# **LAND USE**



FLORENCE COUNTY
COMPREHENSIVE PLAN

# Table of Contents

Executive Summary	
Current and Potential Trends Affecting Land Use	
Accessibility	5
Soil Types	6
Proximity to Public Services	7
Water and Sewer	7
Fire Protection	8
Stormwater Management	8
Non-Sustainable Growth	9
Air Quality	10
Sustainable Development	10
Compact Development	11
Transit Oriented Design	11
Capital Improvement Plan	12
Low Impact Development	13
Building with Enhanced Techniques	13
Tree Preservation	14
Broader Zoning	15
Land Uses	16
Single- and Multi- Family Residential	
Farmland	20
Agriculture	22
Silviculture	22
Commercial, Sales and Service	23
Industrial Areas	24
Transportation	26
Public Facilities	26
Conservation Areas	28
Water	29
Flood Zones	30
Wetlands	33
Water Quality	34
Groundwater	34
Stormwater	35
Riparian Buffers	35
Wellfield Protection	35
Development Procedures	36
Zoning Compliance	38

E-911 Rev	/iew	39
Flood Rev	/iew	39
Compreh	ensive Plan Review	39
Stormwa	ter Review	39
Building Co	de Review	40
Fire Code R	eview	40
Future Land U	se	41
Importance	of Future Land Use	41
Future Land	Use Designations and Objectives	41
Future Land	l Use Maps	42
Downtown	Master Plans	58
City of Flo	prence	58
City of Jo	hnsonville	58
Town of 0	Olanta	58
Town of F	Pamplico	58
City of La	ke City	59
Goals and Imp	olementation Strategies	60
References		65
Appendix A:	Urban Hydrology Soil Classifications	69
Appendix B:	Ten (10) Principles of Sustainable Development	71
Appendix C:	National Association of Home Builders: Green Home Building Guidelines	72
Appendix D:	LEED Committees	73
Appendix E:	1997 Land Use Classifications	74
Appendix F:	Zoning Districts Interpretations	77
Appendix G:	Soils of Prime Farmland for Agriculture in Florence County	79
Appendix H:	Soils of Farmland of Statewide Importance in Florence County	80
Appendix I:	Forestry Land Conservation Tools	81
Appendix J:	Water Body Definitions	82
Appendix K:	Future Land Use Map Administration and Public Meetings	83
Annendix I ·	Flement Adontion Date	84

List of Tables		
Table 7-1.	Existing Land Uses, Area and Valuations	17
Table 7-2.	Index of Municipal Land Use Maps (as shown in Figure 7-15, page 44)	43
List of Figures		
Figure 7-1.	Florence County Hydric Soil	7
Figure 7-2.	Florence County Residential Building Permits	
Figure 7-3.	Residential (yellow) and Variable Residential (orange) Designations	19
Figure 7-4.	Florence County Farmland	20
Figure 7-5.	Rural Preservation Future Land Use	21
Figure 7-6.	Extent of Commercial Future Land Use	24
Figure 7-7.	Location of Industrial Future Land Use	25
Figure 7-8.	Public Facility Future Land Use	27
Figure 7-9.	Areas Protected as Parks or with Conservation Easements	29
Figure 7-10.	Florence County Surface Water	30
Figure 7-11.	Florence County 100-Year Floodplain and Wetlands	31
Figure 7-12.	Flood Hazard District Future Land Use	33
Figure 7-13.	Procedure to change the Land Use Plan	37
Figure 7-14.	Permitting Process for a Typical Development	38
Figure 7-15.	County Future Land Use.	44
Figure 7-16.	Future Land Use in the Coward Area	45
Figure 7-17.	Future Land Use in the City of Florence – Map 1	46
Figure 7-18.	Future Land Use in the City of Florence – Map 2	47
Figure 7-19.	Future Land Use in the City of Florence – Map 3	48
Figure 7-20.	Future Land Use in the City of Florence – Map 4	49
Figure 7-21.	Future Land Use in the City of Florence – Map 5	50
Figure 7-22.	Future Land Use in the Johnsonville Area	51
Figure 7-23.	Future Land Use in the Lake City Area	52
Figure 7-24.	Future Land Use in the Olanta Area	53
Figure 7-25.	Future Land Use in the Pamplico Area	54
Figure 7-26.	Future Land Use in the Quinby Area	55
Figure 7-27.	Future Land Use in the Scranton Area	56
Figure 7-28	Future Land Use in the Timmonsville Area	57

## **Executive Summary**

The Florence County Future Land Use element incorporates the analyses and future strategies of many existing elements of the Florence County Comprehensive Plan including the Population, Community Facilities, Economic Development and Natural Resources. These elements create the foundation for directing responsible growth in the County. The Future Land Use element emphasizes sustainability and prudence as the priority objectives with the main goal of creating harmony and efficiency as we utilize our manufactured and natural infrastructure.

The Future Land Use element was established by State Code of Laws under the Local Government Comprehensive Planning Enabling Act of 1994 (Article 3 Section 6-29-510 (D)(7)). This law also dictates that plans must be updated at least every ten years with reviews completed at least every five years. The first Future Land Use plan was completed for Florence County in 1997. This 2009 plan represents the first update.

Manufactured and natural infrastructures and services include roads, rivers, water, sewer, open space, police and fire protection which are necessary to support the County's current and future population.

To maintain a healthy community while providing quality services for our residents, businesses and visitors, a diversity of land uses should be provided. These land uses include a variety of residential densities along with commercial, industrial, schools, parks, a flood hazard district and other community components. The goal of this element is to categorize land uses in a geographic manner to increase the quality of life for Florence County residents while preserving the County's natural resources.

In order to plan for the future, this plan compiles existing land uses, recent development activity and future plans. This information is then compared to natural impediments such as water bodies and existing uses. The vision is to guide urbanized and suburbanized growth to close proximity to public infrastructure. This element represents a compilation of community expectations for future development while balancing the need to control the County tax burden, protection of natural resources and increasing residents' and visitors' quality of life. Together with the other elements of the Comprehensive Plan, important trends including population, housing and economics help direct future policies. This plan is a flexible document based upon the knowledge and information presented to and by various stakeholders at the time it was drafted and approved. This plan is not designed to create barriers and impediments to reasonable land use by creating artificial boundaries and unnecessary restrictions on citizens' use of property.

The Land Use Element is divided into five sections, including this executive summary. The remaining sections are:

- Current and Potential Land Use Trends
- Existing Land Uses
- Development Procedures
- Future Land Uses
- Goals and Strategies

# **Current and Potential Trends Affecting Land Use**

Established in 1888, Florence County was originally consolidated from parts of Marion, Darlington, Williamsburg, and Clarendon counties and centered on a growing railroad business. Growth continues today with agriculture, silviculture and manufacturing activities as the population also continues to increase, much attributed to migration. The County's two largest cities, the City of Florence and Lake City, are growing while the smaller towns and cities (Coward, Johnsonville, Olanta, Pamplico, Timmonsville, Scranton, and Quinby) have little or no growth. Florence County continues to be highlighted in the region as the healthcare and manufacturing hub of the greater Pee Dee region.

The regional economy has continuously changed as a reflection of the decreased significance of labor intensive cash crops such as tobacco, corn and cotton. Decline of tobacco as a staple crop and increased agricultural mechanization decreases labor needed to complete a crop rotation. Together with extensive farmland leases, the smaller towns tend to maintain or decline in population. However, preservation of these agricultural areas will ensure future viability of traditional crops as well as preserving capacity to grow future crops.

The smaller municipalities are unique and generally characterized by a light commercial downtown associated with a historic residential area; in the outskirts and beyond the boundary, light commercial and a school and/or large manufacturing complex may exist. Furthermore, the daytime population of these cities is usually lower as many residents of these areas commute to larger cities like Florence and Lake City for work and shopping.

# Accessibility

Florence County's Land and Subdivision Development Regulations require specific road access for all development. No building shall be erected, constructed, moved, or relocated on a lot not located adjacent to a publicly dedicated, publicly accepted or maintained street, private street as part of an approved Planned Development, or easement which meets all standards of land subdivision. Street categories are further explained and analyzed in the Transportation Element of the Comprehensive Plan.

A traffic impact study may be required for any large development, such as a shopping center, a planned development, an industrial complex or a significant residential project that may commit a significant increase in local traffic. The Florence County Code requires a traffic study when a specified threshold within the development is met or if it is determined by Florence County that the Level of Service (LOS) of the existing or proposed road network is unacceptable or over capacity. Two examples of development proposals that would require a traffic study include 500 or more lots in a residential subdivision, and/or 350,000 square feet or more of retail space.

The LOS is based on the current traffic on the road (volume) and the capacity of the road. An acceptable rating is dependent on the function class of the road as described by the South Carolina Department of Transportation (SCDOT). The description of each level of service is available in the Transportation Element of the Comprehensive Plan.

### Soil Types

Soil types play a crucial role in determining the development feasibility of a particular site. Some soil types may drastically limit the capability of septic tanks, thus indicating the need for community sewer lines prior to development. Other soil types may delineate historically flooded areas or presence of wetlands. Soil types that have severe limitations for buildings and dwellings can be designated for uses appropriate to the particular conditions, such as parks, wildlife habitat, agricultural production, forestry, or quarrying. Oftentimes, federal, state, or county governments impose restrictions on the development of wetlands, critical wildlife habitat areas, and coastal dunes due to the intrinsic value of protecting natural resources like water, species diversity or coastal areas.

Throughout Florence County, a variety of uses exist for a wide range of soils. Soil types considered optimal for agricultural use may also be considered good for residential, commercial, and industrial uses. Soils have hydrological classifications which helps to determine if a property is suitable for development or agricultural and silviculture uses. The information for the types of soil for Florence County was provided by the Natural Resource Conservation Service (NRCS 1994). According to the Florence County Land Development Regulations, the Planning Commission reserves the right to require the developer to provide a report and certification of soil suitability from a qualified soils engineer.

Each soil type has an urban hydrology attribute. The hydric soil group refers to the infiltration potential of the soil after prolonged wetting. This information is also provided by NRCS. Appendix A (page 69) contains a list of the soil map abbreviated symbols, the soil type classification, and the urban hydrology group classification that each has attributed to it. The six urban hydrology group classifications and their interpretations are explained below:

- Group 'A' Soils (65,102 acres) High infiltration (low runoff). Sand, loamy sand, or sandy loam. Infiltration rate > 0.3 inch/hr when wet.
- Group 'B' Soils (114,312 acres) Moderate infiltration (moderate runoff). Silt loam or loam. Infiltration rate 0.15 to 0.3 inch/hr when wet.
- Group 'C' Soils (125,173 acres) Low infiltration (moderate to high runoff). Sandy clay loam. Infiltration rate 0.05 to 0.15 inch/hr when wet.
- Group 'D' Soils (153,480 acres) Very low infiltration (high runoff). Clay loam, silty clay loam, sandy clay, silty clay, or clay. Infiltration rate 0 0.05 inch/hr when wet.
- Group 'A/D' Soils (7,056 acres) This dual classification specifies that the soil is a Group 'D' soil if it is not drained. However, if a ditch or a canal is dug to drain the soil properly, when the soil has dried, it will be a Group 'A' soil.
- Group 'B/D' Soils (41,178 acres) This dual classification specifies that the soil is a Group 'D' soil if it is not drained. However, if a ditch or a canal is dug to drain the soil properly, when the soil has dried, it will be a Group 'B' soil.

The following map shows the location of each hydrological group classification for the soil in Florence County.

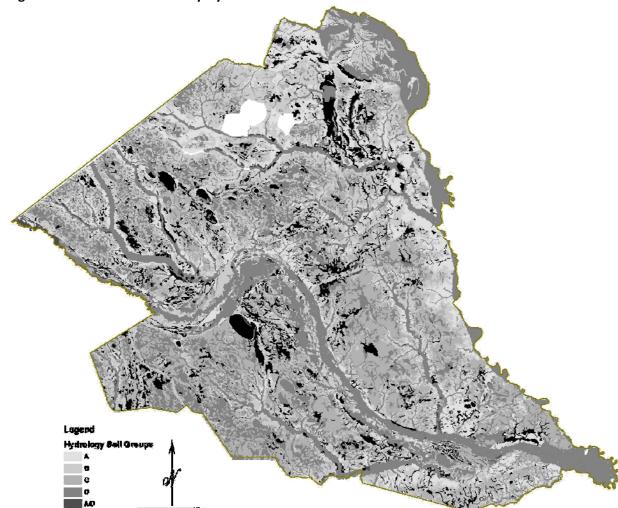


Figure 7-1. Florence County Hydric Soil

Source: U.S. Department of Agriculture, Natural Resource Conservation Service, 1999

# **Proximity to Public Services**

#### Water and Sewer

Water and sewer availability is required before a building permit will be issued for a residence or business. Confirmation of tap fee payments or other DHEC approved methods should be provided to comply with the Land Development and Subdivision Ordinance as stated in the Florence County Code.

For areas where public water and sewer are unavailable, drinking water wells and septic systems must be utilized. Applications for wells and septic systems are submitted to the DHEC. DHEC must approve, in writing, all individual well and septic systems prior to a building permit being issued.

#### Fire Protection

Construction (new or renovations) for both residential and commercial must be reviewed for compliance with the International Fire Code (IFC). Automatic sprinkler systems and a fire alarm system are required according to state code in nonresidential buildings and multi-family residential dwellings meeting certain requirements. The Plans Examiner must approve the plans before a building permit may be issued by the local Building Inspections Department. A final inspection is required before occupying the structure.

For proposed commercial developments, the IFC requires a fire hydrant be within 500' of the furthest point of the building.

A total of twelve fire departments and districts protect Florence County and its participating jurisdictions. Each fire department is given an Insurance Service Organization (ISO) Rating or Public Protection Classification which classifies the community's fire-fighting capability. Most insurance companies use the ISO code to determine residential and commercial property policies. Better ISO ratings (a class scale of "1" to "10" with "1" being the best) translate to lower insurance rates.

### Stormwater Management

Impacts to water quality and quantity should be managed at a variety of scales. Stormwater management is evolving from engineered solutions applied at the site level, such as basins, curbs and gutters, to a new approach that looks at managing stormwater through natural processes. Local codes and ordinances should be investigated prior to any design work or construction. Any disturbance of the natural landscape, including digging a pond, grading a front yard, redirecting a natural stream or adding fill to a property, can affect local drainage and have broader implications to area water quality and quantity.

In order to address stormwater management utilizing a sustainable infrastructure, the following factors must be considered 1) where to direct development in the community; 2) how to protect and preserve natural infrastructure (rivers, streams, artesian wells, wetlands), and 3) how to develop individual sites. The preservation and restoration of natural landscape features (such as forests, floodplains and wetlands) are critical components of natural infrastructure. By choosing to preserve ecologically sensitive areas, communities can improve water quality while providing wildlife habitat and opportunities for outdoor recreation. These results improve the quality of life for residents and visitors.

At the intermediate neighborhood scale, low-impact infrastructure planning includes street and road design, parking capacity and urban tree goals. At the site scale, low-impact infrastructure practices include rain gardens, porous pavements, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting for non-potable uses such as toilet flushing and landscape irrigation. These processes represent a new approach to storm water management that is sustainable and environmentally friendly, in addition to being cost effective. Local demonstrations exist where the number of dwellings in a development was increased pursuant to addressing improved stormwater quality.

Stormwater runoff originates as precipitation and is routed to wetlands, streams and lakes by flowing across various surfaces. These surfaces include roads, parking lots, driveways, and roofs,

and saturated yards, agricultural fields and reservoirs. Untreated stormwater runoff from construction or industrial activities can have a significant impact on downstream water quality. As stormwater flows over these sites, it picks up pollutants like sediment, debris, and chemicals. Polluted stormwater runoff decreases water quality, harming people, fish and other wildlife. Sedimentation can destroy aquatic habitat and high volumes of runoff can reduce stream and lake capacity, cause stream bank alterations and dam failures while producing low dissolved oxygen levels in natural waters.

The South Carolina Department of Health and Environmental Control (DHEC) is responsible for managing and overseeing the state's stormwater program. The program requires all construction sites of one acre or more, many industrial sites, and all regulated Municipal Separate Storm Sewer Systems (MS4s) to obtain stormwater permits.

