

CHAPTER X. COMMUNITY FACILITIES ELEMENT

Community facilities address the most basic and essential services needed by City residents. Community facilities include the buildings, facilities, lands and services needed to serve the public health, safety and welfare and are collectively known as the community infrastructure. These assets help shape living and work environments, provide the physical framework for the attraction of new businesses and employment opportunities, and provide a foundation for new growth and development. While many community facilities are provided or administered by local governments, others are offered by utilities, hospitals, schools, and nonprofits.

The City of Clemson Community Facilities Element provides an inventory and assessment of the facilities and services available in the City, Pickens County, and surrounding jurisdictions. The Element profiles the infrastructure, providers, and partnerships associated with essential community facilities that include governmental services, water and sewer, utilities, solid waste collection, floodplain and stormwater management, fire and emergency medical services, police, education, health care, recreation and libraries.

A. GOVERNMENT

Governmental facilities house activities, persons, and records used in the operation of a government - whether local, county, state or federal. The need for additional governmental facilities is directly related to the growth of a community, since the addition of more people, more houses, and additional businesses and industries create the need for new and expanded governmental services. In some cases, increased services can be accommodated using existing space. However, in many cases, a substantial increase in the level and scope of governmental services requires additional operational space.

1. CITY OF CLEMSON GOVERNMENT

The City of Clemson was originally incorporated as the Town of Calhoun in 1901, with a change in name to Clemson adopted by residents in 1943 to avoid confusion with other towns named Calhoun. The State officially recognized the new name in 1946. The City operates under a council form of government. The Mayor and the six City Council members are elected at-large for a term of four years, with the terms of council members staggered so that one-half of the membership is elected every two years. The Mayor is the presiding officer of the City Council.

The City Council appoints a City Administrator, who serves as the chief administrative officer of the City and is responsible for directing the implementation of the policies of the City Council, directing business and administrative procedures, and appointing departmental officials and other City employees with the approval of Council. Under the direction of the City

Administrator, management of the City is carried out through 10 departments. Total employment for the City is 255, with the Transit, Indoor Recreation, and Police Departments having the largest number of employees at 64, 60 and 39, respectively. Table X-1 lists the City departments and the number of employees per department.

TABLE X-1. CITY OF CLEMSON DEPARTMENTS AND EMPLOYEES

Department	Employees
Administration	9
Engineering/Utilities	22
Finance/Utility Billing	10
Indoor Recreation	60
Municipal Courts	5
Parks and Recreation	8
Planning and Codes	10
Police	39
Public Works	28
Transit	64
Total Employees	255

Source: City of Clemson, August 2014.

The Clemson City Council appoints a total of 44 members to seven different boards and commissions that have oversight responsibility for issues ranging from arts and culture to architectural review (Table X-2).

TABLE X-2. CITY OF CLEMSON BOARD AND COMMISSION APPOINTMENTS

Appointed Body	Members	Terms
Arts and Culture Commission	7	3 years
Board of Architectural Review	7	4 years
Board of Zoning Appeals	7	4 years
Planning Commission	7	4 years
Building Board of Appeals	5	4 years
Parks and Recreation Board	2*	2 years
Police Department Advisory Board	9	3 years**

* 6 members, 2 appointed by Clemson City Council

** Representatives of Clemson University and Daniel High School Students serve 1 year terms

Source: City of Clemson, 2014.

All jurisdictions in South Carolina that regulate land use, including the City of Clemson, must have a **planning commission** and a **board of zoning appeals**. Members of both bodies are appointed by the governing body of the jurisdiction covered – the county, city or town council.

The duty of the planning commission is to develop and carry out a continuing planning program for the physical, social, and economic growth, development and redevelopment of the community. The planning commission directs the preparation and advises the governing body on the adoption of the development and update of the comprehensive plan. It also directs the preparation and update of land use regulations, including the zoning ordinance and land development regulations, and provides recommendations on the adoption of such regulations to the governing body. The Clemson City Council appoints seven members to the City of Clemson Planning Commission for a term of four years.

The role of the **board of zoning appeals** is quasi-judicial, and includes considering appeals to determinations made by the zoning official as well as hearing and ruling on applications for variance from the requirements of the zoning ordinance. The City Council appoints seven members for individual terms of four years to the City of Clemson Board of Zoning Appeals.

Local governments that include provisions for preservation or protection of historic or architecturally valuable districts, preservation and protection of significant or natural scenic areas, or protection or provision for the unique or special character of a defined district in their zoning ordinance may appoint a **board of architectural review** (BAR) or similar body as part of the mechanism to administer such provisions. The City Council appoints seven members to the City of Clemson Architectural Review Board for individual terms of four years.

The City's budget provides the means by which public services and facilities are paid for in a timely and efficient manner. As such, the budget is one of the primary implementation tools of the comprehensive plan. The annual budget serves as the foundation of financial planning for the City of Clemson. The City's annual budget is divided into several funds. The General Fund is used to finance day-to-day operations and capital improvements and represents the largest part of the total financial operations of the City. The City's Enterprise Operations are accounted for in four separate funds: Water Fund, Wastewater Fund, Sanitation Fund and Transit (CAT) Fund. The Water, Wastewater and Sanitation Funds are fee-based utilities, while CAT operates as an independent operating fund. Special projects and program groups funded through grants and other specific revenue sources are accounted for through Special Revenue Funds.

City Council is required to hold public hearings on the proposed budget and to adopt a final budget before July 1, the beginning of the City's fiscal year. The City budget for FY 2014-2015 exceeds \$20.9 million, a decrease of more than \$2.6 million from the FY 2013-2014 amended budget.

The City has a number of agreements in place with Clemson University, neighboring jurisdictions, and special districts to ensure timely and quality services for its residents and businesses, and to mobilize in case of emergency. These agreements include:

- 50% contractual ownership with the Town of Pendleton and an additional partnership with Anderson County for the Clemson/Pendleton Wastewater Treatment Plant.
- Joint development and ownership of the Central-Clemson Indoor Recreation Center, with the provision of shared recreation programs.
- Partnership with 12 other municipalities and water districts in the Anderson Regional Joint Water Treatment Plant.
- Contract with Clemson University and the Town of Central that provides jail holding services for the City.
- Provides transit services through Clemson Area Transit (CAT) in partnership with Clemson University, the Towns of Central and Pendleton, Anderson County, and the City of Anderson. The City of Seneca also contracts with CAT for transit services.
- Contract with the Town of Central for dispatching services.
- Contract with Clemson University to provide fire protection services.
- The City leases land at \$1 per year to construct and operate parks owned by the Corps of Engineers (Mountain View Park) and Clemson University (Old Stone Church Park).

2. PICKENS COUNTY GOVERNMENT

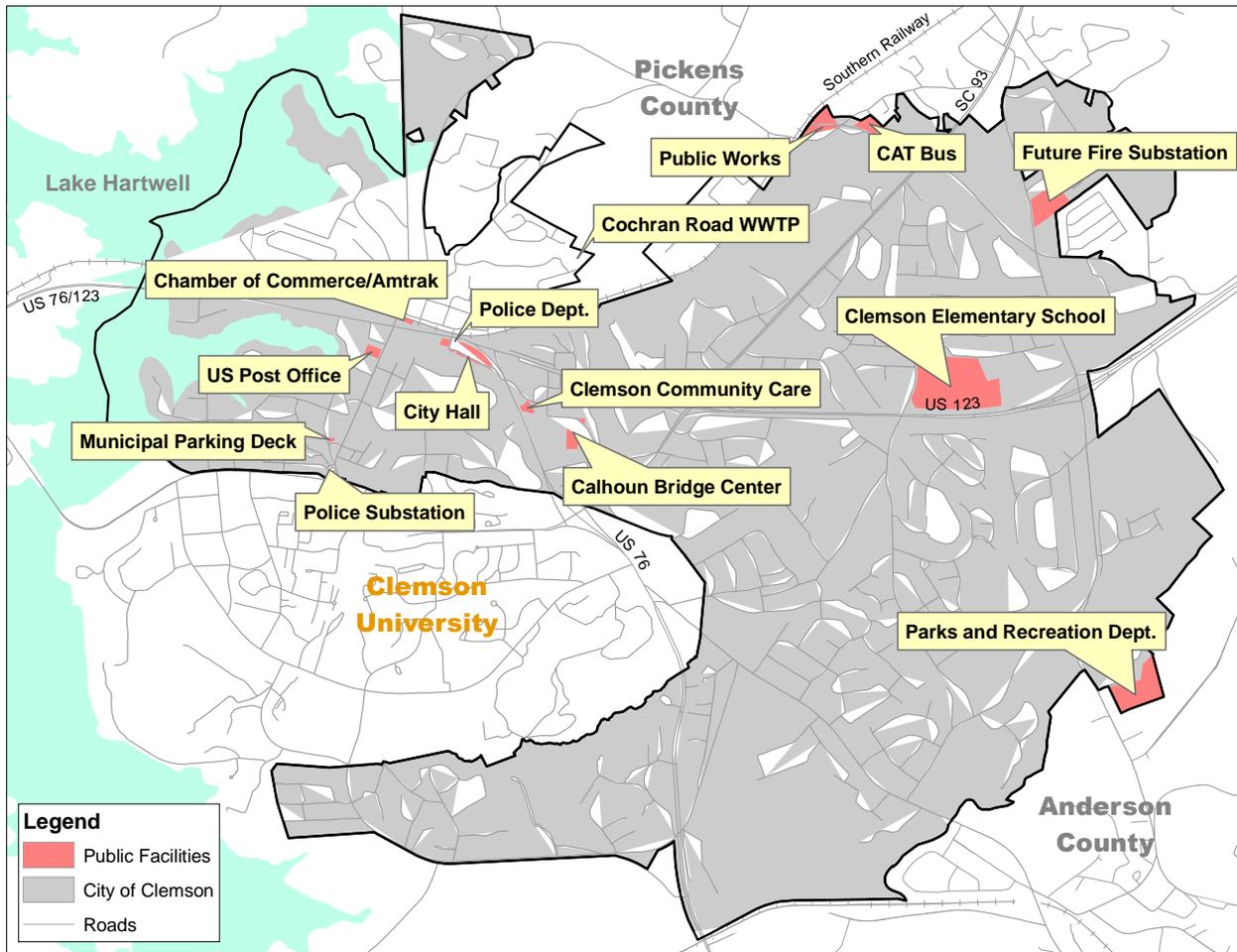
Almost all of the incorporated area of the City of Clemson is in Pickens County. Pickens County is governed under a Council/Administrator format. The Council consists of six members representing individual districts, including a Chairman who is elected by the members of Council. Each representative on the County Council serves a four-year term. The County Administrator is appointed by the Pickens County Council to serve as its Chief Administrative Officer and executes the policies, directives and legislative actions of the County Council. There are no buildings owned and maintained by Pickens County within the City of Clemson.

3. CITY OF CLEMSON FACILITIES

Most of the administrative functions of the City are housed in the City Hall, located on Tiger Boulevard. The first phase of the City's municipal complex was constructed in 1990, with major expansions completed in 1996 and 2008. The City Hall is home to the Departments of Administration, Planning and Codes, Engineering, Finance, Utility Billing, Municipal Court, and Information Technology. Additional City facilities include the Parks and Recreation building located on Nettles Park Road, the Public Works building on Old Central Road, the Utilities building that houses water and wastewater offices on Cochran Road, the Police Station on Tiger Boulevard, and the Clemson Area Transit office on West Lane.

Also included in the facilities owned by the City are the Littlejohn Community Center on Old Greenville Highway, the Clemson Community Care building on Anderson Highway, the Clemson Free Clinic on Tiger Boulevard, the Clemson Depot building on Tiger Boulevard that houses the Chamber of Commerce and the Amtrak Station, and the Calhoun Bridge Center on Butler Street that is home to the Arts Center, the Clemson Area African-American Museum, and the Clemson Child Development Center. The City also owns the Central-Clemson Indoor Recreation Center that is located nearby in the Town of Central. While the facilities are owned by the City of Clemson they are provided at moderate rental rates to these non-profit groups.

MAP X-1. PUBLIC FACILITIES IN THE CITY OF CLEMSON



Source: City of Clemson, 2014

4. EDUCATIONAL, STATE AND FEDERAL FACILITIES

Public Pre-K through 12 students residing in the City of Clemson attend Clemson Elementary School, located on Berkeley Drive within the City, and R.C. Edwards Middle School and Daniel

High School, both located nearby in the Town of Central. These schools are part of the Pickens County School District and are located in the Daniel attendance area.

Gentry Hall, located on SC Highway 93, is owned by the State of South Carolina but is managed by Clemson University and houses the Campus Planning Department. Littlejohn House, located on Daniel Drive, is also owned by the State but managed by the University. Littlejohn House houses some Clemson University administrative services. The State also owns several properties located adjacent to the Botanical Gardens on Bentbrook Lane, which are currently vacant.

Federal facilities in the City include Army Corp of Engineers properties along Lake Hartwell and the US Post Office. Mountain View Park and Abernathy Park are leased by the City of Clemson and are used as parkland. Abernathy Park includes a boardwalk and pavilion, and Mountain View Park features a boat landing and a small Frisbee golf course. The US Post Office in the City is located on College Avenue.

B. ANNEXATION

South Carolina law authorizes three methods of annexation of privately owned property:

- 100% freeholder petition and ordinance method
- 75% freeholder petition and ordinance method
- 25% elector petition and election method

Annexation of any area or property which is contiguous to a municipality may be initiated by filing with the municipal governing body a petition signed by all persons (100%) owning real estate in the area requesting annexation. Upon agreement to accept the petition and annex the area, and subsequent enactment of an ordinance by the governing body declaring the area annexed, the annexation is complete. This option is most often used when all of the properties involved in the annexation are under the same ownership.

Annexation of any area or property which is contiguous to a municipality may be initiated by filing with the municipal governing body a petition signed by 75% or more of the freeholders owning at least 75% of the assessed value of property in the area to be annexed. Upon agreement to accept the petition and annex the area, compliance with required procedures, and enactment of an ordinance by the governing body declaring the area annexed, the

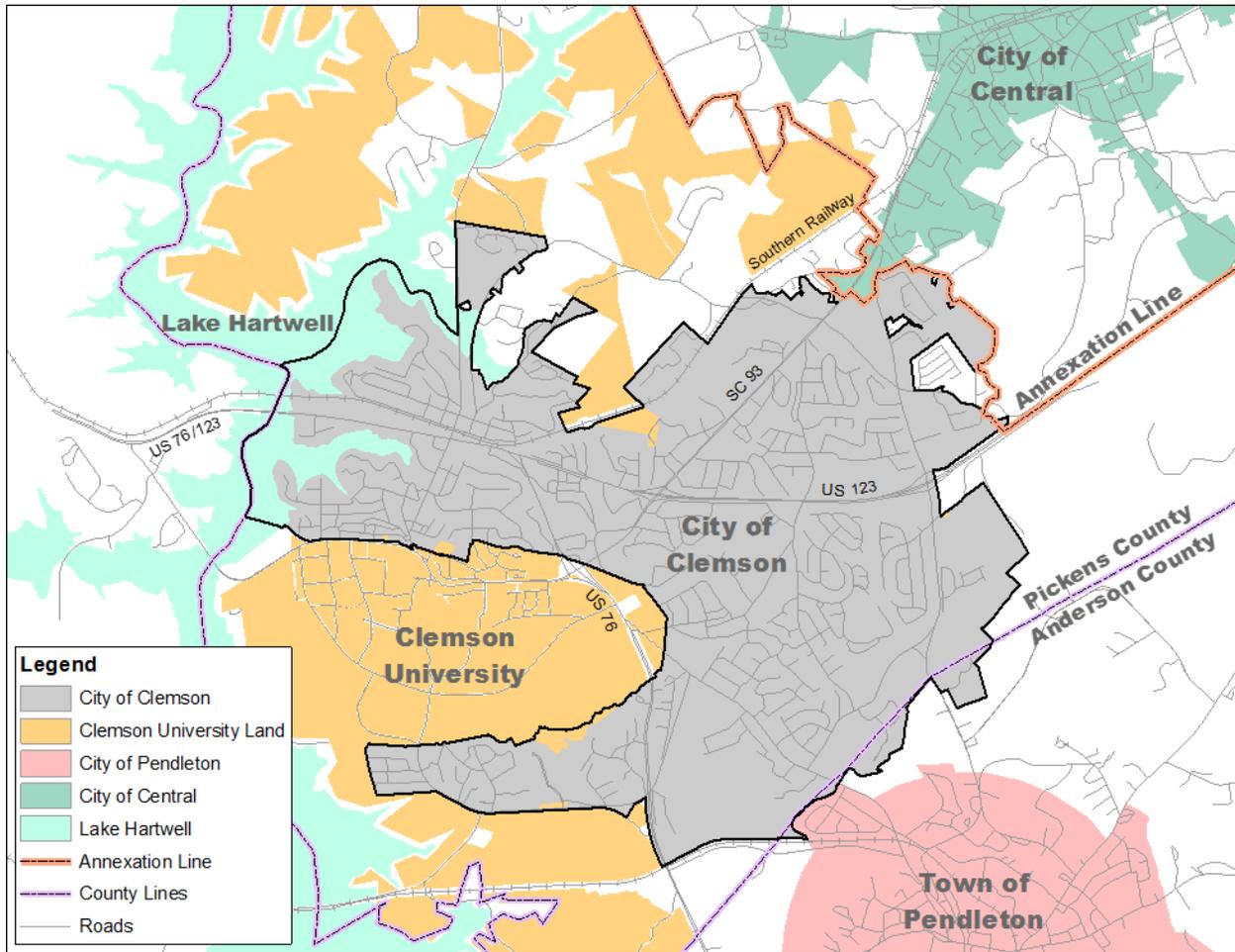
annexation is complete. The 75% petition method of annexation requires the annexing municipality to conduct a public hearing. During the public hearing, the municipality must present a statement addressing what public services the municipality will assume or provide, the taxes and fees required for the proposed services, and a timetable for services. While no other annexation method has this requirement, feasibility of providing services is an important consideration for any proposed annexation.

Property annexed pursuant to State law must be “contiguous” to the annexing municipality. “Contiguous” means property which is adjacent to a municipality and shares a continuous border. Contiguity is not established by a road, waterway, right-of-way, easement, railroad track, marshland, or utility line which connects one property to another. However, if the connecting road, waterway, easement, railroad track, marshland, or utility line intervenes between two properties, which but for the intervening connector would be adjacent and share a continuous border, the intervening connector does not destroy contiguity.

