

## town resource analysis

### I. INTRODUCTION

This chapter of the 2027 Comprehensive Plan is intended to present background information and statistics on the Town of Knightdale and how the Town has changed over the last several years. This data is provided to give some context to the community goals, objectives, and policies that follow in subsequent chapters. The Town Resource Analysis chapter contains data and analysis regarding seven primary areas:

- Geography
- Land Use and Land Values
- Population and Demographics
- Housing and Commercial Real Estate Data
- Historic Resources
- Economic Character
- Environment and Natural Resources

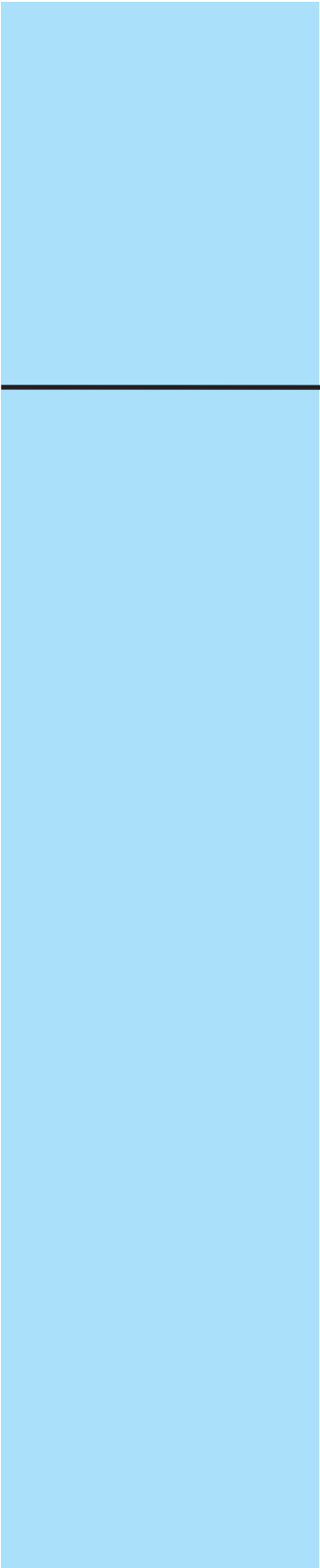
### II. GEOGRAPHY

Knightdale is one of twelve municipalities located within Wake County, North Carolina. The Town is situated approximately six miles east of the City of Raleigh across the Neuse River. Knightdale is predominately an agrarian town with over 44% of the overall planning area used for agricultural production. 18.9% of the planning area is currently developed for residential usage with an emphasis on detached single-family home development. Less than 0.1 % of the total residential development is used for apartments and high-density development. Currently, 15.9% of the area is vacant and in transition awaiting a new classification. The remaining 21.1% is classified as commercial, industrial or exempt land uses that include utility company property, churches, and schools.

The planning area for the Town of Knightdale is composed of four geographic units or subareas:

- The Corporate Limits
- The Extra-territorial Jurisdiction
- The Short Range Urban Service Area
- The Long Range Urban Service Area.

These boundaries have been established through enabling legislation from the State of North Carolina, as well as by mutual cooperation with Wake County and surrounding municipalities.



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The Corporate Limits is the area that is incorporated, or within the defined city limits of Knightdale. Knightdale collects taxes from citizens and properties within this area, while providing the full range of municipal services, like police and fire protection.

The Extra-territorial Jurisdiction (or ETJ) is an area surrounding the city limits which projects outward for approximately one mile from the city limits. The Town of Knightdale has the authority to complete land use planning for this area, though taxes in this area are not collected by the Town. As new development occurs within the ETJ, the Town requires that new development submit a voluntary annexation petition. This allows Knightdale's city limits to grow.

The Short Range Urban Service Area (or SRUSA) is a band around the Town's ETJ on the northern, eastern and southern sides. This is an area which will eventually come under the land use planning jurisdiction of, and ultimately be, annexed by the Town of Knightdale. Typically, land use planning control is extended as Knightdale pushes its ETJ boundary outwards from the corporate limits as new development locates proximate to the city limits. When the SRUSA was originally developed in 1997, it was envisioned by Knightdale and Wake County that Knightdale would extend urban infrastructure (such as roads and sewer lines) throughout the Short Range Urban Service Area within ten years, or by 2007.

The Long Range Urban Service Area (or LRUSA) represents the ultimate extent of Knightdale's City Limits and planning jurisdiction at some point in the future. The LRUSA is bounded on the north and south by the City of Raleigh's LRUSA, and on the east by the Town of Wendell's LRUSA. Knightdale currently has no control over land use planning within its LRUSA. Figure 3.1 shows each of the four geographic subareas which compose Knightdale planning area.

**Figure 3.1 Knightdale Planning Area Boundaries**

Previous land use planning efforts in Knightdale have not included the area beyond the ETJ boundaries, but changing conditions now warrant that the 2027 Comprehensive Plan consider all of the ultimate planning area.

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**See Figure 3.1 Knightdale Planning Area Boundaries Map**



Table 3.1 shows the number of individual parcels and the various boundary sizes of the parts composing the Knightdale planning area. The Knightdale planning area is composed of over 6,000 parcels, occupying over 31 square miles. Approximately 40% (12.7 square miles) of this area is composed of the Corporate Limits and the ETJ. Knightdale has a somewhat small planning area, and will have to grow in a compact fashion to make the best possible use of the available land.

**TABLE 3.1:**  
**Number of Parcels and Physical Size for Knightdale Boundaries, June 2001**

	<b>Corporate Limits</b>	<b>Extra-Territorial Jurisdiction</b>	<b>Short Range Urban Service Area</b>	<b>Long Range Urban Service Area</b>	<b>TOTALS</b>
Number of Parcels	2,437	1,268	1,165	1,446	6,316
Gross Acres	1,757.0	6,369.5	8,986.5	3,043.1	20,156
Square Miles	2.75	9.95	14.04	4.75	31.49
Percent of Total Square Miles	8.7%	31.6%	44.6%	15.1%	100.0%

Source: Wake County GIS (Property Appraiser's Office Data) as of 6/1/01

**FIGURE 3.2:**  
**Planning Area Sizes (percent of total)**

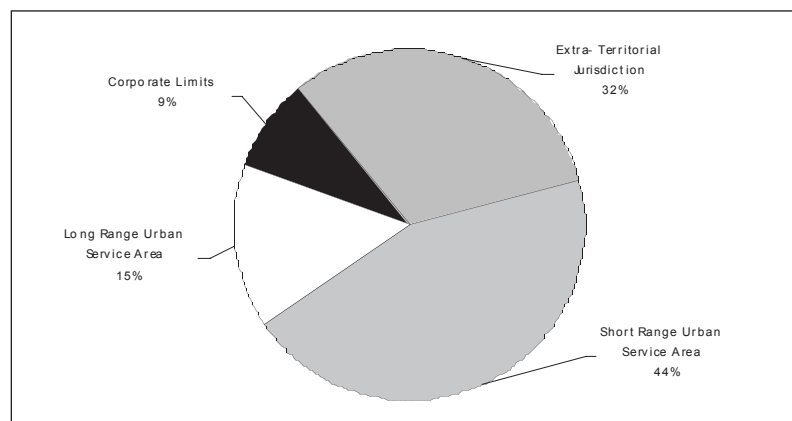




Table 3.2 charts the population growth and annexation statistics for the Town of Knightdale during the 1990s. According to the North Carolina Office of State Planning, the population within the Knightdale Corporate Limits increased by over 3,000 people from 1990 to 1999. The vast majority of this population growth is a result of annexations.

The Corporate Limits almost doubled in size from 1.38 square miles to 2.65 square miles over the 1990s, picking up over 812 acres. One of the reasons for this increase is that Knightdale requires new development occurring outside the Corporate Limits to submit a petition for annexation as a part of the development approval process. If past development trends can be used to predict the future, it is likely that the rate of Knightdale's geographic expansion will increase in the coming years.

**TABLE 3.2:  
Population Growth and Annexation in the Town of Knightdale, 1990-1999**

4/1/90 Population *	1,884
7/1/99 Population	5,242
Population Increase from 1990-1999	3,358
Amount of 7/1/99 Population within Area Annexed from 1990-1999**	2,841
"Core" Population Growth ***	517
Corporate Limits Land Area on 4/1/90 (in sq. mi.)	1.38
Corporate Limits Land Area on 7/1/99 (in sq. mi.)	2.65
Amount of Land Annexed Between 4/1/90 and 7/1/99 (in sq. mi.)	1.27
Amount of Land Annexed Between 4/1/90 and 7/1/99 (in acres)	812.80

Source: NC Office of Statewide Planning

\* Source: US Census of Population & Housing

\*\* This is the population (as of 7/1/99) contained within all the areas annexed from 4/1/90 to 7/1/99

\*\*\* This is the amount of population increase which occurred within the Corporate Limits Land Area (as it existed on 4/1/90) from 4/1/90 to 7/1/99

### III. POPULATION

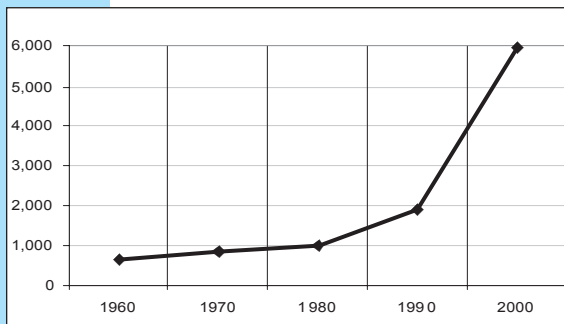
Table 3.3, Figures 3.3 and Figure 3.4 show the changes in the population within Knightdale's Corporate Limits for the last 40 years according to the Census. The Town's population has grown from approximately 600 people in 1960 to almost 6,000 people by 2000, an increase of 857% over this period. Growth rates have picked up over time as well. Knightdale's population almost doubled between 1980 and 1990, and quadrupled between 1990 and 2000. If population growth in other comparable Triangle cities can be used as a model, it is likely that these trends in population growth will continue well into Knightdale's future.