In accordance with The Environmental Protection Agency (EPA), every proposed development greater than one acre for both residential and commercial must have a drainage system which shall be designed by a registered engineer and constructed by the developer to provide for the proper drainage of surface water of the development and the drainage area of which it is a part, to permit the unimpeded flow of natural watercourses, and to provide positive drainage away from on-site sewage disposal facilities. The developer's responsibility shall include those drainage facilities to discharge such developer's storm runoff to an existing facility outside the secondary area capable of receiving said runoff with no adverse effects.

The Florence County Code requires all plans, both commercial and residential over one acre, to include a detailed stormwater plan to the Florence County Planning and Building Department for review. A grading plan is also required to show proposed contour changes in the area where cutting or filling is to be done to the landscape. All proposals are required to minimize flood damage and the impact that runoff has on adjacent water bodies. Detention and/or retention ponds may be used to manage the increased and accumulated runoff, which the developed parcel or subdivision generates. For proposed projects under one acre, a less detailed plan is required. Upon approval by Florence County Engineering, DHEC will make the final review and decision as to issuance of a storm water permit. A building permit will not be issued without approval from DHEC.

To offset significant costs of managing stormwater on a new development, low impact development techniques and those practices that preserve a majority of the canopy mitigate the need for many stormwater structures. These two approaches are presented in the section titled "Sustainable Development."

#### Non-Sustainable Growth

Large expanses of parking lots, highways, subdivisions, strip malls, and office complexes can characterize a non-sustainable growth pattern. The environmental impacts of non-sustainable growth range from the polluted runoff from paved surfaces, air quality problems caused by increased driving, and the loss of agriculture, ecologically sensitive lands, and historic sites.

Growth over the past fifty years may be recognized as one of the following types:

<u>Low-density</u> - The consumptive use of land for urban purposes along the margins of existing metropolitan areas supported by piecemeal extensions of basic urban infrastructures such as water, sewer, power, and roads.

<u>Ribbon</u> - Development that follows major transportation corridors outward from urban cores. Lands adjacent to corridors are developed, but those without direct access remain in rural uses/covers. Over time these nearby "raw" lands may be converted to urban uses as land values increase and infrastructure is extended perpendicularly from the major roads and lines.

**Spot development** - A discontinuous pattern of urbanization usually a sign of historically developed communities resulting in patches of developed lands that are widely separated from each other and from the boundaries of recognized urbanized areas. This form of development is the most costly with respect to providing urban services such as water and sewer.

### **Air Quality**

Florence County, together with the Pee Dee region, is near the maximum national ozone compliance standard. The current National Ambient Air Quality Standard (NAAQS) is 0.076 parts per billion (ppb) for ozone (O<sub>3</sub>). In 2008, the U.S. Environmental Protection Agency (EPA) finalized a new ozone standard to lower the (NAAQS) for ground-level ozone to a level of 0.075 parts per million (ppm). Florence County is currently in attainment of these national air quality standards.

In a September 22, 2008 memo to the Florence County Administrator and Council Members, the Council Chairman stated that "... Florence County needs to lead the way in the abatement of ozone issues."

For areas that are designated nonattainment, within three years of the designation the Department of Health and Environmental Control (DHEC) will be required to revise their State Implementation Plan (SIP) with the necessary control measures to ensure that the standard is attained and maintained. Nonattainment status translates to extra costs for new and existing industries locating to Florence County.

### Sustainable Development

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but in the indefinite future. The National Association of Counties (NACo) has adopted the following ten principles of sustainable development:

- Interdependence
- Collaboration
- Stewardship
- Diversity
- Prevention
- Equity
- Effectiveness
- Education
- Flexibility

#### Responsibility

For a complete description of the National Association of Counties (NACo) adopted sustainable development principles, please see Appendix B, page 71. For sustainable development to occur, it must consider economics of the individuals and entities that invest in land development. Regulations governing this development should have a credible and objective approach.

Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing humanity. For example, Florence County reservoir and wetland systems function as natural filters for storm water runoff. Preservation of the function of these important habitats will preserve developments from floods and keep area water clean. The field of sustainable development considers environmental, economic and sociopolitical sustainabilities.

Sustainability can be influenced in many different ways. For example, the developer who builds a house using enhanced building design is positively affecting environmental sustainability. Perhaps that same developer builds a subdivision for mixed incomes and includes affordable housing units. This development in turn promotes economic and social sustainabilities while providing a diverse community setting.

### **Compact Development**

Another method of sustainability is to allow cluster development so a developer can realize the same return on investment with a smaller footprint on the land. Cluster development allows higher density on a smaller cluster of land, leaving other portions as open space. Cluster development promotes economic sustainability for the developer while simultaneously promoting environmental integrity.

Compact development manages density and intensity of development through design to conserve land, reduce impacts on traffic and storm water for a given amount of development, and make maximum use of existing infrastructure. It also places varied but complementary land uses in proximity to each other. Compact development promotes a mix and arrangement of land uses that are conducive to pedestrian activity and alternative modes of transportation. With well-designed compact development, more everyday destinations such as shops, churches and schools are within convenient walking distance.

#### **Transit Oriented Design**

A great way to promote compact development across the county is through Transit Orient Developments (TODs). TOD is oftentimes a moderate or high-density conglomerate of residential and commercial communities generally located within a walkable radius of a rail or bus station. These neighborhoods are designed to maximize pedestrian and transit access. In addition, it provides residents with increased mobility options, a variety of retail and commercial outlets within a short distance of their homes while producing a compact style of development that preserves open space.

In Florence County, there are many potential locations for TOD's including each of the established municipalities. The Pee Dee Regional Transportation Authority's (PDRTA's) bus transfer location in downtown Florence (Dargan and Evans Streets) is a good example. From that point, a resident can travel as far as Third Loop Road utilizing public transit. Furthermore, the PDRTA's fixed bus routes utilize a flag-stop system. Transit buses can be flagged down at any point along the route. Combined with locating near public services, this system enhances the potential of siting TODs anywhere along the fixed routes.

In other municipalities and communities throughout the County, clustering commercial, residential and civic buildings together facilitate the use of alternative transportation such as electric vehicles, bicycles or walking. Conceptually, county-wide transit connections then could link these communities together.

It is important to maximize residential developments adjacent to public transit. An effective transit system depends upon wise land use decisions. The major benefits of coordinating land use and transportation planning include:

- maximizes transit ridership and auto occupancy;
- decreases transit operating costs,
- improves access for transit vehicles,
- increases financial support for public transportation through public-private sector partnerships,
- reduces demand on roadway capacity and necessary maintenance,
- improves access, more transportation options, and greater mobility for all residents,
- reduces parking needs,
- develops a pedestrian oriented environment,
- minimizes congestion,
- reduces traffic related mortalities and injuries (the accident rate for automobile and taxi travel is higher than that of bus travel),
- reduces air, noise, and water pollution, and
- preserves open space and farmland.

#### Capital Improvement Plan

The adoption of a broader, infrastructure-oriented Capital Improvement Plan (CIP) would be another method to establish current and future public needs as well as adequate levels of service for County services like libraries, law enforcement coverage and fire protection. A Capital Improvement Plan promotes efficiency in providing social and economic service. These are some examples of how sustainability can be incorporated into planning Florence County's future.

The National Association of Home Builders (NAHB) is aware of the need for sustainable development. In 2005, NAHB published the Model Green Home Building Guidelines, a visionary document that has gained industry and market acceptance across the country. It opens with a remark that states "Although we cannot avoid affecting the environment when we build a house, green building can work toward minimizing that environmental impact." The NAHB has six

Model Green Building Guidelines that reflect the industry's commitment to sustainability. The six guidelines are listed below. For a full description of the guidelines, see Appendix C, page 72.

### Low Impact Development

Low Impact Development (LID) is a comprehensive technology-based approach to managing urban storm water. It combines a hydrologically functional site design and pollution prevention measures to compensate for land development impacts on hydrology and water quality. A few examples of how Low Impact Development can help are:

- Assist in meeting new storm water requirements (MS4 Phase II) DHEC regulation
- Reduce construction and maintenance costs of the storm water infrastructure
- Balance growth needs with water quality protection
- Creates "green landscapes" that add amenity value to new development

The Environmental Protection Agency (EPA) addresses "Smart Growth." According to a 1999 EPA evaluation of the environmental benefits of infill (urban development) versus greenfield (farmland or natural area) development, siting a new development in an existing neighborhood, instead of open space at the suburban fringe, can reduce miles driven by as much as 58 percent. Communities that make it easy for people to choose to walk, bicycle, or take public transit can also reduce air pollution by reducing automobile mileage and smog-forming emissions.

Many studies by EPA show the environmental benefits of smart growth. Development guided by smart growth principles can minimize air and water pollution, encourage brownfield clean-up and reuse, and preserve natural lands.

Another alternative as a means of promoting flexible design and development that preserves the natural and scenic qualities of open space is Cluster Development and Conservation Subdivisions. The Florence County zoning ordinance allows cluster development. A cluster plat modifies the existing dimensional requirements set forth in the zoning law and proposes lots that are smaller and closer together to obtain the otherwise allowable density, such as the number of housing units, while conserving areas of open space within the subdivision. Clustering of residential units may encourage interaction in the community by designing the units closer to the street, providing for public gathering places, and encouraging use of parks and community facilities as focal points in the neighborhood.

### **Building with Enhanced Techniques**

In response to impacts to human and economic health highlighted by recent air quality standard tightening by the U.S. Environmental Protection Agency, Florence County is exploring unique, optional programs to improve regional air quality. One potential preference could be to utilize the rating system for LEED or EarthCraft to scale reductions in building permit fees to developers of subdivisions and commercial sites that voluntarily utilize 'green' standards including those whom choose to avoid burning debris (subcontractors must not burn either).

The South Carolina State legislature adopted the Energy Independence and Sustainable Construction Act of 2007. The legislation highlights guidelines for Green Building utilizing LEED and Green Globe standards (SC ST SEC 48-52-800):

The purpose of this section is to promote effective energy and environmental standards for construction, rehabilitation, and maintenance of buildings in this State, improving the state's capacity to design, build, and operate high-performance buildings and creating new jobs and contributing to economic growth and increasing the state's energy independence.

One goal for the Land Use Element is for Florence County to establish permitting procedures to include fast tracking and to lower costs of building permits for LEED or EarthCraft construction.

#### Leadership in Energy and Environmental Design (LEED)

The U.S. Green Building Council (USGBC) is a non-profit organization committed to expanding sustainable building practices. USGBC is composed of more than 15,000 organizations from across the building industry that are working to advance structures that are environmentally responsible, profitable, and healthy places to live and work. Members includes building owners and end-users, real estate developers, facility managers, architects, designers, engineers, general contractors, subcontractors, product and building system manufacturers, government agencies, and nonprofits.

LEED is The Leadership in Energy and Environmental Design Green Building Rating System. LEED was developed by the USGBC. LEED is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. [LEED and the U.S. Green Building Council website <a href="http://www.usgbc.org">http://www.usgbc.org</a>.]

#### Southface and Greater Atlanta Home Builders Association: EarthCraft

EarthCraft House, created in 1999, is a residential green building program of the Atlanta Home Builders Association in partnership with Southface. This program serves as a blueprint for energy and resource efficient homes. The aim of the program is to help home builders be leaders in smart growth management and environmental stewardship. EarthCraft House follows a systems approach to home building that stresses an understanding of how the different components of a home work together. This approach results in a home that performs better, is more economical for the homeowner and costs little more to build than a comparable home built with standard construction practices.

EarthCraft guidelines are flexible to allow for a variety of approaches to environmental construction. EarthCraft House guidelines address energy efficiency, durability, indoor air quality, resource efficiency, waste management, and water conservation. EarthCraft House certification guidelines can be found at <a href="http://www.earthcrafthouse.com/documents/ech\_tech-guidelines-complete.pdf">http://www.earthcrafthouse.com/documents/ech\_tech-guidelines-complete.pdf</a>.

#### Tree Preservation

Incorporating the use of existing and new tree plantings on new and existing developments increases multiple values. Tree preservation and additional plantings increase shade for parking lots and buildings, while increasing air quality and alleviating stormwater runoff. Appropriate tree care increases the appeal of commercial and residential properties. Listed below are additional benefits trees provide to a community:

- increases property values,
- alleviates flooding possibilities,
- enhances wildlife habitats for animals and other plants,
- improves air quality by removing dust and other pollutants such as ozone, carbon monoxide and sulfur dioxide from the air,
- reduces glare and reflection.

The Food and Agriculture Organization's Trees Outside Forests concept recognizes the importance of "trees found on non-forest and non-wood lands" such as those among agricultural lands, urban and settlements areas, along the roads, home gardens, hedgerows, scattered trees in the landscape, pasture/rangelands and composed of different types of resources (Food and Agriculture Organization, 2000). The program further notes that trees have biological characteristics that fulfill environmental, social, cultural and economic roles in all land uses (rural and urban).

### **Broader Zoning**

As an extension of the vision of future land use, zoning is the regulatory guidance that determines the intensity of any given use. Zoning is a government regulation developed to protect lower impact uses and the people who engage in those uses (for instance housing), from higher impact uses, such as industry and commerce. Zoning has four main purposes:

- To locate similar and compatible uses near each other and to separate conflicting land uses, such as industrial and residential;
- To control the height, bulk, and size of buildings, and setbacks from property lines;
- To apply regulations that are consistent throughout an entire zoning district; and
- To provide a fair way to resolve disputes over property rights and the enforcement of the district regulations.

A central goal of zoning is to shape land use and density patterns in a community to create a sustainable environment. Thus, zoning regulations must have a close, consistent connection to the goals and objectives expressed in the Future Land Use Element of the Comprehensive Plan. Together, they aim to maintain or improve land-use patterns and enable orderly, sustainable growth. The following list includes benefits of zoning:

- To encourage a mix of shops, office, and residences that foster pedestrian or other modes of travel;
- To guide and manage new development;
- To protect natural resources, such as water supplies;
- To avoid incompatible land uses that cause conflicts between neighbors;
- To maintain an attractive community so that new development fits in with existing buildings; and
- To encourage economic development in areas with easy access to public services and transportation.

The benefits of and purposes for zoning together with the projected increase in population clearly outline reasons why expanded zoning should be considered in the future. The goal should be a proper balance to all interests after stakeholders have input in the planning and development of a plan and land use or zoning designations.

### **Land Uses**

Florence County, a landscape once dedicated to tobacco and a growing railroad in the mid- to late- 1800's, is now represented by a diverse amalgam of uses. Agriculture continues to dominate the County by sheer land area, but, healthcare, manufacturing, new residential subdivisions, commercial ventures and industrial complexes now dot urban and suburban locales across the County's 800 square miles.

This plan utilizes three general categories to identify the landscape:

**Urban** – Concentrated, high-density residential, multi-family, light industrial, office institutional, and/or commercial land uses.

**Suburban** – Medium to high density residential land uses with areas of concentrated commercial, office institutional, and light industrial land uses.

**Rural** – Areas with low-density residential uses and appropriate commercial uses which include forestry and agriculture.

The US Census Bureau classifies "urban" as territory, population, and housing units located in places of 2,500 or more persons incorporated as cities, towns or villages. "Rural" is classified as the area outside the larger and moderate-sized cities, towns or villages and surrounding population concentrations. Rural is generally characterized by farms, ranches, small towns, and unpopulated regions. Although not specifically defined by the Census bureau, "suburban" is recognized as the territory in metropolitan areas that is outside central cities.

The original future land use map and land use compliance descriptions were produced by Dan Vismor in 1997. The original future land use category classifications that complied with residential uses are listed below (See Appendix E, page 74, for the original land use descriptions):

- Existing Residential;
- Developing Residential;
- Rural Community Nodes;
- Rural Resource/Agricultural Areas;
- Transitional Areas.

In general, the following table summarizes land statistics from the Florence County Tax Assessor's Office based on parcel values. The Tax Assessor categorizes uses into three groups: residential, farmland and other. The 'other' category includes commercial and industrial uses. Since parcels oftentimes have multiple uses on a single parcel, the potential exists for a parcel to have multiple uses and thus be taxed according to those uses. For example, a single parcel may have no residence, but include 94 acres of farmland with a value of \$25,681 and two (2) acres of

'other' use with a value of \$6,000. The following chart may count a parcel more than once; however, the number of acres and values are classified to the specified land use.

