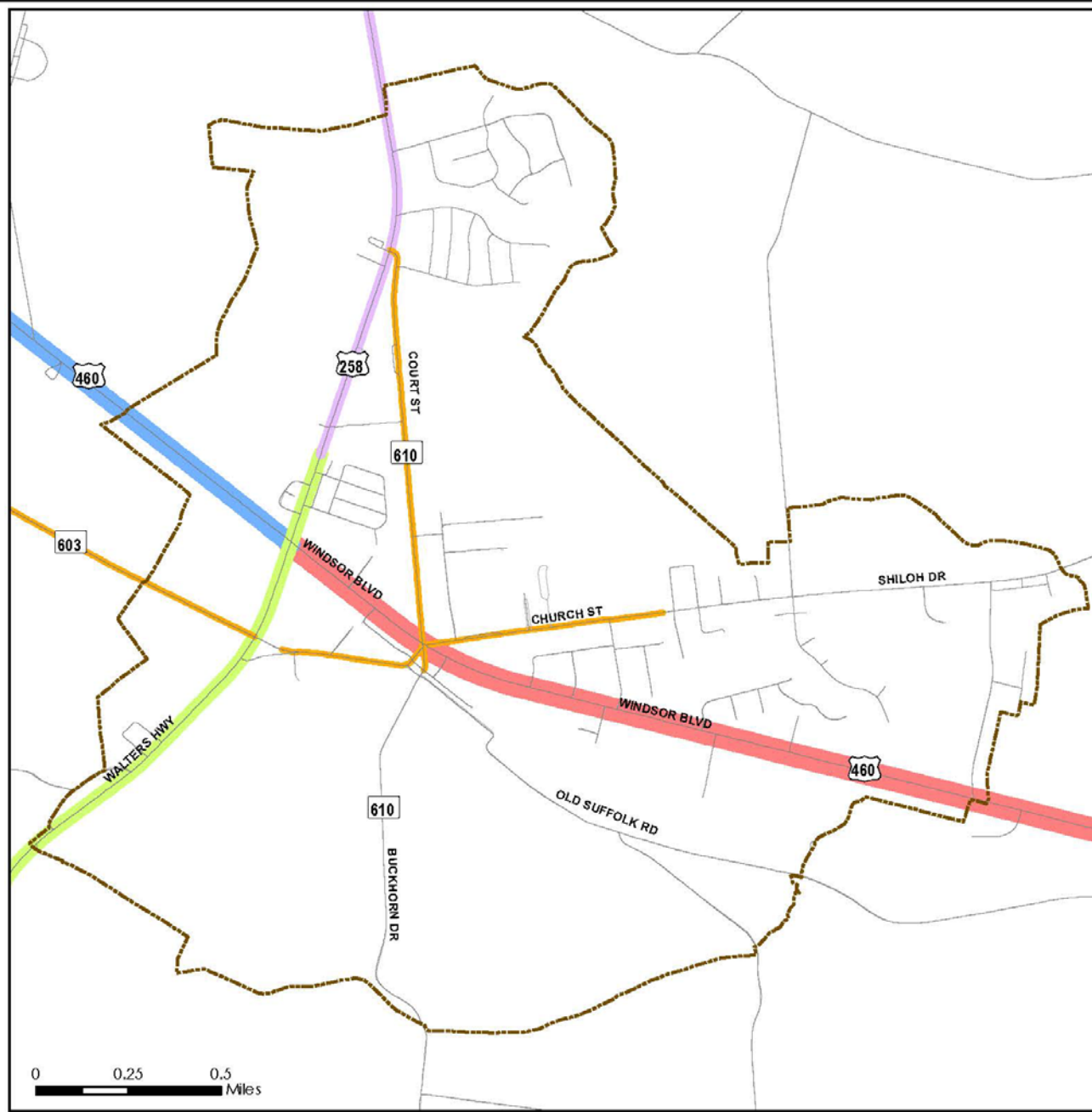
Greater than 1000  
vehicles per day

Vehicles per Day



Source: Virginia Department of Transportation

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



## **CHAPTER 5 - COMMUNITY FACILITIES**

### **Introduction**

The Town of Windsor provides its citizens with a variety of services through local government and public safety agencies. Additional services are provided by Isle of Wight County, regional authorities and providers, and state agencies.

### **Local Government**

The Town of Windsor is governed by a seven-member Town Council, which includes an elected Mayor and a Vice-Mayor selected by Council members. The Council is responsible for levying taxes and setting policies and procedures for the citizens of Windsor. The Town Manager serves at the pleasure of the Council and is responsible for daily operation of the Town government. The Town has also established a Planning Commission and a Board of Zoning Appeals (BZA).

The Town's administrative departments are located in the Municipal Building, a small brick structure located on U.S. 460 near the intersection of VA 610 and VA 603. The building was remodeled in 1996 to provide space for council chambers and additional offices; however, the existing facility is not large enough to accommodate the current town staff of twelve and space for public meetings and records storage in the building is limited. In addition to the Municipal Building, the Town has a small maintenance shop on Duke Street across from Windsor High School. A new shop is being planned but the location has not been determined.

Windsor employees include the Town Manager, Town Clerk, Town Treasurer, Assistant Clerk, Deputy Clerk, Police Chief, Planning and Zoning Administrator, Maintenance Supervisor, six police officers and a general maintenance person. The duties of Town staff include billing and maintenance of the municipal water system, collection of local taxes and licensing fees, and other municipal tasks as directed by Council. Building permits for town projects are issued by the Isle of Wight County Building Official, and the County also handles enforcement of erosion and sediment (E&S) control and stormwater management. The Virginia Department of Transportation provides maintenance crews to maintain the Town's streets and storm drainage system. The town remains responsible for upkeep of streetlights, sidewalks, and other functions.

### **Public Safety**

#### *Police*

The Windsor Police Department was authorized by an ordinance enacted by the Town Council on March 13, 1990, and was formally established with the appointment of the first Chief of Police in 2001. The department now includes 6 sworn officers and 6 auxiliary officers who are housed in the new Police Department along with the Chief of Police.

Additional law enforcement services are provided by the Isle of Wight Sheriff's Department and the Virginia State Police. The Sheriff's Office is located at the Isle of Wight Courthouse complex and consists of 45 full time sworn officers and 7 full time civilian appointees. The Virginia State Police Division 5 Area 34 office covers Isle of Wight County, Southampton County, & the City of Franklin consist of 16 state troopers.

Isle of Wight County operates an Emergency 911 (E-911) system, which includes a central dispatch center that handles calls for county deputies, the Windsor Police Department, the Windsor Volunteer Fire Department, and the Windsor Rescue Squad. The system is overseen by an intergovernmental committee that includes the Windsor Town Manager and Chief of Police. The Emergency Communications Center consists of sixteen full time dispatchers, several part time dispatchers, and one dispatch supervisor.

### *Fire and Rescue*

The Town and surrounding area are served by the Windsor Volunteer Fire Department (VFD). The Windsor VFD is responsible for the County's largest service district, which stretches south from the Courthouse area to the Carrsville fire district (VA 611). The Windsor VFD is headquartered in a 6-bay facility built in 1993 and centrally located on U.S. 460.

Emergency medical care and hospital transportation is provided by the Windsor Rescue Squad, which is responsible for the southern portion of Isle of Wight County stretching from Isle of Wight Courthouse south to Franklin. The Windsor Rescue Squad is staffed by four paid personnel and approximately 35 volunteers. Like the VFD, the Windsor Rescue Squad is housed in a building located on U.S. 460.

Public safety services may see future service demands increase as the local population grows and transportation needs increase.

### **Health Care**

Health care services are available to Town residents at Sentara Obici Hospital, a 168-bed facility located in Suffolk, and at Southampton Memorial Hospital, a 221-bed facility located in Franklin. Both facilities provide 24-hour emergency care and offer a full range of services. Additional health care facilities include the 114-bed Consulate (formerly Tandem) Health Care of Windsor, a nursing home that opened in 2001, and Southside Physical Therapy. Nearby retirement communities with continuing care capabilities include The Village at Woods Edge, a senior living community sponsored by Southampton Memorial Hospital, and Lake Prince Woods, a private community located in Suffolk.

### **Public Schools**

The Town of Windsor is served by the Isle of Wight County Public School System, which enrolled approximately 5,555 students in grades K-12 in 2012. The school system

offers advanced placement classes, alternative education, pre-school, and vocational classes.

School enrollment projections provided by the Weldon Cooper Center for Public Service at the University of Virginia indicate that Isle of Wight County should see a 20% increase in the number of students it serves through the 2011-2012 academic year. Students in Windsor schools currently account for approximately 28% of the total enrollment for the school system.

### *Windsor Elementary*

Windsor Elementary School opened in 1998 on Courthouse Highway, approximately five miles north of town. The school is one of the newest in the county school system and is well-equipped with technological resources. The school serves children in grades PreK-5 and reported a 2012 enrollment of 613 students.

### *Georgie D. Tyler Middle School*

The new Georgie D. Tyler Middle School, which was constructed on North Court Street, opened in September 2014. The school is the former Windsor Elementary School and houses students in grades 6-8.

### *Windsor High School*

Windsor High School was built in 1994 and reported a 2012 enrollment of 515 students in grades 9-12. The high school is located on Church Street and provides both students and the community with a variety of well-maintained recreation fields and outdoor sports facilities.

### *Private Schools and Licensed Daycares*

The two private schools that serve the Town of Windsor are Isle of Wight Academy and Nansemond-Suffolk Academy. Both schools serve children in grades K-12. Additionally there are several licensed daycares that serve the residents of the Town.

## **Libraries**

The town opened its first public library in 1995 at 18 Duke Street. The Windsor Branch of the Blackwater Regional Library is located on town-owned land adjoining Community Park. The Windsor Branch contains approximately 31,255 volumes, media items, newspapers, and periodicals.

## **Parks and Recreation**

There are three small parks located within the Town limits: Robinson Park on Duke Street, Centennial Park on Church Street, and a Gazebo/Community Park on Duke

Street. These parks are 1/3 acre or less in size and provide space for passive recreation and special events. In addition, there is playground equipment at Robinson Park.

In addition to these parks, a variety of recreational facilities and activities are offered at the public schools located in town. The general public can use most school facilities after hours, including the gymnasiums. The County Recreation Authority offers a range of organized activities at the schools. Currently, Windsor High School offers 4 lighted tennis courts, 4 basketball courts, 2 softball/baseball fields, and 1 multi-use field. A large auditorium is also contained within the high school complex. Additionally, the Windsor Athletic Association has developed a ballfield complex located two miles north of Windsor on Courthouse Highway. The Town is also renovating the former Windsor Middle School Gymnasium into a community center. Its activities are yet to be fully determined but may include numerous recreation and cultural activities.

### **Solid Waste Management**

The Town of Windsor provides curbside trash collection on a weekly basis, as well as a twice yearly cleanup day that allows residents to dispose of large items and yard waste. Additionally, residents may dispose of solid waste at the Windsor Transfer Station located on U.S. 460. The station accepts appliances, used motor oil, recyclables, and yard debris. Household hazardous waste may be disposed of free of charge at the Isle of Wight Transfer Station in Smithfield on a monthly basis. Ultimate disposal of solid waste from both facilities is managed by the Southeastern Public Service Authority (SPSA), which operates a regional landfill in Suffolk, or by private contractors.



### **Water Facilities**

The Town of Windsor owns and operates a public water system. Two groundwater wells, a 150,000 gallon elevated storage tank, a 300,000 gallon storage tanks, and approximately 20 miles of distribution lines provide water to the majority of the Town's incorporated area.

The Town's Department of Public Works oversees the operation of the water system in accordance with Virginia Waterworks Regulations (12VAC5-590). According to the Virginia Department of Health (VDH), Office of Drinking Water (ODW), the Town's system is identified as Public Water System 3093900 and serves a population of 2,400 via 855 service connections (ODW Listing of Waterworks and Owners, May 5, 2014). The system has a VDH permitted system capacity of 539,726 gallons per day.

Drinking water quality is monitored in accordance with state and federal regulations, and an annual Consumer Confidence Report is distributed to water system customers.

The water source for the Town's system is groundwater from the Potomac Aquifer. Because the Town's two high capacity wells are located in the Eastern Virginia Groundwater Management Area, Windsor holds a Groundwater Withdrawal Permit

(permit number GW1042700) administered by the Virginia Department of Environmental Quality (DEQ) that authorizes the maximum withdrawal of 197,000,000 gallons per year (maximum of 18,900,000 gallons per month). The Town's ten-year Groundwater Withdrawal Permit is in the process of renewal. The amount of the permitted withdrawal is subject to change.

The Town of Windsor has allocated as much as 224,400 gallons of water per day to Isle of Wight County to serve industrial uses in the County's Windsor Development Service District. The County has indicated plans to terminate the water sales agreement, established in 1996 and amended in 2004, and provide service to the Development Service District from County water reserved in the Western Tidewater Water Authority agreement. Following termination of the sales agreement with Isle of Wight County, the Town of Windsor would be able to serve other industrial and business locations.

Through participation in the Hampton Roads Regional Water Supply Plan, the Town of Windsor is in compliance with State Water Control Law Section 62.1-44.15 and 62.1-44.38:1 of the Code of Virginia and the State Water Control Board implementing regulations, 9 VAC 25-780, which establishes the planning process and criteria that local governments must use in the development of local or regional water supply plans. The Windsor Town Council adopted the Hampton Roads Regional Water Supply Plan by resolution on August 9, 2011. The plan received a final determination of compliance from the Virginia DEQ on November 15, 2013. Other participating localities include the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, the counties of Gloucester, Isle of Wight, James City, Southampton, Surry, and York, and the towns of Boykins, Branchville, Capron, Claremont, Courtland, Dendron, Ivor, Newsoms, Smithfield, and Surry.

## **Wastewater Facilities**

Wastewater service is available in certain areas of the Town of Windsor. Wastewater collection services are provided by Isle of Wight County, Department of Public Utilities through a vacuum system and pump station. The County system discharges effluent to a Hampton Roads Sanitation District force main for treatment at the Nansemond Wastewater Treatment Plant in Suffolk.

## **CHAPTER 6 - ENVIRONMENT**

### **Introduction**

The Town of Windsor is located in the rural Western Tidewater region of Hampton Roads, just to the west of the City of Suffolk. The Town lies near the eastern boundary of Isle of Wight County in an area that straddles the line between the Chesapeake Bay Watershed and the Chowan River Basin, which drains to the Albemarle Sound in North Carolina. The majority of the Town is located in the Chesapeake Bay Watershed and drains primarily to the Nansemond River. The area to the west of the Town contains a tributary to Antioch Swamp and drains to the Blackwater River.

Overall, there is very little topographic relief within the Town. Most existing development is concentrated on broad, upland flats ranging from 75 to 85 feet in elevation. In most sections of Town, the flat topography has been developed in a traditional grid system of lots and streets. In outlying areas of Windsor, steeper grades are found adjacent to several small streams and drainage ways. Elevations here range from 40 feet at the stream's edge to 80 feet on the adjacent upland terraces. Typically, the narrow banks of the drainage ways blend into gently sloping areas of well-drained soils. Over the years, this rolling terrain has been favored for low-density homes and small subdivisions. Scattered to the south and west of Windsor are poorly drained upland swamps. These outlying areas have remained mostly rural in character.