The 25% petition and election method of annexation was deemed constitutional after an amendment to the original annexation provisions in 2000 and requires a petition of 25% of qualified electors residing in the area to be annexed. The petition is filed with the municipal council, which certifies the petition to the county election commission by resolution. The election commission then orders an election to be held within the area proposed to be annexed. If a majority of qualified electors vote in favor of annexation, the council by written resolution must publish the results of the election. If no opposing petition (signed by 5% or more of the electors within the municipality) is received, the annexation is adopted by ordinance. If an opposing petition is received, the matter is decided by a municipal election. The procedure for this annexation method is specified in detail in the statute and must be carefully followed.

In addition to the constraints to annexation imposed by State law, the City of Clemson faces a number of impediments to annexation. As illustrated in Map X-2, Lake Hartwell provides a natural barrier to the west. Clemson University lands are not included in the City and are not expected to be annexed in the future. These properties border much of the City to the west and limit expansion to the north as well. The Town of Pendleton is located to the south and shares a portion of its border with the City of Clemson. Similarly, the Town of Central is located to the northeast and also shares a portion of its border with Clemson. In addition, a court order established a fixed annexation line that assigns affected properties to either the City of Clemson or the Town of Central for future annexation purposes.

MAP X-2. ANNEXATION LIMITATIONS, CITY OF CLEMSON



Source: City of Clemson, 2014.

Largely because of these constraints, only six properties totaling 96 acres have been annexed into the City of Clemson since 2000 (Table X-3). The largest was a 51.8 acre parcel on Issaqueena Trail and US Highway 123 that was annexed in 2002. Smaller annexations ranging from 1.3 acres to 13.25 acres followed in 2003, 2007, 2009 and 2011.

TABLE X-3 ANNEXATIONS SINCE 2000, CITY OF CLEMSON

Name and Location	Date	Size
Issaqueena Trail – Issaqueena Trail and US Hwy 123	2002	51.78 acres
The Woodlands - West Lane and Old Greenville Hwy	2003	12.15 acres
Nettles Park Expansion – Southeast of Nettles Park	2007	13.25 acres
Water Tower Parcel – West Lane	2007	1.32 acres
CAT BUS/Public Works Site -1155 Old Central Road/200 West Lane	2009	8.72 acres
The Orchard – 708 Old Central Road	2011	8.88 acres

Source: City of Clemson, August 2014.

Annexation is advantageous to adjacent property owners wishing to obtain water and sewer services, as only properties within the City can be provided sewer service by the City. Water services are provided to properties outside of the City, but at a rate that is 50% higher than for properties within the City.

The City has identified several areas that have the potential for future annexation. These include approximately 669 acres to the north of the City, 2,814 acres to the east, 114 acres to the west in Oconee County, and 142 acres to the South that include properties owned by Pacolet-Milliken Enterprises. Pacolet-Milliken is currently partnering with the City of Clemson and the Town of Pendleton to develop a master plan for combined tracts totaling approximately 380 acres. At this time more than 200 acres of this land are already included within the City of Clemson. These potential growth areas are discussed in detail in the City's Land Use Element.

C. UTILITIES

Like all cities, the vitality and development pattern of the City of Clemson depends on a reliable and accessible network of public and private utilities and infrastructure. Utilities include those services that are the most vital to the citizens of a community – the provision of water, wastewater disposal, solid waste disposal, access to reliable telecommunications (telephone, cable, and internet access) and electricity. Not only are these services essential for individual citizens, they are also vital to businesses and service providers and impact the long-term growth of the City. Access to adequate services such as water and sewer is critical to the suitability of an area for future development. A key factor weighed by industries and businesses when considering a site is whether that site has ready access to adequate water and sewer facilities. The availability of water and sewer also effects the location and affordability of residential development.

1. WATER SERVICE, TREATMENT, AND DISTRIBUTION

Access to water service plays an important role in the development patterns of a community. Residential development outside of water service areas must utilize wells, adding to the initial cost of each residential unit. Many businesses and industries require the reliability and access to water that only a public utility can provide.

The City of Clemson owns and operates a public water system, providing water service to approximately 14,650 customers through 8,157 taps within its service boundary. The distribution system primarily serves customers in Pickens County, with a small portion of the

distribution system crossing into Anderson County. The water system includes two elevated storage tanks and approximately 112 miles of transmission and distribution lines that range in size from two inches to 16 inches in diameter. The distribution system is divided into two distinct zones. *Zone One* is a low-pressure zone that serves the City of Clemson. *Zone Two* is a high-pressure zone that serves the Old East Clemson/Central area. Pressure for both zones is controlled by elevated storage tanks.

The City of Clemson's water supply is obtained from Lake Hartwell through the **Anderson Regional Joint Water System** (ARJWS). Founded in 2000, ARJWS is a partnership of 14 rural and municipal water districts, including the City of Clemson. Clemson University is also an ARJWS partner, but is exempted from participation on the governing board. The Joint Water System is governed by a 14-member Board of Commissioners that includes representation by each member water district or municipality.

A secondary supply of water is also available from the Town of Central. The Town receives its water supply from the **Easley-Central Water District** and has as much as 400,000 gallons per day (GPD) available for wholesale consumption that can be accessed by the City of Clemson in an emergency situation.

As an ARJWS partner, the City of Clemson owns 4.76 million gallons per day (MGD) of the ARJWS **Lake Hartwell Water Treatment Plant** capacity. The Lake Hartwell WTP is located on the Lake in Anderson County. Raw water is treated at the Plant, transported through a 24-inch pipe that parallels US Highway 76, and pumped into a 750,000 gallon storage tank located at the intersection of US Highway 76 and Pendleton Road. In addition, storage is provided by a five million gallon ground storage reservoir located at the Clemson Booster Station near I-85 that is equipped with an emergency back-up generator. The reservoir provides a capacity of 1.15 million gallons per day (MGD) for City use.

In addition, one million gallons of treated storage capacity is available in the City's elevated storage tanks. A 500,000 gallon elevated storage tank on Butler Street serves Zone One, with Zone Two served by a 500,000 gallon elevated storage tank on West Lane.

Average daily water use for the Clemson water system is 1.599 MGD, with peak volume reaching 2.26 MGD. Two ARJWS meters serve the City – an eight-inch meter located at the base of the ARJWS 750,000 gallon elevated storage tank and a six-inch meter located on US Highway 76 near the intersection with Old Stone Church Road. The City of Clemson has a third meter that only supplies potable water to the Milliken Finishing Plant on Excelsior Road. All of

the City's water is supplied by the two ARJWS meters, with approximately 30% of that water pumped to the Zone Two system and the Town of Central via the Chapman Hill Booster Pump Station. The Chapman Hill Station houses three pumps and an emergency generator with the capability to automatically switch over during emergencies.

The City of Clemson continually replaces and upgrades water lines and facilities through the implementation of a five-year Capital Improvement Program that identifies issues and deficiencies that should be addressed. Through this program, the City has systematically been replacing water lines since 1984. The City replaces and upgrades approximately 2,500 feet of pipe each year, with the added benefit of also upgrading fire protection. All water services along a line are upgraded when a new line is installed and new meters are installed. In 2005, the City utilized funds obtained through the State Revolving Fund low cost loan program to install approximately 23,750 feet of 12-inch transmission lines to supply water to the new Chapman Hill Booster Pump Station, two new elevated storage tanks, and the Town of Central. In addition, approximately 9,000 feet of 6-inch and 8-inch distribution line was installed to improve water pressure, quality, and reliability throughout the system.

In 2015, the City plans to replace approximately 37,500 feet of waterlines ranging in size from 1.5 inches to 10 inches at a cost of \$1,692,500 through a project to be funded with loan assistance from the State Revolving Fund.

2. WASTEWATER SERVICE, COLLECTION ,AND TREATMENT

The availability of sewer service is critical to higher density residential development and location or expansion of business and industry. Residential development outside of sewer service areas must utilize septic systems, adding to the initial cost of each residential unit through installation and maintenance costs as well as larger lot requirements. Although larger lots can generally mean higher costs per residence, it should be noted that septic systems are most often employed in the more rural areas where land prices tend to be lower. For most businesses and industries, the availability of sewer service is a requirement for new facility location. Most of the properties within the City of Clemson have access to the City's sewer service. A few areas on the periphery of the City including properties on Spring and Tabor Streets and Lynwood, Bentwood, and Nettles Roads are served by Pickens County or the Town of Central, or have septic systems. Although the Vickery Drive area is not presently served by public sewer, sewer lines are in place there.

The City of Clemson is served by two wastewater treatment facilities, with approximately 105 miles of gravity sewer and nine miles of force main sewer lines. The City also has joint

ownership with the Town of Pendleton of additional gravity sewer lines. The City maintains 16 wastewater pump stations with flow capacities ranging from 1,200 gallons per minute (GPM) to 50 GPM.

The City's **Cochran Road Wastewater Treatment Plant** was constructed in 1963 with an original treatment capacity of 200,000 GPD, which was later expanded to 1.15 MGD. Treatment is accomplished through an extended aeration process, with treated wastewater discharged into Lake Hartwell. Currently, the Plant is processing an average daily flow of 820,000 GPD, leaving a balance of 330,000 GPD available to accommodate future development. When the Wastewater Treatment Plant reaches an 80% flow capacity of 920,000 GPD, the City must initiate a planning process with the SC Department of Health and Environmental Control (SCDHEC) to increase capacity to 2.0 MGD. The City is currently upgrading the aeration capability at the Plant through the installation of four aerators to add dissolved oxygen. The City is also completing a land swap with Clemson University to acquire five additional acres adjacent to the Cochran Road Plant site that will enable the facility to expand to a capacity of 2.0 MGD within the next few years.

The **Pendleton-Clemson Wastewater Treatment Plant** (WWTP) on Woodburn Road in Pendleton is jointly owned by the City of Clemson and the Town of Pendleton. The WWTP was constructed in 1981 with an original capacity of 1.3 MGD, which was later expanded to a rated capacity of 2.0 MGD. The Plant is administered by the Pendleton-Clemson Joint Wastewater Treatment Committee, which is comprised of representatives from both municipalities. Treatment is accomplished through an extended aeration process, with treated wastewater discharged into Eighteen Mile Creek. The average daily flow at the Pendleton-Clemson Plant is 1.092 MGD.

The Pendleton-Clemson Wastewater Treatment Plant currently serves the City of Clemson, the Town of Pendleton, and Anderson County. A capacity of 1.0 MGD is provided to the City of Clemson, 900,000 GPD is provided to the Town of Pendleton, and 100,000 GPD is provided to Anderson County. Currently, the WWTP's unallocated capacity is 589,000 GPD, of which 159,000 gallons is available to the City of Clemson. Actual utilization of capacity by the City of Clemson is only 400,000 GPD at present, leaving a balance of 600,000 GPD that can be utilized to accommodate future development.

Several projects are planned or underway to improve the Pendleton-Clemson WWTP. In 2011, a \$5,000,000 upgrade to the Pendleton-Clemson WWTP was completed that included upgrades to membrane filtration and ultraviolet light disinfection systems and equalization basins. For

that project, the City of Clemson provided 50% of the debt service coverage, the Town of Pendleton 45%, and Anderson County 5%. A preliminary engineering report has also been completed for a project that will increase the capacity of the Pendleton-Clemson plant to 3.0 MGD to assure adequate capacity for the next twenty years. Per the Plant's Advancement Agreement with SCDHEC, additional flow can continue to be allocated until 80% actual flow is reached (1,600,000 MGD), at which time planning for a plant expansion must begin.

As with water facilities, the City of Clemson replaces and upgrades sewer lines and pump stations through the on-going implementation of a five-year Capital Improvement Program that identifies issues and deficiencies that should be addressed. The City of Clemson has been replacing sewer lines since 1986. Approximately 2,500 feet of pipe is replaced and upgraded each year. Most of the sewer lines selected for replacement were originally installed in the 1960s, while some were initially in private systems that included six-inch clay pipes and brick manholes that have since been damaged by root intrusion from nearby trees and shrubs. Some sewer lines have exceeded their useful life and are deteriorating rapidly.

A \$1.424 million wastewater collection project is currently underway that will replace 14,500 feet of sewer line with eight-inch and precast manholes in the City. The project will be funded through loan assistance from the State Revolving Fund. During construction, service lines to homes will be reconnected and sewer "clean-outs" will be installed near the tap for customer convenience and for inspection purposes.

3. ENERGY SOURCES

While electricity is the primary source of energy for the City, residents have several heating fuel options. More than 72% of the City's housing units are heated with electricity and 26.8% are heated with natural gas (Table X-4). Only one percent of housing units are heated with bottled, tank, or LP gas. There were no homes that reported using other fuel sources such as fuel oil and kerosene, wood, or solar energy.

TABLE X-4. HEATING FUELS FOR OCCUPIED HOUSING UNITS, 2012
CITY OF CLEMSON, PICKENS COUNTY AND SOUTH CAROLINA

Type of Heating Fuel	City of Clemson		Pickens County		South Carolina	
	#	%	#	%	#	%
All Occupied Housing Units	5,823	100.0%	44,227	100.0%	1,768,255	100.0%
Utility (Natural) gas	1,560	26.8%	13,418	30.3%	427,949	24.2%
Bottled, tank, or LP gas	57	1.0%	2,808	6.3%	87,486	4.9%
Electricity	4,206	72.2%	25,548	57.8%	1,194,604	67.6%
Fuel oil, kerosene, etc.	0	0.0%	1,375	3.1%	31,012	1.8%
Coal or coke	0	0.0%	13	0.0%	154	0.0%
Wood	0	0.0%	964	2.2%	19,836	1.1%
Solar energy	0	0.0%	0	0.0%	189	0.0%
Other fuel	0	0.0%	30	0.1%	1,798	0.1%
No fuel used	0	0.0%	71	0.2%	5,227	0.3%

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

a. Electricity

Duke Energy provides electricity in the Clemson area. The investor-owned company is the largest electric power holding company in the United States, supplying energy to approximately 7.2 million electric customers in South Carolina, North Carolina, Indiana, Ohio, Kentucky, and Florida. Duke provides electricity to 720,000 customers in the State of South Carolina. The company has a total generation capacity of 57,500 megawatts carried through 32,300 miles of transmission lines. The Company operates coal-fired, nuclear, oil and gas-fired, and hydroelectric stations. In FY 2013-14 nearly 73% of Duke Power's electricity was generated by coal, oil, and gas, with 27.4% produced by nuclear energy (*Duke Energy Power Generation Portfolio, June 30, 2014*). However, it is likely that with the City's close proximity to Duke Energy's Oconee Nuclear Station, much of the City's electricity is generated by nuclear power. Since operations began at the Oconee Nuclear Station in 1974, the Plant has generated more than 500 million megawatt-hours of electricity. The Plant generating capacity now stands at 2,538 megawatts, making it one of the nation's largest nuclear plants.

b. Natural Gas

The Fort Hill Natural Gas Authority (FHNGA) is the exclusive provider of natural gas service in the City of Clemson and the surrounding service area. FHNGA is a Public Service District of the State of South Carolina and was created by the General Assembly through Act 789 in 1952. The

Authority is governed by a six-member Board of Directors, with members appointed by the Governor of South Carolina for six-year terms. The Authority utilizes 5/8-inch to 10-inch transmission lines to provide service to approximately 38,000 residential, commercial, and industrial customers in its service area, which includes all of Oconee and Pickens Counties and portions of Anderson County.

Fort Hill purchases natural gas for resale to our customers on the open market. The gas is transported from various sources in the gas-producing regions of the United States to Fort Hill via three interconnects with Williams Gas Transco Pipeline in Anderson County. Williams Energy operates three natural gas pipelines, which together deliver approximately 14% of the natural gas consumed in the United States. Their Transco pipeline delivers natural gas to customers in South Carolina through its 10,200 mile system that extends from South Texas and culminates in New York City.

c. Energy Conservation

Community facilities have substantial influence on energy usage patterns in a community and provide an effective arena for the introduction and implementation of local energy conservation measures. While community facilities are provided and maintained primarily by local governments and by institutions within the community, some facilities such as roads and educational centers are built and maintained by state or federal governments. Institutional facilities also include hospitals, health clinics, private schools and colleges, and other public, non-governmental facilities.

Local governments and public institutions are among the leading consumers of energy within a community. This is due in large part to the size of public buildings and facilities, coupled with the fact that such facilities are often older and less energy-efficient. Institutions such as hospitals, police stations and prisons are in operation 24 hours a day and rely on equipment that requires substantial amounts of energy around the clock. Schools and other public buildings have a great deal of traffic in and out of the buildings, which significantly increases the heating and cooling needs of such facilities.

As high-profile energy consumers, local governments and institutions have a tremendous opportunity and responsibility to promote energy conservation through the efficient use of energy within their operations. In addition to the significant energy cost savings that can be realized through energy conservation within public institutions, successful programs can also encourage private entities and citizens to conserve energy. Local government conservation efforts typically fall into one of several categories: administration, policies, and employee

education; community facility site selection; building efficiency and site design; facility management; and fleet efficiency.

Efforts to reduce energy consumption and mitigate rising energy costs have come to the forefront for many local governments and public institutions as they struggle to meet these escalating costs, while maintaining current service levels within the confines of a limited budget. Locally, the City of Clemson, Clemson Area Transit, and the Pickens County School District have implemented energy conservation measures.

Under the leadership of Mayor Larry Abernathy, a Green Ribbon Committee was formed in 2008 to develop recommendations and cost estimates for ways to make the City of Clemson a “greener” city. The Committee submitted their draft *Climate Action Plan* to City Council in August 2009. The four-page plan included recommendations on energy use in facilities; energy acquisition, generation and utilization; outdoor lighting; vehicle fuel efficiency; alternative fuels; trip reduction; recycling; and waste and land use. The *Climate Action Plan* led to the development of the City’s *Energy Plan*. Under the *Energy Plan* an Energy Team was organized to discuss and implement energy management issues such as organization-wide energy use reduction policies, capital improvement plans, and maintenance issues. The Team is comprised of 11 representatives from facilities, operations, maintenance, administration, finance, board members, and other stakeholders. Members of the Team possess the expertise to formulate methods of conservation as well as the management levels to bring them to fruition.

