

community services

I. INTRODUCTION

This portion of the Comprehensive Plan addresses community services. The Town of Knightdale must ensure that it will have adequate services for the growing population. The Community Services chapter contains five primary sections:

- Education
- Health Care
- Public Safety
- Solid Waste
- Objectives and Action Items

In Knightdale, as with many suburban communities, significant public facility, service delivery and decision-making systems are vested in other governmental entities by law or agreement. Therefore, some of the long term planning, capital facility provision and ongoing maintenance and operating costs of such facilities and services reside in other decision-making entities. Education, health, water supply and sewage treatment facilities and services are examples of such operating services now vested by law or shared through pending agreements beyond the direct operating control of Town officials while parks and public safety services are the direct operating responsibility of the Town of Knightdale. Transportation and transit facilities and services decision-making, with the exception of the local and connector street systems, involve local, regional and State cooperative decision-making also.

The process of community facilities and public services planning consists of determination and application of level of service standards for the various physical components and requirements necessary to serve a community's existing and future population growth and development. One of the roles of the Comprehensive Plan is to establish public policy concerning the quality, quantity and optimum location criteria for each facility and service. Provision of such facilities and services are designed in a manner that reinforces and supports the vision, goals and objectives of a community relative to growth, development and accommodation of future population. Planning for Knightdale facilities and services are related to and have accounted for:

- Topography, geography and size of the area to be served
- Population
- Density of housing and intensity of non-residential uses
- The Land Use Plan
- The governmental and institutional nature of the service provider and service provision relationships

II. EDUCATIONAL FACILITIES

Public educational services for the Town of Knightdale for students in kindergarten through twelfth grade are provided by the Wake County School District. The District is responsible for provision of educational services county-wide. The FY 2001-2002 Wake County School District total student enrollment was 101,745. The District has adopted a 4% annual growth rate and anticipates an enrollment of 112,144 by the term year 2003-2004. In general, the District projects an increased enrollment figure of an additional 60,000 students by 2020 for capital and operational planning purposes.

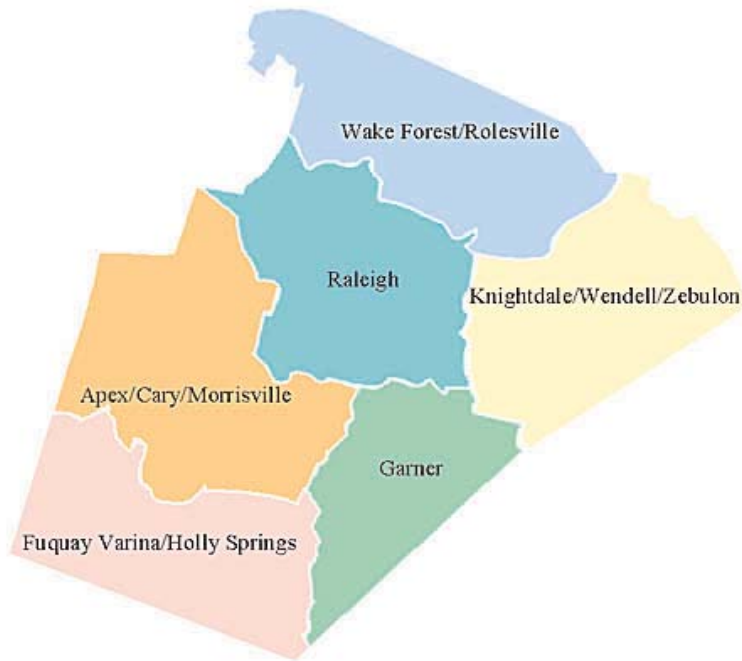


FIGURE 4.1

Wake County divides its attendance zones into six regions as illustrated above. Region F serves Knightdale, Wendell and Zebulon. Individual town and municipal jurisdictional boundaries of various local communities do not play a part in School District efforts to provide educational services to all students. Region F 2000-01 enrollment was 7,898, with 2004-05 enrollment forecast at 8,569 for an increase of 671 students. During the school year 2002, the Wake County School District provided

a total of 124 program facilities open or under construction. This consisted of seventy-five (75) elementary school, twenty-five (25) middle school, sixteen (16) high school and five (5) special school campus facilities within the Wake County attendance area. The Wake County School District Plan 2000 sets policy for the total system utilizing the series of six (6) Planning Regions.