### **Climate**

With its proximity to the Atlantic Ocean, the Town of Windsor typically enjoys a temperate climate with mild winters and warm, humid summers. The nearest National Weather Service Station for which data is available is located at Holland (station Holland 1 E) in the city of Suffolk. Data from this station indicates that the average annual temperature is 57.8 degrees, with summer temperatures that average 75.1 degrees and winter temperatures that average 39.8 degrees. The frost-free growing season extends from about April 25th to October 10th, providing a growing season of approximately 177 days. Windsor receives an average annual rainfall of 49.07 inches and an average annual snowfall of 7.2 inches. Winds prevail from a southwesterly direction and are of low velocity. According to the National Climatic Data Center (NCDC), hurricanes are not common in the region while thunderstorms, severe lightning, and high winds occur more regularly.

In addition to summer thunderstorms, major producers of rainfall in Windsor include northeasters and tropical storms. According to the NCDC, the most frequently reported severe weather events in the area are thunderstorms, severe lightning, high winds, and flash flooding. Hurricanes occasionally bring heavy rain, high winds, and flooding. The most significant weather event in recent years

was Hurricane Isabel, which struck on September 18, 2003. The storm caused flooding and extensive damage throughout the Hampton Roads region.

## Air Quality

The Virginia Department of Environmental Quality (DEQ) monitors air quality at a number of sites in the Hampton Roads region. As indicated in DEQ's 2012 Virginia Ambient Air Monitoring Report, all stations in the Tidewater Monitoring Network met the U.S. Environmental Protection Agency's (EPA's) National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. The closest air monitoring station to Isle of Wight County is located at Holland in the City of Suffolk (station 183-F) and only monitors for ozone.

Isle of Wight County was part of the Hampton Roads Marginal Ozone Non-Attainment Area, which was designated in June 2004 and required attainment by 2007. In response to this designation, the Hampton Roads region developed a Maintenance Plan for the relevant NAAQS in the area and drafted a request to the EPA for redesignation as an attainment area. On June 1, 2007, the EPA redesignated Hampton Roads as an attainment area for ozone. Technically, the region is considered a maintenance area. This designation is given to an area that was originally designated a non-attainment area for a pollutant that later met the federal standard for the pollutant, and for which the EPA has approved an air quality maintenance plan that shows how the area will remain in attainment through 2018.

<b>Table 6-1</b>				
<b>Hampton Roads Area Fourth Highest 8-Hour Average Values</b>				
<b>Hampton Roads Ozone Monitors, 2010 - 2012</b>				
<b>Parts per Million (ppm)</b>				
<b>Monitor</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Average</b>
Hampton	0.078	0.076	0.074	0.076
Suffolk - TCC	0.072	0.076	0.071	0.073
Suffolk - Holland	0.075	0.073	0.067	0.071

Source: Virginia Department of Environmental Quality

The ozone standard is attained if the fourth highest daily maximum 8-hour average for each of the three most recent years are averaged, yielding an average less than 0.085 ppm. Table 6-1 indicates the fourth-highest 8-hour average values for selected stations in Hampton Roads for the years 2010 to 2012. All stations met the standard required by the EPA during that time period.

## **CRITICAL AREAS**

The regulations of the Chesapeake Bay Preservation Act (CBPA) require that local comprehensive plans address existing natural limitations of the land that can act as physical constraints to development. These may include: flood prone areas, highly erodible soils, highly permeable soils, wetlands, steep slopes, hydric soils, seasonally high water tables, groundwater recharge areas, significant wildlife habitat areas, prime agricultural lands, and protected lands. The CBPA-related development constraints applicable to long-term planning for the Town of Windsor are described in the sections below. An assessment of soils for septic tank suitability is also required, although engineered septic systems now allow for development where soils are unsuitable for traditional septic systems.

### **CBPA Resource Protection Area and Resource Management Area**

In 2003, the Town Council adopted the CBPA Ordinance, the “Chesapeake Bay Preservation Area Overlay District” of the Town of Windsor, to help protect the water quality of the Chesapeake Bay and consequently the quality of life in the Town. The CBPA Overlay District applies to all lands identified as a CBPA as designated by the Windsor Town Council and as shown on the Official Preservation Area District Maps.

Windsor’s CBPA Resource Protection Area (RPA) includes:

- Tidal wetlands;
- Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;
- Tidal shores;
- Such other lands that may be specified as an RPA by the Town Council for the Town of Windsor; and
- A vegetated buffer area not less than 100 feet in width located adjacent to and landward of the components listed above, and along both sides of any water body with perennial flow.

Windsor’s CBPA Resource Management Area (RMA) as composed of the following land categories: floodplains; highly erodible soils, including steep slopes; highly permeable soils; nontidal wetlands not included in the Resource Protection Area; and other lands under the provisions of the regulations as are necessary to protect the quality of state waters.

All areas inside the corporate limits of the Town of Windsor are considered RMA unless designated as RPA (see Map 6-1).

## **Flood Prone Areas and Steep Slopes**

Flood prone areas are those sites that are predictably subject to overflows from nearby water bodies. Development in flood prone areas is potentially costly and hazardous. Several factors can affect the potential for damage caused by flooding, such as topography, rate of water rise, depth and duration of flooding, geographic orientation of the shoreline, and the location of threatened development. Development in flood prone areas can worsen flooding by increasing the amount of impervious cover, which prevents the natural infiltration and absorption of water into the soil. Floodplain preservation provides many benefits, including enhancing water quality, allowing recharge of groundwater aquifers, reducing flooding, providing fisheries and wildlife habitat, providing recreational opportunities, and protecting historic lands (1989). The Town's floodplain management effort will continue to focus on the identification, reduction, and mitigation of flood hazards within developed areas.

The Federal Emergency Management Agency (FEMA) identified flood prone areas in the Town of Windsor on the September 4, 2002, Flood Insurance Rate Maps (FIRM). Elevations in the Town range from 40 to 80 feet above mean sea level. The 100-year flood plain is generally restricted to properties that border streams draining to Ennis Pond. All structures within these areas are required to be built with their finished floors above the 100-year flood levels indicated on the maps. These are also the areas of Town with slopes greater than 15%. Map 6-2 illustrates floodplains and steep slopes in and adjacent to the Town.

The topography near Windsor is nearly level and areas of steep slopes are rare. The only notable relief is found along the deeply incised drainageways in peripheral areas of Windsor (Map 6-3). Data from the Natural Resources Conservation Service's soil survey of Isle of Wight County indicates that Nevarc and Remlik soils are the only soil types found in the Town of Windsor that are associated with slopes over 15%. These soils comprise less than 2% of the planning area's total acreage.

At present, the only built-up areas of Town subject to serious flooding are in the Lovers Lane/Shiloh Drive area. In order for property owners to qualify for flood insurance, localities must administer ordinances that regulate development practices within the 100-year floodplain. Currently, the Town's Floodplain Management Program is administered by the Isle of Wight County building official, and is in compliance with FEMA (Federal Emergency Management Agency) regulations. However, the majority of residential and commercial development is located on sufficiently high ground to avoid any potential flood hazard.

## **Wetlands and Hydric Soils**

Nontidal wetlands are inland, freshwater areas not subject to tidal influence. They are typically areas where the water table is at or near the surface or where the land is covered by shallow water. Nontidal wetlands encompass a variety of environments such as marshes and swamps, bottomland hardwood forests, wet meadows, inland bogs and the shallow fringe areas of lakes and ponds. Nontidal wetlands possess many of the same physical and biological characteristics as tidal wetlands. They perform similar valuable ecological functions, including providing wildlife habitat, erosion control, water quality improvement, stormwater/flood control, groundwater recharge, and recreational opportunities.

Map 6-3 indicates the locations of wetlands and hydric soils in the Town of Windsor. Wetlands information is based on National Wetlands Inventory (NWI) maps produced by the U.S. Fish & Wildlife Service. NWI data is reasonable for use in general planning activities, but not for site-specific planning and design. Because of aerial photography limitations, NWI maps often omit small wetlands (less than 3 acres) or exclude others with ambiguous vegetative cover. Many wetlands in the Windsor vicinity are shrub-scrub emergent wetlands that are difficult to identify from the air. In all cases, on-site wetland delineations should be completed before development takes place. In cases where wetlands are present, state or federal permits will probably be needed before development can take place.

A large portion of the undeveloped land in and around Windsor consists of hydric soils. Hydric soil is one of the three basic indicators of wetlands, since when sufficiently wet they support the growth and regeneration of hydrophytic vegetation. The hydric soils in the Windsor area can be categorized into two basic types; those associated with drainage ways and those associated with Upland/Myatt soils. The hydric soils fringing the local drainage ways have a high probability of containing extensive jurisdictional wetlands. The Upland/Myatt grouping of hydric soils is somewhat less likely to contain jurisdictional wetlands, particularly if these areas have been drained, filled or hydrologically altered over the years. In most cases, a soil scientist or hydrologist will be needed to determine the presence and extent of wetlands in areas of Myatt soils, based on study of on-site vegetation.

Prior converted croplands, as defined by the U.S. Army Corps of Engineers, have been generally exempt from federal permitting requirements and can potentially be developed for urban purposes. These areas are defined as hydric soil areas whose wetland hydrology was permanently altered prior to December 23, 1985. Sites not altered before that date is subject to wetlands regulations that may limit the potential for development.

## **Existing Wetland Protection Policies**

The Virginia Non-tidal Wetlands Act of 2000 governs activities affecting non-tidal wetlands within the state, and includes the following items:

- Requires permittees first to avoid, then minimize and, if wetlands must be destroyed, to replace their acreage and function.
- Adopts the scientifically accepted definition of wetlands currently used by the federal government and the State Water Control Board.
- Requires permits and mitigation by those proposing to drain, dredge, excavate, ditch, flood or impound, fill or discharge into nontidal wetlands.
- Requires the state to seek a U.S. Army Corps of Engineers' State Programmatic General Permit for most activities, thereby streamlining the permitting process.
- Exempts normal agricultural and silvicultural activities and homeowner landscaping and maintenance.
- Requires general permits for a variety of activities, including sand, coal and gas mining activities, linear easements for public utilities and transportation projects, and activities affecting less than one-half acre.

In addition to these measures, non-tidal wetlands are protected under the Town's Chesapeake Bay Preservation Ordinance by designation as Resource Management Areas. Map 6-1 depicts Chesapeake Bay Preservation Areas in the Town of Windsor.

Wetland protection policies may be impacted by the U.S. Environmental Protection Agency's and the U.S. Army Corps of Engineers' March 25, 2014 joint proposed rule to defining the scope of waters protected under the Clean Water Act (CWA). If finalized, the 2014 proposed rule would replace existing 2003 and 2008 guidance on policies for determining CWA jurisdiction. The proposed rule would revise the existing regulatory definition of "waters of the United States" for consistency with legal rulings and science concerning the interconnectedness of tributaries, wetlands, and other waters to downstream waters and effects of these connections on the chemical, physical, and biological integrity of downstream waters. Waters that are "jurisdictional" are subject to the multiple regulatory requirements of the CWA: standards, discharge limitations, permits, and enforcement. Non-jurisdictional waters do not have the federal legal protection of those requirements.

## **Public/Private Water Access**

No navigable waterbodies exist within the Windsor Town boundaries. Discussion of potential recreational water access is contained in the Community Facilities chapter.

## **Highly Erodible/Highly Permeable Soils**

Highly erodible soils, if improperly disturbed or exposed, can contribute to water quality degradation through sedimentation and siltation. In addition, nutrients and toxics may be attached to soil particles that can be transported and released to the aquatic environment through erosion. In the Town of Windsor, Nevarc and Remlic soils as well as some types of Slagle soils have been identified as having high erosion hazard characteristics. These soils are generally confined to small areas near streams or wetlands where steep slopes are present. Only two areas of town show severely erodible soils, both classified as Slagle sandy loam with 2 to 6% slopes. The largest of these is located in a wooded area to the west of Mathews Drive; the other is located in an undeveloped area to the north of the Norfolk Southern rail line. Map 6-4 illustrates soils in the Windsor area.

Highly permeable soils transmit water at such a rate that there is potential for surface pollutants to infiltrate underground into the nearby surface water and groundwater. A more technical analysis of both highly erodible and highly permeable soils was conducted as part of the Virginia Geographic Information System (VIRGIS) mapping project initiated by the Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation in 1985. A review of these sources reveals the most significant areas of concern to be associated with the base and sides of the slopes surrounding Ennis Pond. These areas are generally confined to the northern and eastern periphery of the Town.

## **Soil Suitability for Septic Systems**

The majority of soil classifications in the Windsor area have severe limitations for septic system use. Because of slow soil permeability and a high water table, most drainfields in the area perform poorly in treating septic waste. Essentially, local topsoil horizons are too clayey, poorly drained and saturated to permit sufficient filtering of drainfield effluent. This situation can pose a potential health hazard since inadequately treated waste can seep into groundwater and potable water supplies.

The Windsor area now offers public sewer service and most septic systems have been abandoned as local customers connect to the sewer collection system completed in 2000. New development in the Town is required to connect to the public sewer system and no new septic systems are being approved, unless sewer facilities are not available.

## **Forest and Farmland**

The majority of undeveloped land within Windsor consists of cropland and forest. Natural forestland serves important functions in maintaining the land and supporting development by stabilizing the soil, preventing erosion, increasing soil permeability, and decreasing stormwater runoff. Forestland also serves as a

buffer for adjacent land uses, lessens the impact of noise, wind and heat, improves air quality, and provides habitat for wildlife. Pockets of forestlands are located primarily along streams and wetlands, with some larger tracts along the southern and eastern edges of the Town.

The presence of cropland within the Town of Windsor contributes greatly to its rural character. There are scattered tracts of cropland in Windsor that are still being actively farmed, particularly in areas south of the railway. Active lumber operations are mostly confined to forestland outside of Windsor.

## **SURFACE WATER RESOURCES**

The majority of the Town of Windsor is located within the Hampton Roads Watershed of the James River Basin. The nearest water body is Ennis Pond, a multi-branched freshwater swamp with no definable channel. The major branches of Ennis Pond bisect Windsor to the north and south. Generally, these branches consist of forested bands of swampland varying from 200-400 feet in width. These natural areas often taper sufficiently in width to allow bridge and roadway crossings.

Ennis Pond is a tributary to Lake Prince Reservoir, which lies five miles east of Windsor and straddles the Isle of Wight County/Suffolk City line. Constructed in the 1920s, Lake Prince Reservoir is owned by the City of Norfolk. Raw water from the reservoir is pumped to Norfolk's water treatment plant prior to distribution. Ennis Pond is also the discharge point of water from the Lake Gaston pipeline to the Lake Prince reservoir.

### **Surface Water Quality**

Activities on the land invariably impact the utilization and quality of water resources. Through the comprehensive planning process, local governments have the opportunity to direct land uses and development to avoid impacts to water resources.

#### **Point Source Pollution**

Point source pollution results from discharges or emissions from a stationary location or fixed facility or any single, identifiable discharge point of pollution, such as a pipe or ditch. Point sources of water pollution include municipal and industrial dischargers and individual waste treatment systems.