Under the *Energy Plan*, a facility assessment was conducted that includes facility age, condition, size, average energy use for electricity and natural gas, and hours of operation. The Plan includes seven major elements: improve lighting efficiency, alternative and renewable energy sources, develop energy conservation awareness, incorporate energy efficient materials in municipal buildings and new construction, incorporate energy efficiency in City operations, improve fuel efficiency, and reduce water consumption. Strategies include evaluate and implement lighting changes, use alternative energy sources in municipal facilities, publicize conservation measures throughout the City, evaluate building envelopes for energy, incorporate energy efficiency considerations into new construction and renovations and the procurement of equipment, evaluate computer energy use, consider fuel efficiency when replacing vehicles, encourage walking and cycling, and consider plumbing efficiency. The City has applied for and obtained grants to assist in the implementation of several of these measures. Actions already taken or in progress have included: retrofitting the City Parking Deck with LED lighting; installing light sensing controls in new construction; instituting a “lights out/computers off” policy in all City facilities when not in use; using solar energy to reduce

heating costs for the pools at the Indoor Recreation Center; capturing rain water from the roof of the new CAT facility to use for bus washing; incorporating life-cycle costs into the bid award process; and making energy efficiency a part of the specifications for bidding on equipment purchases.

The City has also incorporated citywide energy requirements for new construction and renovations, through the adoption of the *2009 International Energy Conservation Code* in January 2013 as an update to the previously adopted *2006 Code*.

In 2014, Clemson Area Transit (CAT) began operation of the World's first all-electric bus fleet, which is based out of the City of Seneca. The City was awarded a \$4.1 million grant by the Federal Transportation Administration in 2013 to purchase four Proterra electric buses. The emission-free buses are manufactured in nearby Greenville and serve the Seneca Express route that travels from downtown Seneca to Clemson University 60 times each week. The state of the art CAT transportation complex on West Land in Clemson was constructed in 2010 and incorporates 210 solar panels, advanced energy sensors and controls, heat-retaining and reflecting windows, energy efficient heating and cooling, storm water reclamation, a pervious parking surface, and two outlets for plug-in hybrid electric vehicles. Funding for the building, which includes 7,000 square feet for office space and a 16,500 square foot covered parking garage for bus storage, was provided through a \$2.5 million American Recovery and Reinvestment Act/TIGER grant.

The Pickens County School District is nearing completion of a massive building program that has added a little over a million square feet of air conditioned building space. In response to the *State Energy Conservation Act*, the District embarked on an energy conservation program in 2010 and hired a full-time Energy Manager in 2012. The District installed a state of the art, web-based energy management system to control all of the HVAC systems, as well as the lighting in the new facilities. The system lowers temperatures to 78 degrees cooling and 64 degrees heating during times when facilities are unoccupied and sets fixed temperatures of 74 degrees cooling and 70 degrees heating when the facilities are occupied. Power meters are monitored and the system reduces load when it approaches peak energy usage. Energy conservation teams have also been established in each of the District's schools. These programs have enabled the District to save \$4.9 million in energy costs from FY2011 to FY2014.

4. TELECOMMUNICATIONS

Telecommunications have become increasingly important to daily life and commerce, enabling communication between individuals or among large numbers of people within significantly

reduced time frames. In the last quarter century, unprecedented growth in digital technologies has revolutionized telecommunications. One of the most significant developments fueling this growth was the conversion from analog to digital processing. In communications, digital encoding of voice signals is used to represent voice signals of varying levels and pitch. The transmission and processing of digital communications signals, coupled with the use of fiber optic transmission technology, have fueled rapid innovations in telecommunications services, quality, and transmission speeds.

a. Phone, Television, and Internet Service

Traditional telephone service is provided to City residents by AT&T, Verizon, Vonage, Northland Communications, and Charter Communications. Mobile wireless telephone and data services are available in the Clemson area from a wide range of providers including AT&T, Sprint, T-Mobile, and Verizon Wireless. Television services are available to City residents through a number of providers including AT&T, Charter Communications, Dish, DirectTV, Northland Communications, CenturyLink, and Time Warner.

High-speed internet service is available within the City of Clemson from a number of providers, including AT&T, Comcast, Charter Cable and Internet, Hughes Net, Dish, Time Warner, Cox Communications, and CenturyLink.

Wireless internet technology (WI-FI) is widely available in the City at many businesses, restaurants, motels/hotels, and housing developments. In addition, the City of Clemson's Information Technology Department is providing wireless providers with information on possible locations on City properties for the development of a distributed antenna system, which could deliver greater service options for City residents, reduce costs for municipal agencies, and increase the overall bandwidth available in the City. Increases in the strength of the wireless network will facilitate the continued connectivity of City agencies, especially on occasions such as game day weekends which greatly increase the demand for bandwidth with the influx of wireless users.

D. STORMWATER MANAGEMENT

Because high levels of sediment, oil, toxins, and other pollutants flow from impervious surfaces through storm sewer systems into waters, stormwater discharges are a significant contributor to the impairment of local water quality. In 1987, the US Congress established a phased

approach to regulating discharges. The largest municipalities were regulated first, followed by smaller municipalities that are located in urbanized areas.

The City of Clemson was identified as being within the Greenville urbanized area according to the 2010 Census and was designated by the SC Department of Health and Environmental Control (SCDHEC) as a Regulated Small Municipal Separate Storm Sewer System (MS4) in October 2014. According to SCDHEC, “an MS4 is a system of conveyances that include, but are not limited to, catch basins, curbs, gutters, ditches, man-made channels, pipes, tunnels, and/or storm drains that discharge into waters of the State. For these conveyances or system of conveyances to be recognized as an MS4, a state, city, town, village, or other public entity must own them. These conveyances must also not be part of a publicly-owned treatment works and may not operate as a combined sewer.” Waters of the State include “lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially within or bordering the State or within its jurisdiction.”

As a designated MS4, the City is regulated under the Federal National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water Program. Regulated Small MS4s must develop a program to cover each of the following minimum control measures:

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site runoff control
- Post-construction site runoff control from new and redeveloped sites
- Good housekeeping at municipal operations

An application for a Municipal Separate Storm Sewer System (MS4) permit is currently under development by City staff. Until the MS4 permit is issued, stormwater management within the City is administered by the SC Department of Health and Environmental Control’s Stormwater Permitting Section as part of the National Pollutant Discharge Elimination (NPDES) permitting program. NPDES is a regulatory program created under the *Clean Water Act*, and is the source for the majority of the mandated state and federal regulations. Under the NPDES Permit Program, stormwater discharges are considered point sources and operators of these sources are required to receive an NPDES permit before they can discharge stormwater runoff.

Stormwater permits are required for all construction sites of one acre in size or larger, for many industrial sites, and for all regulated Municipal Separate Storm Sewer Systems (MS4s).

The City has drafted a *Stormwater Management Ordinance* that is currently under review by City staff. The purpose of the Ordinance is to protect the lands and waters from the effects of excessive soil erosion and sedimentation, to prevent siltation of streams and lakes, to prevent clogging of drainage channels, to reduce excessive flood damage, and to prevent damages to the property of adjacent landowners. This will be accomplished in compliance with the federal and corresponding state stormwater discharge (NPDES) regulations (*40 C.F.R. § 122.26 and S.C. Regulation 61-9.122.26*) developed pursuant to the *Clean Water Act*, and will assure the City of the authority to take any action required by it to obtain and comply with its NPDES permit for stormwater discharges.

E. FLOODPLAIN MANAGEMENT

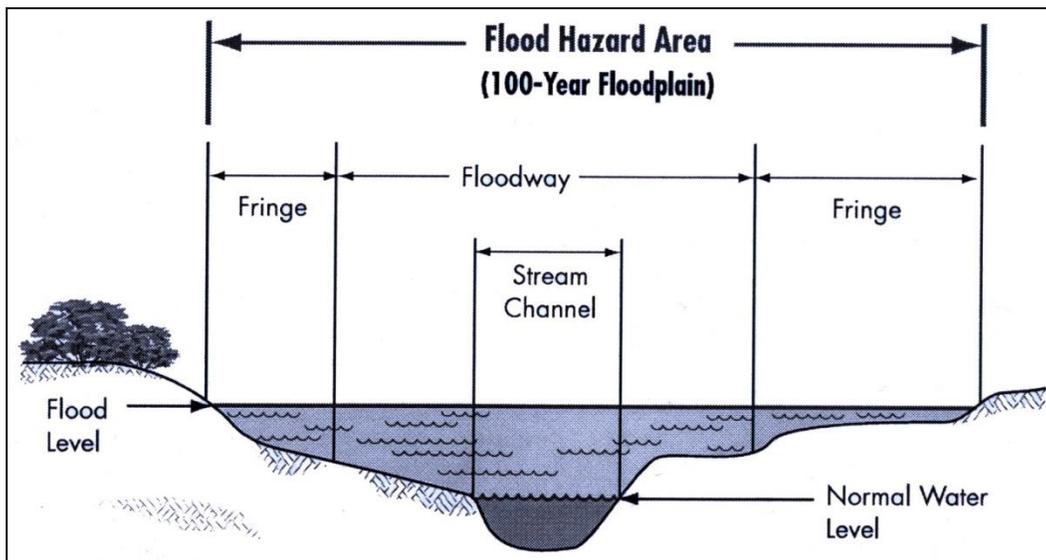
Floodplains are areas that consist of a stream or river (floodway) and the adjacent areas that have been or can be covered by water (floodway fringe). Floodplains perform a critical function by temporarily storing and carrying floodwaters, reducing potential flood peaks, recharging groundwater supplies, and providing plant and animal habitats. Development within a floodplain expands the floodplain boundary and increases the volume of runoff, making more areas and properties susceptible to flooding. Local development review processes should ensure that new construction and activity will not increase flooding on adjacent and nearby properties.

In 1968, Congress passed the *National Flood Insurance Act*, which created the National Flood Insurance Program (NFIP). The Act called for identification and publication of all floodplain areas that have special flood hazards and the establishment of flood-risk zones in all such areas. Flood Hazard Boundary Maps were developed that delineated the boundaries of each community's special flood hazard areas using available data or other approximation methods. The maps identified areas within a community that are subject to inundation by the 100-year flood. The 100-year flood has a one percent chance of being equaled or exceeded in any given year. The maps were intended to assist communities in managing floodplain development, as well as assisting insurance agencies and property owners in identifying those areas where the purchase of flood insurance was advisable. These maps are now prepared and updated by FEMA and are now called the Flood Insurance Rate Maps (FIRM).

The goal of the NFIP is to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages communities to adopt and enforce floodplain management regulations, which will mitigate the effects of flooding on new and improved structures. The primary requirement for community participation in the NFIP is the adoption and enforcement of floodplain management regulations that meet the minimum NFIP regulatory standards. The intent of floodplain management is to minimize the potential for flood damages to new construction and to avoid aggravating existing flood hazard conditions that could increase potential flood damage to existing structures. To protect structures in flood-prone areas, the NFIP regulations require that the lowest floor of all new construction, and substantial improvements of residential structures, be elevated to or above the Base Flood Elevation (BFE).

Local governments are the foundation of comprehensive floodplain management because localities usually plan for, determine and supervise the use of land within their jurisdictions. The impetus for obtaining financial and technical assistance from the state and federal levels also originates with the local community. Planning is a crucial tool for minimizing future flood damage. Managing development can reduce losses by avoiding encroachment in flood-prone areas, protecting floodplain resources, and building in ways that are resistant to flooding. Figure X-1 depicts a cross-section of a 100-year floodplain and illustrates the various aspects of a floodplain.

FIGURE X-1. FLOODPLAIN DIAGRAM



Source: SCDNR, *Floodplain Management in South Carolina, Quick Guide*, 2004.

The Federal Emergency Management Agency (FEMA) manages the National Flood Insurance Program (NFIP). In South Carolina, the Flood Mitigation Office of the South Carolina Department of Natural Resources (SCDNR) administers the NFIP with financial support from FEMA. Nearly 20,000 communities across the United States and its territories participate in the NFIP by adopting and enforcing flood plain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Community participation in the NFIP is voluntary.

Flood plain management at the local level involves the operation of a community program of corrective and preventative measures for reducing flood damage. These measures take a variety of forms and generally include requirements for zoning, subdivision or building, and special-purpose floodplain ordinances. As a participant in the National Flood Insurance Program, each community agrees to:

- Adopt and enforce a flood damage prevention ordinance;
- Require permits for all types of development within the floodplain;
- Assure that building sites are reasonably safe from flooding;
- Estimate flood elevations that were not determined by FEMA;
- Require new or improved homes to be elevated above the Base Flood Elevation;
- Require other buildings to be elevated or flood-proofed;
- Conduct field inspections and cite violations;
- Require Elevation Certificates to document compliance;
- Carefully consider requests for variances;
- Resolve non-compliance and violations; and
- Advise FEMA when updates to flood maps are needed.

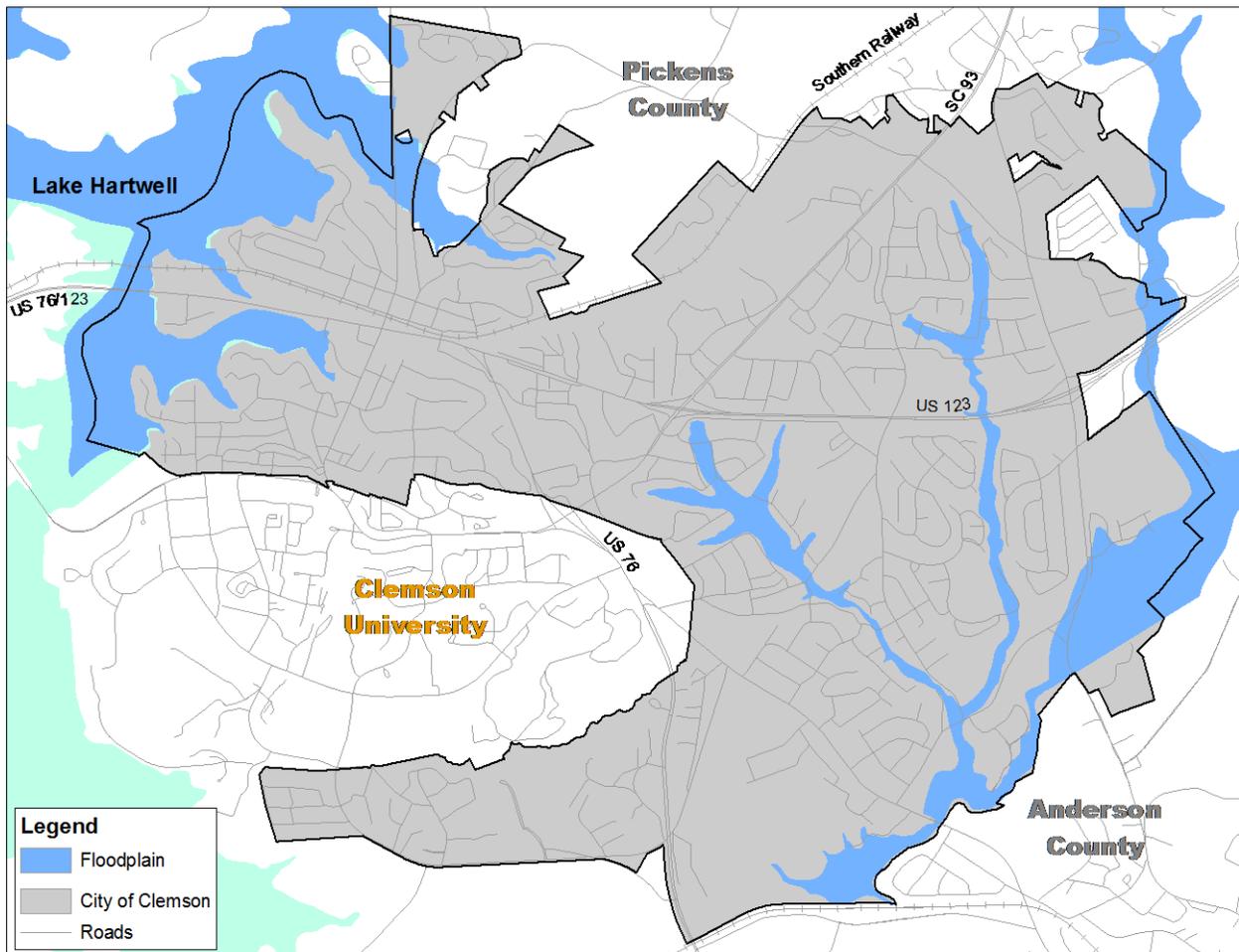
Map X-3 provides a generalized depiction of the flood plains within the City of Clemson. The Flood Plain depicted is comprised of two flood zones. Flood Zone “A” includes Lake Hartwell and areas close to the Lake, as well as several areas that are at the terminus of tributaries. Areas in Zone “A” are subject to inundation by the 1% annual chance flood event, with a 26% chance of flooding over the life of a 30-year mortgage, as generally determined by FEMA using approximation methods. There are also several areas within the City located within the Flood Zone “AE.” Areas in Zone “AE” are subject to inundation by the 1% annual chance flood event determined by FEMA using detailed methods, including the establishment of a base flood

elevation. The majority of the City is within Flood Zone “X.” Areas in Zone “X” are areas of minimal flood hazard. More detailed mapping is provided by the official FIRM for the City of Clemson.

The City of Clemson has adopted a *Flood Damage Prevention Ordinance* that includes provisions for preventing flood hazards in compliance with applicable FEMA and State regulations, including a requirement that the first floor elevation of all new structures be elevated one foot above the base flood elevation as provided on the FIRM.

The City of Clemson participates in the NFIP through the State program and is an NFIP Certified Local Government. The City’s Zoning and Codes Administrator administers the flood plain management program in compliance with federal and State regulations.

MAP X-3. FLOODPLAINS IN THE CITY OF CLEMSON



Source: City of Clemson, 2014.

F. SOLID WASTE

The City of Clemson's Public Works Department provides solid waste collection and disposal service to residences and businesses within the City. All collected refuse is taken to the Pickens County Landfill, located off of US Highway 178 between the Cities of Liberty and Pickens. Recognizing the limited life of the present landfill and higher costs that would be associated with construction of a new landfill, Clemson and the other Pickens County municipalities began curbside recycling for residential properties in 1992. The City also purchased a horizontal tub grinder to grind brush collected by Public Works crews and residents for reuse. This operation saves hauling costs, extends the life of the current landfill, and provides free mulch for City residents.

In addition to the horizontal grinder, the City owns and operates three residential garbage trucks, two front loading sanitation trucks, three recycling trucks, two flatbed trucks, three knuckle-boom trucks, two brush tractors, and two automated leaf trucks. In FY 2014 the Residential Sanitation Division serviced 4,058 roll carts weekly; hauled more than 5.5 million pounds of garbage and 257,760 pounds of junk and debris to the landfill; collected 1.2 million pounds of recyclables; and ground 20,861 yards of brush into mulch. The Commercial Sanitation Division hauled nearly 5 million pounds of garbage to the landfill during FY 2014. The Sanitation staff also provides cleanup after major events such as home football games, including weekend commercial collection.

