

City of Boiling Spring Lakes, NC:

Comprehensive Land Use Plan



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ACKNOWLEDGEMENTS

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| (B) Community Concerns and Aspirations. The purpose of this element is to provide an understanding of the underlying planning needs and desires of the community. | 1-1 to 1-6; 6-1 to 6-15 |
| (1) Significant existing and emerging conditions: Describe the dominant growth-related conditions that influence land use, development, water quality, and other environmental concerns in the planning area. | 1-5 to 1-6 |
| (2) Key issues: Describe the land use and development topics most important to the future of the planning area. At a minimum, this description shall include public access, land use compatibility, infrastructure carrying capacity, natural hazard areas, water quality, and may also include local areas of concern as described in Subparagraph (D)(2) (Land Use Plan Management Topics) of the Rule. | 1-5 to 1-6 |
| (3) A community vision: Describe the general physical appearance and form that represents the local governments plan for the future. Include objectives to be achieved by the plan and identify changes that may be needed to achieve the planning vision. | 1-6 |
| (C) Existing and Emerging Conditions. The purpose of this element is to provide a sound factual base necessary to support the land use and development policies included in the plan. Describe the following: | 2-1 to 2-10 |
| (1) Population, Housing and Economy. Include discussion of the following data and trends: | 2-1 to 2-10 |
| (a) Population: | 2-1 to 2-3 |
| (i) Permanent population growth trends using data from the two most recent decennial Censuses; | 2-1 to 2-2 |
| (ii) Current Permanent and Seasonal Estimates; | 2-1 to 2-2 (Seasonal Estimates N/A) |
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| | |
|--|--------------------|
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| (2) Natural Systems. Describe the natural features and discuss the environmental conditions of the planning jurisdiction to include: | 3-1 to 3-9 |
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| (b) Environmental Conditions | 3-1 to 3-6 |
| (i) Water quality: | 3-2 to 3-3 |
| (I) Status and changes of surface water quality, including impaired streams from the most recent N.C. Division of Water Resources Basin Planning Branch Reports, Clean Water Act 303 (d) List and other comparable data; | 3-2 to 3-3 |
| (II) Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report on Sanitary Survey by the Shellfish Sanitation and Recreational Water Quality Section of the N.C. Division of Marine Fisheries; | N/A |
| (III) Areas experiencing chronic wastewater treatment system malfunctions; and | N/A |
| (IV) Areas with water quality or public health problems related to non-point source pollution. | N/A |
| (ii) Natural hazards: | 3-6 to 3-8 |
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| | |
|---|-------------|
| (II) Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities. | N/A |
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| (a) Existing land use patterns, which may include the following categories: Residential, commercial, industrial, institutional, public, dedicated open space, vacant, agricultural, and forestry. Land use descriptions shall include estimates of the land area allocated to each land use and characteristics of each land use category. | 4-1 to 4-3 |
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| (4) Community Facilities. Evaluate existing and planned capacity, location, and adequacy of community facilities that serve the community's existing and planned population and economic base; that protect important environmental factors such as water quality; and that guide land development in the coastal area. These shall include: | 5-1 to 5-12 |
| (a) Public and private water supply and wastewater systems. Describe existing public and private systems, including existing condition and capacity. Describe any documented overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health. Indicate future needs based on population projections. Map existing and planned service areas. | 5-1 to 5-4 |
| (b) Transportation systems. Map the existing and planned multimodal systems and port and airport facilities. Describe any highway segments deemed by the North Carolina Department of Transportation (NCDOT) as having unacceptable service levels. Describe highway facilities on the current thoroughfare plan or facilities on the current transportation improvement plan. Describe the impact of existing facilities on land use patterns. | 5-4 to 5-8 |
| (c) Stormwater systems. Describe the existing public stormwater management system. Identify existing drainage problems and | 5-4 |