**TABLE 3.3:**  
Changes in Town of Knightdale Population, 1960-2000

<i>Year</i>	<i>Population</i>	<i>Numeric Increase From Previous Count</i>	<i>Percent Increase From Previous Count</i>
1960	622	-	-
1970	815	193	31.0%
1980	985	170	20.9%
1990	1,884	899	91.3%
2000	5,958	4,074	216.2%

Source: US Census of Population and Housing

**FIGURE 3.3:**  
Changes in Knightdale  
Population, 1960-2000



**FIGURE 3.4:**  
Percent Increase in Knightdale  
Population, 1970-2000

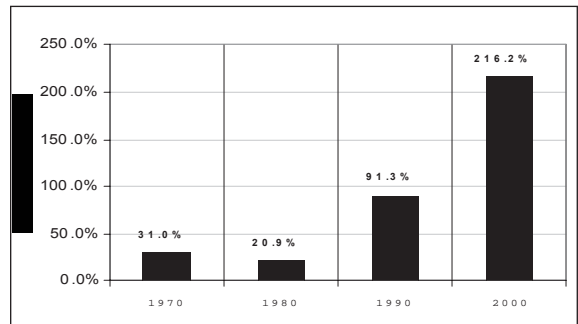


Table 3.4 and Figure 3.5 chart the 2000 population for the Knightdale Corporate Limits as well as the three other sub-areas of the Knightdale Planning Area. The population within the overall planning area is over 15,000 people.

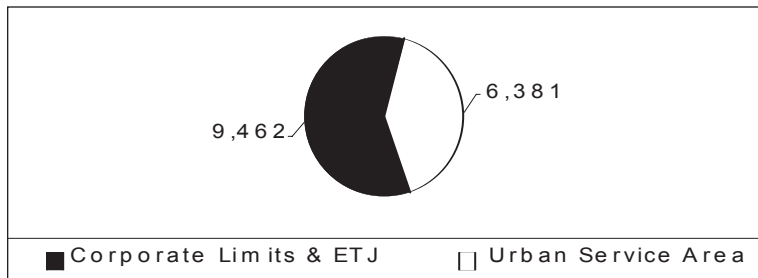
**TABLE 3.4:  
Population by Knightdale Planning Area, 2000**

Area	2000 Population	Percent of Total
Corporate Limits	5,958	37.6%
Extra-territorial Jurisdiction	3,504	22.1%
Short Range Urban Service Area	3,104	19.6%
Long Range Urban Service Area	3,277	20.7%
Totals	15,843	100.0%

Source: US Census of Population & Housing Block-level Data

Note: Some area boundaries were adjusted to follow census block boundaries for deriving population

**FIGURE 3.5:  
2000 Population by Planning Area**



The population within the Corporate Limits accounts for less than 40% of the Planning Area's population. It is interesting to note that the Short Range Urban Service Area contains less than 20% of the Planning Area's population, but almost 45% of the total land area. This means that population densities within the Short Range Urban Service Area may be somewhat low. Population within the Long Range Urban Service Area is almost entirely concentrated within four large subdivisions located adjacent to South Smithfield Road.

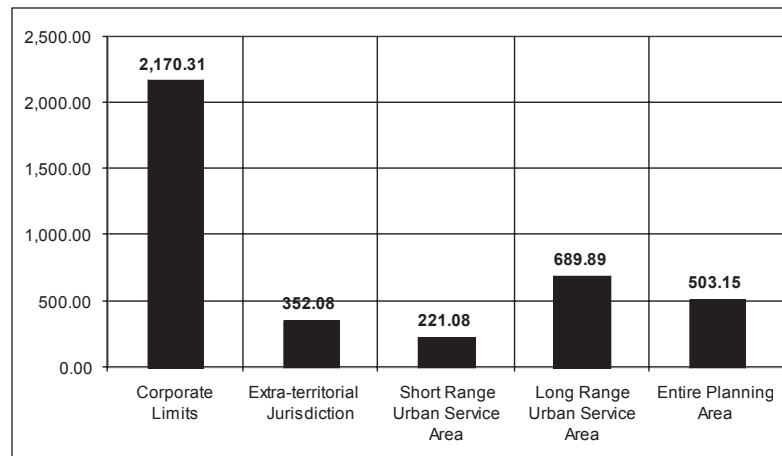
Table 3.5 and Figure 3.6 combine the information contained within the previous charts to illustrate the population density. Population density is the number of people per unit of space, such as square miles or acres. Population densities are higher (over 2,000 people per square mile) within the Corporate Limits due to the large amount of urbanized land within the urban area.

**TABLE 3.5:**  
**Population Density for the Knightdale Planning Area, 2001**

	<i>2000 Population</i>	<i>Size in Square Miles</i>	<i>Size in Acres</i>	<i>Population Density per Square Mile</i>	<i>Persons per Acre</i>
Corporate Limits	5,958	2.75	1,756.95	2,170.31	3.39
Extra-territorial Jurisdiction	3,504	9.95	6,369.46	352.08	0.55
Short Range Urban Service Area	3,104	14.04	8,986.54	221.08	0.35
Long Range Urban Service Area	3,277	4.75	3,043.09	689.89	1.08
<b>Entire Planning Area</b>	<b>15,843</b>	<b>31.49</b>	<b>20,156.04</b>	<b>503.15</b>	<b>0.79</b>

Sources: US Census of Population & Housing; Wake County GIS (Property Appraiser's Data as of 6/1/01)

**FIGURE 3.6:**  
**Population per Square Mile**



Population densities drop off very rapidly within the ETJ and SRUSA due to these areas' larger land masses, and smaller populations. The trend reverses within the Long Range Urban Service Area, in part as a result of the boundary's smaller size. However, the population density is four times higher in the LRUSA than in the SRUSA. This indicates that the land within the LRUSA is much more developed than the land in the SRUSA; a fact which could make future annexations in these areas more difficult.



## IV. DEMOGRAPHICS

The following tables and figures provide more information on the attributes of the population within the Town of Knightdale. The table showing gender characteristics indicates that over 50% of the population in Knightdale is female, and is increasing over time.

**TABLE 3.6:**  
**Gender Characteristics for the Town of Knightdale, 1990 & 2000**

	<b>1990</b>	<b>2000</b>
Number of Males	906	2,783
Percentage of Males	48.1%	46.7%
Number of Females	978	3,175
Percentage of Females	51.9%	53.3%
<b>Total Population</b>	<b>1,884</b>	<b>5,958</b>

*Source: US Census of Population & Housing*

The age structure is also a very important characteristic as it relates to the various needs of the population, such as provision of schools, employment, and service needs. Age groups have been broken down into logical divisions: young children (ages 0-4), school age children (ages 5-19), the working age population (ages 19-64), and the retirement age population (65+).

**TABLE 3.7:**  
**Town of Knightdale Population By Age Group, 1990 & 2000**

<b>Age Group</b>	<b>1990</b>	<b>1990 Percent of Total</b>	<b>2000</b>	<b>2000 Percent of Total</b>
0-4 (Young Children)	174	9.2%	561	9.4%
5-19 (School-age Children)	215	11.4%	858	14.4%
20-64 (Working-age Population)	1,212	64.3%	3,668	61.6%
65+ (Retirement-age population)	111	5.9%	303	5.1%
<b>Total Population</b>	<b>1,884</b>	<b>100.0%</b>	<b>5,958</b>	<b>100.0%</b>
<b>Median Age</b>	<b>31.0</b>	<b>-</b>	<b>30.5</b>	<b>-</b>

*Source: US Census of Population & Housing*

Table 3.7 shows that there have been numeric increases across all age groups from 1990 to 2000, but the fastest growing age group is the school-age population, which increased by 300% between 1990 and 2000.

The number of young children and retirement age populations comprised the same proportion of the population between 1990 and 2000 (10% and 6% respectively); but

the working age population declined as a portion of the overall population from 71% to 68%. These figures indicate a greater need for schools and other school-related services, and a smaller working-age population to support these expenditures.

Table 3.8 shows the racial composition of Knightdale, and indicates that Knightdale is becoming more racially diverse. Caucasians declined from almost 90% of the population in 1990 to just under 70%. African-Americans increased over 800% over the decade. The large percentage increase in the "Other Races" category is a function of a different report style utilized by the Census in 2000 which allowed participants to enter one or more races. The Hispanic ethnic group also experienced substantial increases over the period.