G. PUBLIC SAFETY

The personnel, facilities, equipment, and services established to protect the safety of citizens and visitors are among the most essential community resources. A safe and secure environment that projects a climate of health, vitality and community spirit among residents of all ages is integral to building a strong community. Most cities and counties allocate sizable percentages of their annual budgets to the provision of quality fire and police services and most often allocate these funds at the expense of other needed services or programs. There is no question that public safety is foremost in the minds of both politicians and their constituents, making it difficult to place a value on the comfort and quality of life that accompanies a successful public safety program.

1. EMERGENCY PREPAREDNESS

Although rare in occurrence, the City of Clemson is vulnerable to various natural and man-made emergencies including tornadoes, thunderstorms, flash flooding, drought, wildfire, train derailments, earthquakes, and even nuclear emergencies associated with the Oconee Nuclear Station in neighboring Oconee County. Advance planning and preparation for such emergencies is essential in equipping community leaders, response staff, and the general public to make rapid and informed decisions that will save lives and quickly restore essential infrastructure and services when disaster strikes. Pickens County Emergency Management is the designated Disaster Preparedness Agency with responsibility for emergency and disaster planning for Pickens County. The Department coordinates and integrates all activities necessary to build, sustain, and improve the capability to mitigate against, prepare for, protect against, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other manmade disasters.

Advanced preparation for emergencies is essential for large community events in the Clemson area, especially during Clemson football weekends. For such events, emergency preparedness staff from surrounding communities and the State work together to create a safe experience for all attendees. Planning for Clemson football events begins a year in advance and includes identification of all Upstate events that coincide with the games; transportation schedules and routes for air and train travel; weather patterns; location tracking of all emergency response vehicles; and determination of any perceived threat to the thousands of visitors to the area.

2. FIRE SERVICE

Fire protection and prevention is of vital importance to every citizen and visitor in the City of Clemson and is one of the most fundamental and valuable services provided by government. Clemson University Fire and Emergency Medical Services (EMS), a division of the Clemson University Department of Public Safety, provides fire service within the corporate limits of the City and for the main campus of Clemson University. The City contracts with the University for these services, paying an annual contract fee and also sharing with the University in the purchase of fire equipment as needed.

Mutual aid agreements are in place with the adjacent counties and municipalities including Pickens, Anderson and Oconee Counties, and the Towns of Central and Pendleton. These agreements formalize the City's participation in the statewide mutual aid program and participation in the *SC Firefighter Mobilization Plan*. The agreements serve to provide critical backup for each department as needed.

The Clemson University Fire and EMS station is located on Perimeter road. Current staffing levels are provided in Table X-5. All full-time staff are cross-trained in firefighting and the provision of emergency medical services. Clemson student firefighters include a mix of persons trained only as firefighters or Emergency Medical Technicians (EMT) with individuals cross-trained for both.

TABLE X-5. CLEMSON UNIVERSITY FIRE AND EMERGENCY MEDICAL SERVICES STAFFING

Number	Position
1	Fire Chief
27	Full-time Firefighter/Paramedics or EMTs
18	Part-time and Volunteer Firefighters
9-12	Clemson Student Firefighters and/or EMTs
1	Training/Administrative Captain
2	Campus Fire Marshals / 1 Inspector
1	City Fire Marshal (City Planning and Codes staff)
1	Emergency Management Coordinator
1	Administrative Coordinator
30	Part-time Event EMTs and Paramedics

Source: Clemson University Fire and Emergency Medical Services, Sept. 2014.

Vehicles and special equipment utilized by Clemson University Fire and Emergency Medical Services include: two ladder trucks; three fire engines; a brush truck; three ambulances used for Confined Space Rescue, Water Rescue, Haz Mat Response, Breathing Air/Rehabilitation, and Fire Prevention Education; six staff vehicles; and two Gator Utility Task Vehicles (UTV).

In 2013, the City of Clemson acquired more than nine acres of land located north of US Highway 123 on Issaqueena Trail as the site for a new fire substation. The new facility will decrease response times to service calls north of US Highway 123, a factor currently impeding development on the north side of the City. The new facility is currently in the design phase and will feature a training room, staff housing, and office space.

Not only is the provision of adequate, state-of-the-art firefighting equipment and trained personnel vital to the preservation of life and property, it also significantly impacts the cost of individual fire insurance premiums in a community. The cost of insurance is a sizable component in overall housing costs. Insurance rates for single-family homes and multi-family dwellings are computed using a number of factors such as age, size, and value of the home.

Through the provision of adequate fire protection, local government can also play a role in the cost of insurance.

Insurance companies use a classification system provided by the Insurance Services Office, Inc. (ISO) to determine the level of fire protection for each home they insure. ISO is an independent statistical, rating, and advisory organization that collects and analyzes information on a community's public fire protection and assigns a public protection classification. Classifications range from 1 to 10, with Class 1 representing the best public protection and Class 10 indicating no recognized protection. Factors that contribute to the assignment of classifications include the effectiveness of the fire department in receiving and dispatching fire alarms, the number of fire stations, the availability and amount of water needed to fight fires, training provided to local fire fighters, and maintenance and testing of equipment. In addition, the geographic distribution of fire stations and service throughout the community weighs heavily in the determination of the classification. Properties that are located more than five road miles from a fire station are not considered to have adequate fire protection and therefore receive higher ISO classifications. Since water availability for fire protection comprises 40% of the total ISO rating, areas served by municipal or other water services benefit from lower ISO ratings and ultimately, lower insurance ratings. Clemson Fire and Emergency Medical Services maintains an ISO rating of 4 while responding to more than 1,200 requests for service on campus and in the City of Clemson.

3. POLICE

The Clemson City Police Department serves within the municipal boundaries of the City and is headquartered at 1198 Tiger Boulevard (Map X-1). The facility houses the communications, patrol, investigations, and administrative support functions for the Department, as well as the jail. The Department also has a substation located in the center of the Downtown business district that houses the parking enforcement officer and patrol officers both during the week and on weekend evenings and for special events such as Clemson University home football games. In FY 2014-2015, the Department will begin full-time operation of a new Crime Scene and Evidence program.

The mission of the City of Clemson Police Department is to serve diligently and to be compassionate and responsive to the needs of the community by providing professional law enforcement services for the purpose of enhancing the quality of life for those who live, work and visit the City of Clemson. The Police Department employs 38 total personnel including: 29 Class 1 commissioned officers; six communications and detention personnel; a parking enforcement officer; a records specialist; and a victim's advocate. The Command staff includes

the Chief of Police and two captains. Administration of the Department is comprised of two units – the Uniform Patrol Unit and the Investigations/Support Unit. The Department is accredited through the South Carolina Law Enforcement Accreditation Council.

The Department handles an average of 60,000 service calls per year. Calls for service have declined in recent years, from 69,700 in 2011 to 60,632 in 2012 and 58,886 in 2013. To facilitate the rapid sharing of emergency aid and resources, the Department maintains mutual aid agreements with all surrounding county and municipal agencies.

A total of 473 index crimes were reported in the City of Clemson in 2013 – a 19.2% increase over the 426 index crimes reported in 2012 (Table X-6). Larcenies accounted for 55.6% of crimes in the City, while breaking/entering and motor vehicle theft accounted for 28.1% and 11.4% of crimes, respectively. Crimes within all index categories in the City were equal to or higher in 2013 than in the previous year, with the exception of Criminal Sexual Conduct, which dropped from 8 incidents in 2012 to 7 incidents in 2013, and Aggravated Assaults, which dropped from 22 incidents in 2012 to 10 incidents in 2013.

TABLE X-6. INDEX CRIMES 2010-2013, CITY OF CLEMSON

Index Crimes	Year							
	2010		2011		2012		2013	
	#	%	#	%	#	%	#	%
Homicide	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Robbery	5	1.2%	3	1.3%	4	1.3%	6	1.3%
Breaking/Entering	79	19.0%	71	30.0%	85	27.6%	133	28.1%
Criminal Sexual Conduct	9	2.2%	4	1.7%	8	2.6%	7	1.5%
Aggravated Assaults	21	5.0%	24	10.1%	22	7.1%	10	2.1%
All Larcenies	273	65.6%	92	38.8%	154	50.0%	263	55.6%
Motor Vehicle Thefts	29	7.0%	43	18.1%	35	11.4%	54	11.4%
Totals	416	100.0%	237	100.0%	308	100.0%	473	100.0%

Source: Clemson Police Annual Review 2013.

H. HEALTH CARE

Building a healthy community ensures an acceptable quality of life for all residents and the prevention of costly problems that inhibit the realization of full individual and community potential. Access to quality health care is an essential component of community well-being and quality of life. The health care system encompasses a broad continuum of care that begins with preventative care and progresses through end-of-life care. Public health is negatively impacted

when service gaps are present in the continuum. Census tracts included in the City of Clemson are federally-designated *Medically Underserved Areas* (MUA) for low income residents. Pickens County is included as a *Health Professional Shortage Area (HPSA)* for primary medical care, dental care and mental health among low income populations (*US Dept. of Health and Human Services, 2014*). An HPSA is a designated geographic area, special population, or facility that has shortages of primary medical care, dental, or mental health providers. The number of practicing health professionals serving Pickens County is detailed in Table X-7. There are 10.6 physicians per 10,000 persons in Pickens County, less than half of the 24.1 physicians per 10,000 persons statewide and the 23.8 physicians per 10,000 persons in the Upstate region.

TABLE X-7 SELECTED PRACTICING HEALTH PROFESSIONS IN PICKENS COUNTY

Health Profession	Number
Physicians – Primary Practice in County	127
<i>Family Practice</i>	47
<i>Internal Medicine</i>	13
<i>Obstetrics/Gynecology</i>	6
<i>Pediatrics</i>	11
<i>General Surgery</i>	6
<i>Other Physicians (specialists)</i>	44
Registered Nurses	496
Dentists	45
Pharmacists	104
Physical Therapists	33
Occupational Therapists	17
Physician Assistants	14
Respiratory Care Practitioners	31
Optometrists	6

Source: SC Office of Research and Statistics, South Carolina Health Professions Data Book, 2014.

1. EMERGENCY MEDICAL SERVICE

Emergency medical professionals staff the critical first link in the trauma care continuum that begins with pre-hospital care and access. Emergency medical services (EMS) provide direct and responsive, rapid pre-hospital medical care to individuals who are in need of immediate assistance. Pre-hospital medical care is necessary with incidents as varied as automobile accidents, heart attacks, drowning, childbirth, and gunshot wounds.

All E-911 emergency calls made within the City of Clemson are answered by the Clemson City Police Department and forwarded to the appropriate agency for the emergency. Pickens

County Emergency Medical Services provides emergency medical services for the City, working closely with area hospitals to ensure efficient, quality emergency medical care to area residents and visitors. In the event of an emergency that requires rapid response such as choking or a heart attack, the call is sent to Clemson University Fire and Emergency Medical Services so that a First Responder can arrive as quickly as possible.

Pickens County EMS has eight substations, including the Central-Clemson substation located on Common Way in the Town of Central. Each substation houses one Advanced Life Support service truck (ambulance), with day trucks also housed at the Pickens and Easley stations. All ambulances are staffed with at least one paramedic and one Emergency Medical Technician (EMT) or Emergency Medical Technician-Intermediate.

2. HOSPITALS

While there are no inpatient care facilities located within the City of Clemson, there are several area hospitals within a short drive that serve City residents. **Oconee Memorial Hospital** was founded in 1939 and is now part of the Greenville Health System. The 169-bed acute care Hospital is located on Memorial Drive in nearby Seneca and offers a wide range of inpatient/outpatient care including a Women’s Center, the NewLife Center for Joint Health, and a 24-hour emergency department.

Originally founded as Anderson County Hospital in 1908, **Anmed Health Center** is a 461-bed acute care hospital located on North Fant Street in Anderson. The facility is the anchor for Anmed Health, the largest not-for-profit health provider in South Carolina. The facility provides a range of services including a Heart and Vascular Center, a Women’s and Children’s Hospital (on East Greenville Street in Anderson), a Cancer Center, inpatient and outpatient surgery facilities, and an emergency department.

Baptist Easley Hospital is a 109-bed acute care facility located on Fleetwood Street in Easley. Founded in 1958, the Hospital provides services including surgery, obstetrics, orthopedics, imaging and diagnostics, cardiopulmonary services, outpatient care, and emergency services. Though independent, Baptist Easley benefits from a partnership between Palmetto Health and the Greenville Health System.

3. OTHER HEALTH CARE FACILITIES

a. *Clemson University Health Services*

Located in Edwards Hall on the Clemson University Campus, the ***Joseph F. Sullivan Center*** is an interdisciplinary nurse-managed health center that provides health services to students, faculty and staff. The Center also provides the opportunity for Clemson students and faculty to practice health services in a cutting-edge facility. In addition to offering wellness programs for Clemson students and employees, the Sullivan Center provides community outreach through its mobile health unit. The mobile unit is deployed through the Migrant Health Program, The Best Chance Network, and the Walhalla Mobile Clinic. Sullivan Center staff also practice at the Clemson Free Clinic on Tiger Boulevard. In addition to services provided at the Sullivan Center, the University also provides health services to students through the ***Redfern Health Center*** on McMillan Road. Redfern is staffed by 60 medical and psychological professionals and operates an accredited psychology training program.

b. *Urgent Care*

The ***Clemson Health Center*** on Tiger Boulevard is open seven days a week and for extended hours daily. The Center offers urgent care services, with no appointment needed to see a physician. The Center also offers primary care and a range of diagnostic services including X-ray and ECG.

c. *Low and Reduced Cost Healthcare*

Established in 2005, the ***Clemson Free Clinic*** is a partnership among local professional health providers and volunteers to offer free health care services to eligible patients from Clemson, Pendleton, Six Mile, and Central. The Clinic moved to its new location on Tiger Boulevard in 2011 and is open Wednesdays from 5:00 p.m. to 8:00 p.m. The Clinic does not receive any government funding and operates solely on donations and private grant funds.

Heritage Essential Medical Services on Tiger Boulevard in Clemson provides medical services on a sliding payment scale and does not require patient health insurance coverage. Services offered by Heritage include primary care, X-ray, hearing and vision screening, immunizations, family planning, as well as gynecological and obstetric care. Mental health services, case management, and health education are also available.

d. Public Health

The **Pickens County Public Health Department** is located on Daniel Avenue in the City of Pickens. The Health Department provides a wide range of health related services including immunization; family planning, counseling and education; pre-natal counseling and classes; health education; immunizations/vaccinations; nutritional education; tuberculosis testing and treatment; treatment and counseling for sexually transmitted diseases; nutrition education, breastfeeding support and food supplements through the *Women, Infants and Children (WIC)* program; home health services; and social work services; and referrals for services for infants aged 18 months and under with chronic illnesses, disabling conditions, or developmental delays.

4. HEALTHY FOOD SYSTEMS

While the City of Clemson has several traditional grocery stores offering a wide variety of consumables and household items, the City is fortunate to have several sources specializing in providing locally grown and organic food. The Clemson Farmers Market, located at Patrick Square on Issaqueena Trail, serves the dual purpose of providing fresh produce to the community while supporting local agriculture. The Farmers Market is open each year from mid-May through mid-October on Fridays from 3:00 p.m. until 6:00 p.m. In addition to fresh fruits and vegetables, the Market offers other farm products such as honey and cheese, as well as handcrafted household goods.

Since 1978, the Upstate Food Cooperative, located in Six Mile, has been offering its members access to locally grown, organic, and allergy-specific foods. In addition to local farm goods and produce, the Co-op also offers culinary and medicinal herbs and supplements, prepackaged and frozen food, bulk goods, personal care items, pet supplies, and beverages. Purchase of items from the Co-op requires membership, which is obtained by paying a modest annual fee. There are different membership levels based on contributions of sweat equity, senior status, or income level.

Since 2002, Clemson University has offered the Community Supported Agriculture (CSA) program which provides a weekly bundle of organically grown produce for a seasonal fee. The farm, located off old Stadium Drive on the Clemson campus, is the site for the CSA members' weekly pickup. The benefits of being a CSA member, in addition to ensuring a weekly supply of fresh fruits and vegetables, include a significant discount over typical grocery store prices for similar produce. Greenbrier Farms in Easley is another CSA serving residents of Pickens County.

In addition to produce shares, member of this CSA may choose to purchase protein shares that feature grass-fed beef, chicken, and pork.

For Clemson residents who wish to grow their own produce, the Clemson Community Garden, located at Clemson Park, offers 10 foot by 40 foot plots that can be rented for an annual fee of \$100. The Parks and Recreation Department tills each plot twice a year, unless otherwise instructed by the lessor. Gardeners are provided access to irrigation, soil amendments and mulch, as well as a shed containing a cart, wheelbarrow, and basic gardening tools.

5. HOME HEALTH SERVICES AND HOSPICE

An aging population, improvements in patient and physician education, and the escalating costs of extended hospital stays have contributed to a rise in home-based medical treatment options. These increased options allow the patient more flexibility and input into the care process. Home health care services can range from in-home nursing care or rehabilitation following a hospital stay, to ongoing assistance with daily living activities such as shopping, meal preparation or bathing. There are a number of public and private organizations providing home health services in the Clemson area, including Clemson Downs Home Health based on Downs Loop in the City of Clemson.

The way South Carolinians die is changing. In the early 1900s, most Americans preferred and were allowed to die at home, with more than 80% of deaths occurring at home. A century later, in spite of similar desires to die at home or surrounded by loved ones, many residents do not have an opportunity to experience this kind of death. However, increasing available hospice services offer a team-oriented approach to expert medical care, pain management, and emotional and spiritual support expressly tailored to a patient's needs and wishes. Although most patients admitted to hospice have terminal conditions related to cancer, other frequent diagnoses include Alzheimer's disease, ALS, heart, lung, kidney, renal, and liver diseases. Life expectancy for hospice patients is generally six months or less. In most cases, a family member serves as the primary caregiver in the home setting and, along with other members of the hospice care team, develops a plan to provide treatment, support, personal care, and a number of specialized services for both the patient and family. However, hospice services can be provided in a variety of care settings including hospitals and assisted living centers. There are a growing number of hospice providers operating in the Clemson area that provide a varying range of services, including ARK Hospice located on Grace Drive in Easley.