Point source pollution can also occur from the release of hazardous materials. The EPA tracks activities related to hazardous waste under the authority of the Resource Conservation and Recovery Act (RCRA). All entities that generate, transport, treat, store, and dispose of hazardous wastes are required to provide information about their activities to state environmental agencies. EPA's

Resource Conservation and Recovery Act Information (RCRAInfo) database lists 2 RCRA facilities in Windsor as of May 2014. Both facilities are conditionally exempt small quantity generators (CESQG) that produce less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste, per calendar month. A CESQG may only accumulate less than 1,000 kg of hazardous waste, 1 kg of acutely hazardous waste, or 100 kg of spill residue from acutely hazardous waste at any one time.

### Non-Point Source Pollution

Non-point sources of pollution encompass inputs to surface water that cannot be identified as having originated from a distinct discharge point. In Windsor, primary sources of non-point source pollution include stormwater runoff from developed areas and agricultural areas. Petroleum products, heavy metals, pesticides, fertilizers, bacteria, and sediment in stormwater runoff can contaminate surface water bodies.

Local stormwater management programs can help address water quality impacts. Currently Isle Wight County is responsible for stormwater management in The Town of Windsor. The County is tasked with creating local programs that address issues and protect water quality as the Town continues to grow. Some of the older areas of the Town were developed prior to the enactment of environmental regulations that require water quality protection measures in their design. As these older areas are redeveloped, water quality improvement measures such as stormwater best management practices (BMPs) can be incorporated. New development and redevelopment activities must comply with stormwater management programs.

### **Stormwater Management Programs**

Managing stormwater is an important local government function in Virginia. There are three major programs that address or relate to the municipal control of stormwater: the Chesapeake Bay Preservation Act, erosion and sediment control programs, and the Virginia Stormwater Management Program. As of July 1, 2013, the State Water Control Law (§62.1-44.2 et seq) incorporates the Chesapeake Bay Preservation Act (§62.1-44.15:67 et seq), the Erosion and Sediment Control Law (§62.1-44.15:51 et seq) and the Virginia Stormwater Management Act (§62.1-44.15:24 et seq) under the jurisdiction of the State Water Control Board. These programs are administered by the Department of Environmental Quality (DEQ).

### Chesapeake Bay Preservation Act

The Chesapeake Bay Preservation Act (CBPA) regulations are designed to protect and improve the water quality of the Chesapeake Bay and its tributaries through the definition and protection of Chesapeake Bay

Preservation Areas and provisions for the proper use and development of these areas. The Town of Windsor's Chesapeake Bay Preservation Overlay District (Chapter 57 of the Town Code) aids in the protection of the Chesapeake Bay and its tributaries by requiring the use of effective conservation planning and pollution prevention practices when developing environmentally sensitive areas. This is achieved primarily by the retention and protection of 100-foot riparian buffers around water bodies that drain to the Bay. The entire Bay watershed in the Town has been designated a Chesapeake Bay Preservation Area.

Development or redevelopment of land in Chesapeake Bay Preservation Areas must meet the performance criteria outlined in the regulations. The performance criteria apply to most land disturbing activities greater than 2,500 square feet, and provide that land-disturbing activities must comply with the local erosion and sediment control ordinance and the stormwater management criteria of the Virginia Stormwater Management Regulations.

As part of the CBPA Program, the Town of Windsor has incorporated water quality protection measures into its comprehensive plan, zoning ordinance, and subdivision ordinance. In addition, a plan of development process is required prior to the issuance of a building permit to assure that the use and development of land in Chesapeake Bay Preservation Areas is accomplished in a manner that protects the quality of state waters.

#### Erosion & Sediment Control Program

Soil erosion, sedimentation, and nonagricultural runoff from regulated land-disturbing activities must be controlled to prevent degradation of property and natural resources. Because the Town of Windsor is a designated Chesapeake Bay Preservation Area, all land disturbing activities within the Town that affect more than 2,500 square feet are required to comply with the Erosion and Sediment Control regulations. Chapter 57 of the Town Code includes provisions that require any land disturbing activity exceeding 2,500 square feet, including construction of all single-family houses, to comply with the requirements of the Isle of Wight County Erosion and Sediment Control Ordinance. The ordinance requires developers to convey runoff to adequate channels and to prevent an increase of runoff from their regulated activities. In addition, the required erosion and sedimentation minimum control measures prevent soil movement and loss and help to reduce and eliminate damage to off-site receiving channels, property, and natural resources.

#### Virginia Stormwater Management Programs (VSMP)

Virginia Stormwater Management Program (VSMP) requirements have the following major components:

- Stormwater Technical Criteria;

- Program and permit requirements for small municipal separate storm sewer systems (Phase I and II MS4s); and
- General VSMP permit requirements for stormwater discharges from construction activities.

For any development within the Town of Windsor, the zoning ordinance requires stormwater runoff to be controlled by the use of best management practices consistent with the water quality protection provisions of the VSMP. The Stormwater Technical Criteria include general stormwater requirements, water quality criteria, stream channel erosion requirements, and flooding requirements. Certain types of land disturbing activities, such as agricultural activities, are exempt. Because the Town of Windsor is a designated Chesapeake Bay Preservation Area, all land disturbing activities within the Town that affect more than 2,500 square feet are required to comply with the Stormwater Technical Criteria.

In Windsor, stormwater runoff is collected by a municipal storm drain system that consists of open drainage ditches, curb and gutter, intermittent sections of pipe, and several structural best management practices (BMPs). The Town of Windsor is not a regulated MS4 community and is not required to obtain a permit from DEQ for its MS4.

Owners/operators of construction activities larger than one acre in the Town of Windsor are required to obtain permit coverage under the VSMP general permit for construction activities. Permit coverage requires the operator of the construction site to provide a registration statement to DEQ and to develop and implement a stormwater pollution prevention plan (SWPPP) for the construction activity.

Starting on July 1, 2014, all development subject to permitting under the Virginia Stormwater Management Program (and sites greater than 2,500 square feet in Chesapeake Bay Preservation Act areas) must meet new water quality and quantity criteria for post construction stormwater runoff.

## **GROUNDWATER RESOURCES**

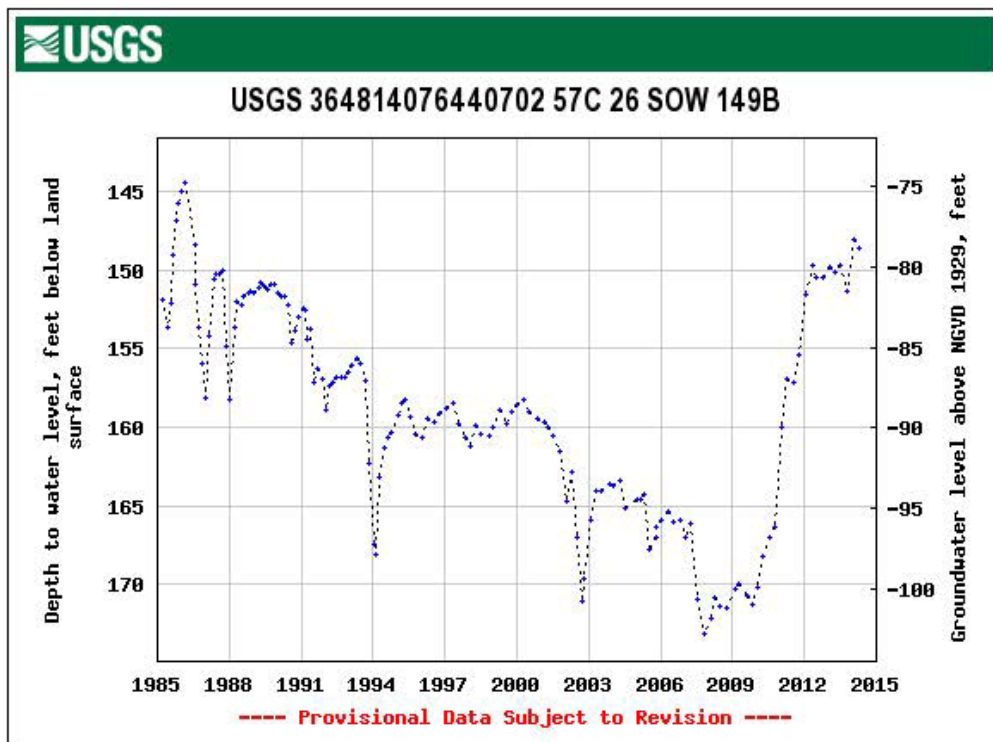
Groundwater is the only source of potable water for the Windsor area. Windsor's groundwater wells are described in the water system section of Chapter 5, Community Facilities. Alternative sources, such as surface impoundments or direct withdrawals, are presently not utilized in Windsor or in central Isle of Wight County. Most residents in Windsor are served by a municipal water system owned and operated by the Town. Small industries and residents in the outlying area continue to utilize individual wells for production or domestic use. Most domestic wells in the Windsor area are shallow in depth and tap into upper, confined aquifers. This water supply can be characterized as a hard, sodium-calcium bicarbonate type generally of good quality. The Town's municipal wells

tap into the deepest, confined aquifer (Potomac Aquifer) where the water varies from a soft to very hard sodium bicarbonate type, with moderately high chloride levels.

Windsor's water demands are primarily generated by domestic, commercial, and agricultural users. Depending on the permitted withdrawals for the Isle of Wight County commerce park and other future industrial operations, water-dependent types of industry may be increasingly drawn to the area.

Currently, there are industries and municipal water systems in the surrounding area that make large water withdrawals, resulting in localized groundwater depletion. Groundwater levels in Windsor continue to be impacted by withdrawals made by International Paper (IP) in Franklin, Virginia. IP holds the largest groundwater withdrawal permit in the region, which allows the facility to pump up to 37 million gallons of water per day. The chart below shows field measurements of groundwater levels at a monitoring well in Windsor from 1985 to 2014. For several decades, water levels slowly dropped, then rebounded since IP decreased pumping in 2009. Should the facility increase pumping to previous levels, it is anticipated that groundwater levels in Windsor will decline to historic levels. Continued declines in groundwater levels will impact Windsor's drinking water wells over the long term.

**Figure 6-1: Groundwater Levels Observed in Windsor, Virginia**



Source: USGS Water Resources, National Water Information System Web Interface ([http://nwis.waterdata.usgs.gov/usa/nwis/gwlevels/?site\\_no=364814076440704](http://nwis.waterdata.usgs.gov/usa/nwis/gwlevels/?site_no=364814076440704), accessed June 20, 2014).

The Virginia Department of Environmental Quality (DEQ) has expressed concern that groundwater levels are declining at rates of two to four feet per year in the Coastal Plain aquifer system and that groundwater is being withdrawn from primary drinking water aquifers in a manner that is not sustainable over the long term. DEQ is developing strategies to stabilize groundwater levels and preserve the resource. The agency is exploring short- and long-term regulatory and programmatic management options.

## **Regional Water Supply Planning**

In 2007, sixteen cities and counties and eight towns, including Windsor, signed a Memorandum of Agreement to develop a Regional Water Supply Plan for Hampton Roads. In July 2011, the Hampton Roads Planning District Commission accepted the plan and authorized its distribution to local governments for adoption. The Hampton Roads Regional Water Supply Plan received a final determination of compliance from the Virginia Department of Environmental Quality on November 15, 2013. The Plan includes the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, the counties of Gloucester, Isle of Wight, James City, Southampton, Surry, and York, and the towns of Boykins, Branchville, Capron, Claremont, Courtland, Dendron, Ivor, Newsoms, Smithfield, Surry, and Windsor.

Through the regional plan, participating localities are in compliance with the water supply planning requirements of the Commonwealth of Virginia, 9 VAC 25-780. The Plan was adopted by the Windsor Town Council on August 9, 2011. The Plan describes existing water use, projected water demands, an alternatives analysis, and water management and drought response actions.

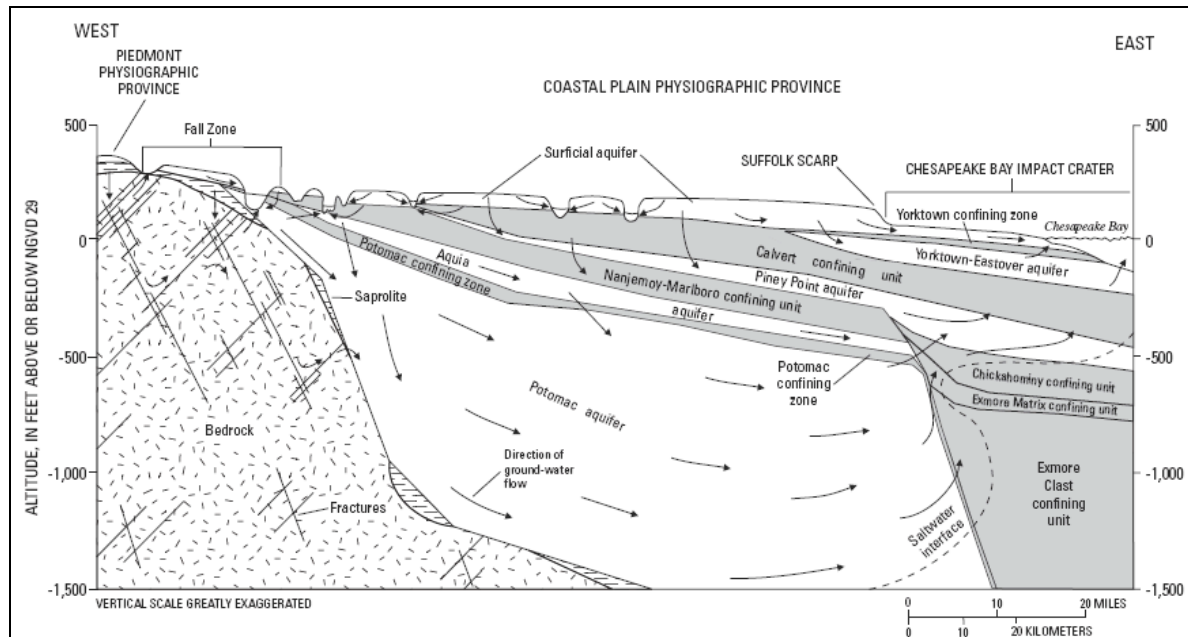
## **Ground Water Framework**

The Town of Windsor is located within the Virginia Coastal Plain Physiographic Province, which extends from the Fall Line in the west to the Atlantic Ocean in the east, to the Maryland border in the north, and to the North Carolina border in the south. The subsurface is characterized by wedge shaped unconsolidated sedimentary deposits that slope and thicken towards the east. These deposits consist of clay, silt, sand, and gravel, with variable amounts of shell material. In some localized areas, cementation of shell beds can form thin lithified (rock) strata. The unconsolidated sediments overlie a crystalline bedrock basement that also slopes gently to the east.

Many different depositional environments existed during the formation of the Virginia Coastal Plain deposits. In general, the stratigraphic section (vertical profile) consists of a thick sequence of non-marine (riverine and alluvial)

sedimentary deposits overlain by a thinner sequence of marine (near shore beach, estuarine, and delta) sedimentary deposits.