In Knightdale, both an elementary and a high school are scheduled for completion in fall 2004. Forestville Road Elementary will open with a full-size gym, multi-purpose field and a soccer field. Knightdale High will open with a football stadium, baseball field, softball field, two Little League baseball fields, practice field, six tennis courts, and two basketball courts. Future athletic and park facilities, to be developed by the town, include: a community center with indoor pool, amphitheater, greenway, small lake area, softball fields, volleyball courts, and tennis courts.

County-wide district school attendance zoning boundary processes are the determining factor in the assignment of school service zones. Therefore, a school zone may include students from multiple localities. Because of this it is impossible to assess the educational delivery system from a purely local facility or quality of service perspective. Region F is well served and school facility plans in process will accommodate the student growth for the foreseeable future. Capital facility improvements planned for Region F in the Plan 2000 bond program are indicated below:

	Elem	Middle	High	Spec/Opt	Total
Total Schools	6	2	1	0	9
Major Renovations/Additions	2	0	1	0	3
Misc. Improvements	2	2	0	0	4
Total Improvements	4	2	1	0	7
New Schools	1	0	1	0	2



III. HEALTH CARE

Health and hospital services for the Town of Knightdale are regional in nature to Wake County generally. Knightdale area residents have access to a variety of hospital facilities in the greater Raleigh area:



FIGURE 4.2

The most immediately available hospital services are provided by the Wake Medical Center. The Wake Medical Center facility is located on New Bern Avenue in a campus with 515 beds, and providing 24-hour adult emergency department that treats more than 76,000 patients a year. It is Wake County's designated regional trauma center.

Wake Medical Center provides a broad range of services including Neurosciences which contains Wake County's only neuro intensive care unit and a nursing unit dedicated to neuroscience. Knightdale patients have access to Raleigh's only neuro-pathologist and neuro-radiologist, and one of only a few neurosurgeons in the world. Orthopedics include specialized hand and arthroscopic surgery, as well as artificial joint replacements, with more than 200 artificial joint replacement surgeries performed each year. Specially trained orthopedic nurses help patients from referral through discharge by providing care and education about the surgery and recovery process.

Alcoholism Treatment Center	3000 Falstaff Road
Carolina Rehabilitation Association	3000 New Bern Avenue
Central Prison	1300 Western Boulevard
Columbia Raleigh Community Hosp	3400 Wake Forest Road
Dorothea Dix Hospital	820 South Boylan Avenue
Healthsource	2308 Wesville Court
Integrated Health Services	3830 Blue Ridge Road
Radiology	3400 Wake Forest Road
Raleigh Community Hospital	3400 Wake Forest Road
Raleigh Community Hospital	3410 Executive Drive # 209
Rex Hospital	4420 Lake Boone Trail
Wake Medical Centre	3000 New Bern Avenue

FIGURE 4.3

WakeMed Rehab also has a broad continuum of trauma, neurological and orthopedic care with treatment of patients recovering from stroke, head and spinal cord injuries, brain injuries, arthritis and neuromuscular disorders. The 68-bed rehabilitation hospital is one of the largest and most comprehensive in the state, and is complemented by day treatment and outpatient rehabilitation services in Raleigh and Cary.

WakeMed provides a 16-bed Express Care and an eight-bed Chest Pain Observation Unit within the emergency department and includes North Carolina's only 24-hour freestanding Children's Emergency Department and a Telephone Call Center providing telephone medical advice for adults and children as a support for physician offices. All are conveniently located off the Raleigh Beltline (I-440) at New Bern Avenue (SR 64).



The Zebulon/Wendell Outpatient Rehab Program is located in Zebulon, North Carolina providing Skilled Nursing care and outpatient services with a comprehensive program.

IV. PUBLIC SAFETY AND SERVICES

A. Introduction

In July of 2002 the Town of Knightdale began operation of a public safety department. A "Public Safety" department is one in which there is some degree of integration of police and fire services. Across the country, this integration may range from separate departments that share a single administrator or department head to a fully integrated department composed of cross-trained officers who seamlessly function in both police and fire roles in a single shift. The definition encompasses many agencies in a range of governmental entities.