| | |
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| water quality issues related to point-source discharges of stormwater runoff. | |
| (D) Future Land Use. This element of the plan is intended to guide the development and use of land in a manner that achieves the goals of the CAMA through local government land use and development policies, including a future land use map. | 7-1 to 7-9 |
| (1) Policies | 8-1 to 8-19 |
| (a) Community Concerns and Aspirations and Existing and Emerging Conditions shall be considered in the development of local government land use plan policies as required in 7B .0702 (b) and (c). | 1-1 to 1-6; 6-1 to 6-15 |
| (b) Policies shall be consistent with the goals of the CAMA, shall address the CRC management topics for land use plans, and comply with all state and federal rules. | 8-1 |
| (c) Policies that exceed use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern, shall be identified in the plan. | N/A (No AECs present) |
| (2) Land Use Plan Management Topics. The purposes of the CRC management topics are to ensure that land use plans support the goals of the CAMA, define the CRC's expectations for land use policies, and provide a basis for land use plan review and certification. In addition to the management topics outlined below, plans may also include policies to address local areas of concern. Each management topic includes two components: a management goal and planning objectives. | 8-2 to 8-3 |
| (a) Public Access: | 8-3 |
| (i) Management Goal: Maximize public access to the beaches and the public trust waters of the coastal region. | 8-3 to 8-4 |
| (ii) Planning Objectives: Policies that address access needs and opportunities with strategies to develop public access and provisions for all segments of the community, including persons with disabilities. Oceanfront communities shall establish access policies for beach areas targeted for nourishment. | 8-3 to 8-4 |
| (b) Land Use Compatibility: | 8-4 |
| (i) Management Goal: Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, avoids risks to public health, safety and welfare, and are consistent with the capability of the land. | 8-4 to 8-5 |
| (ii) Planning Objectives: Policies that characterize future land use development patterns and establish mitigation criteria and concepts to minimize conflicts. | 8-4 to 8-8 |
| (c) Infrastructure Carrying Capacity: | 8-8 |

| | |
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| (i) Management Goal: Ensure that public infrastructure systems are appropriately sized, located, and managed so that quality and productivity of AECs and other fragile areas are protected or restored. | 8-8 to 8-9 |
| (ii) Planning Objectives: Policies that establish service criteria and ensure improvement minimize impacts to AECs and other fragile areas. | 8-8 to 8-11 |
| (d) Natural Hazard Areas: | 8-11 |
| (i) Management Goal: Conserve and maintain barrier dunes, beaches, flood plains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues. | 8-11 |
| (ii) Planning Objectives: Policies that establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities, and that minimize threats to life, property, and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards. | 8-11 to 8-12 |
| (e) Water Quality: | 8-12 |
| (i) Management Goals: Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams and estuaries. | 8-12 |
| (ii) Planning Objectives: Policies that establish strategies and practices to prevent or control nonpoint source pollution and maintain or improve water quality. | 8-12 to 8-13 |
| (3) Future land use map. Depict the policies for growth and development, and the desired future patterns of land use and land development with consideration given to natural system constraints and infrastructure. Include designations with descriptions of land uses and development. | End of Chapter 7 |
| (E) Tools for Managing Development. The purpose of this element is to describe the management tools and actions the local government will use to implement the land use plan. | 8-13 to 8-19 |
| (1) Guide for land use decision-making. Describe the role of the land use plan policies, including the future land use map, in local decisions regarding land use and development. | 8-13 to 8-15 |
| (2) Existing development program. Describe the community's existing development management program, including local ordinances, codes, plans, and policies. | 8-16 |
| (3) Action plan and implementation schedule. Describe the actions that will be taken by the local government to implement policies that meet the CRC's Management Topic goals and objectives. Specify the fiscal year(s) in which each action is anticipated to start and finish. Describe the specific steps the local government plans | 8-17 to 8-19 |

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| <p>to take to implement the policies, including the adoption and amendment of local ordinances, plans, and special projects. The action plan shall be used to prepare the implementation status report for the land use plan.</p> | |
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CHAPTER 1: INTRODUCTION

The City of Boiling Spring Lakes is blessed with abundant natural resources and a beautiful environmental setting in the Cape Fear region. In August 2015, the City of Boiling Spring Lakes Planning Board began the process of drafting the 2016 Land Use Plan. The resulting plan includes demographics based on census data, future population projections, and policies and priorities based on current conditions. The City's primary concerns are protecting the environment, preserving its family friendly character, and maintaining its existing resources. The City recognizes the importance of its environmental resources and the balance required to promote both enjoyment and protection. The goals and policies presented in this document are consistent with the City's desire to protect the natural systems of Boiling Spring Lakes for enjoyment today and in the future.