I. SOCIAL SERVICES

There is a strong relationship between the condition of a community and the well-being of its residents – the presence of a strong, productive, healthy and caring citizenry enhances the livability of the City. Human investments in the form of social services target the special needs of individuals, groups and communities. Effective social service delivery systems are designed to provide information and access to services and link residents with agencies and programs that can meet their needs. The State of South Carolina provides a variety of health and social services to its citizens through regional and county delivery networks. The residents of the City of Clemson have access to most services through offices located in nearby cities.

The **SC Department of Disabilities and Special Needs** (SC DDSN) serves persons with mental retardation, autism, head and spinal injury, and conditions related to each of those four disabilities. Their mission is to "assist people with disabilities in meeting their needs, pursuing their individual possibilities and achieving their life goals, and minimize the occurrence and reduce the severity of disabilities through prevention." The Disabilities and Special Needs Board of each county serves as the single planning and service coordination point for all services funded by DDSN. The **Pickens Disabilities and Special Needs Board** office is located on Griffen Mill Road in the City of Easley and is responsible for developing a local service plan and supervising service coordination. Local DSN boards either deliver services directly or arrange for specific services to be delivered by other community organizations. The boards are also responsible for developing and coordinating services and funds through local agencies. Through this system, people with disabilities and special needs are able to remain in their own homes, or if not an option, to live in a family-like setting within their communities.

The mission of the **SC Department of Health and Environmental Control (SC DHEC)** is to "promote and protect the health of the public and the environment." The Upstate Environmental Quality Control (EQC) office of the **SC DHEC Environmental Health Division** is located on University Ridge in Greenville. Environmental Health is charged with protecting the health of South Carolina's families, visitors to the State, and the environment through the application of scientific principles and sound management practices in the areas of Food Protection, Onsite Wastewater Management, and General Sanitation. Environmental Health programs are a joint effort of the Bureau of Environmental Health and the Environmental Health sections of the four regional EQC offices. Locally, the Environmental Health programs that are most visible to the general public include the inspection and rating of food establishments, investigation of food-borne illnesses, regulation and permitting of onsite wastewater management systems such as septic tanks, and vector and rabies control.

The mission of the **SC Department of Mental Health (DMH)** is to support the recovery of people with mental illness. This mission is anchored by the belief that people are best served in or near their own homes or in the community of their choice. In FY 2013, the Department served approximately 90,000 individuals (children, adolescents, adults) through its 17 community mental health centers, four licensed hospitals (one for substance abuse), and four nursing homes (one for veterans). The Anderson-Oconee-Pickens Mental Health Center (AOPMHC) is located on McGee Road in Anderson and provides services for Anderson, Oconee, and Pickens Counties. Services provided to persons of all ages through AOPMHC include: counseling, psychiatric assessment, medication management, crisis intervention, and other services to those experiencing serious mental illness and significant emotional disorders. Local mental health services are provided by the Pickens Mental Health Clinic located on West Main Street in the City of Easley and include evaluation, assessment, intake of clients, short-term outpatient treatment, and continuing support services. Community health clinics such as the Pickens Mental Health Clinic are primary entry points into the SC Mental Health System.

The mission of the **SC Department of Social Services (DSS)** is to "ensure that South Carolinians in need receive economic support, protective services and assistance in locating and obtaining child support from absent parents." DSS seeks to provide protective and other services to children and adults who cannot protect themselves and to provide job training and other needed services to help South Carolinians who can work to become self-sufficient. The Department is responsible for the administration of the Family Independence program, the Food Stamp program, Child Support Enforcement, and children, family, and support services. The Pickens County DSS office is located on McDaniel Avenue in the City of Pickens and provides local services such as child care licensing, child protective and prevention services, provision and monitoring of foster care, family violence prevention and counseling, and emergency shelter.

The **Pickens County Veterans Affairs** office, also located on McDaniel Avenue in the City of Pickens, provides assistance to veterans, their widows, and survivors in applying for any and all benefits to which they may be entitled from the US Department of Veterans Affairs, the State of South Carolina, the VA Hospital, and local agencies. Assistance includes research, preparation, development, presentation and prosecution of claims submitted to the US Department of Veterans Affairs and the Board of Veterans Appeals.

J. ELDERLY SERVICES

The nation's expanding elderly population will affect every segment of the social, political, and economic landscape. Significant changes in living patterns and conditions often accompany the

aging process. The health and functional status of senior residents is of growing interest because of the implications for public policy, health care and long-term care costs. With projected increases of frail elderly, there will be an increased need for home care, acute care and long-term care, both institutional and community-based. The numbers of persons suffering from dementia and Alzheimer's disease will grow dramatically in the coming decades, while the costs of care rise well above current levels. The demands on informal caregivers such as family and friends in the community will concurrently increase.

Nearly 12% of City residents (1,607 persons) are aged 65 or older – only slightly lower than the 13.7% of individuals in this age group statewide and the 13.4% countywide. The attractiveness of the Clemson area to retirees, coupled with an aging population led by the last of the baby boomers, will fuel a growing need for specialized services for the elderly in coming years. Services for elderly residents are coordinated regionally, but delivered locally in the Clemson area.

1. AREA AGENCY ON AGING

A majority of aging services are federally funded through the *1965 Older Americans Act*. This law requires that planning and service districts be designated to plan and implement aging services. To that end, the Lieutenant Governor's Office on Aging has divided the State into ten planning and service districts. The SC Appalachian Council of Governments (SCACOG) serves as the **Area Agency on Aging** (AAA) for the six-county Appalachian Region that includes Anderson, Cherokee, Greenville, Oconee, Pickens, and Spartanburg counties. These programs and services are carried out by local service providers at the county level.

The AAA provides information and assistance to older adults, persons with disabilities and caregivers. The Agency operates the Regional Long Term Care Ombudsman Program, the Regional Family Caregivers Program, the I-CARE program, and the SC Upstate Aging and Disability Resource Center, and coordinates the locally provided nutrition programs. Information and referrals are available to older individuals and caregivers to assist in assessing needs and identifying the most appropriate services, link individuals to the most appropriate services provider, and to provide confidential, appropriate, unbiased health and social service information.

The **SC Upstate Aging and Disability Resource Center** (ADRC) is a collaborative pilot project designed to improve awareness of and access to long-term support for seniors, adults with disabilities and caregivers. The program provides information on a full range of long-term care

options, consumer friend and personalized assistance to help individuals make informed decisions on support options, education on long term care needs, and assistance to Medicare beneficiaries to understand and access prescription drug coverage and prevention health benefits.

Long Term Care Ombudsmen are advocates who protect the civil and human rights of residents in long-term care facilities. Ombudsmen receive and investigate complaints and assist residents to resolve complaints. The *Family Caregiver Support Program* works to ensure that family caregivers and older adults raising relative's children (grandparents) have the support and assistance needed as they continue to provide care to their care receivers. The program is designed to help reduce the stress of caregivers and grandparents in order for them to continue to provide quality of care in the home. The *Insurance Counseling Assistance and Referrals for Elders Program (I-CARE)* Program is a free service that answers questions about the Medicare Prescription Drug Program.

The purpose of the *Nutrition Program* is to provide a nutritious meal to person aged 60 and older and their spouses, and to provide socialization to reduce isolation. The program is funded through a combination of federal, state and local funding sources and income is not considered, though contributions are accepted toward the cost of the meal. In addition to a noon meal and socialization, programs and activities are planned such as structured fitness and exercise classes; day trips and outings to local points of interest; educational programming; fun and games; computer classes; music and dance; language classes; arts and crafts; among other creative programs. **Pickens County Seniors Unlimited** is provides these senior services at their Easley Senior Center, located on Blair Street in the City of Easley. Transportation is provided to persons 60 and older to and from the Center. Lunch is served daily and the Center offers opportunities for exercise, dancing, singing, crafts, card games, pool, and fellowship on Mondays through Fridays from 8:30 am to 12:30 pm. **Senior Solutions** also offers free group dining for seniors aged 60 and older at their locations on Cherry Street in Town of Pendleton and on Jefferson Road and SC Highway 187 in City of Anderson.

In addition to congregate meals, home-delivered meals are another aspect of the nutrition program. Home delivered meals are available to persons 60 years of age or older who are ill and incapacitated; unable to leave home unassisted except for medical and other essential appointments; due to disability unable to purchase and/or prepare food; and do not have anyone in the home who is able to prepare meals on a daily basis. **Pickens County Meals on Wheels**, based on East Cedar Rock Street in the City of Pickens, provides Meals on Wheels services to qualifying Clemson area residents.

2. NURSING HOMES AND ASSISTED LIVING FACILITIES

Nursing homes are facilities that provide nursing or convalescent care for two or more persons unrelated to the licensee. A nursing home provides long-term care of chronic conditions or short-term convalescent or rehabilitative care of remedial ailments for which medical and nursing care are necessary. Although some residents are admitted for shorter convalescent or rehabilitative stays following hospitalization, most nursing facility residents are older adults who require long-term care. There is one nursing home in the City of Clemson. The Clemson Area Retirement Center is located on Downs Loop and provides space for up to 52 residents (*SCDHEC Division of Health Licensing, October 2014*).

Community Residential Care Facilities, also referred to as Assisted Living Facilities, offer room and board for two or more persons unrelated to the licensee. These facilities are designed to accommodate changing needs and preferences of residents; maximize the dignity, autonomy, privacy, independence, and safety of residents; and encourage family and community involvement. Also included is any facility (other than a hospital), which offers a beneficial or protected environment specifically for individuals who have mental illness or disabilities. The Division of Health Licensing of the South Carolina DHEC lists one assisted living facility in the City of Clemson. The Clemson Downs Assisted Living facility is located on Downs Loop and provides a total of 56 licensed units. A memory care unit and a medical care unit are currently under construction at the Downs (*SCDHEC Division of Health Licensing, October 2014*). A new community care facility is also in the planning stages for parcels located on Cambridge Avenue.

Clemson Downs is the primary provider of senior housing in the Clemson area and the only facility located within the City. The 80-acre retirement community is located on Downs Loop and offers a variety of independent and assisted living options including private homes and townhouses. Approximately 32 acres of the property is occupied by the Clemson Area Retirement Center, which includes an apartment complex, assisted living facilities, a health care facility, and meeting and dining areas. A 24-hour care staff, on-site physician, and physical therapy are available at the Retirement Center. The holistic approach to wellness at the Clemson Downs encompasses nutritional and dining services, exercise at the fitness facility, as well as excursions and recreational opportunities. Construction recently began on a \$9 million project that includes renovation of the existing facility, construction of a 16-bed skilled care nursing facility to expand current capacity, and construction of a new 32-bed memory care unit.

K. EDUCATION

Education is an on-going process that consists of two basic components – the first is a high quality foundation of basic education through the K-12 system, followed by an on-going system of higher education and career training opportunities. Communities that promote a philosophy of lifelong learning among residents will be positioned to successfully compete in a global economy. American workers now change jobs every 4.6 years, making access to advanced workforce training programs an integral component of achieving community and economic sustainability (*US Bureau of Labor Statistics, 2014*).

Locations of educational institutions within or in close proximity to the City of Clemson are shown on Map X-1 and include Clemson University and Clemson Elementary School. Additional educational institutions located outside of the City serve Clemson area residents and are profiled in the following sections.

1. PUBLIC PRE-K-12 SCHOOLS

The School District of Pickens County (SDPC) is one of 82 public school districts in South Carolina and is the 14th largest district statewide. The District’s consolidated pre-K-12 system serves a combined 16,172 students in Grades 5K through 12. As the County’s third largest employer with 2,200 employees, including 1,039 teachers, the school system comprises more than 4% of the total County job base. The District operates a total of 26 schools including 16 elementary, five middle, and four high schools, as well as the Pickens County Career and Technology Center for students in grades 9 through 12. The District is divided into five attendance areas, including Dacusville, Daniel, Easley, Liberty, and Pickens. The Daniel attendance area serves students within the City of Clemson. Table X-8 provides a listing of the schools that serve residents of the City of Clemson and includes enrollment data from 2009 to 2013.

TABLE X-8. ENROLLMENT IN THE CITY OF CLEMSON SCHOOLS AND SCHOOL DISTRICT OF PICKENS COUNTY, 2009 TO 2013

School	Grades	School Year				
		2009	2010	2011	2012	2013
Clemson Elementary	Pre-K-5	740	756	766	769	817
R.C. Edwards Middle School	6-8	787	796	768	764	767
Daniel High School	9-12	1,013	1,001	1,014	1,024	1,039
School District of Pickens County	Pre-K-12	16,647	16,557	16,285	16,548	16,172

Sources: SC Dept of Education, Annual Report Cards, 2009-2013; School District of Pickens County, 2014.

Clemson Elementary School, located on Berkeley Road in Clemson, is the only public pre-K-12 school located within the City limits and serves Clemson area students from pre-K to 5th grade. Enrollment has increased steadily in recent years, peaking at 817 students in FY 2013-2014. Clemson Elementary has approximately 100 faculty and staff. The school was built in 2001 and includes a gymnasium that is shared by the community, an amphitheater, computer lab, science lab, playgrounds, gardens, nature trails, and other outdoor learning areas.

Located on Madden Bridge Road in Central, **R.C. Edwards Middle School** serves students in the 6th through 8th grades from the Clemson, Central and Six Mile areas. Enrollment has fluctuated in recent years, with 767 students enrolled in FY 2013-2014. The Middle School has 55 teachers and 22 support staff. The School was built in 1971 on a 30-acre campus. A major renovation in 2011 added 15 classrooms to the Middle School.

Enrollment at **Daniel High School**, located on Blue and Gold Boulevard in Central, has risen over the last four school years to a high of 1,039 students in FY 2013-2014. The High School has 50.5 certified teaching staff and 21 support staff and serves students from the Clemson, Central, and Six Mile areas. The 227,950 square foot facility was constructed in 2012 and includes an onsite football stadium, gymnasium and auditorium.

In 2014, the School District of Pickens County completed an ambitious building program that included the construction of new buildings for all of the high schools, two elementary schools, and the Career and Technology Center. The new Daniel High School was completed at a cost of more than \$50 million and was dedicated in FY 2012-2013. The building program also included extensive renovations and additions for all five of the middle schools, as well as improvements to other elementary schools throughout the District.

2. PRIVATE PRE-K-12 SCHOOLS

While there are a number of preschools in the City of Clemson, there is only one private school that serves children beyond kindergarten. The **Clemson Montessori School (CMS)**, located on Pendleton Road in Clemson, is a private, for-profit school founded in 1976. The associated Montessori Teacher Training Institute was established in 1995. The school has an enrollment that averages 80 to 100 students in grades pre-K through 7.

3. ADULT EDUCATION AND LITERACY

The School District of Pickens County provides adult learning opportunities for County residents at its **Pickens County Adult Learning Center**, located on Glazner Street in the City of Easley. Courses provided include basic education and literacy, South Carolina High School diploma, English as a Second Language (ESL), General Education Development (GED) High School Equivalency diploma, ParaPro exam preparation, and WorkKeys preparation classes and testing. The ParaPro assessment measures the reading, writing and basic math competencies of practicing and prospective paraprofessionals, including teacher's aides and assistants. WorkKeys is a job skills assessment system for individuals, educators and employers to identify the occupational skills needed to be successful on the job. WorkKeys assessments present workplace situations, reading materials, and conflict management and problem-solving scenarios.

The **Osher Lifelong Learning Institute** (OLLI) at Clemson University provides opportunities for continuing education to members aged 50 years and older. Located in the Charles K. Cheezem Education Center at Patrick Square in Clemson, the Institute is a part of Clemson University's Department of Parks, Recreation and Tourism Management. The purpose of OLLI is to create and support a stimulating, interactive lifelong learning community of seasoned adults that is member driven and volunteer-led. OLLI's nearly 1,000 members take part in courses on a variety of topics ranging from fine art to political science, as well as exercise and health courses and excursions to local cultural attractions.

The **Littlejohn Community Center**, located on Old Greenville Highway in Clemson, is a facility where citizens of the City of Clemson can enhance the quality of community life and promote lifelong learning; individual, family, neighborhood, and community growth; and social, physical, and cultural development. The Center offers GED classes and ESL classes for the City's adult learners.

4. HIGHER EDUCATION

While there are no postsecondary institutions within the City of Clemson, three are located within close proximity. The closest and most influential to the growth and development of the City is Clemson University, which is adjacent to the City and provided the foundation upon which the City developed and flourished. Tri-County Technical College and Southern Wesleyan University are located within easy commuting distance for City residents in the nearby towns of Pendleton and Central.

a. Clemson University

Clemson University is a public, land grant university dedicated to teaching, research, and service. Founded in 1889, Clemson is the State's second largest university with 21,282 students (Table X-9). The University was ranked as the 20th best national public university for 2015 by *US News and World Report*, one of the nation's top 100 best investments by *Kiplinger* magazine in 2013, and seventh in student return on investment in 2012 by *Smartmoney*. Though historically recognized for its science and engineering programs, Clemson offers more than 80 majors, 110 graduate degree programs, and 44 areas of doctoral study. The 1,400-acre campus is home to 437 buildings, including three of the University's original buildings – Hardin Hall, Godfrey Hall and Tillman Hall. There are two National Register Historic Districts on the campus comprised of 15 total properties that include eleven academic buildings, Bowman Field, Trustees' Park, the Trustee House, and the amphitheater.

Enrollment at the University has increased steadily in the past decade, peaking in 2013 with 21,231 students (Table X-9). Undergraduate enrollment growth mirrored total enrollment and peaked in 2013 with 16,931 students. Graduate student enrollment dropped slightly in 2005 and then began a steady increase that peaked in 2013 at 4,351 students. Total enrollment increased by more than 31%, with undergraduate enrollment rising by 23% and graduate student enrollment growing by nearly 75% from 2004 to 2013.

For the first time in a number of years, two on-campus student housing projects are under development – Douthit Hills and Core Campus. Douthit Hills is slated for occupancy in 2018 and will provide 970 beds for upperclassmen and 700 beds for Bridge-to-Clemson students, as well as a dining hall, recreational facilities and parking. Many of the beds allocated for upperclassmen will be used as "flex beds" to enable the relocation of residents of older facilities such as the Clemson House during renovations. The Core Campus project will be located in the Johnstone complex in the heart of Clemson's main campus. The project will replace the last remaining housing in Johnstone Hall, which was built in 1955. Core Campus will provide 700 beds, a dining hall, retail dining options, and spaces for administrative support.