**Figure 6-2: Hydrogeology of the Coastal Plain of Virginia**



Source: McFarland, E.R., and Bruce, T.S., 2006, The Virginia Coastal Plain Hydrogeologic Framework: U.S. Geological Survey Professional Paper 1731, 118 p., 25 pls. (available online at <http://pubs.water.usgs.gov/pp1731/>)

The groundwater flow system in the Coastal Plain of Virginia is a multi-aquifer system. The most recent study of the hydrogeologic framework was completed by USGS in 2006 (McFarland and Bruce, 2006). Based on the framework, there are eight water bearing hydrogeologic units (aquifers) and eleven less permeable units that restrict groundwater flow (confining zones and confining units). The aquifers and confining units are stacked on top of each other and often alternate. Because of this configuration, flow in the aquifers primarily is lateral instead of vertical. The flow moves eastward and toward large withdrawal centers and major discharge areas near large rivers and the Atlantic coast. However, the flow pattern is disrupted by the Chesapeake Bay Impact Crater, which was formed over 35 million years ago when an asteroid or comet landed near the mouth of the Chesapeake Bay and created a crater over 50 miles in diameter. The impact of the asteroid or comet obliterated the deepest aquifers. A mixture of materials rushed into the crater and created a layer of sediments (breccia) unique from the non-marine sediments present before the impact.

The groundwater system beneath the Town of Windsor is comprised of multiple aquifers and confining units. The following paragraphs provide a general description of the aquifers beneath the Town from youngest to oldest (top to bottom):

### Surficial Aquifer

The surficial aquifer is a widespread, shallow, and moderately used source of ground water in the Virginia Coastal Plain. The surficial aquifer follows the land surface across the entire Virginia Coastal Plain and is composed of sands and gravels with interbedded silts and clays. The surficial aquifer provides mostly domestic water supplies and also serves as the primary entryway for recharge to the entire ground-water system. Because it is shallow and easily accessible, it has historically been an important water source. However, it is susceptible to drought and contamination and is less reliable than confined aquifers. Some homes in Windsor, however, may still rely on the surficial aquifer for consumptive use.

### Yorktown-Eastover Aquifer

The Yorktown-Eastover aquifer is widespread, relatively shallow, and is a major source of both public and private water supplies in the eastern part of the Virginia Coastal Plain. It is composed of sand with some interbedded silt. In Windsor, the top of the aquifer is roughly 25 feet below ground surface.

### Piney Point Aquifer

The Piney Point aquifer is a homogenous, sandy aquifer that is generally deep and moderately used as a groundwater source. It extends across most of the Coastal Plain. In Windsor, the top of the Piney Point aquifer is approximately 150 feet below ground surface. The Piney Point aquifer includes two formations. The upper formation is rarely used for water supplies because of low yields and the prevalence of hydrogen sulfide. The lower formation is a more effective water producing zone.

### The Aquia Aquifer

The Aquia aquifer extends across all of the Virginia Coastal Plain except for the Chesapeake Bay impact crater, the Virginia Eastern Shore, and the southern half of the Fall Zone. It is composed of medium to coarse sands and is approximately 200 feet below ground surface in the Windsor area. Because of its composition and relative thinness in some areas, the Aquia aquifer is only a relatively minor groundwater supply resource.

## The Potomac Aquifer

The Potomac aquifer is the deepest and thickest aquifer in Virginia's Coastal Plain. The aquifer is composed of sand and gravel, with many large clay interbeds, and extends across the entire Virginia Coastal Plain except for the inner part of the Chesapeake Bay impact crater. In previous studies, the Potomac aquifer was defined as three aquifers. However, the most recent hydrogeologic study indicated that it is hydraulically continuous on a regional scale and the clay interbeds affect flow on a localized scale. In Windsor, the top of the aquifer is roughly 300 feet below ground surface. The Potomac aquifer is the most heavily used groundwater resource in the Virginia Coastal Plain. In 2013, approximately 97.9 percent of permitted groundwater withdrawals are allocated from the Potomac aquifer. The Potomac Aquifer is the primary water source for the Town of Windsor.

## **Groundwater Quality**

The unconfined surficial aquifer is susceptible to localized groundwater contamination. Seven high priority threats to groundwater in Southeastern Virginia have been identified. These are (1) inefficient septic systems; (2) leaky underground storage tanks; (3) spills and improper disposal of hazardous materials; (4) leaky surface waste impoundments; (5) leaky landfills; (6) improper pesticide and fertilizer applications; and (7) pumping induced saltwater encroachment. These threats may affect private, domestic wells in the Town of Windsor, which generally draw water from the surficial aquifer. In general, wells that withdraw water from deep, confined aquifers are more reliable and yield better quality water than wells that tap shallow, unconfined aquifers.

The surficial aquifer serves as the primary entryway for recharge to the entire ground-water system. Groundwater recharge occurs when rainwater that percolates into the ground enters the unconfined (water table) aquifer. Groundwater flows from areas of relatively high elevation to adjacent areas of relatively low elevation, and recharge can occur across almost any upland surface. Groundwater is discharged at the land surface in topographic low areas that intersect the water table. Springs, seeps, swamps and river channels are examples of groundwater discharge areas.

## **Protection of Potable Water Supply**

The Potable Water Supply element of a comprehensive plan describes the uses and distribution of local water resources. Present water use patterns are a product of local geography, water needs, transportation patterns and requirements, social and economic forces, and residential development preferences, past and future. Water resources are critical to the physical and economic health of the community as well as the natural environment.

Many practices have the potential to severely degrade the water quality and quantity. To protect potable water supplies, the Virginia Department of Health (VDH), through grant funding from the EPA, offers assistance to communities to develop Source Water Protection Programs (SWPPs). VDH encourages the development of SWPPs, but such programs are not mandated. In Hampton Roads, communities of 10,000 people or less are eligible for SWPP assistance. The development of a SWPP for the Town of Windsor would identify mechanisms to protect the Town's drinking water wells from potential contaminants or threats.

The potential for pollution is a known problem in groundwater, but there is no sampling program in place to determine the extent or nature of contamination. However, there are a number of tools available to local governments to assist them in addressing groundwater quality. These may include the preparation of a groundwater management plan. The Ground Water Protection Handbook for Southeastern Virginia (1990), prepared by the Hampton Roads Planning District, provides local guidance for developing a groundwater management plan.

The Town's Chesapeake Bay Preservation Area Ordinance is another tool for protecting the quality of the groundwater. Windsor has designated the entire Chesapeake Bay watershed for pollution protection under the Chesapeake Bay Act. Mitigation measures available under this program include best management practices, vegetative buffers, protection of sensitive environmental resources, and limitations on impervious cover. These measures help to protect both surface and groundwater from pollution and also better enable water to percolate through the soil to groundwater.

## **Potential Groundwater Pollution Sources**

### **Leaking Underground Storage Tanks**

Leaking underground storage tanks (USTs) can be a source of environmental pollution. USTs are often used to store hazardous substances, such as petroleum, gasoline, diesel fuel, acetone, or kerosene. Over time, tanks can develop leaks, contaminating the surrounding soils, and potentially affecting groundwater and local surface water bodies.

The Virginia Department of Environmental Quality (DEQ) administers a UST program that seeks to prevent UST leaks by requiring owners to maintain spill prevention, overfill protection, corrosion protection, release detection, operator training certification, and financial responsibility. Regulated USTs generally include commercial tanks containing regulated substances and having storage capacities greater than 110 gallons, and farm or residential fuel tanks having storage capacities greater than 1,100 gallons. Owners or operators of regulated USTs must notify DEQ of the existence of the UST; property owners must notify DEQ of the existence of abandoned or in-use USTs on their property.

DEQ maintains UST notification records and reports of tank releases and spills. As of May 2014, a total of 28 registered UST facilities are listed as located in the Town of Windsor. Most of these facilities are gas stations, petroleum distributors, commercial and industrial facilities, and state and local government facilities; there are five farm facilities and one residential facility. DEQ records indicate that 17 UST releases have been reported since 1989, with the most recent release occurring in 2013.

In the Town of Windsor, UST releases may cause localized impacts to soils, shallow groundwater bodies, and nearby ponds or creeks. UST releases are unlikely to contaminate municipal drinking water wells, which withdraw groundwater from the Potomac Aquifer at depths of 430 to 520 feet.

#### Defective Septic Systems

As previously noted, the Town of Windsor now has a public sanitary sewer system. Until all of residences are connected to public sewer, Town staff will continue to ensure that residents comply with the 5-year pump-out schedule required by the Virginia Chesapeake Bay Preservation Act and local ordinance.

**Town of Windsor  
Comprehensive Plan**

**Map 6-1**

**Chesapeake Bay  
Preservation Areas**

 Town of Windsor Boundary

 Roads

 Streams

 Parcels

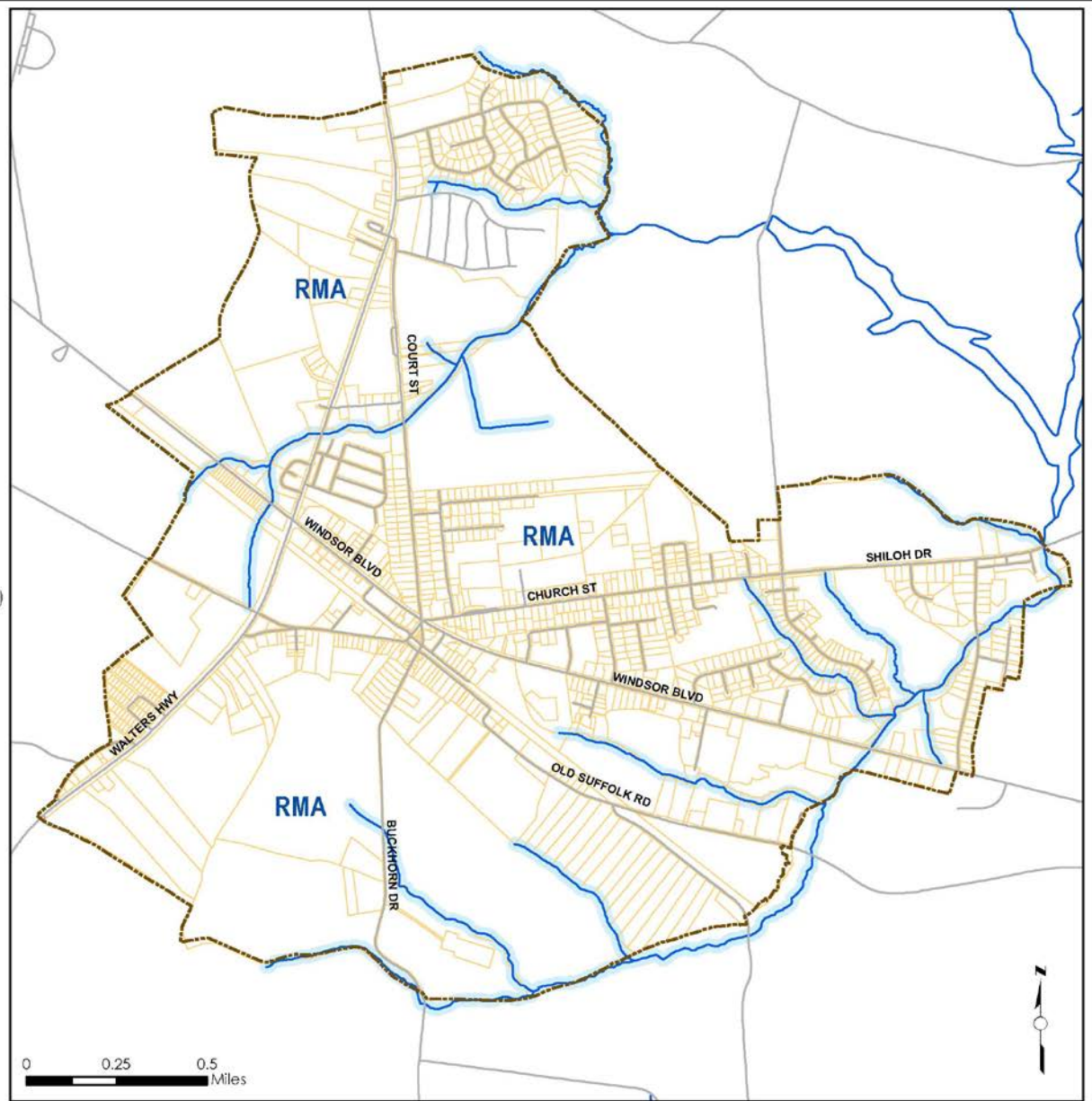
 Resource Protection Areas (RPA)

**RMA** Resource Management Area (RMA)

All areas inside the corporate limits are considered RMA unless designated as RPA.








Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



Town of Windsor  
Comprehensive Plan

Map 6-2

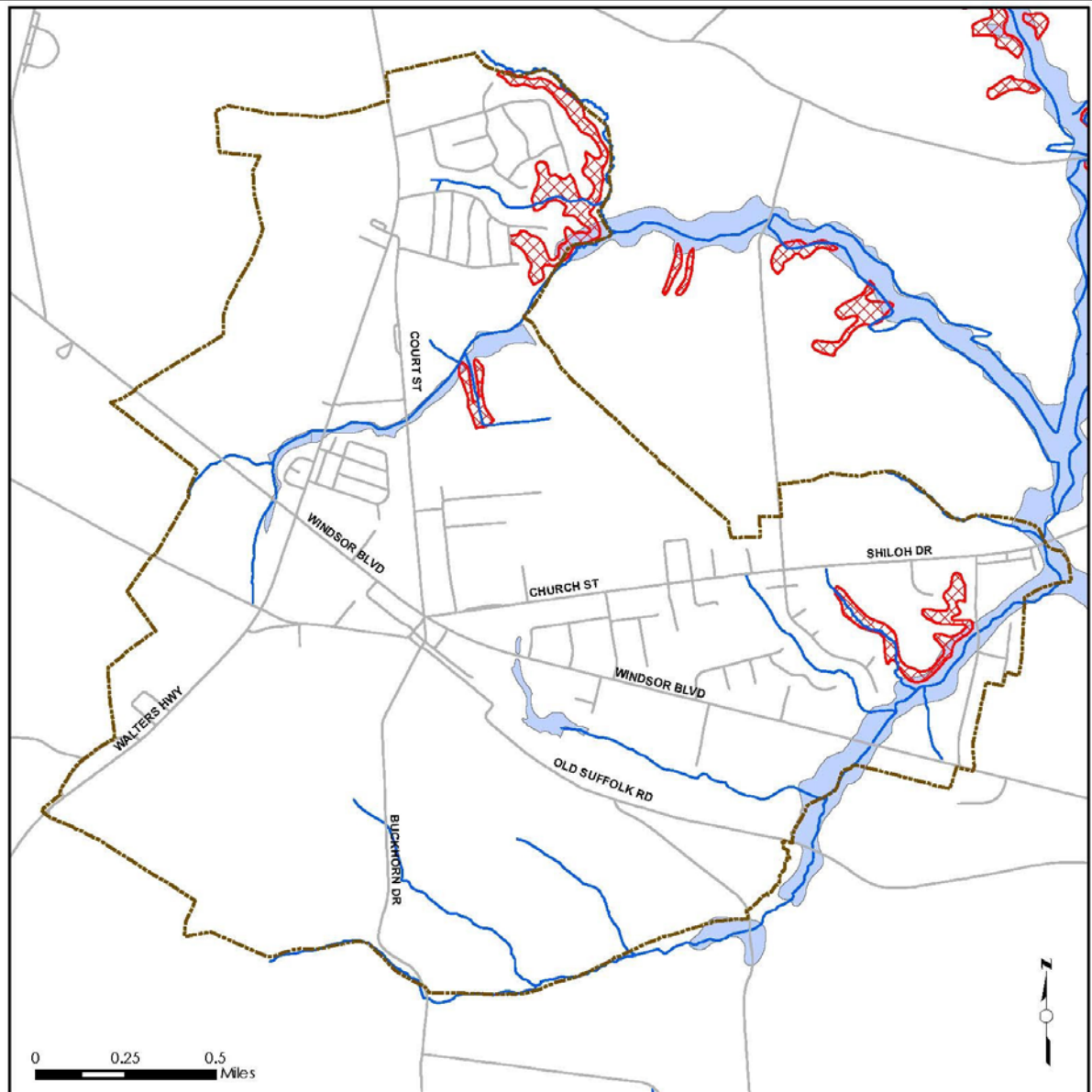
# Floodplains & Steep Slopes

-  Town of Windsor Boundary
-  Roads
-  Streams
-  Slopes greater than 15%
-  100-year flood zone