The plan encompasses all geographic parts of the community and all functional and environmental elements which impact land use development. The plan summarizes policies and proposals and looks beyond current and everyday development pressures to create a roadmap for the future.



Local government has a great deal of influence on how a community develops. The buildings, facilities, and improvements provided by local government affect the daily lives of citizens. Both the Board of Commissioners and the Planning Board regularly make decisions and recommendations concerning zoning and development. Through land use planning, leaders can take a proactive rather than a reactionary approach to community development.



Using this plan, decisions can be made in a coordinated and unified manner. Zoning classification amendment requests, subdivision approval, and extension of public services are all decisions that are best made in a manner which maximizes the public interest. The land use plan will help guide these decisions.

For Boiling Spring Lakes, the land use plan is a valuable source of community information and a guide for local leaders on policy matters.

PLAN PURPOSE

The 2016 Land Use Plan provides a blueprint for growth and development over the next 20 to 30 years. When viewed as a guide, the document is intended to present the basic description of the City of Boiling Spring Lakes now and into the next few decades. Preserving Boiling Spring Lakes' unique sense of place while also providing vision for development and growth based on community desires is the primary purpose of this land use plan. Policies and recommendations drafted as part of the process are rooted in the desires of the Boiling Spring Lakes citizenry. Public engagement and input is vital to the planning process as initiatives that cannot be supported by City's residents will not be successful in implementation.

DEVELOPMENT OF THE LAND USE PLAN

The City of Boiling Spring Lakes Planning Board served as the steering committee for the creation of the land use plan. The Planning Board members are listed below.

- Bill Clark, Chairman
- William Sraver Jr.
- Nancy Crawford
- Jeremy Sexton
- Gene Fioravante

THE FUNCTION AND UTILITY OF THE LAND USE PLAN

A land use plan functions as a tool for policy and decision making by analyzing/evaluating important factors of a local area's population, demographics, economy, natural environment, capacity for growth, and development trends. By providing this guidance, a local government can avoid land use conflicts within their jurisdiction. Additionally, a land use plan can be an indicator of future action based on the information and goals present in the document, allowing staff, developers, elected officials, and citizens to be better informed about the future of their community.

The Boiling Spring Lakes Land Use Plan outlines important information regarding population, housing, and economic development. An analysis of current policies, existing land uses, and community facilities is also provided.

WHAT IS CAMA AND HOW DOES IT RELATE TO BOILING SPRING LAKES?

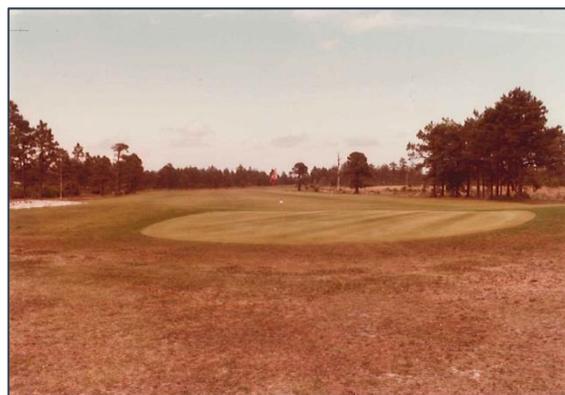
The Coastal Zone Management Act (CZMA) was passed in 1972 by the United States Congress as a tool to encourage coastal land use planning at the local and state levels. In response to the CZMA, North Carolina lead the coastal states in land use planning with the creation of the Coastal Area Management Act (CAMA, N.C.G.S. 113A-100) in 1974, establishing a cooperative program between local and state governments. At the state level, CAMA provides a framework for local communities in the 20 coastal counties (including

Brunswick County and the City of Boiling Spring Lakes) to plan and regulate development activity.