TABLE X-9. CLEMSON UNIVERSITY STUDENT ENROLLMENT, 2003-2013

Year	Undergraduate Enrollment		Graduate Enrollment		Total Enrollment
	Number	Percent	Number	Percent	
2004	13,738	84.6%	2,493	15.4%	16,231
2005	13,918	85.2%	2,426	14.8%	16,344
2006	14,018	84.8%	2,517	15.2%	16,535
2007	14,215	81.4%	3,256	18.6%	17,471
2008	14,713	80.3%	3,604	19.7%	18,317
2009	15,346	80.3%	3,765	19.7%	19,111
2010	15,459	79.5%	3,994	20.5%	19,453
2011	15,836	79.5%	4,078	20.5%	19,914
2012	16,562	79.7%	4,206	20.3%	20,768
2013	16,931	79.6%	4,351	20.4%	21,282

Source: Clemson University, January 2014.

Clemson University is one of the top employers in the Upstate region and ranks as the second largest employer in Pickens County with 4,727 employees (Table X-10). More than 78% of the University’s employees are full-time and 68% are support staff.

TABLE X-10. CLEMSON UNIVERSITY EMPLOYMENT, 2013

Type	Full-Time	Part-Time	Total
Faculty	1,157	172	1,329
Administrative	202	1	203
Staff	2,340	855	3,195
Total	3,699	1,028	4,727

Source: Office of Institutional Research, Clemson University, 2014

b. Tri-County Technical College

Founded in 1962, *Tri-County Technical College (TCTC)* is one of 16 public, 2-year colleges that comprise the SC Technical Education System. The College serves Anderson, Oconee and Pickens Counties through a network of four satellite campuses in Pendleton, Anderson, Easley, and Seneca. The Pendleton Campus, located on US Highway 76, serves as the College’s main campus. The Campus was established in 1962 on a 91-acre tract donated by Clemson University and includes 14 buildings that house classrooms, laboratories, the library, student center, administrative offices, computer labs and the bookstore.

Annual enrollment at TCTC has dropped slightly in recent years, with an enrollment of 8,674 in FY 2013-2014 (Table X-11). The College offers more than 70 major fields of study, including business, marketing, early childhood development, criminal justice, computer technology, industrial electronics, mechatronics, nursing, medical laboratory technology, veterinary technology, and surgical technology. The College also has a strong university transfer program that includes Associate in Arts and Associate in Science degrees. The College employs 382 faculty, of which 129 are full-time and 253 are part-time. Tri-County boasts the highest student success rate among two-year colleges in the South Carolina and ranks in the 95th percentile nationally among community colleges whose students successfully transfer to four-year colleges and universities.

TCTC is home to the nationally-known *Bridge to Clemson* program, a unique freshman year program that blends the traditional academic experience at Tri-County with the social and cultural experiences of being a Clemson University student. The program provides academic advising and student support services designed to help qualified students meet Bridge requirements and ultimately transfer to Clemson. Annual enrollment in the Bridge program ranges from 700 to 750 students. Bridge students are required to live in the High Point of Clemson Apartments, located off-campus in the City of Clemson. In addition, the *Connect to College* program provides a “second chance” opportunity for students who, for a variety of reasons, have not been successful in a traditional high school setting.

Tri-County Technical College also plays an important role in preparing a technically skilled workforce for advanced manufacturing companies in the region. The College recently opened a state-of-the-art Industrial Technology Center in Sandy Springs, as well as a QuickJobs Training Center on its Anderson Campus on Michelin Boulevard. In addition to academic programs, Tri-County offers continuing education training, career development, and personal interest courses to more than 13,000 people each year, including contract training for local industry, professional certifications, and workforce training.

TABLE X-11. TRI-COUNTY TECHNICAL COLLEGE ANNUAL ENROLLMENT

Academic Year	Annual Enrollment
2009-2010	9,215
2010-2011	9,266
2011-2012	9,000
2012-2013	8,756
2013-2014	8,674

Source: Tri-County Technical College, August 2014.

c. Southern Wesleyan University

Southern Wesleyan University (SWU) is a private, four-year liberal arts institution based in its main campus on Wesleyan Drive in the Town of Central. The University was originally established in 1906 and is sponsored by the Wesleyan Church. SWU offers more than 40 undergraduate and four graduate degrees within the schools of Business and Education and the College of Arts and Science. The University has five primary campuses in Central, Charleston, Columbia, Greenville, and North Augusta, with a total enrollment of more than 1,700 (Table X-12). SWU currently has 460 employees, including 210 full-time and 250 part-time employees and adjunct professors.

The 350-acre Central campus serves as the University’s main campus and its only residential campus, with an enrollment of 756 students. Eighty-percent of first-year students and 60% of all students live on campus at the Central location. SWU reported a record number of new admissions for the fall of 2014 at the Central campus, with 265 new students. Future plans include an increase of traditional undergraduates at the Central campus to 1,200 students by 2024.

TABLE X-12. SOUTHERN WESLEYAN UNIVERSITY ENROLLMENT

Campus	Enrollment
Central	756
Charleston	204
Columbia	204
Greenville	272
North Augusta	175
Online	74
Spartanburg	16
Total	1,701

Source: Southern Wesleyan University, 2014.

There are 23 buildings on SWU’s Central campus, including six buildings with student housing, academic buildings, a dining hall, a library, an athletic center, and an auditorium. Identified future needs include a student center, additional athletic facilities and student housing, an outdoor amphitheater, and additional space for science, technology, and business programs.

L. LIBRARIES

The Pickens County Library System was originally established in 1935. The System includes the main branch - the Hampton Memorial Library in Easley, the Sarlin Branch on Palmetto Street in Liberty, the Village Branch in Pickens, and the Central-Clemson Regional Branch in Central. Clemson area residents are primarily served by the **Central-Clemson Regional Branch Library** located on Commons Way in the Town of Central. The 12,000 square foot building was built in 1996 and houses 47,178 volumes and provides computer access and a meeting space that is available to County residents. The Library Branch has an annual circulation of 157,088 and has a seven-person staff, including one full-time librarian, two full-time branch assistants, three part-time clerks and a custodian who also is part-time. Circulation is free of charge for Pickens County residents.

Clemson University, as the land-grant University for the State, allows use of its library facilities by area residents and extends circulation privileges to residents of South Carolina. Persons not affiliated with the University can use materials in-house or may purchase a courtesy card for a nominal fee. The **Robert Muldrow Cooper Library** is Clemson's main library. Cooper Library is 184,839 square feet in size and contains more than 1.5 million volumes of books, journals, and documents. The University also has two satellite branches, both on campus. The Emery A. Gunnin Architectural Library is located in Lee Hall and provides materials on architecture, visual arts, city and regional planning, building science and construction, and landscape architecture. The Library's special collections unit is housed in the Strom Thurmond Institute and contains rare books, manuscripts from prominent South Carolinians, and materials related to the history of the State and Clemson University. A small specialized collection is also housed in the Chemistry Library in Hunter Hall.

Southern Wesleyan University in Central allows area residents unlimited access to materials within its **Rickman Library**. Area residents may also obtain a courtesy card free of charge. Rickman Library contains 102,620 volumes, as well as books, scores, DVDs, and an eBook collection.

The **Tri-County Technical College Library** offers complete library resources at its main campus in Pendleton. The TCTC library offers local access to more than 43,000 books, 10 newspapers, 125 print journals, 70 databases, and nearly 186,000 eBooks. The library is open to students of both TCTC and Clemson University, as well as any resident of Anderson, Oconee and Pickens Counties. Library staff also offer Information Literacy Workshops and research assistance in

person and via personalized Skype. Recent renovations at the main campus library included the addition of a Mac bar and collaborative study rooms.

M. RECREATION

The provision of quality recreational activities and facilities is vital to the well-being of a community. Parks and recreation facilities are valuable tools in showcasing the natural beauty of a community, in preserving open space, in attracting visitors, and in providing healthy and safe recreational options for residents.

Although Americans spend most of their waking hours at work, they value their leisure time and have very specific preferences on how to spend it. The South Carolina Department of Parks, Recreation, and Tourism (SCPRT) conducts a periodic survey of randomly selected South Carolina residents aged twelve and older to determine participation levels and interest for a variety of recreational activities. This survey was cited in the *FY 2013-FY 2018 City of Clemson Recreation Master Plan Update*. The most recent survey conducted by SCPRT revealed that recreational walking ranks significantly above other options as the most popular activity among State residents, with more than 83% of respondents citing it as their preferred recreational activity (*SC Comprehensive Outdoor Recreation Plan, 2008*). Walking has consistently topped the list of recreational activities over the years by a wide margin. Of the more active recreational pursuits, weightlifting, swimming in a pool, bicycling, running and playing a team sport (basketball, baseball, softball and volleyball) are all popular past-times. Non-active recreational outlets such as attending outdoor sporting events, sunbathing at the beach, driving for pleasure, picnicking, visiting historical sites and museums, and freshwater fishing also rank as popular alternatives.

The SCPRT survey reveals shifts in recreation patterns and trends over the years, due primarily to societal changes such as the general aging of the population, availability of recreational facilities, and a fundamental awareness and emphasis on healthier and more active lifestyles. Walking ranked as the recreational activity with the highest participation in surveys conducted in 1990, 1994 and 1999 – garnering an increasingly high rate of participation since 1994 (Table X-13).

TABLE X-13. RECREATION PARTICIPATION BY COUTH CAROLINIANS, 1990 – 2005

Activity	2005	1999	1994	1990
Walking for pleasure/exercise	83.2% (1)	82.8% (1)	80.2% (1)	80.5% (1)
Attending outdoor sporting events	63.4 % (2)	62.1% (3)	60.6% (2)	64.2% (2)
Beach swimming/sunbathing	62.5 % (3)	63.1% (2)	59.5% (4)	59.3% (5)
Driving for pleasure	58.2% (4)	61.9% (4)	59.6% (3)	63.9% (3)
Weights/exercise machines	57.1% (5)	52.5% (7)	48.9% (7)	43.2% (9)
Picnicking	53.4% (6)	55.7% (6)	57.7% (5)	60.5% (4)
Pool swimming	53.2% (7)	56.4% (5)	53.6% (6)	57.5% (6)
Visit historic sites	52.1% (8)	51.4% (8)	48.7% (8)	46.8% (7)
Bicycling	42.8% (9)	38.8% (10)	40.1% (9)	43.3% (8)
Visit museum	38.4% (10)	40.2% (9)	36.7% (11)	37.7% (11)
Fresh water fishing	37.2% (11)	38% (11)	40% (10)	38.6% (10)

Source: SC Dept. of Parks, Recreation and Tourism, Recreation Participation and Preference Study, 2005.

Five of the top 11 recreational activities listed in the four surveys are considered more active such as walking, swimming and weight lifting, while 6 of the top 11 are more passive such as attending outdoor sporting events, driving, and picnicking. Beach swimming and sunbathing ranked 2nd in 1999 and 3rd in 2005, but were ranked 4th and 5th in 1994 and 1990, respectively. Weight lifting and using exercise machines moved to 5th place by 2005, after ranking as low as 9th place in earlier surveys.

These preferences have an impact on local parks and recreation services as people tend to participate in activities in the area where they live. More than 80% of survey respondents noted that their participation in daily recreational activities – that can take place in virtually any area such as bicycling, playing ball, or playing golf – was primarily enjoyed in the vicinity of their homes. In addition, approximately 40% of those surveyed perceive existing recreational facilities to be inadequate and list parks, swimming facilities, activities for youth, basketball facilities, bicycle paths and playgrounds as the facilities most needed. Respondents who place a high value on recreation also believe that all levels of government, as well as business and commercial interests, should share some responsibility for providing additional recreational and cultural facilities.

There are 12 public parks and recreation facilities in the City of Clemson, encompassing more than 96 acres. Resources range from passive recreation such as picnicking to ball fields. A listing of each City park and recreation area and associated amenities is included in Table X-14. The location of each park is shown on Map X-4.

TABLE X-14. CLEMSON PARKS AND RECREATION AREAS

Park Name	Description and Facilities	Location	Size
Armory Baseball Field	Lighted baseball field, picnic area, shelter, play structure	Pendleton Rd, Clemson	2 acres
Ashley Dearing Park	Small pavilions, restrooms, play structure, lighted baseball field	Berkeley Dr, Clemson	4 acres
Catherine Smith Plaza	Plaza, green space	College Ave, Clemson	0.5 acres
Central-Clemson Indoor Recreation Center	Indoor swimming pool, heated therapy pool, two basketball courts, aerobics room, workout facility	130 Commons Way, Central	2.66 acres
Clemson Park	2 lighted tennis courts, picnic area and shelter, play structure, restrooms	Frontage Rd, Clemson	4.5 acres
Dawson Park	Baseball field, lighted basketball court, play structure, picnic area	Old Stone Church Rd, Clemson	1 acre
Earl Anderson Park	Picnic tables, play structure, open play area	Lancelot Dr, Clemson	3 acres
Gateway Park	Linear passive park, walking trail, bench swings, Memorial Tree Garden	SC Hwy 93, Clemson	3.15 acres
Jaycee Park	Picnic tables, play structure	College Ave, Clemson	0.5 acres
Larry Abernathy Waterfront Park	Linear waterfront park, pavilion with restrooms, gazebo, picnic areas, boardwalk/walking trails, lake access	Keowee Trl, Clemson	8 acres
Mountain View Park	One-mile walking/fitness trail, lake access, boat ramp, picnic areas	Mountain View Ln, Clemson	34 acres
Rotary (Abel) Park	Play structure, picnic area	Abel Rd, Clemson	0.5 acre
Shanklin-Sams Greenspace	Green space, natural area	N. Clemson Ave, Clemson	2 acres
W.C. Nettles Park	5 ball fields, 7 tennis courts, 2 soccer fields (all lighted), dog park, play structure, restrooms, picnic shelter	Nettles Rd, Clemson	33 acres

Source: City of Clemson, Planning and Codes Administration Department, 2014.

The City of Clemson Parks and Recreation Department, housed on Nettles Park Road, maintains the parks and recreation areas and provides a variety of activities, special events, and athletic activities for residents of all ages. In 2012, the City of Clemson completed an update to its

Recreation Master Plan, which was originally developed in 2000 and updated in 2005. The Plan serves as a guide for facility improvements related to recreation in the City. Projected construction costs for existing facility upgrades recommended in the Plan were estimated at approximately \$2.46 million. Funding for the proposed improvements is earmarked from a variety of sources, including hospitality tax/fees, TIF, grants, and other sources. Development of the Plan incorporated extensive public outreach and input including meetings with City Parks and Recreation staff, University Campus Recreation staff, and the Daniel High School Athletic Director. Two public workshops were also held, along with the creation of an online survey and a Facebook page to solicit additional comments. Conditions and current needs for each existing park and recreation area were assessed and recommendations made, including associated costs. Table X-15 provides a listing by park of improvements that were recommended. In addition, the 2012 update recommended the exploration of a joint venture between the City of Clemson and Clemson University to provide 16 new tennis courts; enhancements of trails and bikeways in accordance with previous versions of the Recreation Master Plan; and general upgrades to site furnishings such as benches, tables, and drinking fountains.

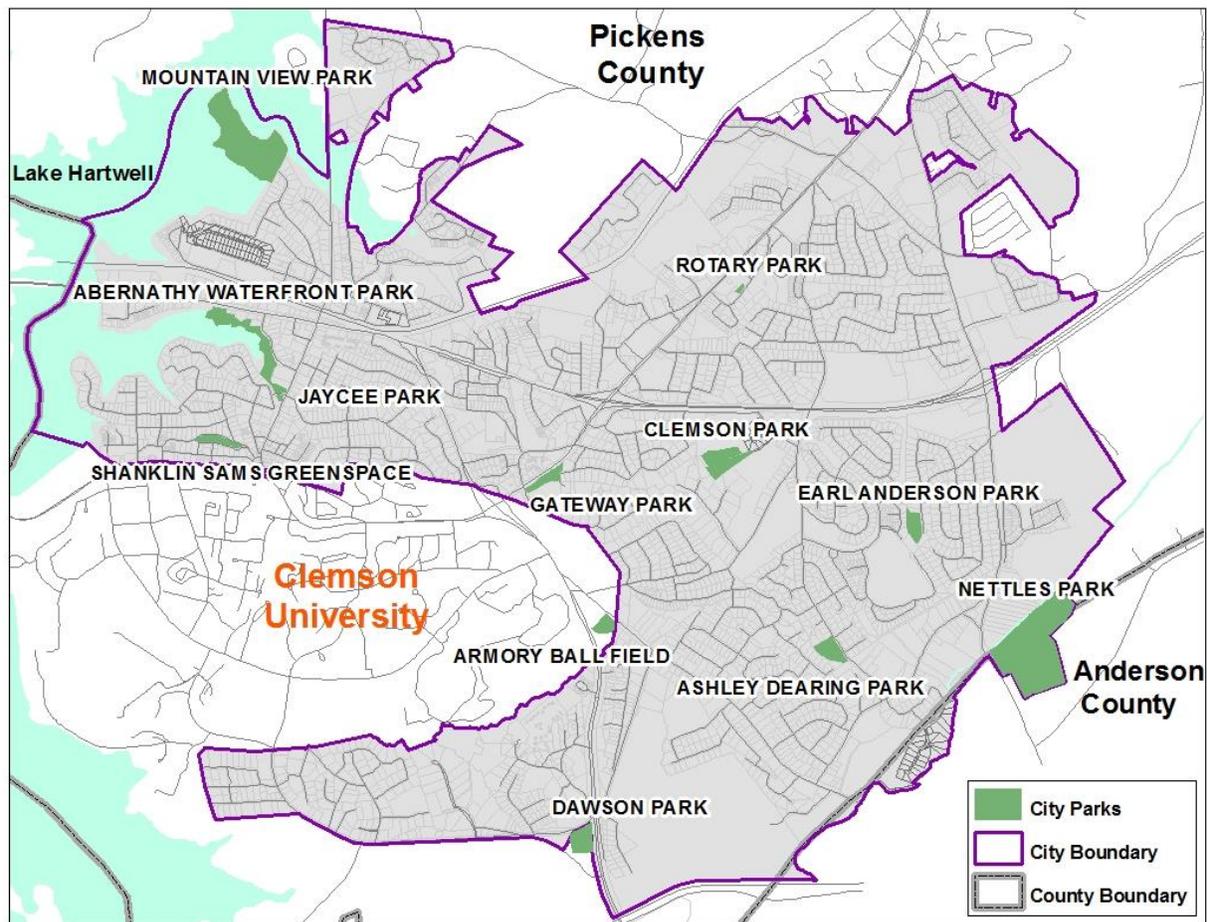
TABLE X-15. CITY OF CLEMSON RECREATION MASTER PLAN RECOMMENDATIONS, 2012

Park Name	Needs
Ashley Dearing Park	<ul style="list-style-type: none"> ➤ Shade structure for bleachers, playground ➤ Dugout for ball field ➤ Add picnic tables with shade ➤ Improved way-finding and signage ➤ ADA parking and route to play structure and restrooms ➤ Improve dugout ➤ Improve walkway circulation ➤ Replace older bleachers ➤ Tree maintenance
Catherine Smith Plaza	<ul style="list-style-type: none"> ➤ Shade structure ➤ Shaded tables ➤ Improved way-finding and signage ➤ Arrange ADA parking spaces with neighboring property
Clemson Park	<ul style="list-style-type: none"> ➤ Landscaping at entrance and parking lot ➤ Improved way-finding and signage ➤ Clearly marked route for ADA accessibility ➤ Removal of tennis courts for increased open space ➤ Picnic table replacement ➤ Potential expansion of community garden