Sources: FEMA Flood Insurance Rate Map  
& USDA Natural Resources Conservation Service

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



Town of Windsor  
Comprehensive Plan

Map 6-3

**Wetlands and  
Hydric Soils**


 Town of Windsor Boundary

 Roads

 Wetlands

**Hydric Soils**

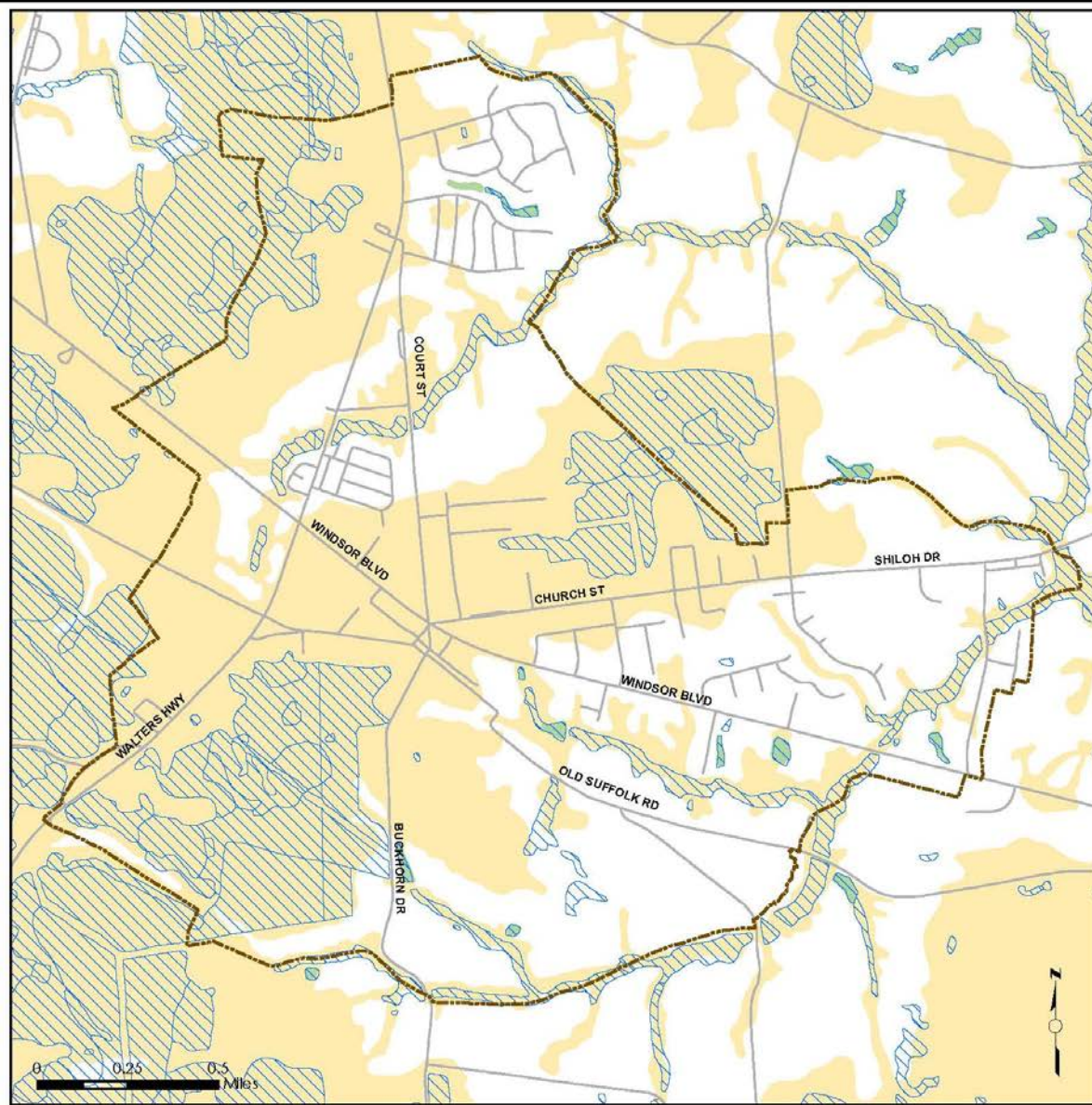
 Yes

 Unranked



Sources: National Wetlands Inventory  
& USDA Natural Resources Conservation Service


Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



**Town of Windsor  
Comprehensive Plan**

**Map 6-4**

**Soil Types**

 Town of Windsor Boundary

 Roads

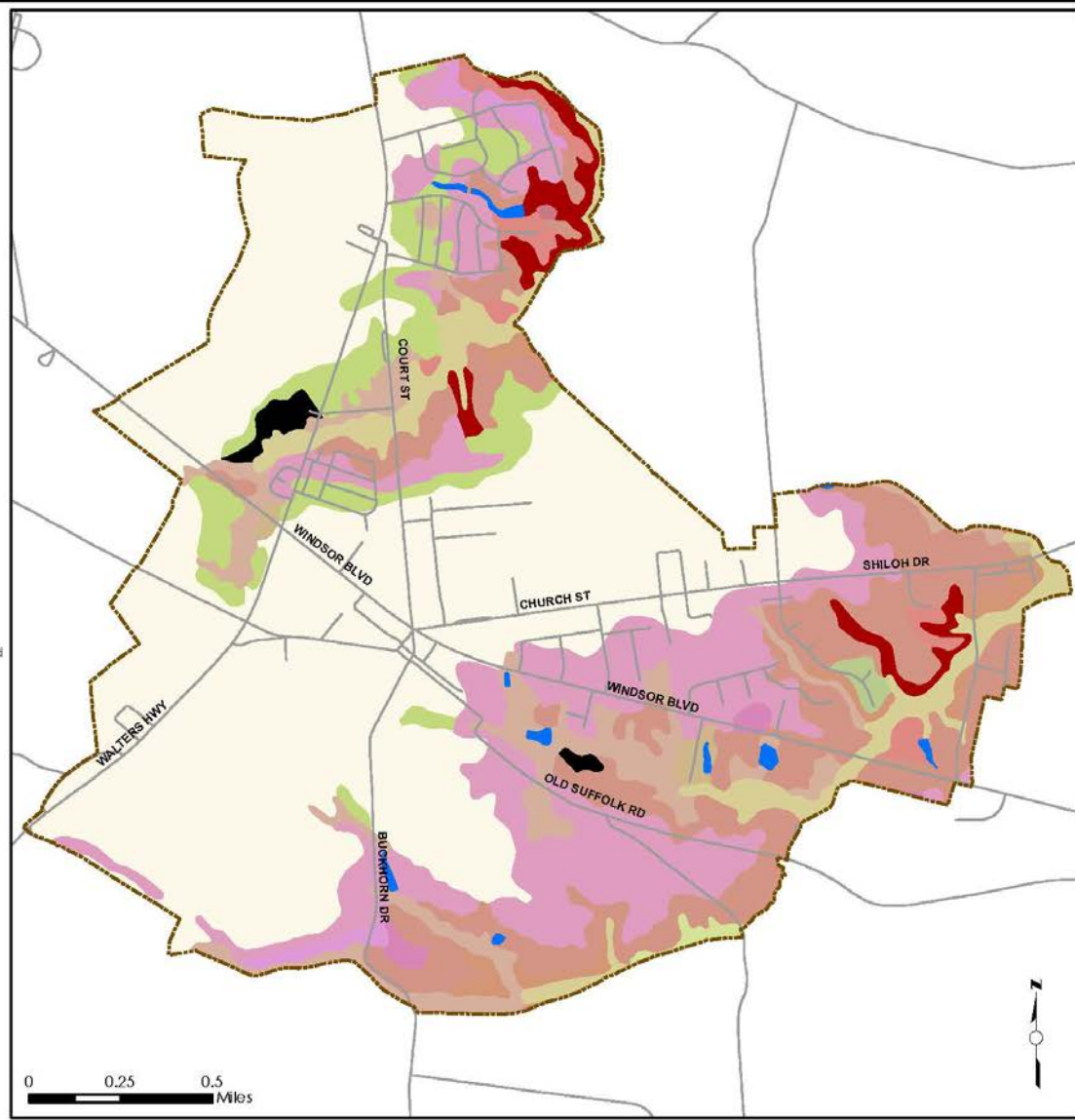
**Soil Types**

-  Emporia fine sandy loam, 0 to 2 % slopes
-  Emporia fine sandy loam, 2 to 6 % slopes
-  Kenansville loamy sand
-  Kinston loam
-  Myatt fine sandy loam
-  Nawney loam
-  Nevaro and Remlik soils, 15 to 35 % slopes
-  Peawick silt loam, 2 to 6 % slopes
-  Peawick silt loam, 6 to 10 % slopes
-  Rumford loamy sand
-  Stagie fine sandy loam, 0 to 2 % slopes
-  Stagie fine sandy loam, 2 to 6 % slopes
-  Stagie fine sandy loam, 6 to 10 % slopes
-  Stagie sandy loam, 2 to 6 % slopes, severely eroded
-  Uchee loamy sand, 0 to 2 % slopes
-  Uchee loamy sand, 2 to 6 % slopes
-  Uchee loamy sand, 6 to 10 % slopes
-  Udorthents, loamy
-  Yemassee fine sandy loam
-  Water



Source: USDA Natural Resources Conservation  
Service SSURGO Dataset

Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



## **CHAPTER 7- LAND USE**

### **Introduction**

The United States of America recently reached a population milestone of approximately 313.9 million people, and the country grows by an additional 3 million people each year. Since the 1950s, development patterns have largely been dominated by suburban styles dependent upon the automobile and largely separated from the established infrastructure and transportation routes available in central cities. Additionally, this expansion has required vast resources to meet the growing demands associated with housing, education services, employment, utilities and transportation.

Although the U. S. population has continued to grow, this growth has not been uniform throughout the country. Many regions, especially in the South and West, have seen tremendous increases in population while many areas in the Midwest and Northeast have seen population stagnation or decline. Overall, the Commonwealth of Virginia increased its population by approximately 13% from 2000 to 2010 and has continued to grow. In part to accommodate this growth, over 60,000 new residential units were constructed in Virginia in 2010. The Hampton Roads region has also experienced growth and development during this time period, largely tied to the extensive military presence, economic activity associated with the Port of Virginia, and an influx of retirees and new residents from other states. To accommodate the expanding population, housing construction has steadily moved into the outer areas of the region, which includes Isle of Wight County and the Town of Windsor.

### **Land Use in Windsor**

Land use decisions are very important because they determine what activities may occur in a particular area. Some uses, including commercial and industrial, can create different planning challenges than others. Minimizing the conflicts between differing uses to ensure the health, safety, and general well-being of a community is paramount in creating and sustaining viable communities. With this statement as a general goal, specific categories have been created to better educate the public as to the needs and demands associated with a particular use and the interaction among the uses.

Existing land use patterns in the Town of Windsor have been influenced largely by the presence of major transportation corridors. Most of the localities surrounding Windsor saw increases in development activity during the first part of the 21st century, and annexation has more than doubled the population of the Town itself. Commercial areas are centered on the main rail line and U.S. 460, with residential and other types of development radiating outward from those areas. The remaining land in the Town is primarily devoted to agriculture,

although there are pockets of land being used for industrial and public purposes. Map 7-1 depicts current land use in the Town of Windsor.

Land uses are classified as one of the designations listed below. While land use classifications do not represent zoning districts, they do help provide the framework on which future zoning applications may be considered and discussed. Current zoning classifications in the Town of Windsor are shown on Map 7-2.

#### Residential Land-Uses

Residential development in the Town is defined and divided into several broad general categories.

**Rural Residential-** This classification is primarily but not exclusively in the land annexed in 2001. These provide locations for low-density residential housing outside of subdivisions where sewer services have yet to be provided. The primary use of the land in these areas is single-family residential.

**Low-Density Residential-** The predominant residential designation is low density residential with single-family detached neighborhoods on slightly under one half acre lots. Found within these areas are some sporadic and individual duplex and attached or interior apartments at a scale of no more one per parcel typically on a larger lot. These include some of the traditional neighborhoods of the Town and the more suburban type subdivisions that were formed in Isle of Wight County and subsequently annexed into the Town in 2001.

**Medium to High Density Residential-** The next higher density residential area is one where up to five lots per acre by right is permitted and with a conditional use permit can allow ten units per acre. This district encompasses one of the older neighborhoods in the Town as well as a developed townhouse project as well as undeveloped areas where it is believed that the higher density growth can reasonably be developed. Because of the need to provide more housing for the future projected population growth for the region, these undeveloped areas should be considered for higher density development. Future residential developments of this type should concentrate on the development of high-quality alternatives to single-family housing, primarily in the form of townhomes and condominiums that mirror the character and architecture of the historic core of the Town. This includes the various forms of multi-family housing; apartments, duplexes, townhouses, and condominiums.

**Manufactured Home Parks-** The highest density residential use and group with the most residential units to date are the four manufactured/mobile home parks. Because of the minimal amount of apartment and townhouse developments in the Town, these parks provide much of the current affordable housing options within the Town and its surrounding areas.

Transitional Residential- This designation within a neighborhood is for a combination of residential uses and compatible professional offices and commercial uses in structures that were originally designed for residential use. They are found in groupings along U.S. Route 460 where compatible commercial uses are feasible and transitioning to office uses have been occurring but where more intensive commercial uses might be detrimental to adjacent residential neighborhoods. It also includes areas within the Overlay District (to be discussed later in this Chapter) where offices and other compatible commercial uses could be compatible and acceptable.

General Residential Considerations- Residential development of any of the above categories can present many challenges. Adequate safe roads and transportation patterns need to be developed. Utilities need to be provided in an equitable and efficient manner. Wetlands must be protected and open space be preserved for safety and environmental concerns. Other amenities are also to be considered such as recreational facilities and parks in order to create a pleasant and hospitable place where people wish to live. The major overall challenge for residential development is to provide these connections and the interaction between new development and existing neighborhoods to create a sense of an inclusive community.