The Knightdale Department of Public Safety led by a Director of Public Safety. Separate police and fire divisions are organized under the leadership of this single Director. Knightdale's Public Safety Department has police officers which are trained as volunteer firefighters in order to supplement a skeleton crew of firefighters from the Fire Division. The cross training in this example only goes one way. The police officers can function as firefighters, but the firefighters cannot function as police officers.

An example of another level of integration would be a department that is fully cross-trained, but not cross functional. Its members are trained as police officers, firefighters, and paramedics. Although trained in all job functions, these department members are assigned to one job function. They report to fixed assignments as a police officer or firefighter/paramedic. Training is maintained in all aspects of the job and transfers can be made from one job function to another. Knightdale may explore the various public safety structure options in the future.

B. Public Safety Department Benefits

There are three main benefits to various public safety organization models. First, is the obvious potential to save money in personnel costs. The use of personnel in both the police and firefighter roles allows equal coverage with fewer personnel in certain cases. Depending upon the organization chosen for the public safety system, employee idle time can be greatly reduced. This, of course, has to be weighed against the call load, size, geography, and demographics of the area being protected. If the police or fire services are already being taxed to the limit by the number of calls for service then there is little hope that integrating the services will allow any reduction of personnel. The second benefit to be derived from a public safety system is that there is a unified organization and command structure. This benefit has two major points.



First, if all personnel are within a single department under a single management team it eliminates much of the inter-departmental rivalry that is common between police and fire departments. Since all personnel are members of the same department, what benefits one benefits all. The second, point is that in emergency situations there is already a unified command structure present. There is only one chain of command to direct both police and fire operations. The third benefit to the public safety concept is the first responder speed of delivery of fire and EMS services. In traditional fire and EMS systems personnel respond from the station or a fixed staging point. This necessitates a longer response time to remote locations. If cross-trained personnel are available to respond from police patrol districts it is highly likely that these personnel will be closer and able to respond quicker in an emergency. The first minutes of any emergency are crucial in determining the outcome and resources required to mitigate the emergency. If CPR can be started in the critical first four minutes or a fire can be extinguished before it gains headway then lives and property can be saved. This is the real benefit to a public safety system.

C. Fire Protection

The Knightdale Fire Division protects life and property from the harm caused by fire. Municipalities are required to provide fire protection services to all of its residents. The Town of Knightdale started its own fire division in 2002 to provide this service. Prior to establishing the Town's department, fire protection was provided by the Knightdale Volunteer Fire Department.

D. Fire Department Operations

Fire departments often consist of engine companies and ladder companies. Engine companies usually include at least one truck that includes hoses, nozzles and an on board tank. Engine companies are the first to respond to a fire call. Ladder companies ordinarily play a supporting role in fighting fires and provide above ground rescue. The need for ladder companies is based upon the amount and type of urban development. In a highly urbanized area, there is usually one ladder company for every two to three engine companies. In more rural areas, the ladder company function is assigned to an engine company carrying additional equipment. Fire departments also include special apparatus vehicles, such as off-road, hazardous materials, and command.

Water distribution and well trained fire fighters are the most important factors in providing fire protection services. The strengths of a water distribution system is measured by using three criteria: capacity, coverage, and reliability. Capacity for fighting fires is determined by the amount of water available in the system to fight a fire. Coverage is determined by the size and location of fire hydrants and water



mains. Reliability is determined by how much confidence there is in the system that there will be adequate water and water pressure available when the demands on the system are greatest.

In general, fire division services are judged by standards of service such as follows:

- Fire fighting, rescue and extrication response within three minutes, 90% of the time.
- Emergency medical aid within a three-minute response time, 90% of the time.
- Initial engine company response to all fire calls within three minutes and a fire attack with charged lines, 2=1/2" inch diameter within four minutes from time of dispatch.
- Ladder company response to all fire calls within five minutes from time of dispatch.
- Sufficient manpower on fire apparatus to provide safety of fire fighters and ability to perform basic fire and rescue operations within one minute of apparatus arrival on scene.
- Comprehensive in-service pre-plan fire inspections and systems training.
- Comprehensive school drills.