**TABLE 3.8:  
Racial Characteristics for the Town of Knightdale, 1990 & 2000**

<b>Race</b>	<b>1990</b>		<b>2000</b>		<b>Percent Change from 1990-2000</b>
	<b>Number</b>	<b>% of Total</b>	<b>Number</b>	<b>% of Total</b>	
Caucasian	1,692	89.8%	4,043	67.9%	138.9%
African American	170	9.0%	1,599	26.8%	840.6%
American Indian	0	0.0%	21	0.4%	-
Asian/Pacific Islander	12	0.6%	89	1.5%	641.7%
Other Race *	10	0.5%	206	3.5%	1960.0%
Total Population	1,884	100.0%	5,958	100.0%	216.2%
Hispanic **	28	1.5%	220	3.7%	685.7%

Source: US Census of Population & Housing

\* The large increase in the "Other Race" category is attributable to the Census creation of a Two or More Races Category for the 2000 Census

\*\* Hispanic origin is considered to be an ethnic group, not a race by the US Census

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Table 3.9 shows the educational attainment of persons in Knightdale in 1990. Approximately 41% of the population within the Corporate Limits had an Associates Degree or higher. Only 11 % of the population lacks a high school degree.

**TABLE 3.9:**  
**Educational Attainment in the Town of Knightdale, 1990**

<i>Amount of Education</i>	<i>Number of People</i>	<i>Percent of Total</i>
Less than 9th Grade	50	4.1%
9th to 12th Grade, No Diploma	91	7.4%
High School Graduate	332	26.9%
Some College, No Degree	251	20.4%
Associates Degree	121	9.8%
Bachelor's Degree	303	24.6%
Graduate or Professional Degree	84	6.8%
Percent High School Graduate or Higher		88.6%
Percent Bachelor's Degree or Higher		31.4%

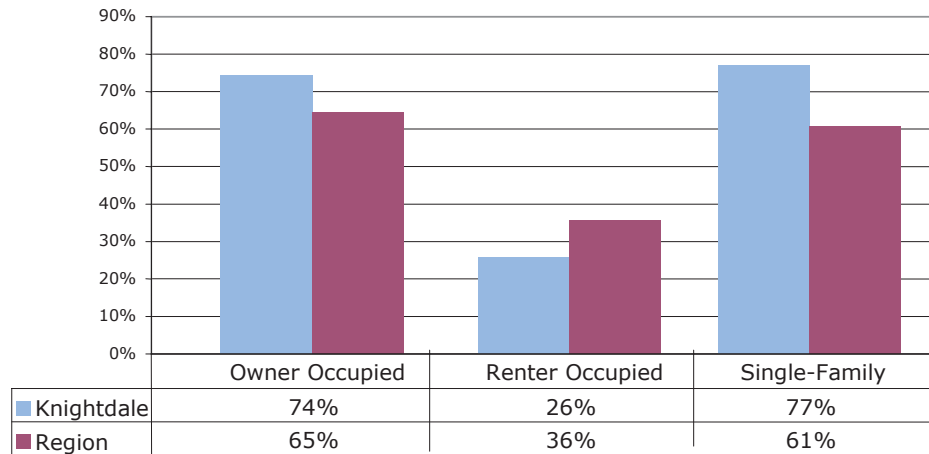
*Source: US Census of Population*

## V. HOUSING AND COMMERCIAL REAL ESTATE MARKET

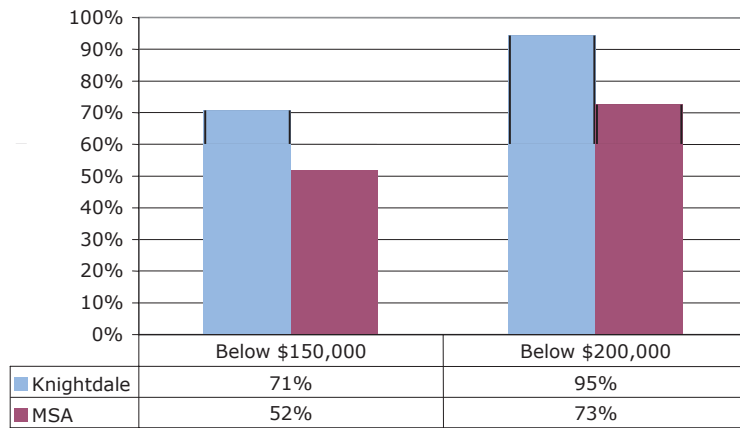
### A. Introduction

Knightdale's housing market is dominated by affordable owner-occupied housing. Much of the housing in Knightdale has been developed and marketed to consumers seeking more value than they could get in many of the region's larger and faster growing housing markets (i.e. Cary, North Raleigh, Apex). Knightdale's housing market is also dominated by single-family housing, a common occurrence in outlying suburban communities with relatively affordable land pricing.

**FIGURE 3.7: Knightdale & Raleigh-Durham Region Housing Statistics**



Source: Karnes Research, 2002.

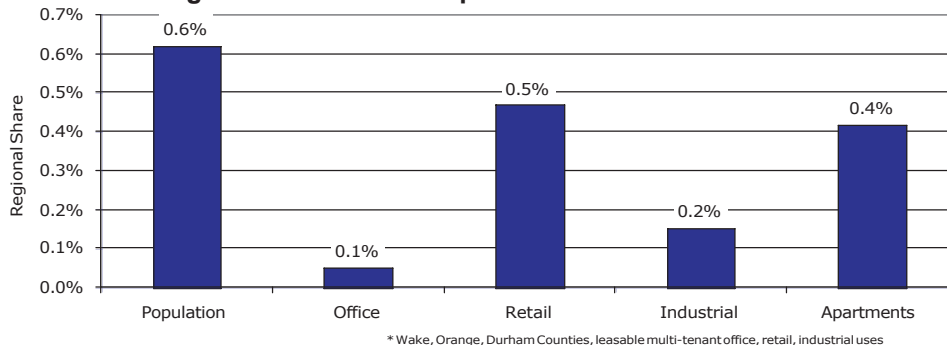


**FIGURE 3.8: Affordable Homes Shares: Knightdale vs. Region**

Source: Karnes Research, 2002

Apartment development in the Raleigh-Durham region has been more concentrated along the I-40 corridor as it stretches between Raleigh and Durham. This corridor has the highest concentration of employment uses and has attracted the bulk of the region's multi-family rental housing. Some limited apartment development has, however, occurred along US-64 over the past ten years. Much of this product has, however, been marketed as mid-market or affordable and was built to serve persons employed in eastern Raleigh and Wake County. The development and leasing of new apartment units should accelerate in Knightdale with the completion of US-64 Bypass, I-540, and the potential introduction of commuter rail service.

**FIGURE 3.9: Knightdale's Share of Population and Commercial Uses**



Source Karnes Research

Very little leasable office and industrial space is found in Knightdale. Less direct access and an abundance of business parks with available land more centrally located in the region is responsible for Knightdale's limited regional share of leasable office and industrial space. Like many smaller suburban communities nationally, small companies that serve the growing population base of the community occupy most of the office space in Knightdale. One is more likely, for example, to find branch banks, real estate firms, small medical offices and clinics in a community like Knightdale than large employers that export products and services outside the region.

Most of the industrial space in Knightdale is owner occupied space, which is tenanted by local manufacturers and distributors. Some of Knightdale's largest employers -- Square D, DT Magnetics, and Wake Stone Corporation - are in such space. The development of the I-540, US-64 Bypass, and commuter rail will improve Knightdale's marketability for attracting office, industrial, and distribution uses. Improved regional access, a faster pace of housing and retail growth that will boost the community's labor market, and more services should make Knightdale more attractive to office users.

Most of the retailers in Knightdale serve the needs of local residents as well as some limited retail and service needs of travelers and commuters that use US 64. Grocery stores, restaurants, gas stations, branch banks, and few larger stand-alone discounters are the primary retailers in Knightdale.

No regional or sub-regional centers (i.e. malls or large multi-tenant power centers) are located in Knightdale. A regionally peripheral location and inferior interstate access are responsible for the lack of a regional, or even sub-regional, shopping destination. Population growth from new household formation and increased access that will result from the development of I-540, US-64 Bypass, and the proposed commuter rail line should dramatically improve the feasibility of a large retail center in Knightdale over the next five to ten years.

The development of the proposed commuter rail line, which will connect Knightdale to Downtown Raleigh to the west as well as points in eastern North Carolina, would have a substantial economic impact on Knightdale. Based upon the experience of other metropolitan areas, transit is powerful magnet for new development and redevelopment. A thoughtfully designed rail station and careful attention to surrounding land uses and site design could attract a mix of retailers, new residences, and office occupying businesses that would not consider Knightdale before the introduction of commuter rail service.

Households seeking a small town atmosphere, as well as easy transit access to many

of the region's largest employment centers would find housing near a Knightdale rail station attractive. Retailers and office users that service a residential base could also take advantage of the increased customer traffic. Some employers would also find a locational advantage in the increased commuting options for employees that a transit station in Knightdale would allow.

## B. Housing

A household is defined by the Census as one or more people living together in a housing unit. A "family" household is more than one person living together in a housing unit who are related through marriage, birth, or adoption. A non-family household is one or more unrelated people living in a housing unit. An owner-occupied household is a person or group of people living in a housing unit which is owned by the people living within it. A renter-occupied household is a person or group of people living in a housing unit which is rented, not owned.