Table 7-1. Existing Land Uses, Area and Valuations

Land Use Classification	Number of Parcels	Area (acres)	Average Area per Parcel (acres)	Assessed Land Value	Average Lot Assessment
Residential	28,765	2,816	0.1	\$537,024,661	\$18,669.40
Agriculture/ Silviculture	10,414	547,224	52.5	\$135,508,392	\$13,012.10
Other: Commercial/ Industrial	30,654	184,336	6.0	\$1,139,268,345	\$37,165.40

Source: Data provided by the Florence County Tax Assessor's Office

### Single- and Multi- Family Residential

Housing density in Florence County varies from urban to rural landscapes and often takes on characteristics unique to each municipality. The County's growing population will need diverse residential opportunities to meet individuals' expectations of a good quality of life while being affordable.

Population trends indicate that Florence County has experienced substantial population growth over the past three decades. As shown in the current Population Element, in 1980, Florence County's population increased 22.9% from 1970. The population grew 3.79% and 9.98% over the next two decades consecutively. Florence County's population is projected to increase 19% by the year 2030. (SC Statistical Abstract, 2005)

Market demand, population growth, economic development, community infrastructure, and the abundance of developable land are the major factors affecting Florence County future land use needs. Limits to major growth in a community typically involve the availability of community facilities and services such as roads, water and sewer, schools, emergency services and social and cultural institutions such as libraries. The availability of these facilities and services is one factor in determining land that is suitable for urban development.

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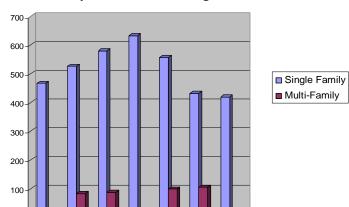


Figure 7-2. Florence County Residential Building Permits

The total number of single-family and multi-family residential building permits issued for Florence County from 2002 through 2008 was 4,000. The observed patterns shown in the chart above indicates that single-family residential homes comprised the vast majority of building permits issued. Each year at least 80% of the total permits issued were for single-family residential. In comparison, the number of multi-family housing unit permits issued is relatively low.

2006

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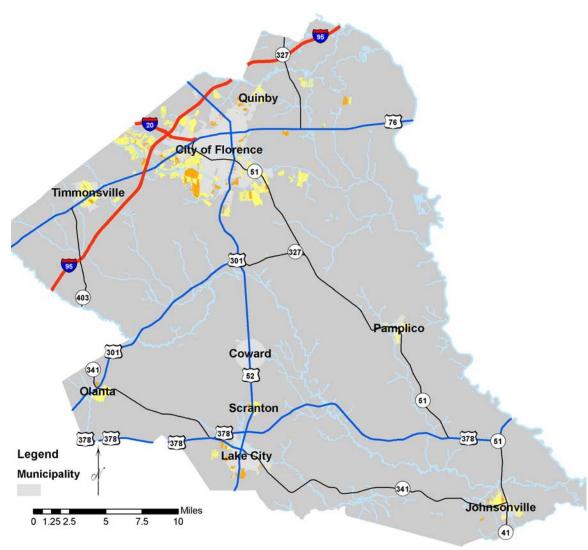


Figure 7-3. Residential (yellow) and Variable Residential (orange) Designations.

The future land use classifications that shall include residential uses are listed below. For a description of the future land use categories, see page 41.

- Residential Preservation (RP), permitted zoning: R-1, R-2, R-3, R-3A and PD;
- Variable Residential (VR), permitted zoning: R-3, R-3A, R-4, R-5, R-5A and PD;
- Rural Preservation (RUP), permitted zoning: RU-1, RU-2 and PD;
- Transitional Growth and Preservation (TGP), permitted zoning: B-1, B-2, RU-1 and PD;
- Suburban Development (SD), permitted zoning: R-2, R-3, R-3A, R-4, B-1, B-2, RU-1, and PD.

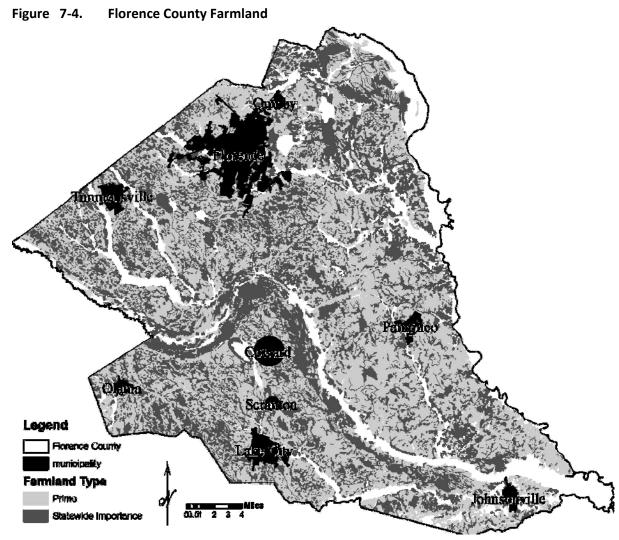
Appendix F (page 77) includes the description of each zoning district.

### **Farmland**

Agriculture and silviculture (forestry) uses continue to dominate the County landscape but this land use is no longer a priority for new development. In essence, the height of Florence County's agriculture use by area has passed and is leading to further diversification of uses.

The types of soil generally suitable for agricultural and forestry uses in Florence County amount to approximately 314,067.25 acres, or 490.73 square miles, which is approximately 61% of the total land area in Florence County. The classification for this type soil by the U.S. Department of Agriculture (USDA) is "prime farmland" and "farmland of statewide importance" (Figure 7-4, page 20). Detailed information on soils for prime farmland can be found in Appendix G (page 79) and Appendix H (page 80) for farmland of statewide importance.

The following map shows the location and extent of prime farmland and farmland of statewide importance in Florence County. Notice the distribution of farmland of statewide importance is generally associated with riverine systems. Oftentimes, rivers change course over long periods of time leaving traces of deep organic rich soils. These same farmlands of statewide importance dot the entire County and may be related to current and historic wetlands.



Florence County Comprehensive Plan – Land Use

Land that does not meet the criteria for prime farmland may be considered farmland with statewide importance (see Figure 7-4). The criteria for defining farmland of statewide importance are determined by the appropriate state and local agencies in cooperation with the US Department of Agriculture (USDA). Farmland of statewide importance includes land areas where the soils do not meet the requirements for prime farmland, but are still highly productive. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law. This type of farmland can produce a high yield of crops with proper management.

In addition to crop production, prime farmland is easily converted to other developments. Oftentimes, prime farmland is converted to development purposes when it is located in close proximity to urban areas. Between 1992 and 1997, 86,200 acres (23.8%) of prime farmland in South Carolina was converted to developed land.

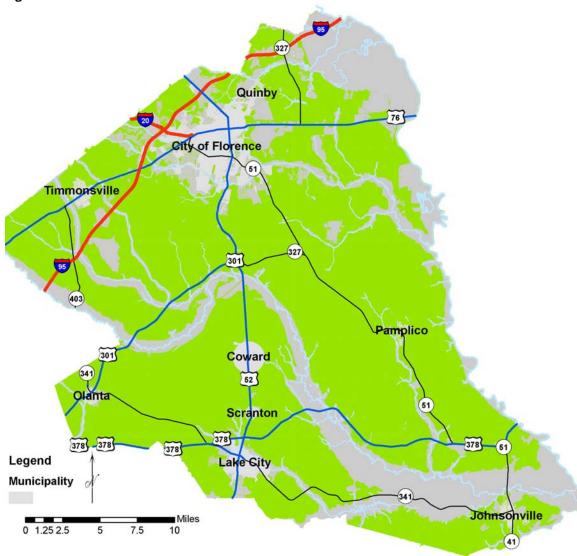


Figure 7-5. Rural Preservation Future Land Use

The future extent of farmland may be threatened by a limitless growth strategy. Responsible, even growth of urban and suburban areas will ensure adequate farm acreage to provide future agricultural and silvicultural products for a growing local and national population.

Biofuels have recently gained traction as a new cash crop and may become a sustaining force to maintain agricultural products as one of the County's exports. Wood chips and corn have been two dominant products and switchgrass has begun to attract calls for contract growing for European power companies. New locations are being sought to increase acreage for sources of energy.

### Agriculture

While agriculture is visible throughout Florence County, some areas may be better suited than others. Prime farmland, as defined by the U.S. Department of Agriculture, has soils that have ideal combinations of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. If treated and managed according to acceptable farming methods, prime farmland can produce large amounts of crops.

According to the National Agriculture Statistic Service for 2002 Florence County had a total acreage of 171,388 of farm land. This figure is approximately 34% of Florence County's total land area and includes 612 individual farms, at an average size of 280 acres. Based on this information taken from the SC Statistical Abstract, between 1997 and 2002 the number of farms in Florence County decreased, but the size of the remaining farms increased. Of the 612 farms, 464 were less than 219 acres.

#### Silviculture

Florence County contains 294,099 acres of forestland, which is approximately 57% of total land coverage. Florence County woodlands can be divided into two types of vegetative communities: upland and lowland forests. Upland forests relate with dry areas away from water and wetlands, whereas the lowland forest areas are located within a flood plain such as the Great Pee Dee and Lynches Rivers.

The concept of sustainability is embedded in the U.S. Forest Service mission to "sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations." For more than 100 years, the Forest Service has been committed to caring for the land and serving people in a manner that encourages a shared stewardship responsibility among their partners and visitors and sustains a full suite of public benefits – ecosystem services that are essential to our quality of life.

Forests provide the economic, social and ecological benefits that we depend on. Oftentimes, the long period between timber harvests invite the potential of more lucrative land use options. However, many options exist to landowners to help them maintain woodlands as forest. Appendix I (page 81) lists some conservation tools and strategies that range in a spectrum from strong to weak protection.

The future land use classification that shall include farmland uses is Rural Preservation (RUP) which would include RU-1, RU-2, and PD zoning. For a description of the future land use categories, see page 41. Appendix F (page 77) includes the description of each zoning district.

### Commercial, Sales and Service

Florence County's current commercial developed land area is approximately 14,466 acres, 2.8% of the total land area. The total number of commercial building permits issued for Florence County from 2003 through 2008 was 492.

New commercial building in Florence County can sometimes be displaced from existing development. Some new commercial developments are located along major roadways away from municipal boundaries (and municipal services such as sewer). These developments may be near incompatible uses and lead to a ribbon-like growth on major throughways connecting the County municipalities. These businesses can impede efficient traffic flow with increased entrances and exits on major roads.

Vacant structures in these areas are ideal for redevelopment, especially with a mixed-use plan. The location is often adjacent to transit resources, water, sewer and emergency services. The convenience of location would attract shoppers and those seeking residence near venues including libraries, theaters and restaurants. Therefore, new businesses are encouraged to consider vacant commercial building to prevent ribbon-like growth especially where these vacant buildings are served by transit resources, water, sewer and other services.

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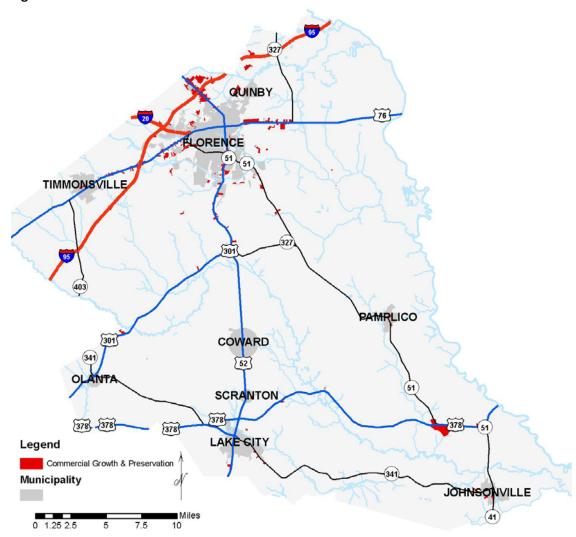


Figure 7-6. Extent of Commercial Future Land Use.

The future land use classifications that shall include commercial uses are listed below. For a description of the future land use categories, see page 41.

- Transitional Growth and Preservation (TGP), permitted zoning: B-1, B-2, RU-1, and PD;
- Commercial Growth and Preservation (CGP), permitted zoning: B-3, B-4, and PD;
- Suburban Development (SD), permitted zoning: R-2, R-3, R-3A, R-4, B-1, B-2, RU-1, and PD;
- Urban Development (UD), permitted zoning: B-4 and PD;
- Flood Hazard District (FHD), permitted zoning: all zoning upon special review.

Appendix F (page 77) includes the description of each zoning district.

### **Industrial Areas**

Florence County is dedicated to being a world-class location for business and industry. The climate and location between New York and Miami with close proximity to two ports attracts a

wide variety of businesses. Both new and expanding businesses have invested more than \$1.1 billion since 1997, creating over 6,000 new jobs.

Service industries are the biggest employers in Florence County with two hospital systems employing a total of 5,775 people in 2006. In addition, a diversity of manufacturers exist in the County.

Two major interstates passing through the County provide ideal locations for industrial parks. Well designed and located parks attract industrial clients and associated service businesses while making insignificant increases in traffic congestion and infrastructure development. Due to the intense nature of these areas, future land use planning is important in order to preserve the quality of life of nearby residents.

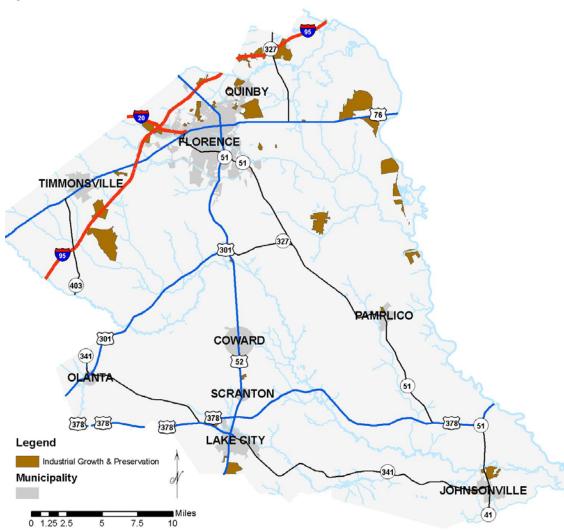


Figure 7-7. Location of Industrial Future Land Use

Adequate buffering requirements protect residential neighborhoods and retail sites located near industrial uses. Concentrating development, including industrial uses, helps conserve prime farmland, open space, timberland, and natural areas. Also, amassing industrial development

allows a greater return from investments in infrastructure. Water, sewer, power, and gas lines run shorter distances thereby requiring less initial capital and lower maintenance costs. Furthermore, industrial parks should be situated along major highways designed to bear greater loads and limit interaction with residential traffic.

The future land use classification that shall include industrial use is Industrial Growth and Preservation (IGP), with permitted zoning is B-5, B-6, and PD. For a description of the future land use categories, see page 41. Appendix F (page 77) includes the description of each zoning district.

### **Transportation**

Overall, Florence County contains 2,251 miles of roadway. The following transportation objectives address current trends in traffic congestion and the status of County roadways:

- increase the extent of a multi-modal transportation network;
- offer a wider range of transportation options;
- support transportation oriented design into new developments;
- improve access among residential communities and businesses to relieve traffic on major roadways;
- provide an efficient, productive road maintenance and construction program; and,
- enhance maintenance standards and techniques.

Pursuant to additional language added to the Comprehensive Plan Enabling Act of 1994, transportation will be the focus of a dedicated element. More information about transportation baseline data, analysis and goals may be found in the Transportation Element.

Transportation facilities shall be included in any future land use classification. For a description of the future land use categories, see page 41.

#### **Public Facilities**

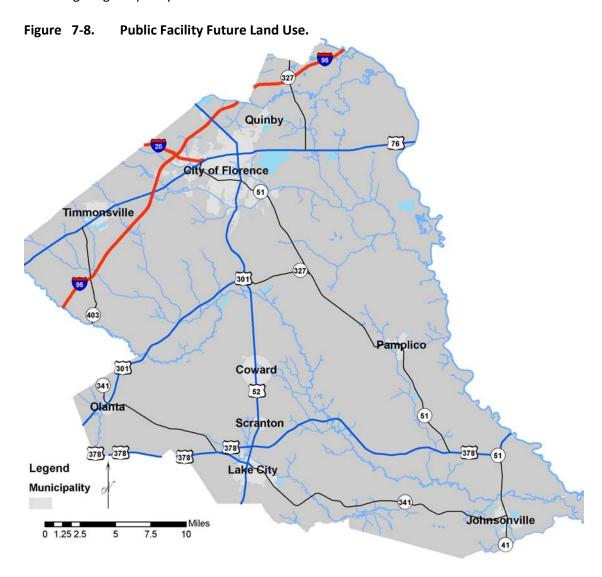
Florence County contains a wide range of public facilities. The newest facilities are part of the County library system and two venues for the performing arts. In the planning stage is a new location for the Florence County Museum. Other improvements have been directed to the National Bean Market Museum in Lake City and the City of Florence's Rail Trail System.