THE CAMA LAND USE PROCESS

The Department of Environment Quality (DEQ) administers CAMA programs and regulations through the Division of Coastal Management (DCM). CAMA established the governing body for regulations on the coast, the Coastal Resources Commission (CRC) within DEQ. The CRC is responsible for approving Coastal Habitat Protection Plans, designating Areas of Environmental Concern (AEC), and providing permits for these areas. The Coastal Resources Commission is also responsible for officially adopting land use plans in accordance with CAMA. The state government acts primarily in a supportive, standard-setting, and review capacity role. (Note: CAMA Land Use Plan guidelines are subject to revision).

The City of Boiling Spring Lakes 2016 Land Use Plan is prepared in accordance with the North Carolina Coastal Area Management Act, specifically Subchapter 7B, "CAMA Land Use Planning Requirements" of the North Carolina Administrative Code.



THE CAMA PERMIT PROCESS

The Coastal Area Management Act regulates activity in Areas of Environmental Concern (AEC). A CAMA permit is required if all of the following conditions are met for a project:

- It is located within one of the 20 coastal counties of North Carolina
- It is considered "development" under CAMA
- It is within, or it affects, an Area of Environmental Concern established by the CRC; and
- It does not qualify for an exemption.

CAMA (NCGS 113A-103(5)(a)) defines a development project as "any activity in a duly designated area of environmental concern ... involving, requiring or consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading; driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake or canal".

WHAT IS AN AREA OF ENVIRONMENTAL CONCERN?

Areas of Environmental Concern are natural areas of ecological importance. These areas are easily disturbed, possibly by erosion or flooding, or they have environmental, social, economic, or aesthetic importance. By classifying areas as AEC's, the CRC can control development within those areas to prevent irreversible damage. The four categories of

AEC's as defined by the CRC include: the estuarine and ocean system, the ocean hazard system, public water supplies, and natural and cultural resource areas.

A project is likely located in an AEC if:

- It is in or on navigable waters within the 20 CAMA counties;
- It is on a marsh or coastal wetland;
- It is within 75 feet of the mean high water line along an estuarine shoreline;
- It is near the ocean beach;
- It is near an inlet;
- It is within 30 feet of the normal high water level of areas designated as inland fishing waters by the N.C. Marine Fisheries Commission; or
- It is near a public water supply.

It should be noted that currently no Areas of Environmental Concern (AEC) exist within the Boiling Spring Lakes planning jurisdiction. As a result, development is not subject to the CAMA permit process.

BOILING SPRING LAKES HISTORY



Incorporated on April 7, 1961, Boiling Spring Lakes encompasses approximately 23 square miles in Brunswick County, NC with a population of approximately 6,296¹. The City is recognized by its more than 50 natural and man-made lakes. As a community, Boiling Spring Lakes has many natural areas for outdoor activities and is within 20 minutes of the beach communities. The City got its name from the bubbling spring that developers discovered in

1961 and continues to bubble today.

PAST PLANNING EFFORTS

A plethora of policy documents were created in the past to help stakeholders and key decision makers understand the issues facing Boiling Spring Lakes. These documents were examined for significant information and context. Various issues such as parks and recreation, transportation, environment, and infrastructure have been addressed in past long-range planning efforts.

As part of the planning process, past policy documents, capital improvements plans, and land use plans were reviewed for significant findings relating to Boiling Spring Lakes' future. These past planning efforts help to provide a broader sense of understanding for the issues facing Boiling Spring Lakes' today.

¹ The NC Office of State Management and Budget (OSBM) released its certified 2015 municipal population estimates after the subsequent chapters were completed and, as a result, the analysis contained in this document reflects figures that differ slightly from the 2015 estimate and may result in negligible differences.

The following planning projects were utilized to gather information, research past public input priorities, and understand growth and development that has occurred over the past two decades.