**TABLE 3.10:**  
**Household Characteristics for the Town of Knightdale, 1990 & 2000**

	1990	2000	Percent Change 1990-2000
Total Number of Households	733	2,172	196.3%
Persons Per Household (Average Household Size)	2.57	2.70	5.1%
Number of Owner-Occupied Households	574	1,613	181.0%
Number of Renter-occupied Households	159	559	251.6%
Average Household size of Owner-occupied Housing Units	2.61	2.83	8.4%
Average Household size of Renter-occupied Housing Units	2.43	2.33	-4.1%
Number of Family Households	556	1,627	192.6%
Number of Non-family Households	177	545	207.9%
Average Family Size	2.98	3.13	5.0%
Persons in Group Quarters	0	96	-

Source: US Census of Population & Housing

The number of households increased almost 200% from 1990 to 2000, the majority of which (75%) are owner occupied. However, the percent increase in the number of renter-occupied households was much higher. This indicates that more of the available housing stock is being converted to rentals, or is being built as rentals.

The number of persons per household (or average household size) increased to 2.70 persons per household by 2000, despite declines in the average household size of renter-occupied households. There are more family households than non-family households, and average family size also increased between 1990 to 2000. Knightdale also established its first population in group quarters (a nursing home) between 1990 and 2000.

## B. Housing Characteristics

The following tables and figures provide information on the housing unit characteristics for Knightdale, its ETJ and Short and Long Range Urban Service Areas.

Table 3.11 shows the total number of dwelling units in the Knightdale Planning Area for 2000. In some cases, the boundaries between Census Blocks and the existing Planning Area subunits did not match up. For ease in data collection, the Census Block lines were followed.

Census data indicate that there were a total of 6,171 housing units in 2000, the majority of which (3,738 units, or 60%) were located within the Corporate Limits and the ETJ. It is interesting to note that the Short and Long Range Urban Service Areas have about the same number of housing units, despite the fact that the Short Range Urban Service Area is almost ten square miles larger.

**TABLE 3.11:**  
**Number of Dwelling Units by Knightdale Planning Area, 2000**

<i>Area</i>	<i>Number of Dwelling Units</i>	<i>Percent of Total</i>
Corporate Limits	2,352	38.1%
Extra-territorial Jurisdiction	1,386	22.5%
Short Range Urban Service Area	1,228	19.9%
Long Range Urban Service Area	1,205	19.5%
Totals	6,171	100.0%

*Source: US Census of Population & Housing Block-level Data*

*Note: Some area boundaries were adjusted to follow census block boundaries for deriving dwelling unit counts*

Table 3.12 presents information on the housing unit occupancy figures for the Corporate Limits during 1990 and 2000. Note that the total number of housing units increased almost 200% from 1990 to 2000, but the vacant number of housing units increased 246% for the same period. Homeowner vacancy rates are declining slightly, while rental vacancy rates have tripled. This may indicate a glut in the supply of rental housing; but it is important to remember that annual changes in vacancy rates are highly variable.

**TABLE 3.12:  
Housing Occupancy Characteristics for Corporate Limits, 1990 & 2000**

	<b>1990</b>	<b>2000</b>	<b>Percent Change from 1990-2000</b>
Total Housing Units	785	2,352	199.6%
Occupied Housing Units	733	2,172	196.3%
Number of Owner-occupied Units	574	1,613	181.0%
Number of Renter-occupied Units	159	559	251.6%
Vacant Housing Units	52	180	246.2%
Homeowner Vacancy Rate	5.9%	5.8%	-
Renter Vacancy Rate	3.0%	10.3%	-

Source: US Census of Population & Housing

Table 3.13 provides additional information on the overall vacancy rate (the combination of owner and renter-occupied units) for all four subunits of the Knightdale Planning Area for 2000. The overall vacancy rates are higher within the Corporate Limits and the ETJ are due in part to the larger overall number of units.

**TABLE 3.13:  
Vacancy Rates for the Knightdale Planning Area, 2000**

<b>Area</b>	<b>Number of Dwelling Units</b>	<b>Number of Vacant Units</b>	<b>Vacancy Rate</b>
Corporate Limits	2,352	180	7.65%
Extra-territorial Jurisdiction	1,386	109	7.86%
Short Range Urban Service Area	1,228	66	5.37%
Long Range Urban Service Area	1,205	51	4.23%
Totals	6,171	406	6.58%

Sources: US Census of Population & Housing Block-level data

Table 3.14 and Figure 3.10 represent a much more in-depth analysis of single family housing unit sizes across the Knightdale Planning Area. This data was derived from the Wake County Property Appraiser's information on June 1, 2001. The data deals only with single family units, and is organized by square footage ranges across each of the Planning Area subunits.

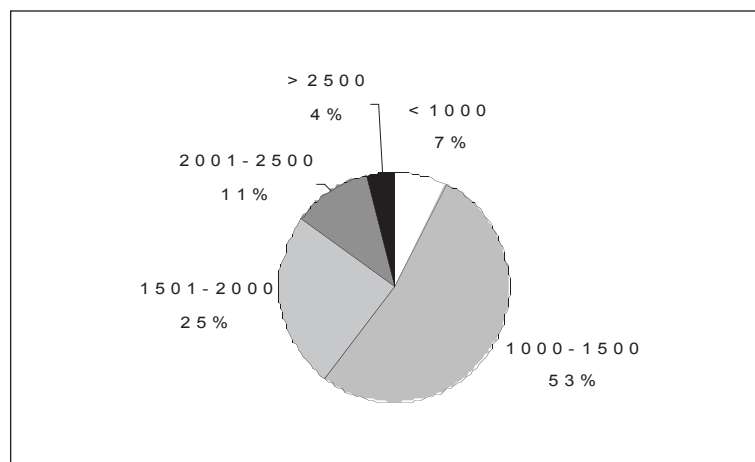
**TABLE 3.14: Single Family Residential Dwelling Unit Sizes in the Knightdale Planning Area, 2001**

	<1,000 Square Feet		1,000-1,500 Square Feet		1,501-2,000 Square Feet		2,001-2,500 Square Feet		>2,500 Square Feet		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Corporate Limits	124	6.5%	785	41.1%	599	31.4%	328	17.2%	73	3.8%	1,909	100.0%
Extra-Territorial Jurisdiction	36	4.4%	346	42.1%	302	36.7%	95	11.6%	43	5.2%	822	100.0%
Short Range Urban Service Area	54	9.1%	268	45.2%	162	27.3%	59	9.9%	50	8.4%	593	100.0%
Long Range Urban Service Area	118	9.2%	1,052	82.0%	75	5.8%	22	1.7%	16	1.2%	1,283	100.0%
<b>Total</b>	<b>332</b>	<b>7.2%</b>	<b>2,451</b>	<b>53.2%</b>	<b>1,138</b>	<b>24.7%</b>	<b>504</b>	<b>10.9%</b>	<b>182</b>	<b>4.0%</b>	<b>4,607</b>	<b>100.0%</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

Note: This table only includes single family dwellings

**FIGURE 3.10: Dwelling Unit Sizes (In Square Feet) for the Entire Knightdale Planning Area**



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Homes between 1,000 and 1,500 feet of heated square footage comprised the largest portion of housing sizes. It is interesting to note that the Short and Long Range Urban Service Areas had higher percentages of homes smaller than 1,000 square feet than did the Corporate Limits or the ETJ. Another interesting result of the study is that at least 70% of the single family homes within the Corporate Limits and the ETJ are between 1,000 and 2,000 square feet in size. Overall, almost 78% of the housing stock within the Knightdale Planning Area is between 1,000 and 2,000 square feet in size.

## **VI. ZONING**

The next section in this chapter expands on the current zoning designations within the Knightdale planning area. Typically, zoning is not thought of as an extension of long range planning; rather, it is a means to implement the goals and objectives embodied within the Comprehensive Plan under current planning processes.

Zoning is defined as the designation of a range of appropriate land uses and development standards for a particular piece of property or properties in advance of or following development of that property. Zoning represents the range and variety of development options, as well as the investment-backed expectations associated with a piece of property. Municipalities are given the authority to zone land by the State of North Carolina in the interest of protecting the health, safety, and welfare of the public.

Previously, there has been little study on zoning patterns and their effects on assessed values, rate and timing of development, municipal service delivery, and quality of life within the Town. However, it is often the zoning of land which exerts the greatest effects on these attributes. As a result, this section will present some very basic information associated with the current zoning designations across each of the Knightdale Planning Area sub-areas. The purpose for providing this information is to present a snapshot of current development trends, and identify ways to improve upon these trends in pursuit of consistency with the Town's development goals.

### **A. Corporate Limits**

Table 3.15 shows the breakdown of zoning by number of parcels and acres for parcels located within the Corporate Limits. The data shows that 78% of the land inside the Corporate Limits is zoned for residential uses, 18% is zoned for commercial uses, and 4% is zoned for industrial uses.

**TABLE 3.15:  
Town of Knightdale Zoning Inside Corporate Limits, as of 6/1/01**

<i>Zoning District</i>	<i>Number of Parcels</i>	<i>Number of Acres</i>	<i>Percent of Total Acres</i>
Residential-Agricultural (RA)	71	338.15	19.2%
Residential 20 (R-20)	67	99.953	5.7%
Residential 15 (R-15)	92	80.598	4.6%
Residential 12 (R-12)	19	13.043	0.7%
Residential 10 (R-10)	339	225.308	12.8%
Residential 7 (R-7)	1,167	400.997	22.8%
Multifamily & Townhouse Res. (RMT)	478	214.276	12.2%
Residential Subtotal	2,233	1,372.33	78.1%
Office Professional (OP)	23	63.794	3.6%
Neighborhood Commercial (NC)	42	79.069	4.5%
Retail Commercial (RC)	60	80.621	4.6%
Highway Commercial (HC)	26	89.282	5.1%
Commercial Subtotal	151	312.77	17.8%
Light Industrial (LI & IM)	10	13.303	0.8%
Manufacturing (M1)	23	54.886	3.1%
Industrial Subtotal	33	68.19	3.9%
No Zoning Indicated	20	3.67	0.2%
<b>TOTALS</b>	<b>2,437</b>	<b>1,756.95</b>	<b>100.0%</b>

*Source: Wake County GIS (Property Appraiser Data as of 6/1/01)*

*Note: 20 parcels were lacking zoning designations in the GIS database. These parcels may be streets or other land uses that are not zoned.*

### B. Extra-Territorial Jurisdiction

Table 3.16 shows the zoning for parcels in the Extra-territorial Jurisdiction. This is the area outside the Corporate Limits where Knightdale retains planning control. These figures show that about 70% of the land is zoned for residential purposes, 20% for industrial, and 10% for commercial land uses.