Public facilities found in Florence County are highlighted in the Community Facilities element of the County Comprehensive Plan. This section will note some general aspects of the importance of public facilities in planning for future growth; however, refer to the dedicated element for more information.

Florence County contains 55 park facilities totaling more than 1,400 acres of park land. Active and passive recreational opportunities are important for maintaining and increasing the quality of life for residents and visitors. County, municipal and private parks play a regular role in organized sports, family gatherings, social functions, and impromptu visits by local residents. Development of residential communities, especially more intense residential will benefit from close proximity to parklands.

In addition to publicly-owned green space, six golf courses are located in the County. Further, Florence County is home of five museums, four civic, art and theatre venues, and six libraries. Florence County contains many public and private schools as well as Francis Marion University and Florence Darlington Technical College.

Due to land costs and State requirements for campus sizes, rural areas are often sought as new public school sites. For most of these areas, water and sewer lines must be installed at a great cost; and the school quickly is surrounded by new development. However, schools should be built closer to populated areas where infrastructure already exists as well as multiple options for transportation. Schools built in sparsely populated rural areas lead to students being transported from their communities. Making new schools the center to existing communities would allow the community to grow as a walkable, bike-friendly neighborhood, increasing safety and mitigating air quality issues.



Public Facilities shall be included in any future land use classification. For a description of the future land use categories, see page 41.

### **Conservation Areas**

The Uniform Conservation Easement Act defines a conservation easement as a non-possessory interest of a holder in real property imposing limitations or affirmative obligations. The purpose of easements include retaining or protecting natural, scenic, or open-space values of real property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural archaeological, or cultural aspects of real property.

The local profit and non-profit organizations that protect agriculture in Florence County are:

- The U.S. Department of Agriculture, Natural Resources Conservation Services
- Farm and Ranch Lands Protection Program (FRPP)
- Wetlands Reserve Program (WRP)
- Pee Dee Land Trust
- Black Creek Land Trust

Additionally, the City of Florence has established environmental protection overlay districts.

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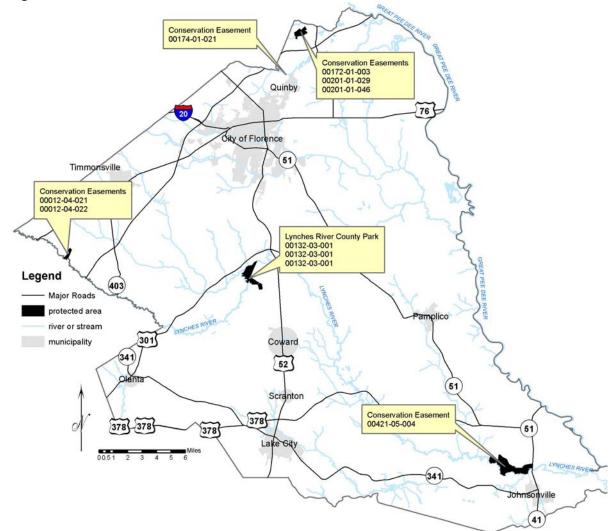


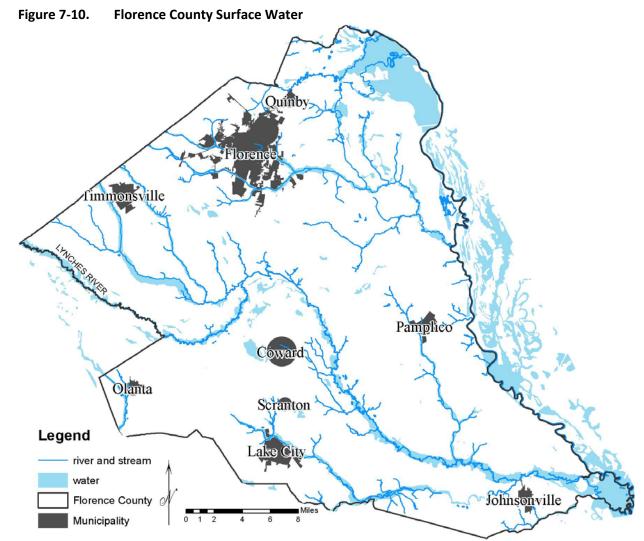
Figure 7-9. Areas Protected as Parks or with Conservation Easements

Source: U.S. Fish and Wildlife Service, 2009

#### Water

Water resources have many uses. Clean water provides a drinking water supply plus fishing and recreational opportunities. Locations that hold water also serve as stormwater protection, natural filters to the aquifer and destinations for runoff and treated effluent from roads, lawns, industry, and municipal services. Rivers, streams, lakes, ponds and wetlands also offer habitat to native and indigenous plants and animals.

Due to the wide variety of potential uses for this limited resource, planning to maintain and improve the quality of Florence County waters is important. Flood zones, stormwater, wetlands and surface water regulations, water pollution, riparian buffers and wellfield protection all focus on protecting the County's water resources. The land area over which water flows to reach the river, lake, or reservoir from which our drinking water is drawn is called the watershed. Any pollution or contamination to the watershed area will ultimately affect the quality of water supplies.



Source: U.S. Geological Survey; NHD, FEMA, FIRM (Flood Insurance Rate Map), 2005-2007

Florence County has over 47,000 acres covered by water, over 9% of the total County land coverage (USGS, National Hydrography Dataset 2007). These water sources include rivers, creeks, ponds, and streams. The map above shows the major water bodies in Florence County. For a detailed explanation of these terms' definitions, see Appendix J (page 82).

#### Flood Zones

Florence County has about 22% of total land area composed of the 100-year flood plain. This calculates to approximately 112,529 acres. Floodplains perform the following important natural functions:

- Temporary storage of floodwaters,
- Moderation of peak flows,
- Maintenance of water quality,
- Groundwater recharge,
- Erosion prevention,

- Wildlife habitat,
- Recreational opportunities.

Flood hazard areas are locations that are generally in and around water streams and bodies that are prone to rising waters. The flood hazard areas of Florence County are classified either by the 100-year Flood Zone area or the 500-year Flood Zone area. The 100-year Flood Zone is defined as an area having a 1% chance of being inundated with floodwaters in any given year. For this important reason, this area is designated as a Future Land Use category. Although this category may include any zoning, a special review must be completed to include a study of compatibility with adjacent zonings.

The 100-year Flood Zone area for Florence County represents information from the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) of December 16, 2004. Other terms used for this area are "base-flood" or "1% chance flood." The 500-year Flood Zone is defined as an area of moderate flood hazard (SCDNR, Regulations for Floodplain Management).

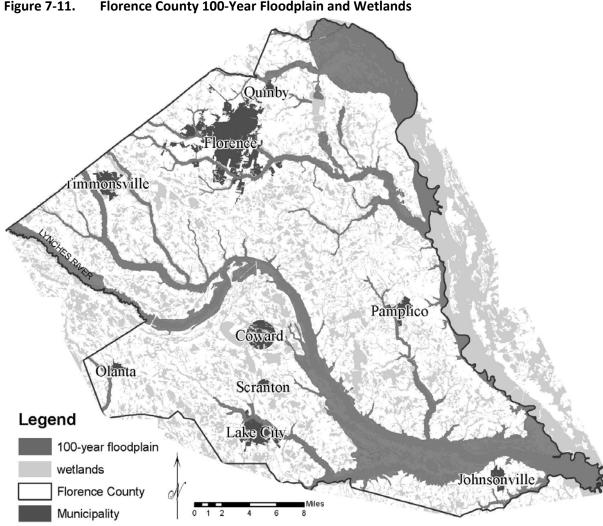


Figure 7-11. Florence County 100-Year Floodplain and Wetlands

Flood Hazard Districts include (1) flood plains, (2) areas of shallow flooding, (3) areas of special flood hazard, and (4) floodways. Before a building permit is issued, the applicant shall demonstrate on the plan that new structures are located outside of the floodplain and that encroachments onto the floodplain are minimized. Where there is no alternative to a location in a Flood Hazard District, proposed development is regulated by specific development standards. These standards are available in the Florence County Code and stem from Federal and State legislation.

The floodway of a body of water is the area that carries the most significant amount of floodwater during a flood. Therefore, these areas are likely to have the deepest and fastest water. Floodways must be kept open and free of obstructions to allow floodwaters to move downstream and not be diverted onto other properties. Placing fill or buildings in a floodway may block the flow of water and increase flood heights. Although the FEMA National Flood Insurance Program (NFIP) does allow development in these areas as long as it does not obstruct water flow, limiting development in the floodways will ensure adequate storm water quality and quantity treatment.

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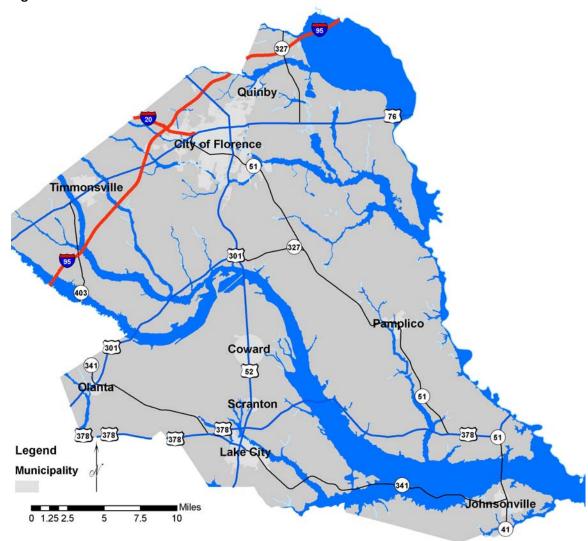


Figure 7-12. Flood Hazard District Future Land Use.

Prior to construction approval, base flood elevation data must be provided. Oftentimes, the flood insurance rate maps provide an identified floodway or contain water surface elevation data. No construction shall be approved which is subject to inundation by a 100-year flood except as otherwise permitted by the Florence County Land Development Regulations and/or the Florence County Zoning Ordinance.

#### Wetlands

There are several definitions of a wetland.

U.S. Fish and Wildlife Services' definition of a wetland is "lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water". For purposes of this classification, wetlands must have one or more of the following three attributes:

- at least periodically, the land supports predominantly hydrophytes (plants that survive in water);
- substrate is predominantly undrained hydric (wet) soil; and
- substrate is nonsoil (water) and is saturated with water or covered by shallow water at some time during the growing season of the year.

According to the U.S. Army Corp of Engineers (Corps), wetlands play critical environmental roles including providing habitat for rare, threatened and endangered species; serving as rest stops for migratory birds; helping to prevent floods; controlling erosion; and filtering water. Wetlands can range in size and scope from small marshes to an area as large as the Everglades.

Florence County is approximately 44%, approximately 225,057 acres, wetlands as stated in the current Natural Resources Element (Tiner et.al, 2002). Properly functioning wetlands are essential components to a healthy landscape. The last inventory of wetlands for Florence County was completed in 1993 by the US Fish and Wildlife Service (FWS). Since that time, there has been little funding to update the wetlands coverage; although, there is an ongoing effort by the FWS to bring the wetland information into the 21<sup>st</sup> century.

The FWS is currently in the process of inventorying wetlands in South Carolina, but progress is slow and thus has been focused on areas with high development. One goal of the Natural Resources Element is to have a current wetlands inventory done for the entire County showing remaining isolated wetlands, and wetlands utilized for mitigating after wetland development. In addition, this will also be a goal in the Land Use Element.

### Water Quality

In 2008, the S.C. Department of Health and Environmental Control designated Black Creek, which runs through Florence, Darlington, Chesterfield and Lee Counties, as impaired and established total maximum daily (pollutant) load (TMDL) standards. The Clean Water Act established the principle of the total maximum daily load as a means of reducing water pollution in impaired waters. A TMDL is a calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards.

#### Groundwater

Groundwater is a critical water resource throughout Florence County. Most residents depend on groundwater for their drinking water and the health of many aquatic systems (wetlands, ponds, lakes, streams and rivers) also depend on its steady discharge. Because development creates impervious surfaces that prevent natural recharge, a continued decrease in groundwater recharge rates can be expected in urbanizing watersheds.

Urban land uses and activities can also degrade groundwater quality, especially if stormwater runoff is directed into the soil without adequate treatment. Stormwater treatment increases the residence time with the soil prior to making its way to major waterways. The treatment systems may take many forms including retention ponds, natural and constructed wetlands, catchment basins and other passive and active methods that slow accumulating stormwater and promote filtering capacity.

#### Stormwater

Certain land uses and activities are known to produce higher loads of metals and toxic chemicals and are designated as stormwater hotspots. Soluble pollutants, such as chloride, nitrate, copper, dissolved solids and some polycyclic aromatic hydrocarbons (PAHs) can migrate into groundwater and potentially contaminate wells. Stormwater runoff should never be infiltrated into the soil if a site is a designated polluted hotspot. Stormwater runoff is a powerful force that can influence the geometry of streams.

Flow events that exceed the capacity of the stream channel spill out into the adjacent floodplain. These are termed "overbank" floods, and can damage property and downstream drainage structures. While some overbank flooding is inevitable and even desirable, the historical goal of drainage design should be to maintain pre-development peak discharge rates for both the two and ten-year frequency storm after development, thus keeping the level of overbank flooding the same over time. This design prevents costly damage or maintenance for culverts, drainage structures, and swales.

### **Riparian Buffers**

The Florence County Code states that existing riparian buffers must be maintained and where not pre-existing, riparian buffers are to be provided during development or redevelopment to protect water bodies.

The Florence County code states that, "a riparian buffer is an area of trees, shrubs, and other vegetation that borders an existing watercourse, wetland, or other water body (including open stormwater conveyances), for the purpose of reducing contamination from surface water runoff".

#### Wellfield Protection

The Federal Safe Drinking Water Act established the Wellhead Protection Program, which requires each state to develop a program to protect wellhead areas for community water supplies.

Grants are available for municipalities and community water systems to assist in developing wellhead protection plans, which protect public drinking water supplies that come from groundwater. Wellhead Protection Plans designate land area surrounding a well or wellfield supplying a public water system through which contaminants are reasonably likely to reach the water supply. Wellhead Protection Zones should identity three specific zones:

- Zone I is an area of a 100- to 400-foot radius around the wellhead. Any new wells in Zone I must be owned or controlled by the water utility to prohibit activities that could contaminate the well.
- Zone II contains land area that contributes percolating water to a well under pumping conditions. This area depends on local groundwater conditions and pumping rate of the well. A circle of ½ mile radius around the well is typical.
- Zone III includes significant surface water or groundwater to a well and is often located upslope from the well.

After mapping the wellhead protections zones, the team should identify existing and potential sources of contamination from residential uses, such as:

- Septic systems, the use of yard chemicals, and abandoned wells;
- Commercial uses, especially gas stations, dry cleaners, junkyards, car repair, and car washes;
- Transportation uses which may result in oil and gasoline runoff, spills and road salts;
- Industrial uses, especially chemical manufacturing, storage tanks, pipelines, and mining;
- Agricultural uses, such as feedlots, manure storage and application, and improper storage or application of pesticides, herbicides, and fertilizers;
- Institutional or public uses, especially landfills, sewage treatment plants and golf courses; and
- Hazardous waste sites.

There are several effective techniques that a community may use to protect wellhead areas. A wellhead protection overlay zone could restrict the type of land uses allowed within the wellhead protection areas. Restrictions may include the prohibition of certain uses or a conditional use process to ensure that new development will be properly sited to avoid polluting groundwater. Wellhead protection signs may be posted on highways at the perimeter of wellhead protection areas to alert private landowners and the public about the location and importance of the wellhead protection area and the need to notify authorities in the event of contaminant spills.