- City of Boiling Spring Lakes, NC Land Use Plan, 1998
- City of Boiling Spring Lakes Water & Wastewater Master Plan, 2005
- Parks, Recreation and Open Space Master Plan for Boiling Spring Lakes, 2009-2014
- Boiling Spring Lakes Planning Board, Long Range Plan, 2014
- Red-Cockaded Woodpecker Habitat Conservation Plan and Environmental Assessment for the City of Boiling Spring Lakes, NC, 2009
- City of Boiling Spring Lakes Planning Board Long Range Plan, 2014
- Brunswick County CAMA Core Land Use Plan, 2007, recertified 2011

VISION STATEMENT



A vision statement provides a one sentence declaration of the future intentions and general direction of an organization, business entity, or locality. For the City of Boiling Spring Lakes, the vision statement was drafted based upon public input, stakeholder concerns, and future growth. The statement should

support future actions and decisions which may impact the quality of life for residents.

The vision statement for the City of Boiling Spring Lakes is a general assertion of the City's preferences for future growth and development.

Over the next 30 years, the City of Boiling Spring Lakes shall strive to remain a quiet residential community with a thriving commercial corridor that preserves its abundant natural resources for conservation and recreation value.

2016 VISION STATEMENT

COMMUNITY CONCERNS AND ASPIRATIONS

In compliance with the 15A NCAC 7B requirements, the community concerns and aspirations are outlined below. Based on survey results, the top ten public input priorities were developed. It should be noted that these priorities are goals and intentions of the survey respondents and are to serve merely as a resource. These priorities are by no means a mandate for future funding or policy change. The priorities are listed in order of significance.

1. Expand commercial and retail opportunities such as a grocery store and/or drug store.
2. Enhance stormwater management and flood control measures in the City.
3. Expand the paving program to ensure more City streets are paved/repaved.
4. Increase code enforcement efforts to address dilapidated, derelict, and unkempt residential areas.
5. Determine feasibility of sewer expansion and respective costs associated with the expansion. The survey indicated mixed opinions regarding sewer expansion.
6. Maintain the City's small-town character in light of increasing growth pressures.
7. Provide sidewalks along major roads.
8. Provide more walking paths, multi-use trails (greenways), bike routes, and pedestrian-scaled lighting.
9. Encourage the reestablishment of a City of Boiling Spring Lakes Post Office.
10. Make a final decision regarding implementation of a City-wide Habitat Conservation Plan. Determine costs to be placed on property owners and the City and survey all residents to gauge public opinion prior to a final decision.

CHAPTER 2: COMMUNITY PROFILE

By providing information about the population, housing characteristics, and economic conditions of Boiling Spring Lakes, the City can obtain the understanding necessary to make growth management decisions. A change in population can affect the utilization of resources in any city. The development of infrastructure, services, and retail entities is also contingent on population. Throughout this chapter, comparisons are made between Boiling Spring Lakes and two similar communities in Brunswick County, Shallotte and Southport. These communities provide a comparable analysis for Boiling Spring Lakes because they are also inland Brunswick County communities and have a significant retirement age population.

POPULATION

REGIONAL AND COUNTY POPULATION GROWTH

The City of Boiling Spring Lakes is located in Brunswick County, a county that has grown substantially in the last three decades and has ranked among the top 10 counties in NC for population growth in the last 10 years. The Cape Fear Region has experienced similar growth patterns, particularly in the neighboring counties of Pender and New Hanover.

Table 2.1 shows that Brunswick County experienced a population growth of 47% from 2000 to 2010. The municipalities, which includes Boiling Spring Lakes and 18 other towns, cities, and villages, grew at a rate of 109% during that same time. With a 10.6% increase in the last four years, as estimated by the 2014 American Community Survey, the rate of growth is still high and the County is continuing to gain new population. Compared with the State's population increase of about 2% since 2010, Brunswick County is experiencing significant growth.

Table 2.1: Brunswick County Population Change, 2000 -2014

Source: U.S. Census Bureau 2000 & 2010, ACS 2014 Estimates, Brunswick County CAMA Core LUP, NHGIS.

| Brunswick County | 2000 | 2010 | 2014 | Percent Change (2000-2010) | Percent Change (2010-2014) |
|---------------------------------|--------|---------|---------|-------------------------------|-------------------------------|
| Municipalities | 24,178 | 50,562 | 58,079 | 109.1% | 14.8% |
| Unincorporated Areas | 48,963 | 56,869 | 60,757 | 16.1% | 6.8% |
| Total County | 73,143 | 107,431 | 118,836 | 46.9% | 10.6% |

By comparing Boiling Spring Lakes to similar towns or municipalities in Brunswick County, the City can get an idea of relative growth in the area. Table 2.2 shows the population of Boiling Spring Lakes, Shallotte, and Southport between 1970 and 2014. The population of the city grew by 80% from 2000 and 2010. The growth rate has accelerated every ten years between 1980 and 2010. The rate of growth continued to be high between 2010 and 2014, at nearly 12% growth.