E. North Carolina Insurance Service Office

The North Carolina Insurance Service Office (ISO) establishes ratings for fire departments and municipalities in North Carolina. Each department or municipality is rated on a scale from 1 to 10, with 10 being unprotected. A property owner's fire insurance premiums are directly impacted by the ISO rating. Fire insurance is based upon cost per 100 dollars of value insured. Cost is determined by building materials and design and the ISO grade for the area that the building is located. A change from a rating of 9 to a rating of 6 could result in a 50% reduction in fire insurance premiums. A change from a rating of 6 to a rating of 4 could result in a 10% reduction in fire insurance premiums. The Town of Knightdale currently has an ISO rating of 6.

F. Master Planning and Intergovernmental Cooperation

A successful fire protection program results from dedicated and well trained fire fighters, proper management, and proper financing. Proper management ensures that fire service are provided for in an efficient and equitable manner. Efficiency ensures that the Town receives the desired level of fire protection at the least cost. Equity ensures that all areas and all people receive a similar level of service.

Since fire departments in Wake County have a Mutual Aid Agreement and depend on each other for equipment and personnel, the Town should work with Wake County and



other municipalities within Wake County in the provision of fire protection services to ensure desired level of fire protection at the least cost.

G. Police Services

Police responsibilities involve the prevention and suppression of crime, the investigation and apprehension of offenders and the protection of residents and visitors. Activities among the criminal justice system are interrelated, and therefore should remain in close proximity to affect close coordination. Automation and cooperation can reduce the amount of staff expansion needed without reducing the effectiveness of various components of federal, state, county and local police functions. Automatic aid agreements among other fire jurisdictions are essential to coordinated and cooperative service provision.

The Public Safety Department combination of local police and fire services in Knightdale can serve to support and advance the effectiveness of each division through planned co-location and facilities and the cross training and support of police as first responders to fire scenes.

H. Facility Needs and Standards

The Town of Knightdale has one fire station on Robertson Street and is researching the need for additional stations in the Town's planning area. The Town's police division and administrative unit is located at Knightdale Town Hall. Since the response time to a fire from a fire station is an important factor in fighting a fire, fire departments are organized on a system of decentralized fire stations. Fire station organization should allow for a concentration of stations for response into high risk areas, such as central business districts, industrial parks, schools, and multi-family developments. Areas at equal risk should have equal response times. Natural or artificial barriers that divide a town, such as the Mingo Creek and U.S. 64 in Knightdale, can limit response time and may make additional fire stations necessary.

The following general locational criteria should be used when siting new fire stations. Fire stations should be:

- Located adjacent to areas where development is most intense.
- Buffered from residential areas and low intensity development.
- Located near the center of its primary response area.
- Located near, but not on major roadways, because of the hazards on entering heavy traffic
- Located so as to minimize U turning movements.
- Located so as to ensure proper sight distance for entering and exiting the station, not on a curve or at the bottom of a hill.

- Located away from signalized intersections and railroad crossings so that traffic does not block egress from the station.

Generally, the ISO recommends that all structures or fire hydrants within the corporate limits be located within 1.5 miles of a fire station. The 1.5 mile radius should result in a maximum response time of four to five minutes. New fire stations should be built if the following criteria is met: the total number of fire hydrants outside, yet contiguous to the 1.5 mile radius, is equal to or greater than one-half the total number of hydrants within the 1.5 mile radius. For example, if there were 100 hydrants within the 1.5 mile service radius, there would need to be 51 more hydrants located outside, yet contiguous to the 1.5 mile radius to require the construction of a new fire station. Knightdale should work with the Volunteer Fire Department and the ISO when locating new fire stations.

The Town is researching a permanent location and development of a central fire station and administrative facility station in probable proximity to the Town Hall/Library complex. As development continues and growth increases a second station will be needed in the easterly reach of the Town. For a suburban community like Knightdale, a three-mile typical service radius with good road access permitting 3-5 minute fire apparatus response is a desirable distance separation criterion. Enhanced communication facilities incorporating technical advances and an established level of staffing dedicated to the co-delivery of police and fire services will strengthen the effectiveness of both divisions. Insuring connectivity among existing and future subdivisions and major land uses will serve to increase public safety and fire response times.

V. SOLID WASTE

The Town of Knightdale provides for solid waste removal for homes and apartments in the corporate limits. Knightdale contracts with a private waste disposal company for this service. Commercial and industrial users must contract independently with private waste disposal companies. A solid waste program includes collection, recycling and composting, and disposal. All of these services are included in the contract with the private waste disposal company.