**TABLE 3.16: Knightdale Zoning Inside the Extra-territorial Jurisdiction, as of 6/1/01**

<i>Zoning District</i>	<i>Number of Parcels</i>	<i>Number of Acres</i>	<i>Percent of Total Acres</i>
Residential-Agricultural (RA)	1,063	3763.419	59.1%
Residential 15 (R-15)	3	184.345	2.9%
Residential 10 (R-10)	6	155.917	2.4%
Residential 7 (R-7)	5	276.298	4.3%
Multifamily & Townhouse Res. (RMT)	5	56.574	0.9%
<b>Residential Subtotal</b>	<b>1,082</b>	<b>4,436.55</b>	<b>69.7%</b>
Office Professional (OP)	10	21.446	0.3%
Neighborhood Commercial (NC)	3	3.176	0.0%
Retail Commercial (RC)	7	149.963	2.4%
Highway Commercial (HC)	121	476.205	7.5%
<b>Commercial Subtotal</b>	<b>141</b>	<b>650.79</b>	<b>10.2%</b>
Light Industrial (LI & IM)	1	13.593	0.2%
Manufacturing (M1)	32	648.489	10.2%
Manufacturing (M2)	6	620.032	9.7%
<b>Industrial Subtotal</b>	<b>39</b>	<b>1,282.11</b>	<b>20.1%</b>
No Zoning Indicated	6	-	-
<b>TOTALS</b>	<b>1,268.00</b>	<b>6,369.46</b>	<b>100.0%</b>

Source: Wake County GIS (Property Appraiser Data as of 6/1/01)

Note: 6 parcels were lacking zoning designations in the GIS database. These parcels may be streets or other land uses that are not zoned.

C. Short Range Urban Service Area

Table 3.17 shows the zoning designations for parcels in the Short Range Urban Service Area. Note that these zoning designations are different than those utilized within the Knightdale Corporate Limits and the ETJ. Wake County retains planning control of these areas until Knightdale extends its ETJ outwards to encompass these areas. The figures show that almost 90% of the land is zoned for residential uses (the vast majority of which is for 30,000 square foot lots, or about 1.4 units per acre), and the remaining 10% is zoned for commercial.

**TABLE 3.17: Wake County Zoning Inside the Knightdale Short Range Urban Service Area, as of 6/1/01**

<i>Zoning District</i>	<i>Number of Parcels</i>	<i>Number of Acres</i>	<i>Percent of Total Acres</i>
Residential 80 (R80)	1	0.069	0.0%
Residential 40 (R40)	38	691.964	7.7%
Residential 30 (R30)	1,009	7,106.288	79.1%
Residential 20 (R20)	26	106.202	1.2%
Residential 10 (R10)	3	5.417	0.1%
Mobile Home (MH)	5	163.679	1.8%
<b>Residential Subtotal</b>	<b>1,082</b>	<b>8,073.62</b>	<b>89.8%</b>
Office & Institutional (O&I)	1	10.819	0.1%
Highway District (HD)	44	792.123	8.8%
General Business (GB)	6	6.537	0.1%
Airport District (AD1)	1	66.255	0.7%
<b>Commercial Subtotal</b>	<b>52</b>	<b>875.73</b>	<b>9.7%</b>
Industrial (I-1)	1	1.073	0.0%
Industrial (I-2)	11	36.113	0.4%
Industrial Subtotal	12	37.19	0.4%
No Zoning Indicated	19	-	-
<b>TOTALS</b>	<b>1,165.00</b>	<b>8,986.54</b>	<b>100.0%</b>

Source: Wake County GIS (Property Appraiser Data as of 6/1/01)

Note: 19 parcels were lacking zoning designations in the GIS database. These parcels may be streets or other land uses that are not zoned.

D. Long Range Urban Service Area

Table 3.18 shows the zoning designations for parcels inside the Long Range Urban Service Area. Again, the zoning designations are those utilized by Wake County. No pie chart has been included since virtually all the parcels are designated for residential uses at around two dwelling units per acre or less.

**TABLE 3.18: Wake County Zoning Inside the Knightdale Long Range Urban Service Area, as of 6/1/01**

<i>Zoning District</i>	<i>Number of Parcels</i>	<i>Number of Acres</i>	<i>Percent of Total Acres</i>
Residential 40 (R40)	278	895.148	29.4%
Residential 30 (R30)	547	1,708.694	56.1%
Residential 20 (R20)	599	320.864	10.5%
Residential 10 (R10)	2	78.927	2.6%
Mobile Home (MH)	3	38.985	1.3%
<b>Residential Subtotal</b>	<b>1,429</b>	<b>3,042.62</b>	<b>100.0%</b>
General Business (GB)	1	0.475	0.0%
No Zoning Indicated	16	-	-
<b>TOTALS</b>	<b>1,446</b>	<b>3,043.09</b>	<b>100.0%</b>

Source: Wake County GIS (Property Appraiser Data as of 6/1/01)

Note: 16 parcels were lacking zoning designations in the GIS database. These parcels may be streets or other land uses that are not zoned.

Table 3.19 shows the summary zoning characteristics by general land use type for each of the subunits of the Knightdale Planning Area. Overall, 84% of the Knightdale Planning Area is designated for residential uses, 9% is targeted for commercial uses, and 7% for industrial uses.

**TABLE 3.19: Zoning Summary by Acre for Knightdale Boundaries, June 2001**

<i>Land Use Type</i>	<i>Corporate Limits</i>	<i>Extra-Territorial Jurisdiction</i>	<i>Short Range Urban Service Area</i>	<i>Long Range Urban Service Area</i>	<i>Total Acres</i>	<i>Percent of Total</i>
Residential Acres	1,372.33	4,436.55	8,073.62	3,042.62	16,925.12	84.0%
Commercial Acres	312.77	650.79	875.73	0.48	1,839.77	9.1%
Industrial Acres	68.19	1,282.11	37.19	-	1,387.49	6.9%
Un-designated Acres	3.67	-	-	-	3.67	0.0%
<b>Total Acres</b>	<b>1,756.96</b>	<b>6,369.45</b>	<b>8,986.54</b>	<b>3,043.10</b>	<b>20,156.05</b>	<b>100.0%</b>

Source: Wake County GIS (Property Appraiser's Office Data) as of 6/1/01

## VII. LAND USES

This section provides information on the land uses in existence as of June 1, 2001. This data is taken from the Wake County Property Appraiser's files as contained within the Wake County GIS system. It is important to note that there are some substantial limitations to this data, but it has been provided in the interest of presenting a more complete picture of the land use and development trends taking place inside the Knightdale planning area.

The land use type categories are those utilized by the Wake County Property Appraiser. Summary tables located at the end of this section summarize the following information by more general land use types.

Table 3.20 shows the number of parcels, total acreage, land value and building value for 16 different land use types in within the Corporate Limits. In addition to the 16 listed categories, there were 2 parcels in the database which did not contain land use type designations, and as such, have been listed as "undesignated". The 16 types of land uses include every parcel within the Corporate Limits as of June 1, 2001.

**TABLE 3.20: Land Use Types in the Knightdale Corporate Limits, 2001**

<i>Use Type</i>	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Value Land</i>	<i>Value Building</i>	<i>Non-residential Square Footage</i>
Vacant Land	418	889.11	\$22,953,357	\$381,654 -	-
Single Family Homes	1,909	586.51	\$50,116,781	\$194,232,919	-
Multifamily Homes	20	66.40	\$3,724,129	\$28,597,902	-
Day Care	2	1.90	\$182,952	\$1,150,196	16,975
Banks	3	4.19	\$894,722	\$1,393,020	9,319
Auto Service	6	7.67	\$623,219	\$599,585	18,098
Office	16	16.71	\$2,286,879	\$7,409,489	102,310
Eating/Drinking Est.	11	11.29	\$2,943,126	\$3,383,134	39,115
Retail	28	68.76	\$9,910,298	\$20,472,316	436,947
Clubs	3	9.79	\$24,500	\$536,039	5,815
Churches	1	1.22	\$159,429	\$888,092	21,688
Nursing Home	1	4.88	\$533,610	\$2,362,942	31,119
Schools	3	52.22	\$1,337,085	\$19,042,682	164,806
Institutional	4	14.21	\$829,772	\$4,202,315	28,710
Light Manufacturing	2	3.24	\$281,398	\$1,032,167	39,577
Warehousing	8	18.61	\$1,813,296	\$2,698,710	99,892
Undesignated	2	0.24	-	\$24,000 -	-
<b>Totals</b>	<b>2,437</b>	<b>1,757</b>	<b>\$98,614,553</b>	<b>\$288,407,162</b>	<b>1,014,371</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

Note: Vacant parcels could contain water/sewer systems or other accessory buildings which have building values

Table 3.20 indicates a total of 889 vacant acres within the Corporate Limits with 652 acres of residential land, and about 216 acres of non-residential uses. The total value for all 1,757 acres of land is over \$98.6 million dollars. In terms of building values, single family homes are responsible for 67% (\$194.2 million) of the \$288.4 million dollar total in the Corporate Limits.