Table 2.2: Population Growth Comparison, 1970-2014

Source: Brunswick County CAMA Core LUP; 1998 Boiling Spring Lakes LUP; U.S. Census 2014 Estimates; NHGIS.

| Population | Boiling Spring Lakes, NC | | Shallotte, NC | | Southport, NC | |
|--|--------------------------|----------|---------------|----------|---------------|----------|
| 1970 Pop. | 245 | % Change | 597 | % Change | 2,220 | % Change |
| 1980 Pop. | 998 | 307.4% | 680 | 13.9% | 2,824 | 27.2% |
| 1990 Pop. | 1,650 | 65.3% | 965 | 41.9% | 2,369 | -16.1% |
| 2000 Pop. | 2,972 | 80.1% | 1,381 | 43.1% | 2,351 | -0.8% |
| 2010 Pop. | 5,372 | 80.8% | 3,675 | 166.1% | 2,833 | 20.5% |
| 2014 Pop. | 6,001 | 11.7% | 3,766 | 2.5% | 3,267 | 15.3% |
| Population Change 1970-2014 | 2,349% | | 531% | | 47% | |

POPULATION PROJECTION

In order to plan for the future, it is important to have an idea of what the population might grow to become in 30 years. By utilizing the State Data Center (SDC) population projections for Brunswick County, an approximate population forecast for Boiling Spring Lakes can be projected. In 2010, Boiling Spring Lakes accounted for 4.97% of the population of Brunswick County. Excluding any additional factors such as land annexation or significant economic growth, it is assumed that Boiling Spring Lakes will continue to account for a similar proportion of the population of Brunswick County. Therefore, by using the equation below, the population projection for Boiling Spring Lakes can be calculated for any given year.

$$\text{Population of BSL} = 4.97\% \times \text{Population of Brunswick County}$$

In the year 2015:

$$6,043 = 4.97\% \times 121,581$$

Table 2.3: Population Projection, 2010-2045

Source: Office of State Budget and Management.

| Year | Brunswick County | Boiling Spring Lakes |
|-------------|------------------|----------------------|
| 2010 | 108,085 | 5,372 |
| 2015 | 121,581 | 6,043 ¹ |
| 2020 | 137,036 | 6,811 |
| 2025 | 152,492 | 7,579 |
| 2030 | 167,951 | 8,347 |
| 2035 | 183,410 | 9,116 |
| 2040 | 198,212 | 9,851 |
| 2045 | 213,887 | 10,631 |

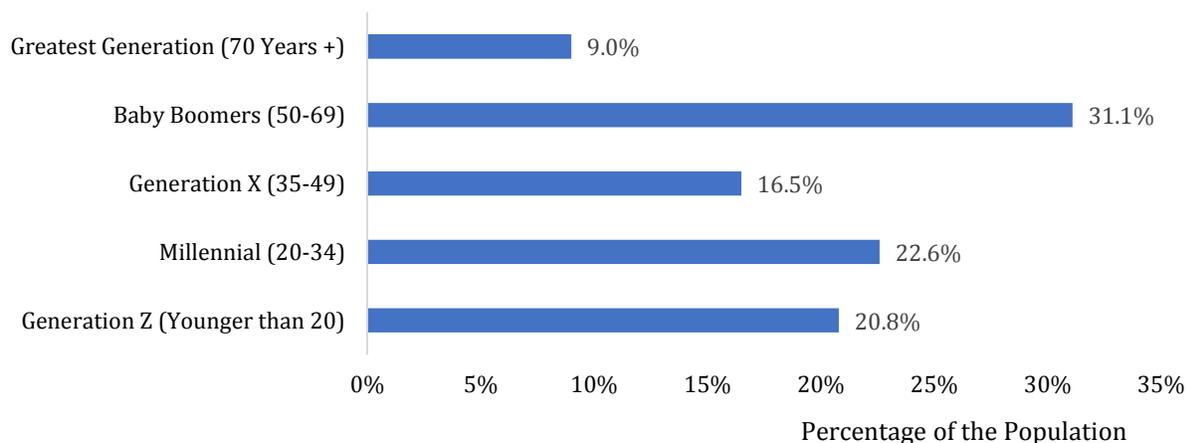
¹ The NC Office of State Management and Budget (OSBM) released its certified 2015 municipal population estimate (6,296) after the subsequent chapters were completed and, as a result, the analysis contained in this document reflects figures that differ slightly from the 2015 estimate and may result in negligible differences