A. Recycling

The Town provides for curb-side pick-up of the following recyclable materials: glass, plastic, aluminum, and newspaper. Recycling facilities are also provided for at Lockhart Elementary School and Knightdale Elementary School through a program established by Wake County. These facilities accept glass, plastic, aluminum, and office paper. The Town should encourage recycling by sponsoring educational

programs.

B. Composting

The Town has established a yard waste program. The collection of yard trash is performed by the private waste disposal company. The Town should encourage private composting by sponsoring educational programs. The Town should investigate the desirability of a municipal composting facility. The Town should stand as a model for using composted or recycled yard waste on Town owned lands.

C. Hazardous Waste

Hazardous waste is defined as a solid waste, or a combination of solid waste that because of its quantity, concentration, or physical, chemical, or infectious attributes, may: (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

To help reduce the amount of hazardous waste in Knightdale, the Town should coordinate with Wake County to sponsor a Household Hazardous Waste Collection Day. A Household Hazardous Waste Collection Day program allows people to bring hazardous waste to a set location, somewhere in the corporate limits of Knightdale, for disposal without a charge. The City of Raleigh and Wake County currently co-sponsor this program. All residents can participate in this program. The existing pick-up locations are in the City of Raleigh.

D. Projected Demand

Since there are huge economies of scale (this means that the unit price to dispose of a unit of garbage decrease as the size of the facility increases), Knightdale should work with Wake County and other municipalities in Wake County to ensure landfill capacity. As Knightdale's population increases and the demand for this service increases, the Town should monitor its contract with the private waste disposal company to ensure that this service is provided in an efficient and cost effective manner.

VI. COMMUNITY SERVICES OBJECTIVES AND ACTION ITEMS

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

A. Objectives:

The Town of Knightdale seeks to:

1. Direct and guide development so as to achieve optimum utilization of the public infrastructure and public safety; and
2. Ensure that public utilities and public safety will maximize fiscal efficiency and contribute to the overall economic, social, and physical health of the community.

B. Action Items:

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

- 4.1 The Town shall maintain elevated water storage so as to provide operational pressure; equalize demand; supplement supply capabilities for fire protection; and provide emergency reserves in case of an accident or natural disaster.
- 4.2 The Town shall, on an annual basis, monitor its contract with the private waste disposal company to ensure that this service is provided in an efficient and cost effective manner.
- 4.3 The Town shall provide training for operational and field personnel on recycling, composting, and hazardous waste.
- 4.4 The Town shall sponsor educational programs on the benefits of recycling and composting.
- 4.5 The Town shall investigate the feasibility of a municipal composting facility.
- 4.6 The Town shall stand as a model for using composting and recycled yard waste on Town owned lands.
- 4.7 The Town shall stand as a model for using recycled materials.
- 4.8 The Town shall coordinate with Wake County to sponsor an annual or semi-annual Household Hazardous Waste Collection Day.

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- 4.9 The Town shall work with Wake County and other municipalities in Wake County to ensure adequate landfill capacity.
- 4.10 The Town shall use the following general criteria when locating new fire stations.
Fire stations should be:
- Located adjacent to areas where development is most intense;
 - Buffered from residential areas and low intensity development;
 - Located near the center of its primary response area;
 - Located near, but not on, major roadways;
 - Located so as to minimize U turning movements;
 - Located so as to ensure proper sight distance for entering and exiting the station;
 - Not on a curve or at the bottom of a hill; and,
 - Located away from signalized intersections and railroad crossings so that traffic does not block egress from the station.
- 4.11 The Town shall work towards the following location standard for siting fire stations: that all structures or fire hydrants within the corporate limits be located within 1.5 miles of a fire station. The 1.5 mile radius should result maximum response time of five minutes.
- 4.12 The Town shall prepare and implement a Fire Protection Plan. The Plan shall define current and future fire protection services, establish fire protection service levels, identify the necessary resources to meet the fire protection service levels, and provide a process to implement and maintain service levels.
- 4.13 The Town shall prepare utility related ordinances during the 2003-04 UDO Update to include utility design standards, vegetated buffers, grease control, backflow prevention, water conservation, drought management and landscape irrigation systems which are as strict as Raleigh's ordinances.