The table also indicates that as of June 1, 2001, there was over 1 million square feet of non-residential square footage inside the City Limits. Retail land uses (including grocery and discount stores) accounted for 43% of the total.

It is interesting to note that over half the land within the Corporate Limits is classified as vacant. Note that vacant land could include parks or other recreational uses. Residential uses account for 37% of the acreage inside the City Limits, while all other uses account for less than 13%.

A comparison between the land uses and zoning indicate that 78% of the land inside the City Limits is zoned for residential uses, while residential uses occupy only 37% of the land area. There is a much closer balance between the acreage associated with existing non-residential land uses and non-residential zoning. Non-residential zoning covers 22% of the land area, while non-residential uses account for about 13% of the land area.

Table 3.21 contains the land use information for the parcels located within the Extra-territorial Jurisdiction. Over half of the land area in the ETJ (3,550 acres) is vacant, 40% of the land is occupied by residential uses, and the remaining 4% (253 acres) is occupied by non-residential uses.

**TABLE 3.21: Land Use Types in the Extra-territorial Jurisdiction, 2001**

<i>Use Type</i>	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Value</i>		<i>Non-residential Square Footage</i>
			<i>Land</i>	<i>Building</i>	
Vacant Land	368	3,550.66	\$41,115,710	\$685,953	-
Single Family Homes	849	1,961.53	\$37,660,424	\$77,422,590	-
Multifamily Homes	5	605.19	\$1,920,052	\$2,685,285	-
Day Care	1	2.24	\$38,470	\$288,715	4,880
Auto Service	3	7.40	\$464,710	\$490,788	17,696
Office	3	1.67	\$192,972	\$279,651	6,406
Eating/Drinking Est.	1	3.62	\$78,408	\$78,604	1,652
Retail	9	94.61	\$2,269,580	\$1,442,077	22,464
Clubs	2	18.20	\$221,350	\$158,992	3,376
Churches	3	10.22	\$436,240	\$2,070,757	10,983
Funeral Home	1	3.01	\$130,680	\$835,876	11,064
Light Manufacturing	1	2.73	\$301,652	\$606,076	30,000
Manufacturing	1	59.62	\$1,352,350	\$10,491,695	269,260
Warehousing	13	33.11	\$1,787,046	\$3,306,391	105,248
Undesignated	8	15.67	\$152,930	\$23,372	-
<b>Totals</b>	<b>1,268</b>	<b>6,369</b>	<b>\$88,122,574</b>	<b>\$100,866,822</b>	<b>483,029</b>

*Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)*

*Note: Vacant parcels could contain water/sewer systems or other accessory buildings which have building values*

Vacant land dominates the land values within the ETJ, representing 46% (\$41.1 million) of the total \$88.1 million dollars in land value. Single family homes account for over 76% (\$77.4. million) of the total building values in the ETJ. It interesting to note that industrial uses (containing light manufacturing, manufacturing, and warehousing) represent \$14.4 million dollars of building value within the ETJ while the Corporate Limits contain only \$3.7 million dollars of industrial building value. In terms of zoning, 70% of the ETJ is zoned for residential uses, and 30% of the land is zoned for nonresidential uses. Of the 30% zoned for non-residential uses, 20% is designated for industrial uses. However, these uses account for less than 3% of the acreage in the ETJ. There is a total of 483,029 square feet of non-residential square footage within the ETJ, with industrial uses accounting for over 83% (404,058 sq. ft.).

There is less variety in land use type for the Short and Long Range Urban Service Areas as a result of Wake County zoning patterns. Table 3.22 shows the land use types for the Short Range Urban Service Area. There are 472 vacant parcels which

account for almost 60% (5,256 acres) of the SRUSA. Single Family Homes are the most prevalent land use by far, occupying 3,438 acres, or 39% of the total land area.

One interesting aspect is that total land and building values are remarkably similar in the SRUSA. This would seem to indicate relatively low building values as compared to the associated land values across the SRUSA. Land values are dominated by the vacant and single family residential land use types, which occupy 95% of the total land value. Single family residential uses account for 73% of the total building values. Wake County has zoned about 89% of the land inside the SRUSA for residential land uses, and the remaining 11 %for non-residential uses.

**TABLE 3.22: Land Use Types in the Short Range Urban Service Area, 2001**

<i>Use Type</i>	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Value</i>		<i>Non-residential Square footage</i>
			<i>Land</i>	<i>Building</i>	
Vacant Land	472	5,256.87	\$40,800,543	\$3,784,002	-
Single Family Homes	649	3,438.98	\$37,421,257	\$59,414,467	-
Multifamily Homes	2	4.73	\$58,200	\$170,638	-
Day Care	1	1.50	\$30,000	\$242,459	5,040
Auto Service	2	68.24	\$468,565	\$801,355	6,240
Office	4	8.65	\$293,643	\$767,579	6,990
Eating/Drinking Est.	1	81.44	\$603,616	\$58,916	1,500
Retail	6	7.44	\$268,375	\$513,007	15,219
Churches	2	32.37	\$279,780	\$3,867,757	48,289
Fire Station	1	3.01	\$33,930	\$720,696	11,932
Gymnasiums	2	67.29	\$929,915	\$9,975,832	26,310
Warehousing	4	16.04	\$336,034	\$760,972	36,700
Undesignated	19	-	-	-	-
<b>Totals</b>	<b>1,165</b>	<b>8,987</b>	<b>\$81,523,858</b>	<b>\$81,077,680</b>	<b>158,220</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

Note: Vacant parcels could contain water/sewer systems or other accessory buildings which have building values

The final subarea of the Planning Area to consider is the Long Range Urban Service Area. Land use types in this area are identified by Table 3.23. The Property Appraiser's data indicates six different types of land uses in the LRUSA, composed primarily of single family homes, which account for almost 60% of the land area, 84% of the land value, and 98% of the building value. Vacant lands account for only 37% of the land area, in the LRUSA, about the same percentage of the Corporate Limits. There is a total of 23,032 square feet of non-residential land uses in the LRUSA, composed largely (77%) of industrial uses.

**TABLE 3.23: Land Use Types in the Long Range Urban Service Area, 2001**

Use Type	Number of Parcels	Total Acreage	Value		Non-residential Square Footage
			Land	Building	
Vacant Land	138	1,130.52	\$6,370,209	\$685,678	-
Single Family Homes	1,286	1,798.05	\$37,447,743	\$101,207,308	-
Retail	2	90.15	\$329,662	\$36,200	2,864
Churches	1	5.66	\$49,850	\$125,097	2,344
Light Manufacturing	1	0.60	\$18,000	\$53,974	3,024
Warehousing	2	18.12	\$183,139	\$570,938	14,800
Undesignated	16	-	-	-	-
<b>Totals</b>	<b>1,446</b>	<b>3,043</b>	<b>\$44,398,603</b>	<b>\$102,679,195</b>	<b>23,032</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

Note: Vacant parcels could contain water/sewer systems or other accessory buildings which have building values

Table 3.24 summarizes the data for non-residential land uses across the Knightdale Planning Area. The amount of non-residential square footage within a subunit of the Planning Area declines with distance from the Corporate Limits. In fact, the Corporate Limits contain over 1 million (60%) of the total 1.6 million square feet of non-residential building area within the Knightdale Planning Area. The Knightdale Planning Area contains 115,706 square feet of office uses, with 88% of this being located within the Corporate Limits. It is interesting to note that there is more office space in the Short Range Urban Service Area than in the ETJ.

Retail and service square footage is also concentrated within the Corporate Limits. 82% of the 675,693 square feet of retail and service uses is located within the City Limits, though the ETJ and SRUSA contain over 50,000 square feet each.

**TABLE 3.24: Summary of Non-residential Square Footage by Knightdale Planning Area, 2001**

	Number of Dwelling Units in 2000	Office (sq. ft.)	Retail/Service (sq. ft.)	Industrial (sq. ft.) *	Institutional (sq. ft.) **	Total Non-residential Square Footage	Vacant Acres
Corporate Limits	2,352	102,310	557,388	139,469	215,204	1,016,723	889
Extra-territorial Jurisdiction	1,386	6,406	61,132	404,508	10,983	484,415	3,551
Short Range Urban Service Area	1,228	6,990	54,309	36,700	60,221	159,448	5,256
Long Range Urban Service Area	1,205	0	2,864	17,824	2,344	24,237	1,130
<b>Total</b>	<b>6,171</b>	<b>115,706</b>	<b>675,693</b>	<b>598,501</b>	<b>288,752</b>	<b>1,684,823</b>	<b>10,826</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

\* Includes warehousing uses

\*\* Includes churches, schools, and other government buildings

Industrial square footage is concentrated within the ETJ, not the Corporate Limits. The ETJ contains 67% of the industrial square feet, while the Corporate Limits contains only 23%. The remaining 10% is located within the Short and Long Range Urban Service Areas. Institutional land uses (including schools, churches, government building, etc.) are concentrated within the Corporate Limits, which contain 74%. The SRUSA contains more institutional square footage than the ETJ.