Table 2.3 shows that the population of Boiling Spring Lakes is expected to increase by 97.9% should the population change relative to that of Brunswick County. That is a numeric increase of 5,259 people in the next 30 years.

POPULATION BY AGE

The age of a city’s population is important in determining future health care needs and economic development considerations. Median age in the City in 2000 was 40.4 years. That number rose to 41.2 years in 2010 and hasn’t changed in the last 5 years. Figure 2.1 shows the City of Boiling Spring Lakes population distributed by age. The majority of the population in the City is made up of Baby Boomers. There is still a strong number of Millennials in Boiling Spring Lakes, indicating the city is a desirable place to live for young, working generations.

Figure 2.1: City of Boiling Spring Lakes
Population by Age, 2014



Source: U.S. Census Bureau ACS 2014 Estimates

MARITAL STATUS

A community’s marital status is important in planning for housing and government services, especially for children. Married couples tend to reside in single family homes while young unmarried people prefer renting smaller residences or multi-family housing units. According to census data, the percentage of married residents in Boiling Spring Lakes has declined over the last thirty years. This trend held true nationwide as fewer individuals are choosing to marry. This statistic is also representative of the declining trend in persons per household.

Table 2.4: Marital Status, 1980-2010¹

Source: U.S. Census Bureau American Fact Finder; NHGIS

| | 1980 | 1990 | 2000 | 2010 |
|------------------------------|-------|-------|-------|-------|
| Married | 77.9% | 68.9% | 66.4% | 58.7% |
| Unmarried² | 22.1% | 31.1% | 33.6% | 41.3% |

¹Based off population 15 years and older.

²Unmarried includes never married, separated, widowed, and divorced populations.

HOUSING

Analyzing the existing housing stock enables the community, elected officials, and planners to get an overall picture of the range of housing opportunities available or needed in the jurisdiction. Other housing attributes such as the age of the structure, owner versus renter occupation, and housing value, act as indicators to the nature and characteristic of the existing housing stock and can be considerations when formulating development policies.

HOUSING CHARACTERISTICS

Table 2.5: Household Tenure, 2000-2014

Source: U.S. Census Bureau 2000 and 2010, ACS 2014 Estimates.

| | 2000 | 2000 (%) | 2010 | 2010 (%) | 2014 | 2014 (%) |
|------------------------|-------|----------|-------|----------|-------|----------|
| Total | 1,409 | --- | 2,418 | --- | 2,621 | --- |
| Owner-Occupied | 1,056 | 74.9% | 1,750 | 72.4% | 1,914 | 73.0% |
| Renter-Occupied | 152 | 10.8% | 375 | 15.5% | 364 | 13.9% |
| Vacant | 201 | 14.3% | 293 | 12.1% | 343 | 13.1% |

Table 2.5 details housing tenure in Boiling Spring Lakes. There have been small fluctuations in housing tenure over the last 15 years but, overall, very little change has occurred. Owner-occupied units have remained around 73%, while renter-occupied units vary little from 13%. Vacant units account for about 13% of the housing stock as well. Map 2.1 at the end of the chapter shows the existing housing units in the City. Residential development is concentrated in the eastern portion of the City.