# **Development Procedures**

Florence County has adopted the "Land Development and Subdivision Regulations." The purpose of this document is to encourage the promotion, protection, and improvement of the overall public health, safety, economy, good order, appearance, convenience, and general welfare by providing for the orderly development of land within the territorial jurisdiction of Florence County. In furtherance of the general intent, the regulation of land subdivision is authorized for the following purposes, among others:

- To encourage the economically sound, and the stable development of Florence County.
- To assure the timely provisions of required streets, utilities, and other facilities and services to new land developments.
- To assure the adequate provision of safe traffic access and circulation, both vehicular and pedestrian, in and through new land developments.
- To assure the provision of public open spaces and building sites in new land developments through the dedication or reservation of land for recreational (including the development of a trail system), educational, and other public purposes.
- To provide for the wise and timely development of new areas, generally consistent with the Comprehensive Plan for Florence county.
- To promote best management practices with respect to storm water management and the protection of surface water bodies.

The benefits of this ordinance include but are not limited to sustaining and improving consistent property values, enhancing development predictability and reducing the number and extent of conflict among land uses. As researched and stated in the Population Element of the

Comprehensive Plan, over the next 25 years, the population of Florence County is expected to increase by an additional 21,800 people. This ordinance ensures that all new developments contribute to the building of economically sound and desirable living areas within the community with all-necessary services and facilities.

In order to permit any development in Florence County, several crucial community processes must be addressed. Some municipalities including Florence, Lake City and Coward have their own procedures that may be in addition to those required by Florence County. Contact your municipality for their specific requirements. A general summary of the County procedures is outlined in this section.

**START** Desire to Change Land Use Plan 30-day public notice Review the amendment criteria as Comprehensive Plan described in the Administrative post signage **Application** Procedures section of the Comprehensive Plan. letters to adjacent landowners **Planning Commission** Public Hearing, Recommendation 30-day public notice **County Council** Public Hearing, Decision Land Use Plan Updated **COMPLETION** 

Figure 7-13. Procedure to change the Land Use Plan.

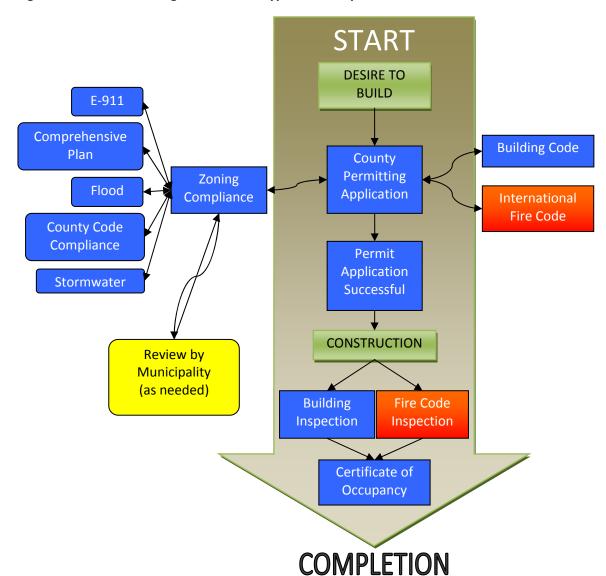


Figure 7-14. Permitting Process for a Typical Development

# **Zoning Compliance**

Any construction for Florence County and its participating municipalities (Johnsonville, Olanta, Pamplico, Scranton, Timmonsville and Quinby) must obtain zoning compliance prior to obtaining a building permit. This compliance is regulated by The Florence County Code of Ordinances. This ordinance regulates the location and use of buildings, structures, and land, the height of buildings and other structures, the size of yards, the density and distribution of population; creating districts for said purposes and establishing the boundaries thereof; and establishing development standards such as setbacks, buffering, impervious surface, parking, etc. Meeting requirements in this ordinance, the County Code Compliance review is complete.

According to Florence County Code, a zoning compliance certificate is required in advance of the following:

- The issuance of most building permits;
- Excavation preparatory to the construction of a structure for which a building permit is required;
- All proposed construction and other developments including the placement of manufactured or mobile home on property;
- Grading, filling, surfacing, or enlarging parking areas containing more than six parking spaces for a new or changed use;
- Changing the use of any part of a structure or zoning lot, including any increase in the number of families or dwelling units occupying a building or lot;
- The installation on any zoning lot of a manufacturing or other industrial process whose operation may generate effects of the types and magnitudes limited by performance standards as set forth in Section 30-100;
- Installation of any sign for which a permit is required;
- The establishment of a temporary use;
- Electric or gas utility companies and/or cooperatives extending service or utilities to a given site.

#### E-911 Review

Prior to issuance of a building permit, the E-911 Addressing Department must be contacted to insure the address for the proposed site is a valid address. Should the address not be valid, the correct address will be assigned to the proposed site prior to the issuance of a Zoning Compliance certificate. This step is important for directing emergency services to each of the thousands of dwellings in the County.

## Flood Review

Flood verification is checked during the Zoning Compliance procedure. If determined that the parcel is in a flood zone, additional information may be required before a building permit can be issued.

## Comprehensive Plan Review

As required by State Law, all jurisdictions with zoning districts, must have a Comprehensive Plan which guides zoning for future development. The proposed use must be in compliance with the Future Land Use designation for the parcel that will be developed. If not, the applicant can pursue an application to request a change to the Comprehensive Plan Land Use Map to Florence County Planning Staff. The request will be presented to the Florence County Planning Commission and Florence County Council for approval or denial. This process is detailed in the Administrative Procedures of the Comprehensive Plan.

#### Stormwater Review

A Stormwater/Land disturbance permit is required to perform any land disturbing activities within the unincorporated portions of Florence County. The only exemptions are for single family homes that are not part of a subdivision, timbering activities and agricultural activities.

Two permit types exist and are distinguished by the amount of land being disturbed. One permit type pertains to projects with less than one acre of disturbed land while another type is for projects that disturb over one acre of land.

Applications disturbing less than one acre require a one page form and a one page site plan. For permits over an acre, applicants are required to submit information with greater detail. These requirements are stated in the Florence County MS4 Stormwater Management and Sediment and Erosion Control Plan Review Checklist for Design Professionals as required by South Carolina Department of Health and Environmental Control.

# **Building Code Review**

The South Carolina General Assembly mandates enforcement of building codes and standards pursuant to the International Building Code. The Florence County Building and Planning Department is charged with the responsibility of enforcing these codes and standards. The codes are prescriptive codes in that they provide generic approach to construction types, materials and methods that should be used.

Being charged with the responsibility of enforcing such generic codes can be cumbersome in the construction environment where demands and materials are ever changing. In an effort to omit construction deficiencies in the field and to minimize code violations, the Building and Planning Department requires the review of plans and related construction documents prior to the issuance of building permits.

Residential plans are reviewed and contact is made with the applicant within 2 business days of receiving the plans. In general, most plans can be corrected by the applicant.

Commercial plans are reviewed and responses are sent back to the applicant and/or design professional as applicable. State law requires that any building over 5,000 square feet or an assembly, institutional, hazardous occupancies must be designed by properly licensed professionals.

Once permits are issued, the construction work may begin. The permit holder is responsible for requesting inspections from this department at specific intervals of construction. After all required inspections are complete, including fire department and zoning inspections, a certificate of occupancy must be issued prior to the use or occupancy of any structure.

## Fire Code Review

The Fire Department inspection includes a Fire Marshal reviewing fire and life safety issues at a structure according to the International Fire Code. Inspections assess adequacy of exits from the building, presence and status of fire alarms and/or suppression systems (sprinkler system, extinguisher) if applicable, potential electrical hazards, and proper storage of flammables and chemicals. Should the inspection be denied, a follow-up inspection will be scheduled to confirm that all issues are corrected prior to issuing a Certificate of Occupancy.

# **Future Land Use**

# Importance of Future Land Use

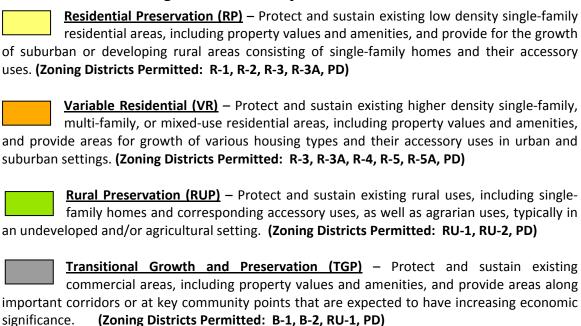
The strategy of the future land use emphasizes sustainable development throughout the County. The baseline information needed to fulfill this strategy is to identify and recommend locations where future growth is encouraged without impacting the social, economic and ecologic context of the community and environment. Balancing economic and social development with the natural resource conservation and renewal for future use is the basis of sustainable development and this Future Land Use element.

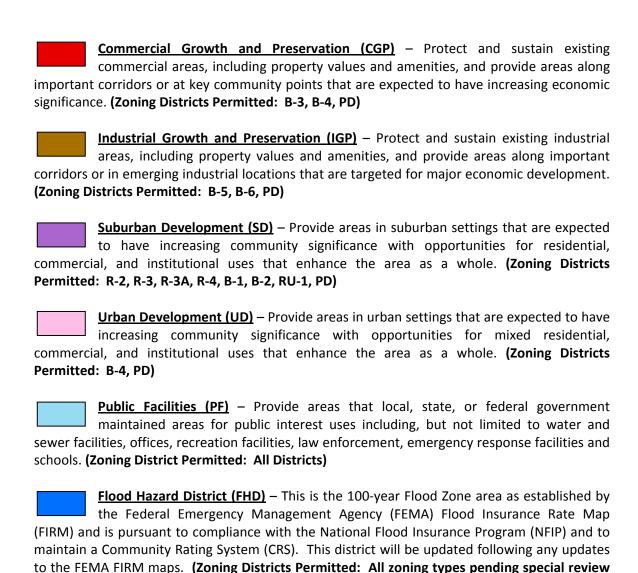
The purpose of the future land use section is to identify opportunities and limitations of future growth, and to better understand how future land development can occur in a productive, efficient and sustainable manner. While current land use regulations (zoning) affects where specific development occurs, the importance of establishing the vision of future land uses is paramount.

The spatial distribution of future land uses is an attempt to predict the locations of future growth. Where should new homes be built to take advantage of existing public services? To what extent will agriculture acreage be converted to residential? What is the value in protecting Florence County's natural resources such as agriculture capacity? Will downtown areas redevelop to include mixed use building for business and homes?

Making our town centers attractive to businesses and people is important to the quality of life. It is important to keep our community gateways and centers attractive. Oftentimes, a community has only one chance to make a first impression on visitors; and special attention to entrance corridors will have a direct impact.

# Future Land Use Designations and Objectives





# **Future Land Use Maps**

The following maps depict the locations and extent of the Future Land Use categories. In addition to maps, some municipalities have plans to revitalize downtowns. This information is also presented in this section.

pursuant to Florence County Code of Ordinances: Chapter 30, Article II, Division 4)

Please notice that three municipalities (Coward, Florence, Lake City) are outside of the County's consolidated planning effort. Although the planning process to complete the Florence County Future Land Use Plan has included coordination with these municipalities, their jurisdictions are beyond the scope of this Plan. The goal of this Future Land Use Plan is to match up to the anticipated uses near the boundaries of these non-participating municipalities.

As a whole, the Florence County Future Land Use map displays predominant trends in agriculture and flood hazard categories doted by municipal and industrial uses. Non-participating municipalities are shown without designations.

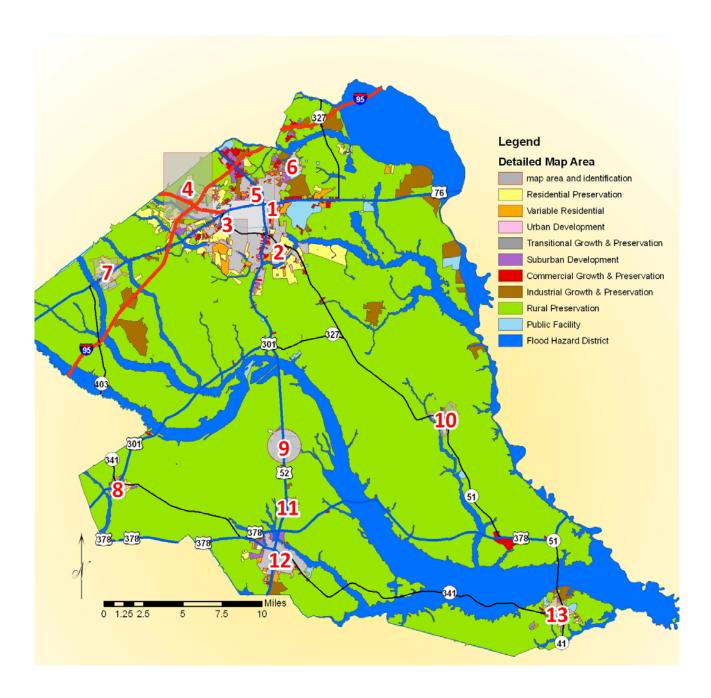
The following maps will represent the extent of future land use designations with the first map an overview of Florence County. To depict greater detail, municipalities are numbered and referenced with the following table:

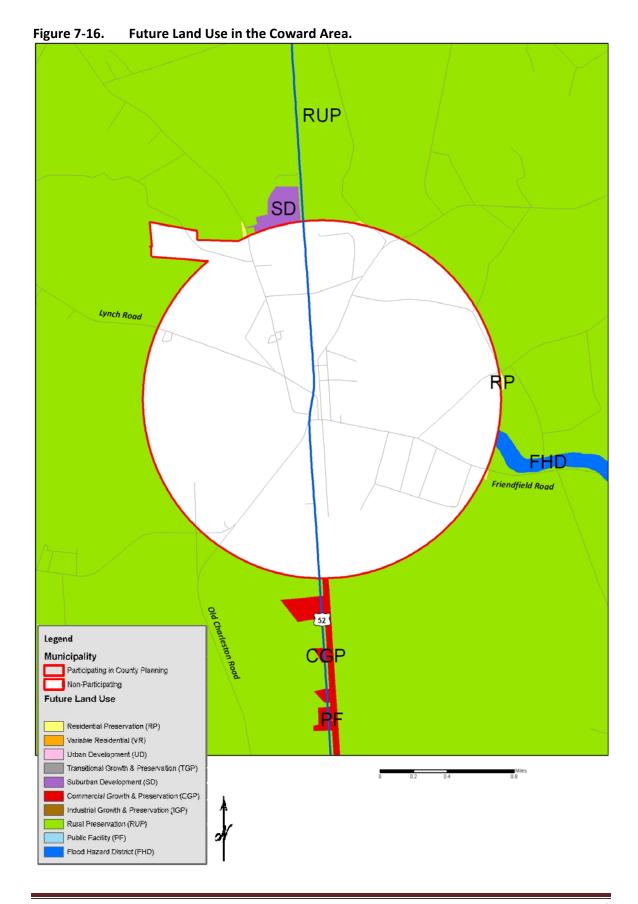
Table 7-2. Index of Municipal Land Use Maps

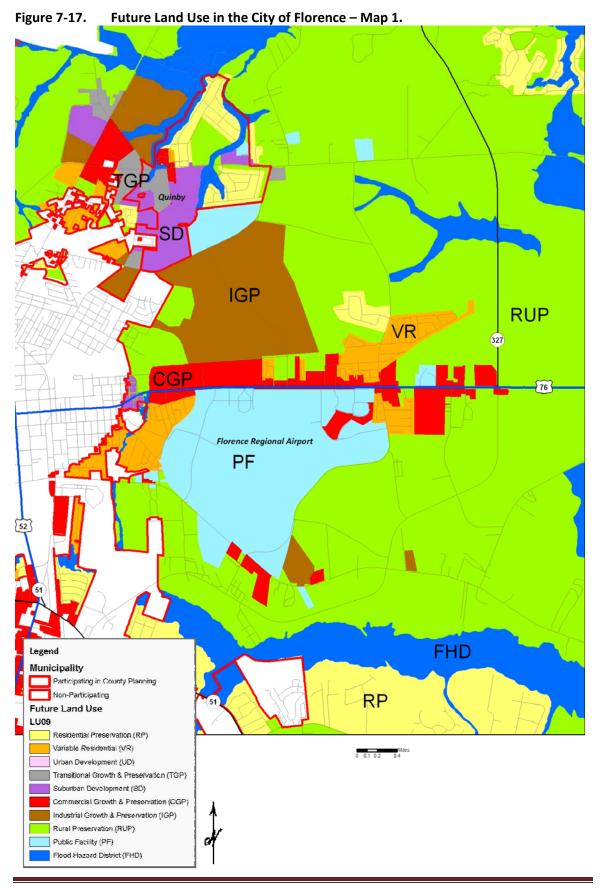
Municipality	Figure 7-15 map number(s)	Reference Figure ID
		and page
Coward	9	Figure 7-16, page 45
City of Florence	1	Figure 7-17, page 46
	2	Figure 7-18, page 47
	3	Figure 7-19, page 48
	4	Figure 7-20, page 49
	5	Figure 7-21, page 50
Johnsonville	13	Figure 7-22, page 51
Lake City	12	Figure 7-23, page 52
Olanta	8	Figure 7-24, page 53
Pamplico	10	Figure 7-25, page 54
Quinby	6	Figure 7-26, page 55
Scranton	11	Figure 7-27, page 56
Timmonsville	7	Figure 7-28, page 57