#### Overlay District and Future Study Areas

*Overlay District-* The Overlay District outlined on the Future Land-Use Map encompasses the older or original section of the Town of Windsor. The intent of the Overlay district is to provide for maximum flexibility in the meshing of compatible land uses and lead to the revitalization of this area. In recent years there have been several older homes that were demolished because their continued residential use was not economically feasible. The concerns regarding the older homes are critical for a portion of the neighborhoods on Court Street and Church Street and possibly other areas within the Overlay District. It is thought that on a voluntary basis the current residential properties could be rezoned to a business district with only certain compatible business uses being permitted and other adverse effects being ameliorated through the proffering process. This would alleviate any adverse impacts on the surrounding residential and other nearby uses and permit the older structures to strive and prosper. It is envisioned that parking requirements could be minimized either by on-street parking or the future provision of other public parking nearby or on these streets. These measures would permit the structures to remain economically viable and improve the overall community. Similar flexibility that stresses the compatibility of uses within the rezoning process would be applied in other areas within this overlay District to improve their viability. In this manner, this older core of the Town could be stabilized and revitalized.

The area within the Overlay District where the “mixed use” of compatible business and residential uses would be most beneficial is predicated on the size

of the structures. The areas between the Six Way Intersection northward to A Avenue for North Court Street and from the Six Way Intersection eastward to approximately 48 and 49 Church Street respectively would be the areas where mixed compatible commercial and residential uses would be permissible and could be advocated. Past these limits on North Court and Church Streets, the types of houses generally become smaller and more modern in architecture and mixed uses may not be compatible or possible in these generally smaller residences.

The “mixed uses” will encompass numerous potential permutations. They could be a compatible business use or uses and residential use or uses within the same building; a freestanding compatible business use; or small scale (2-4 units) residential apartments intertwined with or without a business usage. Some leeway is required to permit the Town to determine compatibility. The basic structure of the houses on the streets must remain intact with very little if any expansion of the foot-print permissible. The character of the subject structure involved is paramount and must remain intact.

The following list of potential compatible business uses to the proposed mixed use neighborhood is a guide future rezoning requests. However it was felt that there may be other potential uses and that the Town should have the latitude to determine their compatibility and permit them in the overlay district if compatibility can be insured and the character of the district is insured and possibly enhanced. The uses are as follows;

*Potential Uses (all within existing buildings) in the “Mixed Use Portion” of the Overlay District*

- Offices, general and professional
- Banks and financial institutions, excluding “payday” lending and check-cashing establishments
- Eating establishments
- Personal service establishments (beauty salons, barber shops, nail salons, etc.)
- Business service and office supply establishments
- Office product and computer sales and repair services
- Bed and Breakfast lodgings
- Delivery services at appropriate size for the location with compatible hours
- Child day care facilities
- Shoe and small appliance repair
- Art galleries and sales
- Book stores excluding adult books
- Visitor centers
- Pharmacies
- Retail sales establishments
- Apartments or condominiums (four units or less)

It is also recognized that signage for commercial and mixed uses as well as apartments must be addressed for the Olde Town Windsor District. As a general guide, the following signage may be permissible as proffered in rezoning requests. It is noted that signage should be reviewed on a case by case basis and proffered accordingly. Generally the following signs are permissible;

*Potential Signs) in the “Mixed Use Portion” of the Overlay District*

- Detached free-standing signs constructed of wood or similar materials of no more than 24 square feet, no more than eight feet in height and located no closer than five feet from the sidewalk (for an individual entity)
- Detached free-standing sign constructed of wood or similar materials for two or more contiguous businesses shall not exceed 32 square feet, no more than eight feet in height and located no closer than five feet from the sidewalk
- Directional sign for parking of no more than two square feet
- Sandwich board signs of no more than twelve square feet following per side
- Attached wall signs of no more than 32 square feet encompassing all businesses/entities on the site
- Signs that are illuminated by “on-ground” exterior lighting in such a manner not to impede or visually distract pedestrians, vehicle traffic or shine into neighboring homes or businesses.

All other non-residential or generic sign ordinance requirements shall be in effect for this district

Proffering to ensure compatibility- It is stressed for guidance within the Olde Town Windsor Overlay area where such rezonings are permissible that the potential uses, hours of operation of all commercial establishments and potential signage (discussed below) must be proffered to ensure compatibility.

*Future Study-* The Town should prepare a more in-depth study of this Overlay District as a continuation of the Comprehensive Plan. For the mixed use areas of Church and North Court Streets discussed above, further refinements on how to promote the district through infrastructure improvements such as parking and street art as well as incentives to create mixed uses should be explored.

For the areas outside of the current proposed mixed use area, the study should focus on how to revitalize the residential elements and build a sense of identity for the community. Directions as to how the publicly owned property on Bank Street as well as other vacant or abandoned properties should be the practical focus of the study.

## Commercial

General- This classification represents existing business and projected locations that may be suitable for future development. U.S. Route 460 provides the primary transportation corridor that helps attract new business development in the Town. Much of recent commercial development has been located along this corridor in the annexed areas near the eastern corporate limits of the Town. As more businesses locate along U.S. 460, the need for access management should be considered.

## Industrial

These uses provide significant employment opportunities for people in the county. Location requirements are critical and can vary based upon the specific proposed use. The close proximity of major highways, railroads, and airports as well as adequate public utilities must be considered when projecting future industrial locations. Sensitivity to adjoining properties and the ability to mitigate potential adverse effects associated with industrial use is a major factor in appropriate site design guidelines.

In the future, some industrial development may become feasible in particular in the areas in the southern portion of Town that is adjacent to the Shirley T. Holland Intermodal Park. Before such proposals can be considered favorably, the need for adequate transportation and utility services (sewer, water, etc.) must be provided to create a reasonably safe situation with the impact on nearby traffic patterns and emerging commercial opportunities to be considered. Steps to ameliorate any problems and enhance the benefits that the development may bring should be prime considerations.

## Public Facilities

This classification includes government owned buildings, utility systems, schools, churches, parks, refuse collection sites, public safety institutions and other uses that serve the public. The ability to provide these services and facilities is contingent upon sound planning practices to help make certain that the demand for these facilities and services does not exceed the ability of the government or its entities to provide them. Future investments in these facilities should be a high priority for the public sector in addressing the future needs of the Town of Windsor.

## Agriculture/Forest

There are several major agricultural activities ongoing in the Town of Windsor. Cotton, peanuts and soy beans are the predominant ones and serve as a vital part of the Town and region's economy. There are also significant wooded areas within the Town. Because of their importance, it is vital that these lands

not be viewed as being merely undeveloped land. Steps should be taken to minimize the farming versus urban conflicts that sometimes may occur and permit these operations to flourish within the Town. Both farming and woodlands contribute greatly to the Town's rural character.

### Conservation

These areas include properties where development should not occur due to factors such as flood zones, sensitive wetlands, and soil types that cannot support development. Areas adjacent to these features should be given special consideration to ensure that proposed development does not adversely impact the landscape. Conservation areas in the Town are generally limited to three stream valleys, some of which also serve as drainage basins for regional water supply sources. Critical attention should be paid to preserving these areas in order to assist in habitat management and preservation of high water quality. Establishing these areas as conservation corridors is one of the strategies identified to reduce the fragmentation of these features. Establishing and developing partnerships with other governmental agencies, the private sector, and civic organizations is also a key element for the future preservation of these areas and the benefits they provide.

### **Future Land Use**

The purpose of creating a future land use plan is to help guide the progression of land use toward the goals and objectives of the Town of Windsor. Through implementation of the future land use plan, the Town is able to encourage the efficient delivery of public services and assist in establishing a framework that guides future land use decisions in a manner that promotes the general well being of all people.

As described in previous chapters, the total population of Windsor is projected to increase by approximately 50% by 2040. This would result in a Town population of about 3,950, an increase of about 1,324 people from the 2010 population. This projection would require an additional 533 homes to be built to accommodate population growth. Maintaining the small town character of Windsor, expanding economic opportunities, and preserving the natural environment are some of the considerations that may accompany future growth. The full listing of goals and corresponding implementation strategies are discussed in detail in the next chapter. These goals help shape the overall policy of land development in the Town, and their influence is reflected in land use decisions.

The future land use map contains many significant features designed to reinforce the principles and goals of managing land use for the protection of the health, security, and general well-being of the public. The purpose of projecting future land use is to define areas in the Town that are best suited for specific uses,



including agriculture, residences, public facilities, commercial, industrial, and conservation.

The inclusion of a future land use map in the comprehensive plan does not change existing zoning classifications, nor is it intended to do so. The Town of Windsor's Future Land Use Map (Map 7-3) provides a basis for helping determine if a proposed application for a change in zoning is in accordance with the projected use envisioned by the Town. While every effort is made to promote sound long range planning principles through creation of the future land use map, there may be circumstances in which a projected use may need to be revised. Any amendments to the future land use map are subject to a public hearing and should be reviewed carefully to ensure that the modified plan is consistent with the overall goals of the Town.

Town of Windsor  
Comprehensive Plan

Map 7-1

Current Land Use

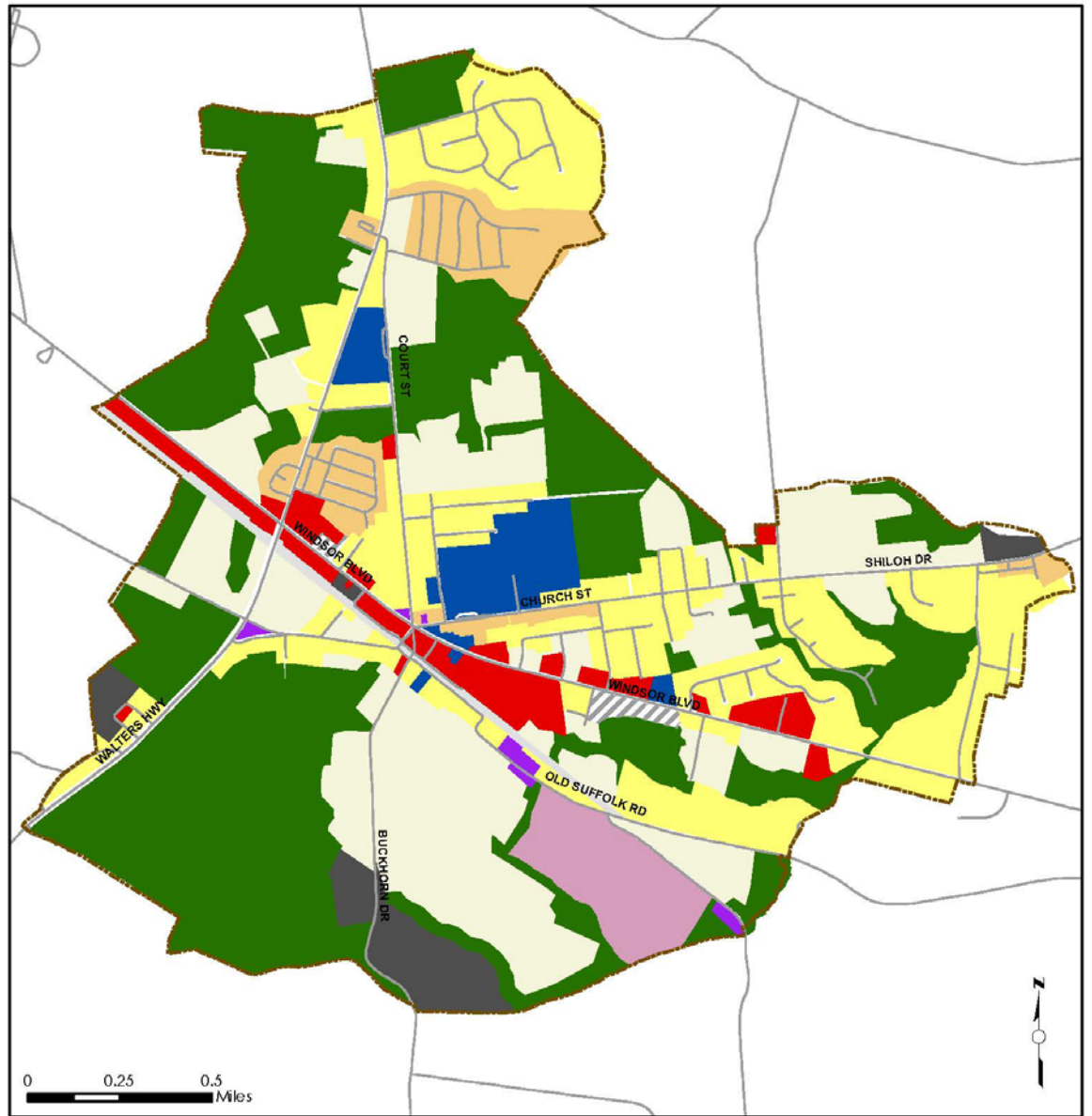
-  Town of Windsor Boundary
-  Roads

Current Land Use

-  Low Density Residential
-  High Density Residential
-  Transitional Residential
-  Rural Residential
-  General Commercial
-  Neighborhood Commercial
-  Light Industrial
-  Institutional
-  Public
-  Forestry
-  Agriculture
-  Railroad Right of Way



Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



Town of Windsor  
Comprehensive Plan

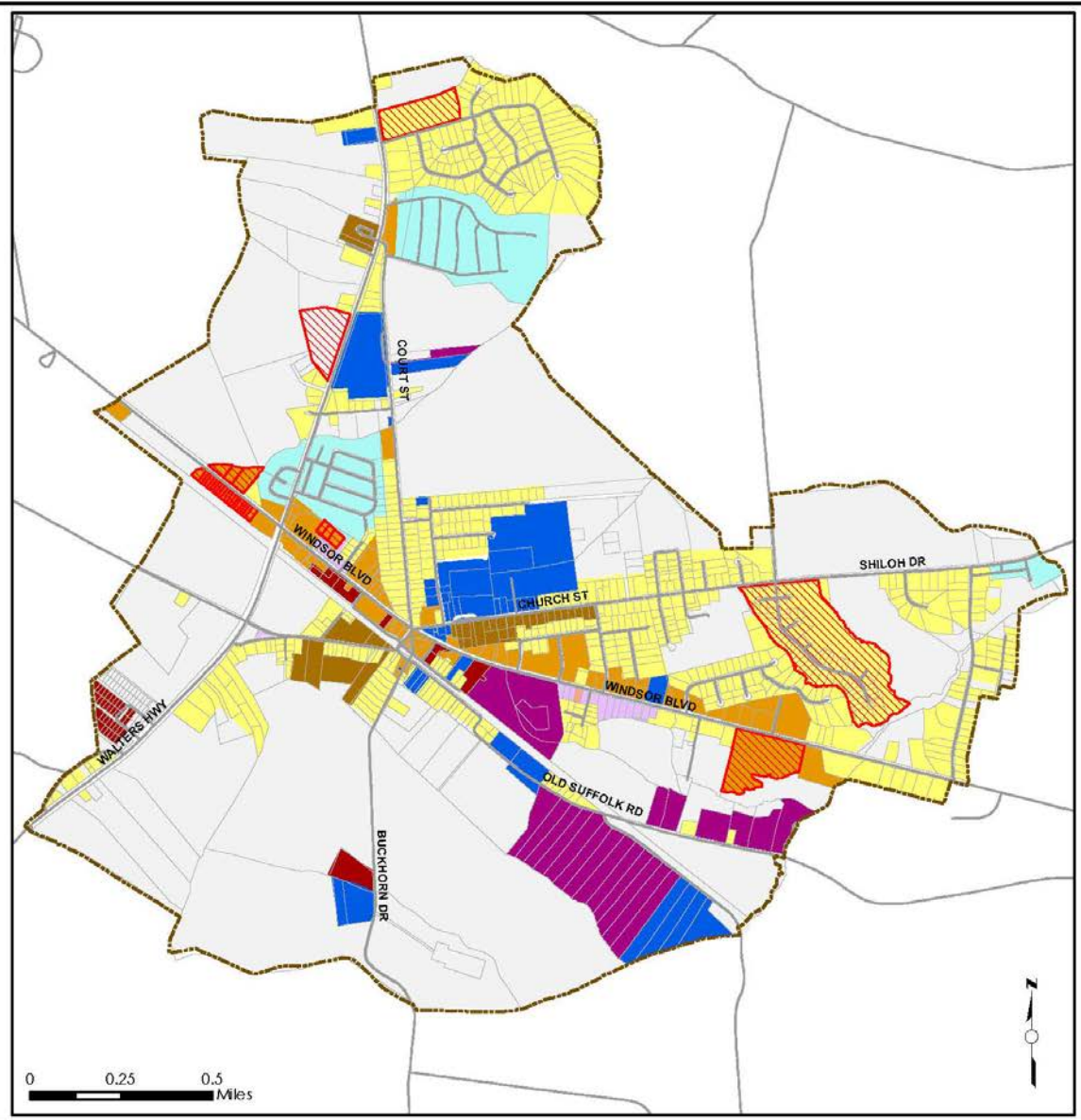
Map 7-2

Zoning Districts

-  Town of Windsor Boundary
-  Parcels
-  Roads
-  A-1
-  B-1
-  B-2
-  M-1
-  PUBLIC
-  R-1
-  R-1MHP
-  R-2
-  R-3
-  R-4
-  Conditional Zoning