Retail and Service uses occupy about 40% (675,693 sq. ff.) of the total, followed closely by the industrial land uses, which occupy 36% of the total square footage. Office uses represent the smallest overall portion of non-residential square footage, accounting for only 7% (115,706 sq. ft.) of the total.

## VIII. LAND VALUES

The next series of tables summarize the land uses and total values by three generic land use types: vacant, residential, and non-residential for each of the four subareas of the Knightdale Planning Area. Table 3.25 shows the number of parcels devoted to each of the three land use types, the total acreage devoted to a land use type, and the combined land and building value associated with the particular land use type.

**TABLE 3.25: Summary of Land Use Types in the Knightdale Planning Area, 2001**

	<i>Vacant Land</i>			<i>Residential Uses</i>			<i>Non-residential Uses</i>		
	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Total Value</i>	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Total Value</i>	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Total Value</i>
Corporate Limits	418	889	\$23,335,011	1,929	653	\$276,671,731	88	215	\$86,990,973
Extra-territorial Jurisdiction	368	3,551	\$41,801,663	854	2,567	\$119,688,351	38	236	\$27,323,080
Short Range Urban Service Area	472	5,256	\$44,584,545	651	3,443	\$97,064,562	23	285	\$20,952,431
Long Range Urban Service Area	138	1,130	\$7,055,887	1,286	1,798	\$138,655,051	6	114	\$1,366,860
<b>Total</b>	<b>1,396</b>	<b>10,826</b>	<b>\$116,777,106</b>	<b>4,720</b>	<b>8,461</b>	<b>\$632,079,695</b>	<b>155</b>	<b>850</b>	<b>\$136,633,344</b>

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

Note: These totals do not include parcels with no land use designations shown in the Property Appraiser's Data

Vacant land occupies the largest share of the acreage within the Knightdale Planning Area, and the lowest total value. Vacant lands are concentrated in the Short and Long Range Urban Service Areas. The average value per acre can be derived by dividing the total value by the total number of acres. Vacant land in the Knightdale Planning Area has an average value of \$10,786 dollars an acre.

Non-residential land uses occupy the lowest percentage of total acreage in the Planning Area. It is interesting to note that there are 10,000 fewer acres of nonresidential land use than vacant land, but non-residential land use has a higher total value than vacant land despite the vast difference in size. The average value per acre for non-residential land uses in the Knightdale Planning Area is \$160,745. It is interesting to note that the SRUSA has the largest amount of non-residential acreage, but a somewhat low value associated with that acreage.

Residential land uses occupy around 8,400 acres in the Knightdale Planning Area, with a total value of over \$632 million dollars. This equates to an average value per acre figure of \$74,705. It is interesting to note that total values for residential uses in the Long Range Urban Service Area are higher than those in the ETJ, despite the fact that the LRUSA has fewer acres.

Table 3.26 depicts the land and building values by Planning Area subunit, and shows the associated percentage of the total assessed value for the entire Knightdale Planning Area.

The table shows that the Knightdale Planning Area had a total assessed value of over \$885 million dollars as of June 1, 2001. Almost 44% of the total assessed value is concentrated within the Corporate Limits, The Corporate Limits also have the highest assessed values per acre, Average assessed value per acre across the entire Knightdale Planning Area is \$43,942 dollars per acre.

**TABLE 3.26: Land and Building Values in the Knightdale Planning Area, 2001**

	<i>Number of Parcels</i>	<i>Total Acreage</i>	<i>Total Land Value</i>	<i>Total Building Value</i>	<i>Assessed Value (Land + Building)</i>	<i>Percent of Total Assessed Value</i>
Corporate Limits	2,437	1,757	\$98,614,553	\$288,407,162	\$387,021,715	43.7%
Extra-territorial Jurisdiction	1,268	6,369	\$88,122,574	\$100,866,822	\$188,989,396	21.3%
Short Range Urban Service Area	1,165	8,987	\$81,523,858	\$81,077,680	\$162,601,538	18.4%
Long Range Urban Service Area	1,446	3,043	\$44,398,603	\$102,679,195	\$147,077,798	16.6%
Total	6,316	20,156	\$312,659,588	\$573,030,859	\$885,690,447	100.0%

Source: Wake County GIS (Property Appraiser's Data as of 6/1/01)

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## IX. ECONOMIC CHARACTER

The regional economy of North Carolina and the greater Raleigh area will always be the major influence for the local economic future of Knightdale. Growth of the Knightdale economic character will drive the timing and need for expanded public facilities and services. Knightdale is poised on the brink of a series of significant opportunities to positively affect the changing dynamics and well being of Knightdale's long-term future. Census 2000 occupation, employment, income and housing value comparisons are presented below to support Knightdale's well being.

Tables 3.27, 3.28, 3.29 and 3.30 reveal a Knightdale that is an economic mirror of the greater metropolitan area in terms of occupation and employment, with a median household income 15 % above the MSA. With occupations and employment in agriculture and related farming at one percent or less, Knightdale is no longer a farming community and pressures on remaining farmland and open space will grow as landowners are impacted by growth and economic development trends in the region. Housing value data points to the favorable location and role of Knightdale in the supply of middle income housing. Management and direction of future population growth and economic development pressures generated with the opening the 540 and 64 bypass transportation corridor improvements will have permanent and dramatic impact on the entire eastern tier of the Wake County area.

**Table 3.27: Census 2000 Occupation Information**

	<u>RALEIGH MSA</u>		<u>KNIGHTDALE</u>	
<b>OCCUPATION (16 &amp; Above)</b>	<b>627,772</b>	<b>%</b>	<b>3,301</b>	<b>%</b>
Mgt, Prof., Related	277,821	44.3	1,435	43.5
Services Occupations	74,100	11.8	331	10.0
Sales & Office	155,765	24.8	1,008	30.5
Farming, Fishing, Forestry	2,071	00.3	3	0.1
Construct, Extraction, Maintenance	56,678	09.0	256	07.8
Production, Transportation	61,337	09.8	268	08.1

Source: Kames Research, 2002

**Table 3.28: Census 2000 Employment Information**

SELECTED EMPLOYMENT	RALEIGH		MSA		KNIGHTDALE	
	#	%	#	%	#	%
Agri, Forestry, Fishing, Mining	4,673	00.7	16		16	00.5
Construction	49,910	08.0	251		251	07.6
Manufacturing	78,739	12.5	398		398	12.1
Wholesale Trade	18,063	02.9	112		112	03.4
Retail Trade	64,844	10.3	398		398	12.1
Trans., Warehousing, Utilities	23,594	09.8	136		136	04.1
Information	26,171	04.2	128		128	03.9
Finance, Ins, RE	37,708	06.8	259		259	07.8
Prof., Scientific, Mgt., Admin.	82,453	13.1	365		365	11.1
Education, Health, Social Svcs	138,394	22.0	610		610	18.5
Arts, Entertainment, Accommodations	42,797	06.8	188		188	05.7
Other Services	27,491	04.4	191		191	05.8
Public Administration	32,935	05.2	249		249	07.5

Source: Kames Research, 2002

**Table 3.29: Census 2000 Income Information Based on 1999 Income for Households**

1999 INCOME (Households)	RALEIGH		MSA		KNIGHTDALE	
	#	%	#	%	#	%
<b>1999 INCOME (Households)</b>	<b>461,339</b>	<b>100%</b>	<b>2195</b>		<b>2195</b>	<b>0.00476%</b>
Less than \$10,000	36,925	08.0	65		65	03.0
\$10,000 to \$14,000	21,162	04.6	58		58	02.6
\$15,000 to \$24,999	49,337	10.7	173		173	07.9
\$25,000 to \$34,999	54,977	11.9	252		252	11.5
\$35,000 to \$ 49,900	72,934	15.8	366		366	16.7
\$50,000 to \$74,999	96,589	20.9	661		661	30.1
\$75,000 to \$99,000	55,962	12.1	320		320	14.6
\$100,000 to \$149,999	47,780	10.4	242		242	11.0
\$150,000 to \$199,000	13,778	03.0	33		33	01.5
\$200,000 or more	11,891	02.6	25		25	01.1
<b>Median Household Income</b>	<b>48,845</b>	<b>-</b>	<b>56,021</b>		<b>56,021</b>	<b>115.0</b>

Source: Kames Research, 2002

**Table: 3.30: Census 2000 Value Owner-Occupied Units Information**

	<u>RALEIGH MSA</u>		<u>KNIGHTDALE</u>	
<b>VALUE OWNER-OCCUPIED UNITS</b>	<b>243,897</b>	<b>100%</b>	<b>2195</b>	<b>0.0064%</b>
Less than \$50,000	6,669	02.7	26	01.7
\$50,000 to \$100,000	45,332	18.6	162	10.4
\$100,000 to \$149,999	74,709	30.6	918	58.8
\$150,000 to \$199,999	51,050	20.9	370	23.7
\$200,000 to \$299,900	42,171	17.3	75	04.8
\$300,000 to \$499,999	18,584	07.6	8	00.5
\$500,000 to \$999,000	4,749	01.9	3	00.2
\$1,000,000 or more	633	00.3	--	--
<b>Median Value</b>	<b>146,800</b>	<b>--</b>	<b>132,600</b>	<b>90.3</b>

Source: Kames Research, 2002

Major employers in Knightdale consist of the following:

- Square D Corporation
  - Approximately 1000 Employees
  - Manufacturing relays, motor starters and controllers and other industrial controls and control accessories
- DT Magnetics
  - Approximately 275 Employees
  - Builds transformers for telecommunications
- Wal-Mart
  - Approximately 200 Employees
- Wake Stone Corporation
  - Approximately 150 Employees
  - Quarry, Gravel & Stone
- Wellington Nursing Center
  - Approximately 85 Employees
  - Nursing Home
- Winn Dixie
  - Approximately 85 Employees
- Accu-Fab, Inc.
  - Approximately 80 Employees
  - Metal Fabrications
- Food Lion
  - Approximately 39 Employees

The future character, quality and composition of expanding Knightdale residential and non-residential development will significantly impact local revenues and the Knightdale job base and the quality of life experienced by Knightdale residents. The rate, timing and location of future residential and non-residential development will drive or respond,

as the case may be, to the success of Knightdale comprehensive planning efforts and the resultant nature of public utility and service provision. Knightdale's local housing development and supply will be directly responsive to market conditions while job and economic tax base growth will be more a function of land use planning and economic recruitment/retention efforts and attitudes within Knightdale. Both quality and growth of the Knightdale economic character will drive the timing and need for the following public facilities and services.