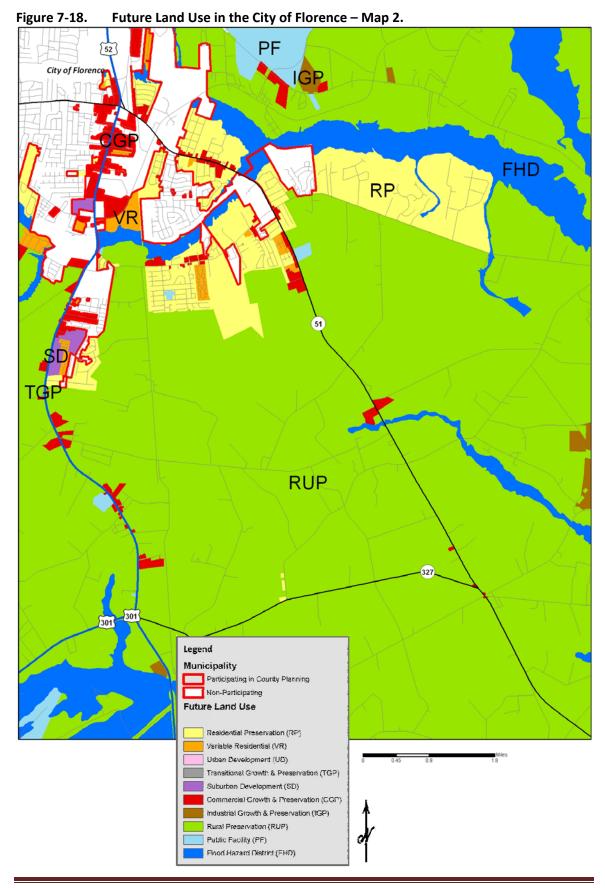
(as shown in Figure 7-15, page 44)

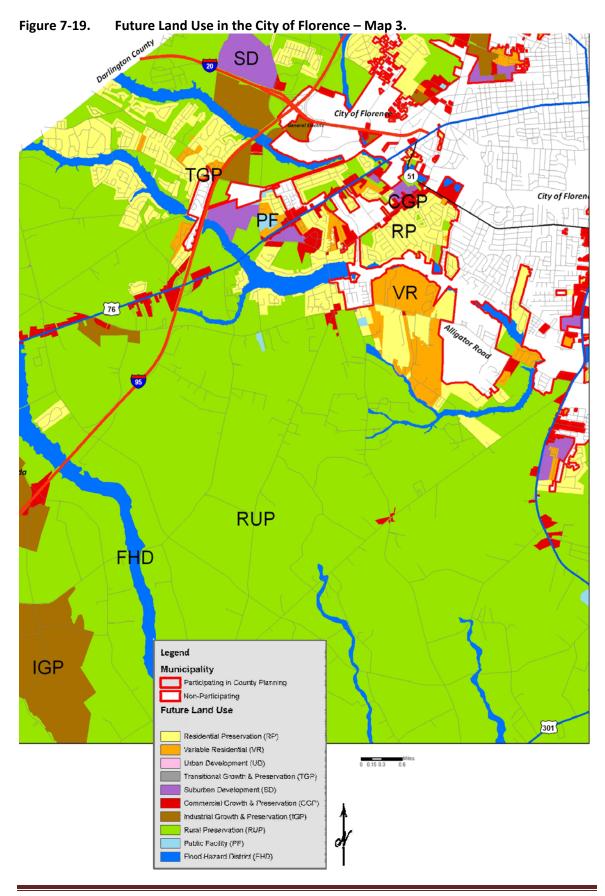
Figure 7-15. County Future Land Use.











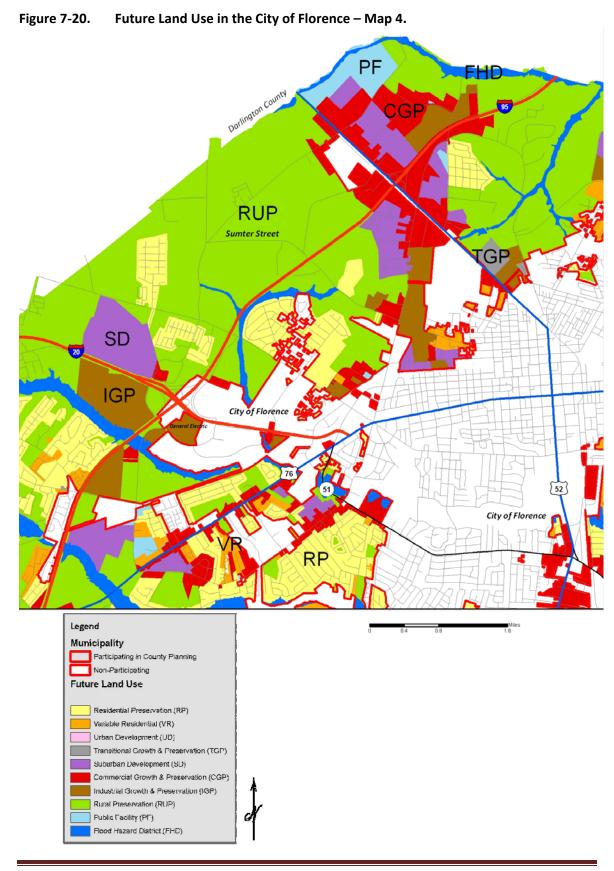
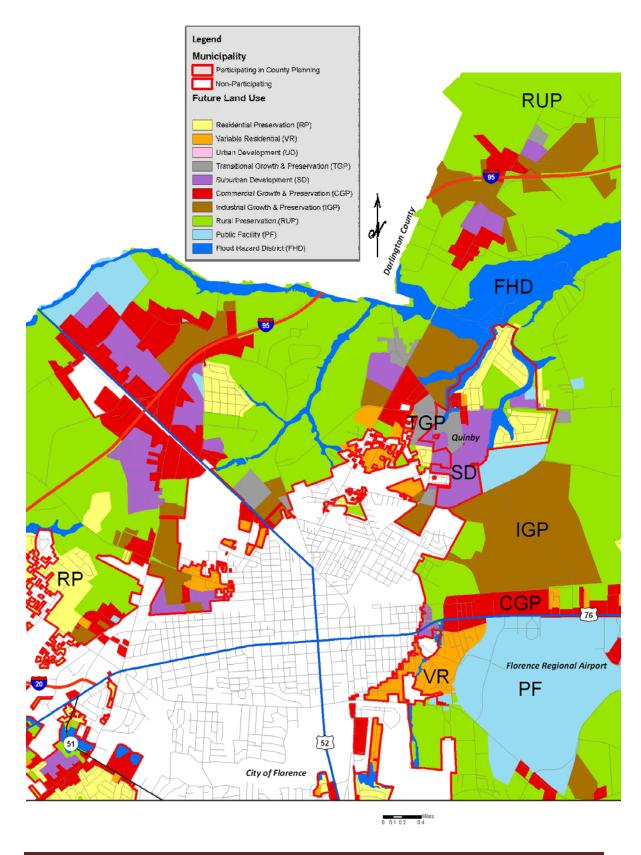


Figure 7-21. Future Land Use in the City of Florence – Map 5.

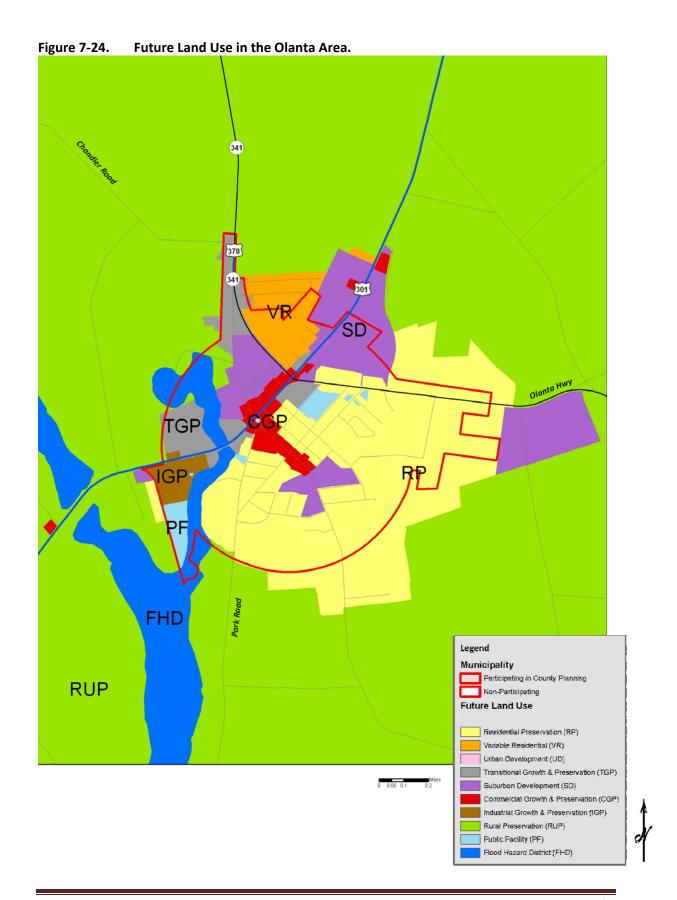


Legend Municipality Participating in County Planning Non-Participating Future Land Use Residential Preservation (RP) Variable Residential (VR) **FHD** Urban Development (UD) Transitional Growth & Freservation (TGP) Subsrban Development (SD) Commercial Growth & Preservation (CGP) Industrial Growth & Preservation (IGP) Public Facility (PF) Flood Hazard District (FHD) Possom Fork Road ŔP PF **RUP** Williamsburg County

Figure 7-22. Future Land Use in the Johnsonville Area.

RUP 378 SD **FHD** PF **IGP** Legend Municipality Participating in County Planning Non-Participating Future Land Use Residential Preservation (RP) Vanable Residential (VR) Urban Development (UD) Transitional Growth & Preservation (TGP) Suburban Development (SD) Commercial Growth & Preservation (CGP) Industrial Growth & Preservation (IGP) Rural Preservation (RUP) Public Facility (PF) Flood Hazard District (FHD)

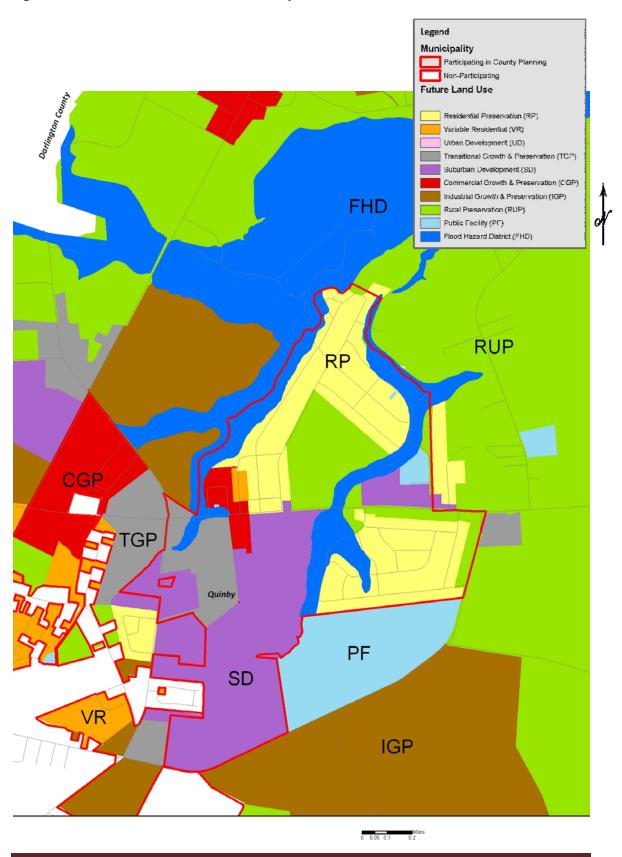
Figure 7-23. Future Land Use in the Lake City Area.

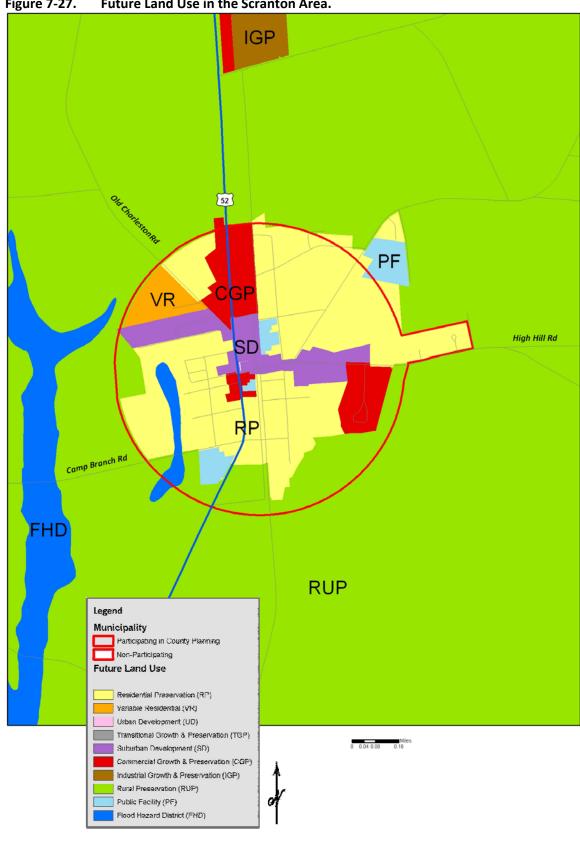


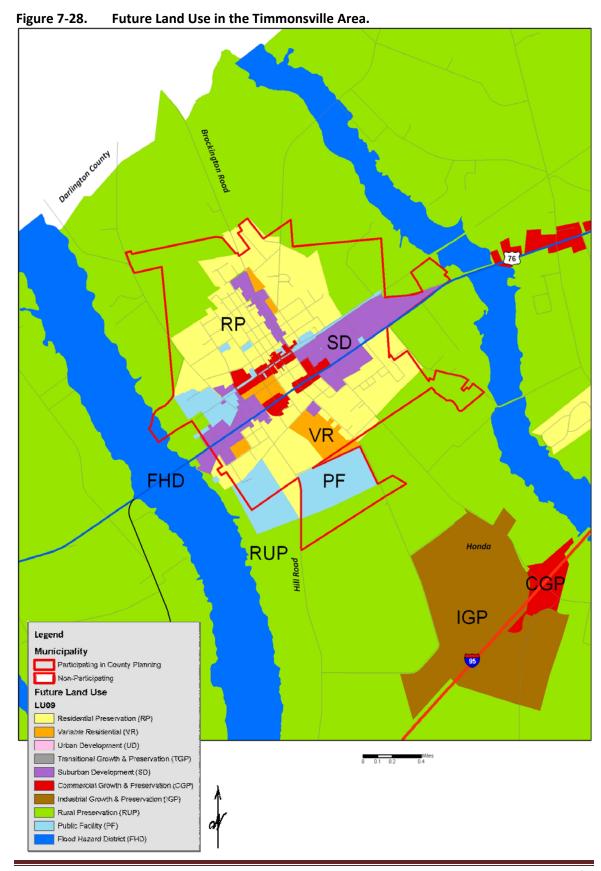
**RUP** RP Legend Municipality Participating in County Planning Non-Participating Future Land Use Residential Preservation (RP) Variable Residential (VR) Urban Development (UD) **FHD** Transitional Growth & Preservation (TGP) Suburban Development (SD) Commercial Growth & Preservation (CCP) Industrial Growth & Preservation (IGP) Rural Preservation (RUP) Public Facility (PF) Flood Hazard District (FHO)

Figure 7-25. Future Land Use in the Pamplico Area.