Map Created by the Hampton Roads Planning  
District Commission GIS Staff, May 2014



**Town of Windsor  
Comprehensive Plan**

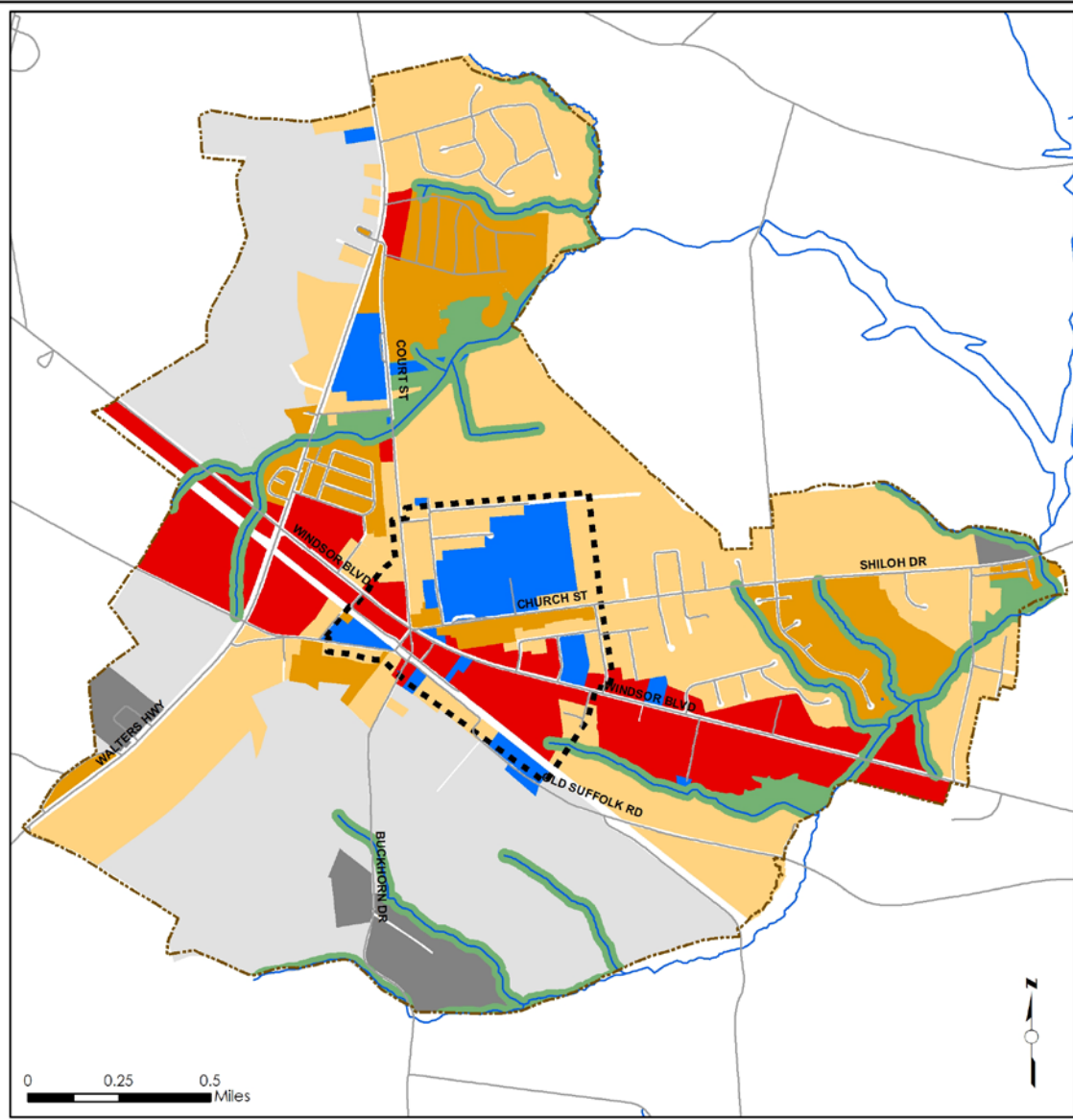
**Map 7-3**

**Future Land Use**

-  Town of Windsor Boundary
-  Roads
-  Future Study Area
- Future Land Use**
  -  Low Density Residential
  -  High Density Residential
  -  Commercial
  -  Industrial
  -  Public/Institutional
  -  Agriculture
  -  Conservation



Map Created by the Hampton Roads Planning  
District Commission GIS Staff, Revised April 2016



## **CHAPTER 8 - GOALS AND IMPLEMENTATION STRATEGIES**

### **Introduction**

It is critical that the vision and concepts within the Comprehensive Plan are implemented. Otherwise it is a useless document. The primary purpose of the Plan is to provide a framework to create the Town that Windsor would like to be. The Future Land Use Map discussed earlier provides the general location for a broad range of activities. It is operationalized by rezonings, subdivision policies and through the enforcement of Zoning regulations and other ordinances of the Windsor Town Code. Most importantly, the proper allocation of public funds within the Capital Improvements Program and Budget process is utilized to implement the policies within the Plan.

In addition to these very basic implementation strategies, the Town felt it was very important to look at three other broad policy areas in greater detail. These are the policy areas of Community Appearance, Economic Development and Transportation.

Within the three policy areas, a three step method is undertaken. The first of these is the over-riding Goal for the policy area. These goals to a degree will never be attained but are goals to strive towards. Then from these goals, a group of manageable but sometimes very difficult objectives are created that the Town should strive toward (or already was moving towards). Finally, on a more immediate level, strategies to implement and obtain the Objective have been created to implement the Objective and further the progress towards the Goal. In this way, progress towards the Objectives and the overall Goal can be measured and the Strategies adjusted and evaluated accordingly in future Comprehensive Plans. New Objectives and Strategies may come to light to be added to the Plan and more importantly in the day to day world of the Town. Strategies that are not working properly can be discarded or amended. Also, other policy areas may be added in future plans.

It is important to keep in mind that Planning like life is a continuous evolutionary process. The locality that feels that there is no further need to plan and examine its circumstances continuously after a Comprehensive Plan is completed is a locality that will not keep up with the many new problems and opportunities that the future brings. It cannot rest on its laurels. The process of policy focusing utilized within this Plan is the means to analyze and bring solutions to the foreseen problems and opportunities. The following are the implementation mechanisms for the three policy areas.

## **Guide for Land Use Decision Making**

As a guide for land use decision-making, the comprehensive plan should be used by the Town's elected and appointed officials and the community as a guide in making decisions that affect land use and development. It is generally accepted that the goals and objectives and the future land use map are decision-making guides and that they do not have the force of law. However, in considering the roles and status of the plan, the Town must remain mindful that the policies and map contained in the plan may be used to support land use decisions at the local, state, and federal level. This may include the denial of permits for areas not slated for development in the comprehensive plan.

The plan and its goals and objectives serve short-term purposes. The plan is used by various sectors. Developers and/or others seeking Town review or intervention may consult the policies to formulate a request that is consistent with the policies, thereby increasing the chances of approval. Town staff will review requests in light of policies, pointing out those policies: (1) that support the request; (2) that are in conflict; and (3) that carry the most weight, thereby shaping the overall staff response. Planning Commission members can make individual determinations as to the consistency of the request with the policies. They may consider staff recommendations, but may choose to give different weights to the policies. The general public can reference the policies when speaking in favor of or against a petition. The Town Council can take into account and weigh the policy interpretations by the petitioner, the staff, the Planning Commission, and residents, as well as its own interpretations and priorities in making its decision.

The plan also serves important long-term functions. It gives guidance to new development management tools and to major adjustments of existing tools. The plan may be used in the development of plans for major capital facilities. And finally, it may guide the development of plans for projects that support implementation of the plan.

The comprehensive plan's function with respect to zoning is to serve as a guide to future review and amendment of the Town's subdivision and zoning ordinances. Once reviewed and amended, proper administration of subdivision and zoning ordinances should require any review of a proposed text or map amendment – whether by the staff, the Planning Commission, or Town Council – to be based on consideration of whether the proposed amendment is consistent with the comprehensive plan and otherwise advances the public health, safety, and general welfare.

Because the comprehensive plan's standards are wide ranging but explicit, it should be the principal guide to the Planning Commission's discussions and actions concerning land use management and development, particularly zoning ordinance amendments. The Commission, however, should also look beyond the

plan and consider whether proposed developments or requests for amendments to zoning or other ordinances, even if consistent with the plan, advance the best interests of public health, safety, and general welfare. This very general criterion calls for consideration of a wide range of issues, including, but not limited to the potential impact of a development or a proposed ordinance amendment on:

- The natural environment: How a proposed development or development allowed by an amendment might affect air quality, water quality, flooding, erosion, important natural areas, etc.;
- Important natural resources: How a proposed development or the development allowed by an amendment might threaten or enhance the continued availability and efficient use of finite natural resources for agriculture or forestry;
- The transportation system: Whether any additional traffic generated by a proposed development or a development allowed by an amendment can be safely and efficiently accommodated by existing transportation facilities;
- The provision of utilities and services: Whether any additional demands for water supply, electricity, refuse collection, fire and police protection, education, health care, recreation, and other services generated by a proposed development or development allowed by an amendment can be safely and efficiently accommodated by public, community, or private utility and service systems;
- The economy: How a proposed development or development allowed by an amendment might affect employment opportunities and the general health of the Windsor economy;
- Important historical, architectural, archeological, and cultural resources: How a proposed development or development allowed by an amendment might threaten or enhance the continued existence and integrity of resources of architectural, archeological, or cultural significance;
- Neighboring development: How a proposed development or development allowed by an amendment might affect living or working conditions in neighboring areas, including whether development might deter or enhance the appropriate development or conservation of neighboring property;
- Community function, character, and attractiveness: How a proposed development or development allowed by an amendment might enhance the attractiveness and functional mix of land uses needed to meet the needs of future populations and avoid adverse impacts; and,
- The provision of affordable and convenient housing: How a proposed development or development allowed by an amendment might affect people's ability to find affordable housing reasonably accessible to their place of employment.

## **Goals, Objectives, and Implementation Strategies**

The goals, objectives, and implementation strategies contained in the Comprehensive Plan are to be integrated into the Town's planning process to help enhance desirable development practices for future growth. Inclusion of these elements in the Comprehensive Plan will also help to determine the future prosperity and general well being of the citizens of the Town of Windsor. It is critical that goals reflect the perceived needs and desires of the citizens based on past and current situations in the Town and projections of future conditions and needs. The failure to implement well-conceived goals is a prime cause of many problems faced by localities today.

The Comprehensive Plan's implementation strategies will be more specific than its goals and objectives. They will delineate the steps to achieve goals. These planning concepts are essential components of this Comprehensive Plan.

Six issue areas have been identified in this plan: Community Appearance, Economic Development, Transportation, Environment, Land Use, and Housing and Community Development. The goals and objectives for each of the issue areas follow, as well as some implementation strategies.

### **COMMUNITY APPEARANCE**

#### **GOAL:**

Create a safe and attractive Town with a sense of Community where people wish to live, work and purchase goods and services.

#### **Objectives:**

Promote policies that lead to "walkability" of the Town's neighborhoods and commercial districts by the provision of sidewalks and street-lights on all viable commercial and residential streets within the Town.

#### **Strategies:**

1. Continue to utilize the Capital Improvements Program to prioritize the construction of new sidewalks with companion street-lighting in a reasonable, responsible manner.
2. Where new development occurs, sidewalks and street-lights shall be provided to the maximum extent possible by the developer, owner or new business where such amenities are currently absent.

#### **Objectives:**

Promote policies that lead to stewardship of public areas such as sidewalks, public buildings, athletic facilities, and recreational parks.

**Strategies:**

1. Ensure that sidewalks and the Town's public areas are free of trash by providing appropriate signage, waste receptacles and on a regular basis providing the removal of litter and storm debris.
2. Continue patrols by the Police Department and other Town Department personnel to ensure compliance with all Town Ordinances.
3. Coordinate with Isle of Wight County Parks and Recreation, Isle of Wight Public Schools and Blackwater Regional Library to ensure that non-Town facilities continue to be managed in a safe, healthy and aesthetically pleasant manner.
4. Encourage by public information, the involvement of citizens and civic groups to assist the Town through "clean-ups" of public areas and "adopt a sidewalk" or other public areas.

**Objectives:**

Promote policies that lead to the protection of property values and improvement of the attractiveness of the Town's neighborhoods and business areas.

**Strategies:**

1. Continue to create a vision for the overall Town and its component elements, its individual neighborhoods and its business areas.
2. Continue to proactively enforce and strengthen the Town's laws relating to "tall grass", outside storage, junk and trash, and inoperative motor vehicles.
3. Work with existing and new home-owners associations and other citizens groups to coordinate and enhance community improvements and aesthetics of the neighborhoods and the Town.
4. Create effective policies to deal with privately owned berms and other common areas in residential, mixed use and other developments to ensure that maintenance is undertaken.
5. Coordinate with the Isle of Wight Building Department for the rehabilitation or demolition of blighted or buildings that cannot be repaired. Measures

should be explored to deal more effectively with absentee and other recalcitrant land-owners.

6. Continually monitor Federal and State programs for grant and other assistance opportunities that can aid in the improvement and enhancement of our neighborhoods and commercial districts.
7. Continue to review State Law and where possible utilize it within the Town's ordinances to create compatible, vibrant commercial and mixed use districts that are aesthetically pleasing.

## **ECONOMIC DEVELOPMENT**

### **GOAL:**

Create a diverse, dynamic economy where business and industry are welcomed and appreciated, citizens can find employment that meets their abilities, ambitions, and personal goals, and where Windsor's future can be successfully assured.