Park Name	Needs
Dawson Park	<ul style="list-style-type: none"> ➤ Asphalt parking and perimeter path ➤ Improved way-finding and signage ➤ Shade structure for bleachers ➤ ADA accessible route to bleachers ➤ Replacement of old bleachers and retaining wall
Earle Anderson Park	<ul style="list-style-type: none"> ➤ Improved way-finding and signage ➤ Select tree removal ➤ Drainage improvement ➤ Increase trail connectivity ➤ Repair/replace volleyball net
Lake Abernathy	<ul style="list-style-type: none"> ➤ ADA accessibility for pavilion and restroom ➤ Boardwalk and handrail repair ➤ Long-term replacement of boardwalk with more durable materials ➤ Vandalism abatement
Jaycee Park	<ul style="list-style-type: none"> ➤ Covered pavilion at stage ➤ Drinking fountain ➤ Improved way-finding and signage ➤ Arrange ADA parking spaces with neighboring property
Mountain View Park	<ul style="list-style-type: none"> ➤ Expand disc golf course to 18 holes ➤ Improved way-finding and signage ➤ Expand and enhance trail system
Rotary Park	<ul style="list-style-type: none"> ➤ Shade structure for playground ➤ Shaded picnic tables ➤ Clearly marked route and parking for ADA accessibility ➤ Improved way-finding and signage ➤ Repair fence ➤ Improved landscaping and drainage
W.C Nettles Park	<ul style="list-style-type: none"> ➤ Future CAT bus stop ➤ Shade trees ➤ Covered dugouts on softball field ➤ Misting station ➤ Larger tennis pavilion ➤ Improved way-finding and signage ➤ ADA accessibility for dog park ➤ New softball concessions/scorekeeper's booth ➤ Improved drainage for dog park ➤ Asphalt resurfacing ➤ Picnic table replacement in softball area

Source: City of Clemson Recreation Master Plan Update, 2012.

MAP X-4. PARKS AND RECREATION AREAS IN THE CITY OF CLEMSON, 2014



Source: City of Clemson, Planning and Codes Administration, 2014.

The City of Clemson and Town of Central jointly operate the **Central-Clemson Recreation Center (CCRC)** located on Commons Way in Central. The facility opened in 1998 and includes two full-size basketball/volleyball gyms with electronic scoreboards and spectator bleachers; a six-lane, 25-yard swimming pool; a heated therapy pool; a 7,200 square foot fitness room; weight room; a 3,000 square foot aerobics room; showers; lockers; and changing rooms. Membership and single visit rates are reduced for Clemson and Central residents.

The **Foothills YMCA** was originally chartered 117 years ago in a collaborative agreement with Clemson College, with the intent of programming for the student population. The YMCA's outreach now expands well beyond the student base and is chartered to serve all of the Oconee County region, as well as residents of the City of Clemson and the Town of Central. The YMCA currently operates as a non-facility YMCA, with a sole focus on program delivery. Programs are open to all with no membership requirement. However, memberships are offered to individuals and families, which provide discounts on all programs and special events.

The US Army Corps of Engineers provides the recreation facilities and maintains the access area at the **Twelve Mile Park** located on SC Highway 133, just beyond the City limits. The recreation area features swimming, fishing, boat access, a picnic area, and a playground.

A number of golf courses are located in the Clemson area or within a close drive, including the **Walker Golf Course** on the Clemson University campus, the Pickens County Country Club on State Road in Pickens, the Cliffs at Keowee Vineyards on Cleo Chapman Highway in Sunset, The Rock at Jocassee on Sliding Rock Road in Pickens, and Smithfields Country Club in Easley.

N. GOALS, OBJECTIVES AND STRATEGIES FOR IMPLEMENTATION

<p>Community Facilities Element Vision</p> <p><i>“The City is committed to providing high quality public facilities and services. The City strongly encourages and will lead in establishing partnerships with area jurisdictions, community groups, Clemson University, and other agencies and businesses for providing quality public services and facilities.”</i></p>			
Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
Goal X.1. Update the City’s water, sewer, and stormwater drainage systems to meet future needs.			
Objective X.1.1. Implement and update the City’s Long-term Water Plan.			
<u>Strategy X.1.1.1.</u> Replace obsolete water pipes.	Engineering Dept Utilities Dept	Ongoing	
<u>Strategy X.1.1.4.</u> Evaluate and secure alternative water sources.	Engineering Dept Utilities Dept Administration City Council	Long-term	
Objective X.1.2. Implement and update the City’s wastewater treatment improvement program.			
<u>Strategy X.1.2.1.</u> Complete Infiltration and Inflow upgrades.	Engineering Dept Utilities Dept	Long-term	
<u>Strategy X.1.2.2.</u> Continue the sewer line replacement program.	Engineering Dept Utilities Dept	Ongoing	
<u>Strategy X.1.2.3.</u> Maintain and expand as necessary the Cochran Road Waste Water Treatment Plant (WWTP).	Engineering Dept Utilities Dept Administration	Short-term	
<u>Strategy X.1.2.4.</u> Plan the transition from secondary to tertiary wastewater treatment.	Engineering Dept Administration	Long-term	
Objective X.1.3. Develop a Stormwater Management Master Plan for the City.			
<u>Strategy X.1.3.1.</u> Conduct a comprehensive stormwater management study for the City, including but not limited to, identification of all primary watersheds, priority drainage issues, citywide management options, and cost estimates.	Engineering Dept Administration	Short-term	
<u>Strategy X.1.3.2.</u> Acquire use of land for possible multiple uses as stormwater management, greenway, walking, biking, hiking, and utility areas through fee simple purchases, easements or other feasible methods.	Administration Finance Parks and Recreation Dept City Council	Long-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
<u>Strategy X.1.3.3.</u> Implement a stormwater management permitting program.	Engineering Dept Administration SC DHEC	Short-term	
<u>Strategy X.1.3.4.</u> Establish a stormwater utility as a funding source for stormwater projects.	Engineering Dept Administration City Council	Short-term	
<u>Strategy X.1.3.5.</u> Revise the City’s Land Development Regulations to incorporate recommendations of the <i>Stormwater Management Study/Plan</i> and to reflect the administrative changes associated with acquiring delegated stormwater review status from SC DHEC.	Planning and Codes Dept Engineering Dept Planning Commission	Short-term	
Goal X.2. Continue to support recycling of as much of the solid waste generated by residents and businesses as possible.			
Objective X.2.1. Encourage waste reduction and cost-effective reuse and recycling through appropriate policies and programs.			
<u>Strategy X.2.1.1.</u> Continue to manage waste locally to the greatest extent feasible to minimize the export of waste to the landfill.	Public Works Dept	Ongoing	
<u>Strategy X.2.1.2.</u> Launch an extensive recycling outreach campaign to support existing recycling programs through such media as local newspapers, posters placed on collection trucks, mailed brochures to building managers and homeowners, and social media websites.	Public Works Dept Administration Neighborhood Associations Area Schools Clemson University	Mid-term	
<u>Strategy X.2.1.3.</u> Implement an incentive program that increases the participation of businesses in the recycling efforts.	Public Works Dept Administration Clemson University	Long-term	
<u>Strategy X.2.1.4.</u> Encourage reduction in the use of synthetic fertilizers, hazardous household wastes, toxic cleaning agents, herbicides, and pesticides.	Public Works Dept Administration City Council	Ongoing	
<u>Strategy X.2.1.5.</u> Encourage reuse of recycled materials in the City and other private construction projects.	Administration Public Works Dept	Ongoing	
<u>Strategy X.2.1.6.</u> Develop education and promotion programs to increase recycling by occupants of multi-family buildings.	Public Works Dept Administration Clemson University	Mid-term	
<u>Strategy X.2.1.7.</u> Support partnerships with Clemson University to develop educational programs and	Public Works Dept Area jurisdictions	Long-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
sustainable applications for the management of solid waste.	Clemson University		
<u>Strategy X.2.1.8.</u> Continue to develop partnerships with other jurisdictions and agencies to address effective waste management and recycling services.	Administration Public Works Dept Engineering Dept Parks and Recreation Dept	Long-term	
<u>Strategy X.2.1.9.</u> As appropriate and feasible, use recycled materials in City capital improvement projects.	Administration Public Works Dept Engineering Dept Parks and Recreation Dept	Ongoing	
<u>Strategy X.2.1.10.</u> Establish an enforcement program to reduce improper recycling.	Planning and Codes Dept Administration Public Works Dept City Council	Mid-term	
Objective X.2.2. Ensure convenient access to recycling facilities for City residents.			
<u>Strategy X.2.2.1.</u> Develop a central drop-off facility for recyclable materials that incorporates appropriate screening and buffers to minimize impacts on adjacent land uses.	Public Works Dept Administration	Long-term	
<u>Strategy X.2.2.2.</u> Publicize and enhance access to existing recycling drop-off facilities at the Public Works Department site.	Public Works Dept	Short-term	
Objective X.2.3. Enhance existing curb-side collection programs.			
<u>Strategy X.2.3.1.</u> Study the options for pre-sorting household recycling materials before pickup through the use of multiple bins or other best-practice options.	Public Works Dept	Short-term	
Goal X.3. Prepare for catastrophic events to minimize damage and effectively implement recovery operations.			
Objective X.3.1. Establish and maintain an effective emergency response program.			
<u>Strategy X.3.1.1.</u> Adopt, implement, and periodically update a <i>City Emergency Operations Plan</i> to reduce risks to reduce the potential for loss of life, injury, and economic damage resulting from catastrophic events.	Administration Police City Council	Ongoing	
<u>Strategy X.3.1.2.</u> Develop a City public awareness and education program to ensure preparedness for	Administration Police	Mid-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
natural disasters, accidents, riots, crime, and other hazards for all residents and businesses.	Fire Marshal		
<u>Strategy X.3.1.3.</u> Ensure coordination of the City Emergency Plan with Pickens, Oconee, and Anderson Counties, Duke Power Emergency Operations, other large power operators in the area and Clemson University plans and updates.	Administration Police Area Jurisdictions Clemson University Area Agencies	Ongoing	
<u>Strategy X.3.1.4.</u> Distribute educational materials such as refrigerator magnets that provide emergency information and contact numbers.	Administration Police Clemson University	Long-term	
Objective X.3.2. Reduce the potential for loss of life, injury, and economic damage resulting from fire.			
<u>Strategy X.3.2.1.</u> Study the impacts of broadening the scope of Rental Housing Regulations to include multi-family units to ensure basic life safety and livability standards in those units.	Planning and Codes Dept Administration City Council Homeowners/Rental Agents	Mid-term	
<u>Strategy X.3.2.2.</u> Promote “Safe Living” by developing educational materials and through publicizing effective techniques to minimize potential household hazards.	Police Administration Clemson University Red Cross Fire Marshal	Mid-term	
Objective X.3.3. Reduce the potential for loss of life and property damage in areas subject to flooding.			
<u>Strategy X.3.3.1.</u> Review and revise as necessary City Codes to ensure appropriate land uses and construction techniques within flood prone areas.	Planning and Codes Dept Engineering Dept Planning Commission City Council	Mid-term	
<u>Strategy X.3.3.2.</u> Establish a City open space purchase program that focuses on including undeveloped properties within the 100-year flood plain in the Greenway network.	Finance Administration City Council	Mid-term	
Objective X.3.4. Reduce the potential for loss of life and property damage due to fallen power lines.			
<u>Strategy X.3.4.1.</u> Promote the location of power lines underground where feasible.	Administration City Council Neighborhood Associations Utility Companies	Ongoing	
<u>Strategy X.3.4.2.</u> Develop a program that brings together utility companies and residents who are	Administration Utility Companies	Long-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
willing to bear related costs of locating utility lines underground in their neighborhoods.			
Goal X.4. Provide adequate police and fire protection and emergency medical services to the City residents.			
Objective X.4.1. Minimize the response time for all emergencies.			
<u>Strategy X.4.1.1.</u> Plan for additional staffing of Police Department as needed to ensure that the ratio of police officers to the population in the service area is at or above national standards.	Police Administration City Council	Mid-term	
<u>Strategy X.4.1.2.</u> Identify locations and obtain/reserve land in the potential growth areas for future emergency sub-stations.	Planning and Codes Dept Planning Commission Administration City Council	Short-term	
<u>Strategy X.4.1.3.</u> Encourage the grouping of public facilities in potential growth areas to create viable activity centers.	Planning and Codes Dept Planning Commission Administration City Council	Mid-term	
<u>Strategy X.4.1.4.</u> Coordinate the City’s emergency efforts with State and surrounding county and city agencies and Clemson University to ensure adequate provision of public safety services.	Administration Clemson University Area Jurisdictions	Ongoing	
Objective X.4.2. Encourage the development of a regional trauma center in the City which is adequate to serve the emergency needs of the residents.			
<u>Strategy X.4.2.1.</u> Conduct a community needs assessment to determine the size and type of facility appropriate for the area.	Administration Area Health Care Organizations DHEC	Long-term	
<u>Strategy X.4.2.2.</u> Explore possible partnerships with adjacent communities, Clemson University, and existing regional health care institutions.	Administration City Council Area jurisdictions Area Health Care Organizations	Long-term	
<u>Strategy X.4.2.3.</u> Review options for location of a proposed regional trauma center.	Planning and Codes Dept Administration City Council	Long-term	
<u>Strategy X.4.2.4.</u> Explore funding options for the construction of a regional trauma center.	Administration Finance City Council	Long-term	
Objective X.4.3. Improve safety in existing neighborhoods.			

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
<u>Strategy X.4.3.1.</u> Survey and assess the current safety of existing neighborhoods, including but not limited to, location of fire hydrants and emergency ingress and egress locations.	Administration Public Works Dept Engineering Dept Police Neighborhood Associations	Mid-term	
<u>Strategy X.4.3.2.</u> Develop and implement a plan to minimize existing neighborhood safety deficiencies.	Engineering Dept Administration Neighborhood Associations	Long-term	
<u>Strategy X.4.3.3.</u> Continue to improve the distribution of fire hydrants in the City.	Engineering Dept Utilities Dept Administration CU Fire Department	Ongoing	
Goal X.5. Ensure adequate provision of utilities and services provided by non-City agencies and service providers.			
Objective X.5.1. Support the conversion to underground utilities.			
<u>Strategy X.5.1.1.</u> Explore the development of a funding mechanism to relocate utility lines underground.	Administration City Council Utility Companies Neighborhood Associations Businesses	Long-term	
<u>Strategy X.5.1.2.</u> Ensure that utility lines are located underground in potential growth areas as feasible.	Planning and Codes Dept Engineering Dept Planning Commission City Council	Ongoing	
<u>Strategy X.5.1.3.</u> Emphasize conversion to underground utilities during system upgrades.	Administration City Council Utility Companies	Ongoing	
Objective X.5.2. Support the development and expansion of natural gas service that is reliable, safe, and cost effective.			
<u>Strategy X.5.2.1.</u> Encourage the expansion of natural gas service to new developments.	Administration Fort Hill Natural Gas Authority	Ongoing	
<u>Strategy X.5.2.2.</u> Encourage system expansions that accommodate anticipated commercial and light industrial growth.	Administration Fort Hill Natural Gas Authority	Ongoing	
Objective X.5.3. Work with existing utility providers to maintain or improve service to the City.			

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
<u>Strategy X.5.3.1.</u> Ensure the best available safety and aesthetic measures and practices are utilized.	Administration City Council	Ongoing	
<u>Strategy X.5.3.2.</u> Work with Duke Power, Northland Cable Television, BellSouth Communications, and other utility and telephone service providers to maintain and enhance the quality of their services provided within the City.	Administration City Council Utility Companies	Ongoing	
<u>Strategy X.5.3.3.</u> Continue to respond to changes in technology with periodic reviews and updates of City regulations and programs.	City Council Planning Commission Planning and Codes Dept	Ongoing	
Objective X.5.4. Work with federal agencies to ensure improved services to City residents.			
<u>Strategy X.5.4.1.</u> Work with the local and regional representatives of the US Postal Service to ensure that the Clemson Post Office location meets the needs of current residents and future population growth.	Administration City Council US Postal Service	Long-term	
<u>Strategy X.5.4.2.</u> Work with the local and regional representatives of the US Postal Service to bring the entire City under the same ZIP code.	Administration City Council US Postal Service	Ongoing	
<u>Strategy X.5.4.3.</u> Continue cooperation with the US Army Corps of Engineers to make Corps properties available for public enjoyment.	Administration City Council US Army Corps of Engineers	Ongoing	
Goal X.6. Increase access to information technologies and its utility for all residents of the City.			
Objective X.6.1. Improve computer and information technology access in the City.			
<u>Strategy X.6.1.1.</u> Explore partnerships with Clemson University and private businesses to facilitate the implementation of the best available communication infrastructure citywide.	Administration City Council Joint City-University Advisory Board (JCUAB) Clemson University	Long-term	
<u>Strategy X.6.1.2.</u> Explore partnerships with technology companies to provide affordable services that are beneficial to the City and to provide broadband access to under-served areas.	Administration City Council Service providers	Long-term	
<u>Strategy X.6.1.3.</u> Be proactive in regulating the design and location of wireless telecommunication facilities.	Administration City Council	Ongoing	
<u>Strategy X.6.1.4.</u> Facilitate public access to	Administration	Mid-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
technologies that may not be available in all homes by providing public computer terminals in City Hall and other frequently visited public buildings	City Council		
Objective X.6.2. Use technology to improve internal processes and service to residents.			
<u>Strategy X.6.2.1.</u> Enhance the City web page to provide convenient, user-friendly access to City information and to maximize the dialogue between residents and City officials.	Administration All City Departments	Short-term	
<u>Strategy X.6.2.2.</u> Continue the transition to paperless communications with City Council, the Planning Commission, and other City committees and boards.	Administration Planning and Codes Dept City Council	Ongoing	
<u>Strategy X.6.2.3.</u> Use technology to improve common internal processes and transition to a paperless environment where applicable.	All City Departments	Ongoing	
<u>Strategy X.6.2.4.</u> Continue to enhance the computer network in the City government.	Administration City Council	Ongoing	
<u>Strategy X.6.2.5.</u> Implement online payment for City services and permits.	Administration Other City Departments	Mid-term	
<u>Strategy X.6.2.6.</u> Continue the development and maintenance of the City’s Geographic Information System (GIS) and expand its use for all City departments, residents, and businesses.	Planning and Codes Dept Engineering Dept Administration	Ongoing	
<u>Strategy X.6.2.7.</u> Improve and enhance the quality of and access to the information contained in the City’s common relational database.	All City Departments	Ongoing	
<u>Strategy X.6.2.8.</u> Incorporate technology to assist and improve the provision of emergency services by updating the City’s E-911 system.	Police Fire Engineering Dept Planning and Codes Dept Administration	Ongoing	
<u>Strategy X.6.2.9.</u> Continue to evaluate and respond to new technology as it becomes available.	All City departments	Ongoing	
<u>Strategy X.6.2.10.</u> Study the viability of broadcasting public meetings online.	Information Technology Administration City Council	Mid-term	

Goal X.7. Promote environmental awareness in and around the City through Best Management Practices.