Figure 7-26. Future Land Use in the Quinby Area.







## **Downtown Master Plans**

# City of Florence

The City of Florence's Downtown Revitalization plan presents a diversity of mixed uses. The revitalization strategy is important to insure and expand the social, economic and cultural habits of the City. The growth in Florence is inevitable and promotes much needed planning for the area. The goal of the design guidelines for downtown Florence is to build a framework within which builders, developers, homeowners and government can play their part in revitalizing the area, secure in the knowledge that their individual contributions reinforces the whole. Completed projects as a part of this revitalization strategy are the new Library, and the new Florence Little Theatre. Projects in the works are the Francis Marion University Arts Center, Cumberland United Methodist Church, Coit Village, and the new Florence County Museum.

The Downtown Master Plan involves the acquisition of abandoned and distressed properties, design guidelines, establishment of Overlay Zoning Districts, various analyses and historic evaluations.

# City of Johnsonville

A 2007 'City Plan' has been established for the City of Johnsonville. Their vision for the city is to reconnect this historic community to the River from which it began and from which it has always drawn its vitality. The 'City Plan' includes the following three principles:

- Revitalize Downtown: Reestablish community identity, presence and pride by revitalizing the historic downtown core with civic, institutional and commercial activity
- Rediscover the River: Regenerate the historic recreational and commercial potential of the Lynches River landing by improving its quality, expanding its use and preserving the river corridor for future generations
- Create Civic Identity: Establish Johnsonville's identity, provide interconnection among parts of the city and direct attention and growth to critical areas.

## Town of Olanta

The Town of Olanta has recently received a Streetscape Grant. They are on the third phase which began on Main Street. Some of these funds are being used for new sidewalks. A new County library is under construction and is projected to be completed by December, 2009. Future plans include remodeling the school gym into a community center to serve people of all ages but especially seniors and children. The Town is currently working on water wells that are anticipated to be installed in 2009. All lift stations for their sewer system are also being replaced.

## Town of Pamplico

The Town of Pamplico has begun their Downtown Streetscape Project. This project consists of several components:

Streetscape Improvements including sidewalk brick pavers, new street lighting, removal
of overhead utility cables, landscaping improvements (planting of palmetto trees and

- shrubs in median) on Main Street (Fourth Avenue) from S.C. 51 (Walnut Street) to N. Trade Street.
- Facade Improvements for downtown businesses including painting, signage, and awnings.

The Pamplico Downtown Streetscape Project was funded by a \$443,029 Community Development Block Grant (CDBG) from the SC Department of Commerce, and local matching funds were provided by the Town and businesses owners. Other streetscape improvements include landscaping at Pamplico Town Hall and a street clock.

## City of Lake City

The City of Lake City's Master Plan provides for the development of the historic downtown district as an economic hub through the activities of the National Bean Market Museum and the Wellness Center. While the priority is the creation of sustainable commerce through tourism, the underlying goal includes creating a sense of place and enhancing the quality of life for the local citizens. The National Bean Market Museum is comprised of three components – the museum housed in the historic bean market building, an artisans center, and an agricultural interpretive center. The Wellness Center will provide onsite physician and therapeutic care with integrated exercise and nutritional programs. Additional projects include the development of the Dr. Ronald E. McNair Space Center, the relocation and development of the historic African American boarding school Cooper Academy, and creation of an arboretum environment within the city limits through the work of a noted arborist.

# **Goals and Implementation Strategies**

#### GOAL 1

Continue to provide a safe, healthy, livable and beautiful community that retains its unique identity and heritage.

**Implementation Strategy:** Continue to seek better alternatives and new ideas that improve the quality of life for Florence County residents. Regular public outreach and dialogue among professional organizations.

Time Frame: Continuous

#### GOAL 2

Enhance the quality, visual character and accessibility of all development in Florence County while minimizing negative impacts to residents, businesses, natural resources and public infrastructure.

**Implementation Strategy:** Seek public feedback to direct future and long-range plans. Incorporate feedback into professional knowledge in addition to Federal, State and local regulations for a unique, sustainable direction for Florence County growth.

Time Frame: Continuous

#### Goal 3

Achieve and sustain a balanced community where urban areas thrive, rural areas are strengthened, and natural landscapes flourish.

**Implementation Strategy:** Continue to observe Florence County trends of development and review the latest theories to maximize the use of existing public services. Seek ways to preserve the remaining natural areas in the County and the rural character of agricultural and forested areas.

Time Frame: Continuous

## GOAL 4

Encourage plans to grow within existing boundaries of Florence County municipalities so they can provide police, water and sewer services and to determine what their cost would be to expand.

**Implementation Strategy:** Redirect development efforts to existing structures and in location where the need for additional public service improvements is limited. Focus should be given to renovating existing structures and locations along transit routes. A study should be conducted to prioritize the highest potential for redevelopment. Furthermore, incentives for redeveloping areas should be investigated. Mixed use would be encouraged.

Time Frame: Continuous

#### GOAL 5

Ensure adequate parks are available.

**Implementation Strategy:** Maintain adequate population number and geographic distribution statistics to ensure adequate park land equaling or exceeding 3 acres per 1,000 residents. Investigate a standard baseline proximity of parks to adjacent residents.

Time Frame: Continuous

#### GOAL 6

Minimize scattered development by focusing growth where infrastructure and services are readily available or planned for the future.

**Implementation Strategy:** Upon subdivision review, note potential to connect to future or existing adjacent subdivisions and businesses. New developments should build upon those already established near municipal centers. Developments that jump from the municipal boundaries should be discouraged due to the strain on taxpayers' services.

Time Frame: Continuous

## GOAL 7

Develop overlay districts based on form-based zoning to regulate principal community entrances such as signs, exterior materials, roof shape and architectural standards.

**Implementation Strategy:** Study form-based zoning and its potential use as a strategy. Look at the feasibility of establishing entrance corridor overlay zones that may prescribe such standards including landscape requirements, building setbacks and signage requirements.

Time Frame: Medium Term

#### GOAL 8

Develop tree protection and landscape policies.

**Implementation Strategy:** Develop guidelines to reduce clear-cutting parcels, encourage preservation of specific trees, and improve large parking areas.

**Time Frame:** Short Term

## GOAL 9

Continue to compile land-use plans consistent with the community's ability to service existing and new development.

**Implementation Strategy:** Compile research, visit examples, survey Federal, State and local successful examples.

Time Frame: Continuous

#### GOAL 10

Assist each town and city within Florence County with their land use plan. Educate them on thinking about the good and the bad on each future decision made in regards to land use.

**Implementation Strategy:** Regularly meet with municipal Councils, administrations and staff to keep abreast of potential new developments.

Time Frame: Continuous

#### **GOAL 11**

Establish a wellhead protection plan.

**Implementation Strategy:** Collect source water protection plans from the State Department of Health and Environmental Control or by other available means. Ground-truth the wellhead locations. Based on this information, characterize future land uses of intense or potentially polluting nature that should be restricted from areas of rapid percolation of surface water to aquifer.

Time Frame: Mid-Term

#### **GOAL 12**

Fully comply with the FEMA and NFIP development standards and ensure public awareness of the rules and area affected.

**Implementation Strategy:** The Flood Hazard District addresses limited development in flood prone areas. Likewise, protection of water resources for drinking water supply, stormwater capacity, plant and animal habitat protection and aquifer recharge.

Time Frame: Continuous

#### Goal 13

Study the potential impact of intense farming practices on existing Florence County land uses.

**Implementation Strategy:** Study the migration of confined feeder operations including swine and poultry. Study the best locations for these operations. Develop a zoning district to accommodate such intense practices. In general, the locations may be in areas where stormwater has limited access to surface waters, wetlands or wellheads. In addition, disclaimers may be placed on the plats of adjacent uses.

Time Frame: Mid-Term

#### Goal 14

Meet or exceed U.S. Environmental Protection Agency air quality standards for particulate matter ( $PM_{2.5}$ ) and ozone ( $O_3$ ).

**Implementation Strategy:** Work with stakeholders, including industrial businesses and local governments, on voluntary measures. Pursue air quality measures supported by the County Council. Attempt to leverage County initiatives with Federal, State and local programs.

Time Frame: Continuous

#### **Goal 15**

Maximize residential insurance savings with the highest ranking in the Community Rating System.

**Implementation Strategy:** The Community Rating System (CRS) outlines and rates the extent a community complies with minimum standards for floodplain management. Florence County will review and pursue some or all of the 18 public information and floodplain management activities as described in the CRS Coordinator's Manual.

Time Frame: Short Term

#### Goal 16

Establish permitting procedures to include lower cost of building permits for sustainable construction (i.e. LEED or EarthCraft).

**Implementation Strategy:** Review LEED and EarthCraft building requirements; review processes utilized to incorporate into ordinances from other South Carolina examples.

Time Frame: Continuous

#### **Goal 17**

Update the RU-1 zoning district to better represent the character of rural, agriculture areas.

**Implementation Strategy:** Increase the minimum lot size to one acre. Study other regulatory pathways to maintain the rural character of agriculture and silviculture practices.

Time Frame: Short Term

#### Goal 18

Update current Flood Ordinance to reflect LU classification.

**Implementation Strategy:** Review the Community Rating System and attempt to maximize the number of credit points.

**Time Frame:** Short Term

#### **Goal 19**

Establish corridor overlay districts on major roads to municipalities.

**Implementation Strategy:** Review and establish corridor overlays that focus on improving appearances including landscaping, buildings, setbacks, zoning, signage and multi-modal transportation. The first corridor for study should be Highway 76 between the airport and downtown Florence.

**Time Frame:** Short Term

#### **Goal 20**

Protect, preserve and restore natural lands including wetlands, native uplands and areas of protected rare and endangered species in Florence County.

**Implementation Strategy:** Inventory areas of interest with the Department of Natural Resources and local conservation groups. Investigate preservation opportunities of significant wildlife habitat. Special attention should be given to waterways and remaining undisturbed upland areas.

Time Frame: Long Term

#### Goal 21

Establish awareness and importance of and preserve significant agriculture land in Florence County as noted by the U.S. Department of Agriculture.

**Implementation Strategy:** Incorporate reviewing soil types prior to issuance of building permits. Investigate potential benefits for farmland including the continuation of farmland use taxation incentives/rewards for agricultural easements, a convenient way to zone for agriculture including aspects of the right-to-farm law, protection from nuisance complaints, establishing best management practices.

Time Frame: Long Term

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# Appendix A: Urban Hydrology Soil Classifications

Map Symbol	Soil Type	Hydrological Group
Ва	Barth loamy sand	С
Br	Brogdon sand	В
CaA	Cahaba loamy fine sand, 0-3 % slopes	В
Cb	Cahaba-Leaf complex	В
Ce	Cape Fear loam	D
Ch	Chastain-Chewacla-Congaree Association	D
Cn	Chipley loamy sand	С
Cv	Coxville fine sandy loam	D
Dp	Duplin fine sandy loam	С
DuA	Duplin and Exum soils, 0-2 % slopes	С
DuB	Duplin and Exum soils, 2-6 % slopes	С
Ex	Exum sandy loam	В
FaA	Faceville loamy sand, 0-2 % slopes	В
FaB	Faceville loamy sand, 2-6 % slopes	В
FaD	Faceville loamy sand, 6-15 % slopes	В
FuB	Fuquay sand, 0-4% slopes	В
Go	Goldsboro loamy sand	В
Ну	Hyde loam	B/D
Jo	Johns fine sandy loam	С
Ка	Kalmia loamy sand	В
KeB	Kenansville sand, 0-4 % slopes	Α
LaB	Lakeland sand, 0-9 % slopes	Α
LaD	Lakeland sand, 6-15 % slopes	Α
Ls	Leaf fine sandy loam	D
LuB	Lucy sand, 0-6 % slopes	Α
LuC	Lucy sand, 6-10 % slopes	Α
Ly	Lynchburg sandy loam	С
Lz	Lynn Haven sand	B/D
Мр	Mine pits and dumps	В
NoA	Norfolk loamy sand, 0-2 % slopes	В
NoB	Norfold loamy sand, 2-6 % slopes	В
On	Olanta loamy sand	В
OrA	Orangeburg loamy sand, 0-2 % slopes	В
OrB	Orangeburg loamy sand, 2-6 % slopes	В
OrC	Orangeburg loamy sand, 6-10 % slopes	В
Os	Osier loamy sand	A/D
Pa	Pantego loam	B/D
PIB	Pocalla sand, 0-4 % slopes	A
Ra	Rains sandy loam	B/D
Rs	Rimini sand	A
Ru	Rutlege loamy sand	B/D
SuC	Sunsweet loamy find sand, 6-10 % slopes	С

SuE	Sunsweet loamy fine sand, 10-25 % slopes	С
Ub	Urban land-Coxville-Norfolk Association	N/A
VaA	Varina loamy fine sand, 0-2 % slopes	С
VaB	Varina loamy fine sand, 2-6 % slopes	С
WgB	Wagram sand, 0-6 % slopes	Α
WgC	Wagram sand, 6 -10 % slopes	Α
WgD	Wagram sand, 10-15 % slopes	Α
Wh	Wahee fine sandy loam	D
Wk	Wehadkee-Chastain Association	D
Wn	Wehadkee and Johnston soil	D

# Appendix B: Ten (10) Principles of Sustainable Development

(National Association of Counties (NACo), Joint Center for Sustainable Development, Washington, D.C., 1995)

## <u>Interdependence</u>

To care for our communities, our decisions must not be short-sighted or negligent of our economic development; the natural, cultural and historic resources that our people and economy rely upon; and the ability to care for our people in an equitable way.

#### Collaboration

County government will collaborate with other local authorities, regional, federal and state government, industry, not-for-profit organizations and our citizens, to ensure healthy and sustainable community development.

#### **Stewardship**

County government is responsible for managing our resources through planned use in the present, to ensure continued use in the future.

#### **Diversity**

Counties are responsible for governing a diversified, balanced economy based on naturally and socially diverse communities.

#### Prevention

Counties have the capacity to prevent community instability by considering the broader implications of community decision-making and by avoiding problems instead of reacting to them.

## Equity

County governments must actively balance economic, social and ethnic needs to create economically viable and sustainable communities by granting all community members access to information, resources and decision-making.

## **Effectiveness**

County government is committed to effective use of its human and natural capital to develop economically so that human, cultural, historical and natural resources are used and managed efficiently and for the greater good of the community.

#### Education

County government is accountable to the community it serves and has a responsibility to facilitate the flow of information within its community, to learn from others and to promote awareness among its citizens.

#### Flexibility

Counties recognize that implementing sustainability means different things in different communities. Counties are committed to demonstrating the flexibility through the use of outside tools or incentive programs, necessary for each community to achieve locally defined sustainable development goals.

#### Responsibility

To obtain sustainable development, all community members are responsible for contributing to and maintaining economic stability, social equity and a healthy environment in the present and for the future.

## Appendix C: National Association of Home Builders: Green Home Building Guidelines

(National Association of Home Builders, Washington, D.C., 2005)

<u>Lot Preparation and Design</u> - Even before the foundation is poured, careful planning can reduce the home's impact on natural features such as vegetation and soil; and enhance the home's long-term performance. Such preparation can provide significant value to the homeowner, the environment, and the community.

**Resource Efficiency** - Advanced framing techniques and home designs can effectively optimize the use of building materials. This section also details how careful material selection can reduce the amount of time and money needed for home maintenance; and demonstrates equally important construction waste management concepts.

**Energy Efficiency** - This is the most quantifiable aspect of green building. The information in this section will help a builder create a better building envelope and incorporate more energy efficient mechanical systems, appliances, and lighting into a home, yielding long-term utility bill savings and increased comfort for the homeowner.

<u>Water Efficiency/Conservation</u> - Although the relative importance of water availability and usage varies from region to region, the concern with adequate supply is becoming more widespread geographically. Experience also shows that employing the line items from this section of the Guidelines for indoor and outdoor water use can reduce utility bills, regardless of location.

<u>Occupancy Comfort and Indoor Environmental Quality</u> - Effective management of moisture, ventilation, and other issues can create a more comfortable and healthier indoor living environment.

<u>Operation, Maintenance and Education</u> - Given the level of effort a home builder goes through to create a well thought out home system, it would be a shame not to give the home owner guidance on how to optimally operate and maintain the house. Line items from this section show a builder how best to educate homeowners on the features of their new green home.