### **Objective:**

Promote policies that encourage the maintenance and expansion of existing business and industry, welcomes new business and industry, and creates a supportive business-friendly atmosphere.

### **Strategies:**

1. Coordinate, utilize and support the Economic Development Authority (EDA) in the prudent use of Industrial Development Bonds and the provision of support Staff by the Town to the EDA for its various activities including some of which are strategies enumerated below.
2. Continue to refine and update the data-base for vacant commercial buildings and properties, with said data base to be disseminated onto the Town, County and other relevant websites and pertinent media sources for such information, and assist prospective business in finding appropriate locations where their enterprises will be successful.
3. Promote, expand and utilize the incentives of the Tourism District to create new opportunities for existing businesses that wish to expand and to attract new business to locate within the Town.
4. Proactively contact and create a relationship with "target" businesses for potential location within the Town.

5. Continue to work with the Isle of Wight County Industrial Development Authority for mutual assistance and incentives for projects within and outside of the Town that lead to new and expanded business opportunities within the Town.
6. Continually monitor Federal and State programs for grant and other assistance opportunities that incentivize the expansion or location of businesses or improve commercial or industrial site development within the Town.
7. Review the potential economic and social benefits and impacts of expanding compatible commercial, whether as mixed or as multi-use into the proposed Olde Town portion of Town as well as other future residential areas of Town.

## **TRANSPORTATION**

### **GOAL:**

Create a safe, efficient and well-maintained Transportation System which serves all of the Town's present and future needs and protects its citizens.

### **Objective:**

Promote policies that encourage the Virginia Department of Transportation (VDOT), Isle of Wight County, Hampton Roads Transportation Planning Organization, Norfolk-Southern Railroad, the private sector and other relevant public agencies to develop, expand and support efficient and safe modes and routes of transportation into, within and out of the Town to serve the needs of present and future generations.

### **Strategies:**

1. Study, plan and support proposals that lead to improvements at critical intersections such as the intersection of U.S. Route 460 and U.S. Route 258 and the "Six Way Intersection" at U.S. Route 460, Court Street, Church Street and Bank Street. Advocate and lobby for these proposals for inclusion into the Isle of Wight County Six Year Transportation Plan and with the Hampton Roads Transportation Planning Organization when required. Secure funding from the Virginia Department of Transportation for said projects so that the improvements may be constructed in a timely manner.
2. Support and lobby Isle of Wight County for the inclusion of major transportation projects that effect or influence the Town's growth and

development in beneficial ways into the Hampton Roads Transportation Planning Organization's transportation plans.

3. Work with the private sector to insure that the policies of inter-parcel access and interconnectivity of areas of the Town are followed when new development or redevelopment occurs.
4. Continue to review development proposals and growth patterns for opportunities to link major transportation arteries and areas of the Town wherever possible.
5. Support the utilization of alternative transportation modes such as light passenger rail and bus routes with stations in Windsor, in order to relieve automobile traffic congestion and potential air pollution. Create and support other transportation alternatives such as bicycle and walking/hiking routes and trails to schools, work and for recreation to both ease automobile use and promote physical fitness.

## **ENVIRONMENT**

### **GOAL: (PHYSICAL CONSTRAINTS TO DEVELOPMENT)**

Promote land use patterns which protect and enhance local water quality and which reflect the physical limitations to development.

#### **Objectives:**

- Direct future growth and development away from all identified wetlands, floodplains, drainageway and creek embankments, steep topography, highly permeable and erodible soils, and other environmentally sensitive areas of the Town.
- Encourage compact, efficient patterns of development that will minimize consumption of land, and help preserve the Windsor area's rural character.

#### **Strategies:**

1. Consider establishing a Resource Conservation District in the Town Zoning Ordinance, consistent with district definitions used in Isle of Wight County. Limit future development within the Resource Conservation Area to passive park and recreation uses, resource-related research and activities, and other water dependent uses.
2. Encourage continued agricultural use and limited residential development (rural density) within the corporate area where prime agricultural lands,

hydric soils, high water table or subsurface drainage problems are prevalent.

3. Consider clustering and planned unit development (PUD) concepts in areas which can accommodate higher density development, while retaining on-site open space and natural features. Consider establishing a PUD Overlay District in the Town Zoning Ordinance to encourage such forms of development.
4. Encourage the donation of permanent open spaces, wooded areas and parks and environmentally sensitive areas to the Town or non-profit organizations for tax credits or other development benefits.
5. Conserve, protect or provide tree cover on developed or developing sites.
6. Promote, where practicable, the use of pervious materials in land development.
7. Prohibit and/or discourage land uses that generate unnecessary air, land, water, noise and solid waste pollution.
8. Apply fairly and consistently the Town's adopted Chesapeake Bay Preservation Area Ordinance to all new development and redevelopment occurring in the Town.
9. Encourage stronger cooperation between the Town and the County in sharing environmental information and staff expertise, and in coordinating environmental review of projects and proposals impacting both jurisdictions.
10. Educate the citizenry and local officials on the interrelationship of land use, water quality and sustainable economic development.

#### **GOAL: (PROTECTION OF POTABLE WATER SUPPLY)**

Conserve and protect the surface and ground water resources found in Windsor and the surrounding region.

##### **Objectives:**

- Ensure potable water supplies are reasonably protected from both natural and man-made contaminants.
- Promote conservation of regional water resources and make efforts to reduce or minimize local water demand.

- Encourage public awareness of the impacts on water resources from unnecessary, wasteful, or outmoded practices.
- In cooperation with agencies having regulatory oversight over point and non-point source pollution, manage such sources to minimize and reduce, where possible, existing sources of pollution.

### **Strategies:**

1. Through local zoning enforcement and site plan reviews, manage land use and monitor development practices in or proximate to surface water features, such as creeks, swamps, drainageways and wetlands.
2. Apply the Town's Bay Act performance criteria and best management practices to all development proposals within Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) to the extent that it is reasonably practicable.
3. Ensure adequate enforcement of the County's Erosion and Sediment (E&S) Control Ordinance and Floodplain Management Ordinance. Restrict development or disturbance activities within the Town's 100-year floodplain.
4. Forward all applicable site plans and land use applications which may impact surface or ground water resources to the appropriate County, State and Federal regulatory agencies for review and comment.
5. In cooperation with the Department of Environmental Quality (DEQ) and the Hampton Roads Planning District Commission (HRPDC), participate in the ongoing study, planning and management of regional groundwater resources.
6. Monitor the State Department of Health's Septic and Well Permits and the Department of Environmental Quality Water Division's Notice(s) of Violations, when such activities may involve sites in or near the Town.
7. Working with the County and the HRPDC, participate in HR WET, a public education program which promotes water conservation practices through use of native, low-maintenance landscaping, low-flow toilet and showerhead fixtures, and other methods that reduce domestic water consumption.
8. In cooperation with the Department of Health, work to ensure that the Town's municipal water system fully complies with the appropriate drinking water standards.

9. Evaluate, based on ongoing regional water studies, the need for and appropriateness of establishing a wellhead protection program.
10. Pending completion of that evaluation, reconsider Town zoning boundaries, and downzone where appropriate to establish wellhead protection zones around existing and planned municipal wells. Incorporate other wellhead protection methods as needed into local land use ordinances.
11. Continue working with the HRPDC to develop and implement a stormwater program to manage stormwater quantity and quality and meet evolving state regulations.
12. Working with the County and the HRPDC, participate in HR STORM, the regional stormwater education program, which also addresses good housekeeping at town facilities.
13. Continue participating with the region's other localities and the HRPDC to develop and refine stormwater programs in accord with the Hampton Roads Regional Stormwater Program Memorandum of Agreement.
14. In cooperation with the region's other local governments, continue working through the HRPDC to develop a regional water supply plan.

### **GOAL: (STREAMBANK EROSION CONTROL)**

Identify erosion-prone areas throughout the Town and develop feasible methods and programs to mitigate erosion problems.

#### **Objectives:**

- Prohibit development in areas with critically eroding streambanks. In more stable streambank areas, mitigate potential erosion problems through best management practices, including the effective use of silt fences, landscape fabrics, hydroseeding and other soil stabilization measures.
- Ensure adequate enforcement of the County's Erosion and Sediment (E&S) Control Ordinance and monitor enforcement procedures as new technology and practices become available.
- In conjunction with the County and possible funding agencies, investigate the feasibility of constructing a unified storm drainage system to correct major ponding and runoff problems in the Town.

- In conjunction with the Peanut Soil and Water Conservation District, assist agricultural landowners in and near the Town to prepare and implement Soil and Water Conservation Plans as required by the CBPA Ordinance.

### **Strategies:**

1. As funding for stormwater management becomes available, limit use of curb and gutter and subsurface conveyances to the most urbanized portions of Town. In low-density residential areas, retain roadside drainage ditches and grass swales to promote natural infiltration of stormwater.
2. Obtain copies of the County's E&S Plans for all major construction projects occurring within the Town, and monitor compliance with those plans throughout the duration of construction activity.
3. Publicize and advocate local participation in the USDA's "Agricultural Conservation Program", which may provide agricultural landowners with cost share assistance to implement best management practices. Encourage participating landowners to fully implement agricultural conservation plans upon their completion.
4. In erosion-prone areas undergoing development, promote the use of deep-rooted plant species that can become quickly established and help anchor the soil. In such applications, use plant varieties (grasses, groundcovers and shrubs) recommended in the Vegetative Practices Guide, produced by the HRPDC.
5. Continue working with the HRPDC to develop and implement a stormwater program to manage stormwater quantity issues that may cause erosion.
6. Working with the County and the HRPDC, participate in HR STORM, the regional stormwater education program, which addresses methods for addressing stormwater runoff.
7. Continue participating with the region's other localities and the HRPDC to develop and refine stormwater management programs in accord with the Hampton Roads Regional Stormwater Program Memorandum of Agreement.

### **GOAL: (WATER QUALITY & REDEVELOPMENT ISSUES)**

Ensure that water quality concerns will be considered and addressed as public and private redevelopment efforts occur within the Town.

**Objectives:**

- Identify and legally dispose of all hazardous waste materials found at redevelopment sites prior to demolition/site clearance.
- Encourage the reduction of impervious surfaces, reintroduction of landscaping and water quality BMPs, and the dedication of open space upon site redevelopment.
- Provide incentives to reduce lot coverage, particularly in commercial districts, by amending provisions in the Town zoning ordinance.

**Strategies:**

1. Monitor all demolition activity occurring within the Town and notify the County building official as to any hazardous waste observed at unpermitted sites (e.g. underground storage tanks, aboveground oil tanks and barrels, asbestos materials, lead paint, other potential hazards).
2. Ensure that all publicly-financed redevelopment projects fully comply with existing state and federal laws governing asbestos inspections and removal, solid waste disposal, landfill regulations, and hazardous waste disposal.
3. In coordination with County review officials, establish procedures to protect and enhance water quality during the review of development and redevelopment proposals.
4. In conjunction with the County, submit grant applications for the Indoor Plumbing Program and the Virginia Water Project, so as to provide adequate indoor plumbing, properly abandon private wells and privies, and underwrite sewer hook-ups fees for low-to-moderate income residents.
5. Encourage, where practical and feasible, the retrofitting of water quality BMPs, into sites where major building alterations, additions or substantial reconstruction is planned.
6. Through use of local funds or available grants, institute an incentive program aimed at reintroducing on-site landscaping, water quality BMPs, and open space, particularly in downtown commercial and semi-public areas undergoing revitalization or redevelopment.
7. Re-evaluate density, height/setback, and parking standards in commercial zoning districts of Town. Eliminate or amend provisions which work at

cross-purposes with water quality. Where appropriate, add incentives to reduce lot coverage, encourage landscaped setbacks, and limit surface parking to actual day-to-day needs.

8. Require landscaped islands and tree plantings in all surface parking lots, by amending the Town zoning ordinance.
9. Expand public (municipal/county) ownership of open spaces, greenways, and parkland within the Town.

## **LAND USE**

### **GOAL:**

Encourage harmonious and wise use of the land in all future development decisions.

### **Objectives:**

- Provide adequate governmental services including public utilities to meet the needs of Windsor's citizens.
- Encourage new development in Windsor to be consistent with and complement the existing built environment of the Town.
- Reserve sufficient land for various purposes to meet the needs of the year 2035 population.

### **Strategies:**

1. Coordinate development with the provision of public utilities and services.
2. Coordinate land use planning and site selection with adjacent County plans and policies.
3. Concentrate development in appropriate locations by encouraging more efficient site design, sharing of access, parking and utility services.
4. Plan for the location of shopping and employment centers, offices, needed service facilities and industries in a manner compatible with other land uses in the Town.
5. Encourage planning for land use both within and outside the Town on a cooperative basis with Isle of Wight County.

### Residential

- a. Encourage the development of a variety of housing types and densities consistent with existing neighborhoods.
- b. Coordinate residential development with the provision of public utilities and services.
- c. Prevent conflicting land uses from encroaching upon existing viable neighborhoods.
- d. Encourage use of multifamily areas as a transition area between single-family dwelling areas and more intensive land uses in commercial and industrial zones.
- e. Encourage development of master-planned communities or developments which incorporate traditional neighborhood design (TND) concepts. Such concepts typically include smaller front yards, grid street patterns with a clearly defined streetscape, emphasis on pedestrian circulation, open space areas and other features which together foster a sense of community.
- f. Create a flexible, multifaceted housing strategy. Encourage the development of workforce housing as part of new developments located in the Town.

#### Commercial

- a. Encourage commercial uses to locate in or near the existing commercial centers.
- b. Promote compact rather than strip commercial development
- c. Encourage the rehabilitation and adaptive use of vacant commercial buildings in the old commercial sector
- d. Improve the quality of future development and redevelopment through improved site planning, landscaping, and other amenities which contribute to neighborhood and community character.
- e. Consider providing for new commercial development related to the proposed alignment of the U.S. 460 bypass.

#### Industrial

- a. Select and plan future industrial sites as near as possible to major transportation and utility lines.

- b. Develop a more diversified economic base by attracting more industries to the Windsor/central Isle of Wight County area.
- c. Coordinate with Isle of Wight County to promote the development of the intermodal park to serve the expanding Port of Virginia and support local efforts to further develop Shirley T. Holland Commerce Park.
- d. Provide for adequate buffering and screening of industrial uses to minimize any adverse impact on surrounding properties.

## **HOUSING AND COMMUNITY DEVELOPMENT**

### **GOAL:**

Encourage the provision of decent, safe and sanitary housing in a suitable living environment for all of the town's citizens regardless of race, gender, age or income level.

### **Objectives:**

- Encourage infill and traditional neighborhood development concepts.
- Encourage the construction of retirement housing, assisted living centers and other housing geared to the elderly and disabled.
- Encourage and support the strengthening of neighborhoods; encourage organization, action and self-sufficiency among neighborhood groups.

### **Strategies:**

1. Maintain and improve housing throughout the Town through housing code enforcement and use of state and federal housing programs, including Community Development Block Grants (CDBG), Virginia Indoor Plumbing Rehabilitation (IPR) Program, and local weatherization programs.
2. Provide opportunities for diversity of housing types including apartments, townhouses, duplexes as well as small- and large-lot single family.
3. Demolish and clear abandoned, blighted structures that constitute a public safety hazard, through code enforcement, redevelopment actions and other means as provided by law.