## **X. HISTORIC RESOURCES**

As more farm and forest land is converted to home, shopping, and manufacturing sites, it is critical that historic resources are adequately documented. A primary objective of the Town is to ensure the identification, conservation, and protection of the archeological, cultural, and historical resources of Knightdale. One of the action items of the historic resources section is to create a database that will identify the location and the significance of the historic resource; the database will be consulted in development projects to determine impacts.

Four subject areas should be included in the database:

1. Churches
2. Cemeteries
3. Individual Structures
4. Downtown District

### **A. Churches**

Church life has always played an important role in the history of Knightdale. Churches not only provide places for worship, but also serve as community centers. Churches will be included in this database because of the importance of these buildings and congregations to the built and cultural landscape of Knightdale.

### **B. Cemeteries**

Knightdale has numerous family, church, and community cemeteries. While most of the cemeteries have been mapped and surveyed in the North Carolina Cemetery Survey, North Carolina Department of Cultural Resources, many have not. Cemeteries will be included in the database to ensure their protection. Cemeteries are special places. Chapter 6 of the North Carolina General Statutes contains the legal procedures regarding the removal and vandalism of cemeteries. North Carolina law allows relocation of cemeteries in some cases. This issue must be addressed on a case-by-case basis.

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### **C. Individual Structures**

Historically significant structures in Knightdale that are not located in the downtown area will be included in the database. These will include structures identified as part of the Wake County Historic Architectural Survey. To be included on the Wake County list, one of the following criteria must be met: the structure must be at least 50 years old, must have significant architectural value, or must have played an important role in the history of Wake County or North Carolina.

### **D. Downtown**

Historic structures located in downtown Knightdale will be included in the database. Downtown Knightdale is on the State's National Register Study List. Placement on the study list is a prerequisite to nomination to the National Register. The town should work with the Wake County Historic Preservation Commission to designate downtown Knightdale as a historic district. This designation would put the town in a better position to qualify for various grant and loan programs. It would also provide a measure of dignity to an area that has played the central role in the development of Knightdale.

### **E. Objectives**

The Objectives and Action Items are provided to direct the planning and implementation strategies related to historic preservation in Knightdale and are in accordance with the overall goals of the 2027 Comprehensive Plan.

The primary historic resources objectives for Knightdale are to:

1. Preserve and enhance its' historic buildings and landscapes, by building upon the strengths of its origin as a railroad and agricultural center even as these elements of its past are allowed to change and evolve;
2. Promote the use of incentives to ensure historic preservation
3. Ensure that historic resources are considered during the development process
4. Promote education and provide access to historic resources
5. Promote the establishment of a historic district in downtown Knightdale.

### **F. Action Items**

The following are the tasks which provide a course of action to implement the objectives for historic preservation.

3.1 The Town shall establish an official historic resources database, which will be mapped, and shall be used in the development review process.

3.2 The Town shall connect significant historical, cultural, and natural areas with greenways, open space and recreational areas.

3.3 The Town will complete Phase II of the Caboose Project so that the Heritage Museum can be opened to the public.

3.4 The Town will seek designation of the downtown area so that it will be placed on the National Register of Historic Places.

3.5 The Town shall sponsor educational programs and work with the local public schools to ensure that historic preservation is communicated and made public.

3.6 The Town shall prepare Small Area Plans for geographic areas of the Town that contain significant historic structures and / or landscapes including: downtown, and sites within the Countryside District.

3.7 The Town shall establish a Town Center District Commission that includes property owners and merchants from the downtown area to promote reinvestment and revitalization in downtown Knightdale.

3.8 The Town shall establish a Historic Preservation Commission that is charged with:  
(1) encouraging historic preservation,  
(2) reviewing development plans of historical significance  
(3) promoting public education of historic preservation within the planning area.

3.9 The Town shall actively pursue grants and other funds to further historic preservation programs.

3.10 The Town shall coordinate its historic preservation program with the Wake County Historic Preservation Commission.

## **XI. ENVIRONMENT AND NATURAL RESOURCES**

The following is a brief snapshot of the topography, soils and vegetation found in the Knightdale Planning Area.

### **A. Topography**

Knightdale is located east of the Neuse River and west of Wendell. Buffalo Creek separates Knightdale from Wendell. The historic town center was located along the ridge that separates the Neuse River and Buffalo Creek. Mark's Creek flows south from the center of the corporate boundaries and serves as the primary drainage basin

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for the older portions of Knightdale. Within the last 50 years, the town has seen a new development pattern of residential and commercial activities reaching along the Highway 64 corridor towards Raleigh. Development has also spread along the waterways of Mingo Creek, the Neuse River, and Mark's Creek. North of Highway 64, the land is still mostly agrarian thus preserving the gently rolling topographic character of Knightdale.

#### **B. Soils**

The soils within the Knightdale planning area are primarily of the Cecil and Wedowee classifications. The Cecil class is found mainly within the western area of Knightdale while the Wedowee class is predominant in the central and eastern parts of town.

#### **C. Vegetation**

The Knightdale ecosystem is in an altered state. Current land cover figures can be estimated by using 1996 Land Sat imagery and newly updated orthographic photography. The study boundary covers approximately 39,500 acres of land. Within the study area approximately 2% of the land is developed, 18.5% is used for cultivated agriculture, 5.5% is managed herbaceous cover, and 1.5% is occupied by water bodies. That leaves 72.5% of the landscape as being in an undisturbed state. It is estimated that there is 10% more impervious surface area since the 1996 Land Sat imagery was taken.

The 72.5% of undisturbed land is split primarily between yellow pine forest, evergreen shrub land, bottomland and hardwood swamp forests, and upland hardwood forests; yellow pine forest being the most common and upland hardwood forests being the least common, respectively. The remaining portion of the undisturbed land is split between several smaller classifications that occur only in isolated areas. The bottomland and hardwood swamp forests are of the highest importance due to their location along stream and river corridors. These areas serve as the migration corridors for numerous species of wildlife as well as vital habitat because of their relatively intact linear coverage. Within this class exists the cypress swamp ecosystem, this ecosystem is very rare in the piedmont area due to the relatively arid climate and any known sites should be prioritized as a preservation goal. Robertson Mill pond and areas along Mark's Creek and Buffalo Creek contain such swamps. The cultivated areas of Knightdale are primarily reserved for the production of soybeans and livestock pastureland. These areas are concentrated in the north with the exception of a prominent band of equestrian facilities in the south. The cultivated areas are vital to the preservation of Knightdale's scenic quality and should be considered important when redefining development guidelines for the 64 corridor, the future 540 corridor and 64 By-Pass.

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#### **D. Environment and Natural Resource Primary Objective**

The Objectives and Action Items are provided to direct the planning and implementation strategies related to Knightdale's environment and natural resources and are in accordance with the overall goals of the 2027 Comprehensive Plan.

The primary objective of the environment and natural resource section is to promote, protect, preserve, and enhance existing natural systems to ensure the environmental health of the air, land, and water that is within the ultimate physical limits of the Town.

#### **E. Environment and Natural Resources Action Items**

3.1 The Town shall study design standards that encourage the maintenance of natural conditions during and after development, including natural drainage ways, mature trees, and topography.

3.2 The Town shall adopt a tree ordinance, which mandates tree preservation and regulates clear cutting.

3.3 The Town shall inventory critical and sensitive features in the natural environment, including their location and significance, and then adopt regulations to protect the identified natural features.

3.4 The Town shall evaluate the existing erosion control regulations to determine if amendments to the regulations are warranted.

3.5 The Town shall develop and implement standards for stormwater management, including development and implementation of National Pollutant Discharge Elimination System Phase Two Stormwater Rules in order to help mitigate against flooding and water quality deterioration.

3.6 The Town shall regulate areas served by wells in order to protect the quantity and quality of ground water.

3.7 The Town shall educate residents and visitors about the natural environment, ecological systems, physical fitness, wellness and lifelong recreational activities.

3.8 The Town shall provide recreation facilities and programs that promote awareness and stewardship of the natural resources that exist at the site.

3.9 The Town shall design, construct and maintain parks and greenways that are sensitive to the surrounding environment.

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3.10 The Town shall adopt minimum standards for undeveloped space at future park facilities.

3.11 The Town shall be sensitive to the need to preserve large trees and natural areas.