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
Objective X.7.1. Use City publications to increase residents' knowledge of environmental issues.			
<u>Strategy X.7.1.1.</u> Explore options for improving environmental awareness within City government as well as the public.	All City departments	Ongoing	
<u>Strategy X.7.1.2.</u> Make the City an environmental leader through implementation of appropriate codes, regulations, and guidelines.	All City departments	Ongoing	
Objective X.7.2. Review Leadership in Energy and Environmental Design (LEED) guidelines.			
<u>Strategy X.7.2.1.</u> Incorporate appropriate guidelines as policy for construction activity within City limits.	Engineering Dept Administration City Council	Long-term	
<u>Strategy X.7.2.2.</u> Adopt LEED registration guidelines as minimum design criteria for City facilities as appropriate.	Engineering Dept Administration City Council	Long-term	
Goal X.8. Provide parks, recreation facilities, and services which contribute to the improvement of health, fitness, and the overall quality of life in the City.			
Objective X.8.1. Provide quality recreation opportunities for all residents.			
<u>Strategy X.8.1.1.</u> Adopt a "Complete Streets" ordinance and require sidewalks on all new or updated roads and bikeways as identified by the <i>Bikeway Master Plan</i> and <i>Master Sidewalk and Trails Plan</i> .	City Council Administration Planning and Codes Dept	Short-term	
<u>Strategy X.8.1.2.</u> Continue implementation of the <i>Recreation Master Plan</i> .	Parks and Recreation Dept City Council	Ongoing	
<u>Strategy X.8.1.3.</u> Update the <i>Recreation Master Plan</i> periodically with an emphasis on promoting inclusion, so that all residents and neighborhoods are served.	Parks and Recreation Dept City Council	Mid-term	
<u>Strategy X.8.1.4.</u> Encourage public participation in the planning of park facilities.	Parks and Recreation Dept City Council	Ongoing	
<u>Strategy X.8.1.5.</u> Publicize existing recreational opportunities through extensive outreach programs.	Parks and Recreation Dept Administration Planning and Codes Dept	Mid-term	
<u>Strategy X.8.1.6.</u> Evaluate the adequacy of land development and zoning regulations and recreation impact fees in providing and/or encouraging the development of new parks and open spaces and develop additional or alternative mechanisms as needed.	Planning and Codes Dept Parks and Recreation Dept Planning Commission Administration City Council	Long-term	
<u>Strategy X.8.1.7.</u> Work with local educational	Parks and Recreation	Short-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
institutions to enable joint use of their recreational facilities.	Dept Administration City Council Clemson University Area Schools		
Objective X.8.2. Expand City’s existing open space resources.			
<u>Strategy X.8.2.1.</u> Create, adopt, and implement a <i>Sidewalk and Trail Master Plan</i> that prioritizes connectivity and network connections.	Planning and Codes Dept Planning Commission Administration City Council	Mid-term	
<u>Strategy X.8.2.2.</u> Encourage the use of lands in the 100-year flood plain as open space and greenway connections.	Planning and Codes Dept Planning Commission City Council	Long-term	
<u>Strategy X.8.2.3.</u> Establish a program to promote the donation or acquisition of land to the City for conservation and/or use as recreational amenities.	Planning and Codes Dept Parks and Recreation Dept Administration City Council	Long-term	
Objective X.8.3. Promote the City’s image as a lakeside community.			
<u>Strategy X.8.3.1.</u> Promote the lakefront parks through the organization of special water-related events.	Parks and Recreation Dept Community Development	Short-term	
<u>Strategy X.8.3.2.</u> Emphasize the City’s water resources in promotional efforts.	Administration Chamber of Commerce	Short-term	
<u>Strategy X.8.3.3.</u> Develop partnerships with Clemson University and other agencies for improved access to water related sports.	Administration City Council Clemson University JCUAB US Army Corps of Engineers US Forest Service	Long-term	
<u>Strategy X.8.3.4.</u> Closely monitor the water quality in Lake Hartwell.	Engineering Dept Administration City Council	Ongoing	
Objective X.8.4. Continue to expand the recreational programs offered at the Central-Clemson Indoor Recreation Center.			
<u>Strategy X.8.4.1.</u> Administer periodic surveys to assess community needs.	Parks and Recreation Dept Administration	Long-term	
<u>Strategy X.8.4.2.</u> Ensure that adequate space exists	Parks and Recreation	Ongoing	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
for program and activity needs.	Dept Administration		
Objective X.8.5. Continue to provide recreational programs and activities based on needs of various age groups, neighborhoods, and interests.			
<u>Strategy X.8.5.1.</u> Conduct periodic surveys to assess community needs so that the programs and services of the City Parks and Recreations Department are fully inclusive of all City residents and serve the needs of all neighborhoods.	Parks and Recreation Dept Administration	Short-term	
<u>Strategy X.8.5.2.</u> Improve participation in existing programs by increased advertisement, through the use of web resources and other media.	Parks and Recreation Dept	Short-term	
Objective X.8.6. Ensure provision of adequate parks and open spaces in new residential developments, including potential annexation areas.			
<u>Strategy X.8.6.1.</u> Require a network of parks, open spaces, and greenways in all new development in growth areas.	Planning and Codes Dept Parks and Recreation Dept Planning Commission City Council	Short-term	
<u>Strategy X.8.6.2.</u> Review and revise the Zoning Ordinance and the Land Development Regulations to ensure that adequate standards for various types of open space exist.	Planning and Codes Dept Parks and Recreation Dept Planning Commission City Council	Short-term	
Goal X.9. Continue to support a quality school system.			
Objective X.9.1. Create safe walking and biking opportunities to area schools for students.			
<u>Strategy X.9.1.1.</u> Work with area schools and the community to establish a <i>Safe Routes to School</i> program in Clemson.	Community groups Area Schools Administration City Council	Mid-term	
<u>Strategy X.9.1.2.</u> Establish a safe bike path/lane that connects the City with local elementary, middle, and high schools.	Planning and Codes Dept Administration City Council Area Schools SC DOT	Mid-term	
<u>Strategy X.9.1.3.</u> Complete and maintain the multi-	Planning and Codes Dept	Short-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
use bridge and path over US Highway 123 linking the south side of Berkeley Drive to Clemson Elementary School.	Administration City Council Engineering Dept SC DOT		
Objective X.9.2. Ensure that existing educational facilities are adequate.			
<u>Strategy X.9.2.1.</u> Study the impacts of potential new growth, including annexation, on existing schools.	Planning and Codes Dept Administration Local schools	Long-term	
<u>Strategy X.9.2.2.</u> Work with the Pickens County School District to encourage siting, renovation, and expansion of school facilities in areas best equipped to accommodate growth.	Administration City Council Pickens County School District	Long-term	
Objective X.9.3. Ensure that adequate school capacity exists to serve new residents concurrent with development.			
<u>Strategy X.9.3.1.</u> Collaborate with the Pickens County School District on the exchange of data and preparation of student enrollment projections.	Planning and Codes Dept Administration Pickens County School District	Long-term	
<u>Strategy X.9.3.2.</u> Whenever feasible, develop joint/shared school facilities, recreational facilities, and educational and service programs between the school district and other public and non-profit agencies.	Parks and Recreation Dept YMCA Area schools Clemson University	Long-term	
Goal X.10. Promote quality cultural facilities and library system.			
Objective X.10.1. Promote community participation in arts and cultural events and the establishment of art and cultural facilities including the visual and performing arts.			
<u>Strategy X.10.1.1.</u> Develop incentives to encourage indoor and outdoor art to be incorporated into new developments.	Planning and Codes Dept Planning Commission City Council	Long-term	
<u>Strategy X.10.1.2.</u> Support and promote an area-wide arts and crafts event.	Community Development Parks and Recreation Dept Clemson University Local Arts Groups	Mid-term	
Objective X.10.2. Promote the use of existing library facilities and encourage and enable the establishment of new library facilities to serve existing and new communities throughout the City.			
<u>Strategy X.10.2.1.</u> Allow flexibility in the placement of libraries.	City Council Pickens County	Long-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
<u>Strategy X.10.2.2.</u> Explore options to establish a local library reading room at a central location in the City.	Administration Planning and Codes Dept City Council Pickens County	Long-term	
Goal X.11. Maximize and improve citizen participation in all public planning and decision-making processes.			
Objective X.11.1. Enhance notification, information, and processes for public input in land use planning and decisions.			
<u>Strategy X.11.1.1.</u> Analyze and recommend improvements in the regulatory procedures involving citizen participation.	Planning and Codes Dept Planning Commission City Council	Short-term	
<u>Strategy X.11.1.2.</u> Use technology to make information broadly available to the public through extensive use of the internet.	All City Departments	Ongoing	
<u>Strategy X.11.1.3.</u> Invest in and maintain the use of online mapping capabilities for residents.	Planning and Codes Dept Administration City Council	Long-term	
<u>Strategy X.11.1.4.</u> Create and conduct a semi-annual Planners College to inform residents about the planning and development process.	Planning and Codes Dept Administration City Council	Mid-term	
Objective X.11.2. Improve the effectiveness of citizen boards and commissions as a major avenue for citizen participation in the planning process.			
<u>Strategy X.11.2.1.</u> Support the attendance by Board and Commission members at mandatory training sessions as required by the State Law.	City Council	Ongoing	
<u>Strategy X.11.2.2.</u> In addition to regularly scheduled meetings, consider using a town meeting format, when appropriate, to informally gather public input.	Planning and Codes Dept Planning Commission	Ongoing	
Objective X.11.3. Empower neighborhoods and neighborhood associations.			
<u>Strategy X.11.3.1.</u> Actively support and provide assistance in the formation of neighborhood associations.	Planning and Codes Dept Community Development Administration City Council	Mid-term	
<u>Strategy X.11.3.2.</u> Establish a program to formally recognize new and/or existing neighborhood associations.	Community Development Administration City Council	Mid-term	
<u>Strategy X.11.3.3.</u> Evaluate the feasibility of providing “Citizen Planner” training sessions on an “at cost” basis for representatives of recognized neighborhood groups.	City Council Administration Planning and Codes Dept	Long-term	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
Objective X.11.4. Increase the use of technology in citizen participation.			
<u>Strategy X.11.4.1.</u> Post agendas and supporting documents on an easily accessible location on the City’s website.	All City departments	Ongoing	
<u>Strategy X.11.4.2.</u> Expand the use of GIS and other technologies to facilitate information dissemination.	All City departments	Ongoing	
<u>Strategy X.11.4.3.</u> Establish social media websites through which the City can relay important information.	All City departments	Short-term	
Goal X.12. Ensure that the City meets the public service needs of residents with high quality, responsive, efficient, and cost-conscious local government delivery systems that incorporate best practices.			
Objective X.12.1. Ensure the organizational efficiency of City government.			
<u>Strategy X.12.1.1.</u> Perform an organizational assessment study, taking into consideration current population and future growth scenarios.	City Council Administration	Short-term	
Objective X.12.2. Improve responses to citizen requests and complaints.			
<u>Strategy X.12.2.1.</u> Analyze queries and complaints to determine trends in service demands and consumer problems.	All City departments	Ongoing	
<u>Strategy X.12.2.2.</u> Analyze the effectiveness of existing policies and programs in responding to citizen complaints and suggest improvements and/or new policies and programs as needed.	Administration City Council	Ongoing	
<u>Strategy X.12.2.3.</u> Improve the capacity of the City to respond to and facilitate the handling of citizen complaints.	Administration City Council	Ongoing	
Objective X.12.3. Develop adequate City facilities to accommodate current and future needs.			
<u>Strategy X.12.3.1.</u> Evaluate current and future personnel and space needs of the City departments.	All City Departments	Short-term	
<u>Strategy X.12.3.2.</u> Emphasize the maintenance of existing facilities as a way to make efficient use of resources.	Administration Public Works Dept	Ongoing	
<u>Strategy X.12.3.3.</u> Pursue state, federal and other available funding sources to improve and enhance public facilities.	Administration	Ongoing	

Goals/Objectives/Strategies	Accountable Agencies	Time Frame for Completion	Completion Date
Goal X.13. Support all aspects of community development that contribute to the well-being of all residents.			
Objective X.13.1. Develop programs that enhance the quality of life of City residents.			
<u>Strategy X.13.1.1.</u> Determine needs and develop outreach programs within the community to provide information on available programs, services and facilities, including centers and programs for children and senior citizens.	Administration	Ongoing	
<u>Strategy X.13.1.2.</u> Evaluate existing programs, services, and facilities on a periodic basis to determine community needs, desired levels of service, and ability to provide.	All City Departments	Ongoing	
Objective X.13.2. Increase participation of all segments of the community in existing programs.			
<u>Strategy X.13.2.1.</u> Develop outreach programs and assessments to ensure that the needs of special populations within the City are met.	Administration Community Development Parks and Recreation Dept City Council	Ongoing	
<u>Strategy X.13.2.2.</u> Explore the provision of community facilities for seniors, encourage the involvement of seniors in the community, and explore ways to meet the needs of the increasing senior population.	Community Development, Parks and Recreation Dept	Mid-term	
Objective X.13.3. Promote volunteerism and involve volunteer residents and community groups in citywide efforts.			
<u>Strategy X.13.3.1.</u> Partner with Clemson University to establish an annual community-wide “Clean Sweep Week.”	Administration Public Works Dept Clemson University JCUAB SCDOT	Short-term	
<u>Strategy X.13.3.2.</u> Develop and publicize an ongoing program that organizes the clean-up of roadside trash along City streets by volunteers.	Public Works Dept Community Development	Ongoing	
<u>Strategy X.13.3.3.</u> Establish and administer a clearinghouse for appropriate City projects to be adopted and carried out by volunteer individuals and groups.	All City Departments Clemson University	Long-term	
<u>Strategy X.13.3.4.</u> Establish an annual community-wide “Spring Cleaning” event where City residents can drop-off unwanted household and personal items and hazardous materials in specified locations.	Public Works Dept Community Development	Short-term	

Map X-1. Public Facilities in the City of Clemson..... 5

Map X-2. Annexation Limitations, City of Clemson 8

Map X-3. Floodplains in the City of Clemson..... 23

Map X-4. Parks and Recreation Areas in the City of Clemson, 2014 52

Table X-1. City of Clemson Departments and Employees 2

Table X-2. City of Clemson Board and Commission Appointments..... 2

Table X-3 Annexations Since 2000, City of Clemson..... 8

Table X-4. Heating Fuels for Occupied Housing Units, 2012 City of Clemson, Pickens County and South Carolina..... 14

Table X-5. Clemson University Fire and Emergency Medical Services Staffing 26

Table X-6. Index Crimes 2010-2013, City of Clemson 28

Table X-7 Selected Practicing Health Professions in Pickens County 29

Table X-8. Enrollment in the City of Clemson Schools and School District of Pickens County, 2009 to 2013 39

Table X-9. Clemson University Student Enrollment, 2003-2013 43

Table X-10. Clemson University Employment, 2013 43

Table X-11. Tri-County Technical College Annual Enrollment 44

Table X-12. Southern Wesleyan University Enrollment 45

Table X-13. Recreation Participation by Couth Carolinians, 1990 – 2005..... 48

Table X-14. Clemson Parks and Recreation Areas 49

Table X-15. City of Clemson Recreation master Plan Recommendations, 2012 50

Figure X-1. Floodplain Diagram..... 21

Chapter X. COMMUNITY FACILITIES ELEMENT 1

A. GOVERNMENT..... 1

 1. CITY OF CLEMSON GOVERNMENT 1

 2. Pickens County Government 4

 3. City of Clemson Facilities 4

 4. Educational, State and Federal Facilities 5

B. ANNEXATION 6

C. UTILITIES 9

 1. Water Service, Treatment and Distribution 9

 2. Wastewater Service, Collection and Treatment 11

 3. Energy Sources 13

 4. Telecommunications 17

D. STORMWATER MANAGEMENT 18

E. FLOODPLAIN MANAGEMENT 20

F. SOLID WASTE 24

G. PUBLIC SAFETY 24

 1. Emergency Preparedness 25

 2. Fire Service 25

 3. Police 27

H. HEALTH CARE 28

 1. Emergency Medical Service 29

 2. HOSPITALS 30

 3. Other Health Care Facilities 31

 4. Healthy Food Systems 32

 5. Home Health Services and Hospice 33

I. SOCIAL SERVICES 34

J. ELDERLY SERVICES 35

 1. Area Agency on Aging 36

 2. Nursing Homes and Assisted Living Facilities 38

K. EDUCATION 39

 1. Public Pre-K-12 Schools 39

 2. Private Pre-K-12 Schools 40

 3. Adult Education and Literacy 41

 4. Higher Education 41

L. LIBRARIES 46

M. RECREATION 47

N. GOALS, OBJECTIVES AND STRATEGIES FOR IMPLEMENTATION..... 54