## Appendix D: LEED Committees

### **LEED Steering Committee**

This governing body of all LEED committees is responsible for direction and decisions for the LEED program in both the U.S. and internationally.

#### **Certification Committee**

Ensures that the LEED certification process continues to be technically rigorous, consistent and responsive to the needs of LEED customers.

#### **Market Sector Committee**

Oversees market transformation through LEED and ensures that LEED continues to be responsive to the markets that it addresses.

#### **Technical Committee**

Ensures that all LEED standards are technically rigorous, scientifically valid and cost-effective. Also manages the Technical Advisory Groups (TAGs)

#### **Technical Advisory Groups**

Advise on credit interpretation requests, credit rulings and credit ruling appeals. Assure consistency and technical rigor in the development of LEED.

### **Technical and Scientific Advisory Committee (TSAC)**

Provides advice and support for all LEED projects, serving as an independent and impartial forum for vetting technical issues when they are potentially difficult to resolve or involve significant controversy.

#### **Rating System Committees**

These committees are responsible for the direction and decisions of LEED rating systems currently undergoing development or major revisions.

## Appendix E: 1997 Land Use Classifications

**Existing Residential** – Existing residential areas represent one of the most important resources in the county. As such, the retention and protection of such areas are paramount. The objective of this designation is to identify and protect the character and present use of residential resources (existing neighborhoods and subdivisions) and to prohibit development which would compromise or infringe on the prevailing character or continued use of such resources for residential purposes. Also, this designation is designed to promote in-filling of such areas with like uses as an efficient means of meeting future housing demands, and limiting sprawl. To be used in accordance with these plan map objectives:

- Single-family detached, site built dwellings;
- Manufactured housing compatible with design characteristics, safety, and habitability standards required of site built housing;
- Institutional uses in support of and compatible with residential uses (e.g. schools, churches, parks, and recreation facilities).

**Developing Residential** – The objective of this designation is to promote and accommodate in an orderly manner residential development in areas so designated. To be used in accordance with these plan map objectives:

- Residential uses, including single-family, multi-family, townhouses, patio homes, and manufactured homes;
- Institutional uses in support with residential development (e.g. school, churches, recreation facilities).

**High Intensity Economic Corridors** - The objective of the high intensity economic corridor concept is to support continued development and economic strengthening of designated High Intensity Corridors, and to enhance the appearance, improve the safety, and retain the carrying capacity of such corridors. To be used in accordance with these plan map objectives:

- General retail and business uses;
- Industrial uses;
- Institutional uses.

**High Intensity Economic Nodes** - The objective is to encourage and promote the economic vitality and ability of the county, including both incorporated and unincorporated areas, to compete in a regional market by concentrating economic activities, thereby strengthening the draw of such areas through "cumulative attraction." To be used in accordance with these plan map objectives:

- Multi-Use Retail;
- Institutional;
- General Business.

**Industrial-Business Areas** - The objective of the Industrial-Business designation is two fold, (1) to create industrial and business development opportunities and (2) to protect existing industrial and business interests from incompatible development. To be used in accordance with these plan map objectives:

- Industrial and business uses;
- Institutional uses;
- Wholesale and warehousing uses;
- Big box retail;
- Mixed-use planned development;
- Existing residential and infill of existing subdivisions.

**Low Intensity economic Nodes** - The objective of this designation is to concentrate convenience and service establishments in proximity to residential areas, and to discourage strip commercial development as an alternative. To be used in accordance with these plan map objectives:

- Convenience retail;
- Convenience service;
- Limited business;
- Small scale institutional.

**Major Parks and Open Space** - This classification identifies all existing and proposed major parks and open space, including wetlands. Identify and incorporate wetlands and park facilities into the planning process, and protect wetlands from encroachment and misuse by development. To be used in accordance with these plan map objectives:

- Active and passive recreation where compatible with conservation efforts;
- Natural, open, or forested use.

**Rural Community Nodes** - The objective of this classification is to sustain and support rural community centers as an integral part of the rural environment, service the commercial, service, social, and agricultural needs of nearby rural residents. To be used in accordance with these plan map objectives:

- Small scale retail;
- Residential single-family;
- Small scale service & business uses;
- Social and small scale institutional uses;
- Agricultural support uses.

**Rural Resource/Agricultural Areas** - The objective of this classification is to conserve rural characteristics and resources, particularly agricultural, and maintain a balanced rural-urban environment. To be used in accordance with these plan map objectives:

- Single-family site built and manufactured dwellings;
- Agricultural uses;
- Small scale retail uses;
- Agricultural related industrial uses;
- Institutional uses.

**Transitional Areas** - The objective of this designation is two-fold: (1) to recognize mixed use areas and guide the development or redevelopment of such areas to ensure an orderly outcome of the transitional process, and (2) to ameliorate through a limited use buffer area or strip the

potential impact of economic development activity on established residential areas. To be used in accordance with these plan map objectives:  • Any and all land uses consistent with the objective of this area designation.				
This area intentionally left blank.				

## Appendix F: Zoning Districts Interpretations

- **R-1, Single-Family Residential District**. The intent of this district is to foster, sustain, and protect areas in which the principal use of land is for single-family dwellings and related support uses. The minimum lot area for residential use is 15,000 sq. ft. and 30,000 sq. ft. for non-residential use.
- **R-2, Single-Family Residential District**. The intent of this district is the same as R-1 aside from differences in lot sizes and densities. The minimum lot area for residential use is 10,000 sq. ft. and 20,000 sq. ft. for non-residential use.
- **R-3, Single-Family Residential District.** The intent of this district is the same as R-1 aside from differences in lot sizes and densities. The minimum lot area for residential use is 6,000 sq. ft. and 12,000 sq. ft. for non-residential use.
- **R-3A, Single-Family Residential District.** The intent of this district is the same as R-3 excluding manufactured housing.
- **R-4, Multi-Family Residential District, Limited**. The intent of this district is to promote and accommodate residential development consisting principally of single-family and two-family dwellings, and related support uses. The minimum lot area for residential use is 6,000 sq. ft. and 12,000 sq. ft. for non-residential use.
- **R-5, Multi-Family Residential District.** The intent of this district is to accommodate higher density residential development and a variety of housing types on small lots or project settings in areas accessible by major streets and in proximity to commercial uses, employment opportunities, and community facilities. It is further intended to permit development flexibility in meeting the demands and preferences of a changing housing market, and doing so in an orderly, compatible manner. The minimum lot area for residential use is 6,000 sq. ft. and 12,000 sq. ft. for non-residential use.
- **R-5A, Multi-Family Residential District.** The intent of this district is the same as R-5 excluding manufactured housing.
- **B-1, Limited Business District**. The intent of this district is to accommodate office, institutional, and residential uses in areas whose character is changing, or where such a mix of uses is appropriate. It is designed principally for use along major streets dominated by older houses in transition. The minimum lot area for residential use is 5,000 sq. ft. and 5,000 sq. ft. for non-residential use.
- **B-2, Convenience Business District.** The intent of this district is to meet the commercial and service needs generated by nearby residential areas. Goods and services normally available in these districts are of the "convenience variety." The size of this district should relate to surrounding residential markets and the location should be at or near major intersections, in proximity to and/or on the periphery of residential uses. The minimum lot area for residential use is 5,000 sq. ft. and 5,000 sq. ft. for non-residential use.
- **B-3, General Commercial**. The intent of this district is to provide for the development and maintenance of commercial and business uses strategically located to serve the community and the larger region in which it holds a central position. The minimum lot area for this zoning district is 5,000 sq. ft. for residential and non-residential uses.
- **B-4, Central Commercial**. The intent of this district is to promote the concentration and vitality of commercial and business uses in the downtown area. This district is characterized by wall-to-wall or lot line to lot line development, sidewalks, and public parking lots. Residential use is not permitted in this zoning district and there is no minimum lot area for non-residential use.

- **B-5, Office and Light Industrial.** The intent of this district is to promote the development of business parks, including office, distribution, and light manufacturing uses in an environment suited to such uses and operations while promoting land use compatibility through the application of performance standards. The minimum lot acre for this zoning district is 10,000 sq. ft. for non-residential uses. Multi-family apartments are permitted. Other residential uses not permitted. Residential use is not permitted in this zoning district and the minimum lot area for non-residential use is 10,000 sq. ft.
- **B-6, Industrial District**. The intent of this district is to accommodate certain industrial uses which based on their operational characteristics are potentially incompatible with residential, social, medical, and commercial environs. As a result, the establishment of such districts shall be restricted to areas geographically removed or buffered from such environs. The minimum lot for this zoning district is 10,000 sq. ft. for non-residential uses. Residential dwellings are not permitted; however, some accessory uses to residential uses are permitted or conditionally permitted. The minimum lot area for non-residential use in this zoning district is 10,000 sq. ft.
- **RU-1, Rural Community District.** The intent of this district is to sustain and support rural community centers as an integral part of the rural environment, serving the commercial, service, social, and agricultural needs of nearby rural residents. The minimum lot acre for this zoning district is 15,000 sq. ft. for residential or non-residential use.
- **RU-2, Rural Resource District.** The intent of this classification is to conserve and protect from urban encroachment rural characteristics and resources, particularly agricultural, and maintain a balanced rural-urban environment. The minimum lot acre for this zoning district for residential use is 87,120 sq. ft. and 43,560 sq. ft. for non-residential use.
- **PD, Planned Development**. The intent of the Planned Development District is to encourage flexibility in the development of land in order to promote its most appropriate use; and to do so in a manner that will enhance public health, safety, morals, and general welfare. There is no minimum lot area for this zoning district, however, it is the intent to promote and encourage or require development in this form where appropriate in character, timing, and location, particularly in large undeveloped tracts.

# Appendix G: Soils of Prime Farmland for Agriculture in Florence County

Br Brogdon sand

**CaA** Cahaba loamy fine sand, 0-3 % slopes

**Dp** Duplin fine sandy loam

DuA Duplin and Exum soils, 0-2 % slopesDuB Duplin and Exum soils, 2-6 % slopes

**Ex** Exum sandy loam

FaA Faceville loamy sand, 0-2 % slopes
FaB Faceville loamy Sand, 2-6 % slopes

Go Goldsboro loamy sand Jo Johns fine sandy loam Ka Kalmia loamy sand

NoA Norfolk loamy sand, 0-2 % slopes NoB Norfold loamy sand, 2-6 % slopes

On Olanta loamy sand

OrA Orangeburg loamy sand, 0-2 % slopes
OrB Orangeburg loamy sand, 2-6 % slopes
VaA Varina loamy fine sand, 0-2 % slopes
VaB Varina loamy fine sand, 2-6 % slopes

# Appendix H: Soils of Farmland of Statewide Importance in Florence County

Ba Barth loamy sand
Cb Cahaba-Leaf complex

**Ce** Cape Fear loam

**Cv** Coxville fine sandy loam (if drained)

**FuB** Fuquay sand, 0-4 % slopes

Hy Hyde loam

**KeB** Kenansville sand, 0-4 % slopes

LuB Lucy sand, 0-6 % slopes

**OrC** Orangeburg loamy sand, 6-10 % slopes

Pa Pantego loam

PIB Pocalla sand, 0-4 % slopes

Ra Rains sandy loam

Wgb Wagram sand, 0-6 % slopes Wh Wahee fine sandy loam

## Appendix I: Forestry Land Conservation Tools

**Land Use Taxation** - Under use-value taxation, properties are taxed based on the productive value of the land rather than at the highest and best use value of the land. The landowner is recognized for and taxed based on the current rural use of the land rather than the development potential of the land.

**Agriculture and Forestry Districts** - A minimum of 200 acres (with one or more landowners) is required in order to form a District and only landowners can initiate the formation. This request must go before the local Planning Commission. Once established, any property within a mile of the district can be added to the district. Landowners sign voluntary agreements with locality and the properties receive use-value taxation and some protection of rural use. In exchange, the landowners agree not to develop the properties for a period ranging from 4-10 years.

**Riparian Buffer Tax Credit** - This is a state tax credit that reimburses landowners for a portion of the value of timber left standing in riparian buffers after timber harvesting. The buffer area must be left in unharvested forest use for a period of 15 years. This tax credit focuses conservation of some of the most sensitive lands and reimburses landowners for practicing sustainable forest management.

**Cost-Share Assistance** - Federal and state cost-share programs provide matching funds for some farm or forest practices and are often tied to land conservation. The Conservation Reserve Enhancement Program (CREP) provides reimbursement for the cost of installing conservation practices as well as rental payments for acreages where conservation practices are installed. These rental payments run for 10 or 15 years. CREP also includes funding for purchase of perpetual conservation easements on the buffer area.

**Conservation Easements** - A conservation easement is a voluntary agreement between a landowner and a qualified conservation organization or public entity to prevent the development of a property while allowing continued private ownership and rural use such as farming or forestry. Conservation easements are typically perpetual but they can be for shorter terms in some cases. Some benefits of donating a conservation easement are State Income Tax Credits, Charitable Deduction on the landowner's federal tax return, Estate Tax Benefits can reduce the tax liability on the estate, and Local Real Estate Tax which allows the landowner to be eligible for reduced real property taxes.

**Purchase of Development Rights (PDR)** - In a PDR program, the landowner sells the right to develop their property, typically to the locality. The benefit is that the landowner is paid directly for all or a portion of the value of their development rights.

**Forest Legacy Program** - This Federal program funds the purchase of land and conservation easements to protect working forest lands that are threatened by development. This is a nationwide competitive program to fund conservation of properties that have significant conservation values.

## Appendix J: Water Body Definitions

The smallest water channels are often called brooks or creeks. However, creeks are often larger than brooks and sometimes known as streams and may either be permanent or intermittent. Streams can be intermittent or permanent and can be on the surface of the earth, underground, or even with an ocean such as the Gulf Stream.

A river is a large stream that flows over land. It is often a perennial water body and usually flows in a specific channel, with a considerable volume of water.

A pond is a small lake, most often in a natural depression. It refers to any accumulation of water surrounded by land, often of a considerable size. A very large lake that contains salt water is known as a sea, except the Sea of Galilee, which is actually a freshwater lake.

A sea can also be attached to, or even part of, an ocean. Oceans are the ultimate bodies of water and refers to the five oceans – Atlantic, Pacific, Arctic, Indian, and Southern.

Coves are the smallest indentations of land by a lake, sea, or ocean. A bay is larger than a cove and can refer to any wide indentation of the land. Larger than a bay is a gulf which is usually a deep cut of the land. Bays and gulfs can also be known as inlets.

Finally, any lake or pond directly connected to a larger body of water can be called a lagoon and a channel explains a narrow sea between two land masses, such as the English Channel.

## Appendix K: Future Land Use Map Administration and Public Meetings

City of Johnsonville City of Johnsonville	Type Administration Public Hearing	<u>Date</u> 08/06/08 12/02/08
Town of Quinby Town of Quinby	Mayor Public Hearing	08/08/08 03/03/09
Town of Olanta Town of Olanta	Mayor Public Hearing	08/15/08 10/07/08
Town of Scranton Town of Scranton Town of Scranton	Mayor Public Meeting Public Hearing	09/24/08 10/06/08 11/10/08
Town of Pamplico Town of Pamplico	Mayor and Council of Governments Public Hearing	12/17/08 05/05/09
City of Lake City City of Lake City	Mayor/Administrator Public Hearing	04/27/09 05/21/09
City of Florence City of Florence " " " "	Administration Public Hearing " " "	12/3/08 03/12/09 03/19/09 03/26/09
Town of Timmonsville	Mayor	09/30/08
Town of Coward	Mayor and Council	01/05/09
Florence School District One	Superintendent only	12/11/08
Florence County Economic Dev.	Administration	01/20/09
Pee Dee Council of Governments	Administration	02/17/09
Pee Dee Board of Realtors	Ad Hoc Committee	04/29/09
Sierra Club	Executive Committee Members	05/07/09
Pee Dee Home Builders Assoc.	Administration	05/18/09
Florence County Planning Commission	Public Workshop	05/21/09
Florence County Planning Commission	Public Workshop	06/09/09
Planning Commission	Public Hearing	06/23/09
Pee Dee Home Builders Assoc.	Administration and Members	07/09/09
Planning Commission Night School	Public Meeting	07/16/09

## Appendix L: Element Adoption Date

Florence County Council	November 19, 2009	Ordinance No. 07-2009/10