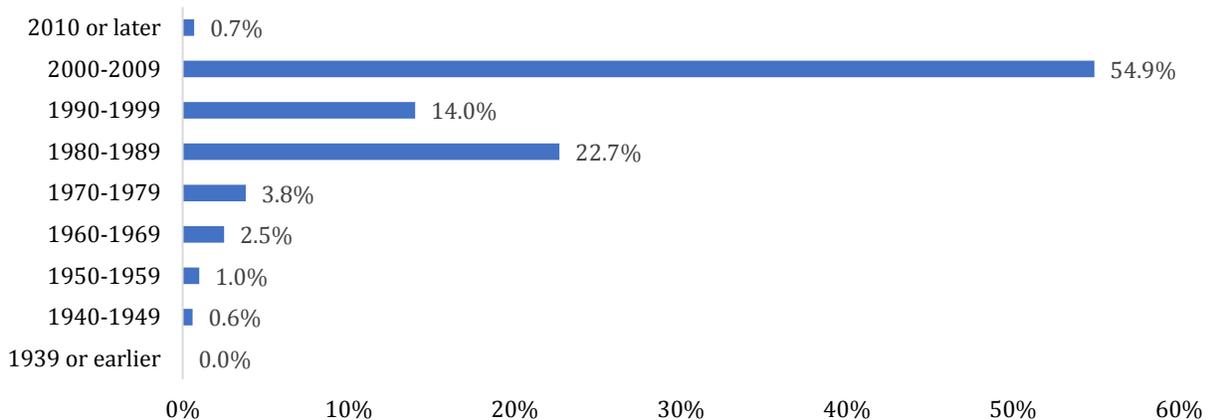
Table 2.6: Median Housing Value, 2014

Source: U.S. Census Bureau ACS 2014 Estimates.

| | Median Value of Housing |
|-----------------------------|-------------------------|
| Brunswick County | \$186,600 |
| Boiling Spring Lakes | \$165,000 |
| Shallotte | \$166,700 |
| Southport | \$242,100 |

Table 2.6 shows the median housing value in Brunswick County and the three municipalities of Boiling Spring Lakes, Shallotte, and Southport. Boiling Spring Lakes and Shallotte have a slightly lower median housing value than the County. Southport, as an historic waterfront community, has a higher median home value than Boiling Spring Lakes.

Figure 2.2: City of Boiling Spring Lakes
Year Structure Built, 2014



Source: U.S. Census Bureau ACS 2014 Estimates.

Figure 2.2 displays the year that structures in Boiling Spring Lakes were built. The majority of the structures in the city were built between 2000 and 2009, correlating with the housing boom of the early 2000s. This new housing stock also contributed to the population growth in that decade.

Table 2.7: Monthly Owner Costs as a Percentage of Household Income, 2014

Source: U.S. Census Bureau, 2014 ACS Estimates.

| | Percent of Population |
|---|-----------------------|
| Total housing units with a mortgage* | 1,442 |
| Less than 20.0 percent | 35.4% |
| 20.0 to 24.9 percent | 5.3% |
| 25.0 to 29.9 percent | 24.8% |
| 30.0 to 34.9 percent | 11.7% |
| 35.0 percent or more | 22.8% |

*Excluding units where Significant Monthly Owner Costs as Percent of Income cannot be computed.

Table 2.8: Gross Rent as a Percentage of Household Income, 2014

Source: U.S. Census Bureau, 2014 ACS Estimates.

| | Percent of Population |
|--|-----------------------|
| Total occupied units paying rent* | 308 |
| Less than 15.0 percent | 6.2% |
| 15.0 to 19.9 percent | 10.7% |
| 20.0 to 24.9 percent | 0.0% |
| 25.0 to 29.9 percent | 15.3% |
| 30.0 to 34.9 percent | 20.8% |
| 35.0 percent or more | 47.1% |

*Excluding units where Gross Units as Percent of Income cannot be computed.

Tables 2.7 and 2.8 show owner and renter costs as a percentage of household income in 2014. About 35% of Boiling Spring Lakes home owners allocate 30% or more of their income to pay for their mortgage. Additionally, renters in the City are distressed, with almost 70% allocating 30% or more of their income to pay for their rent. This data indicates that Boiling Spring Lakes may lack affordable housing options.

LOCAL ECONOMY

Local economic statistics are important to future employers, business owners, and economic development initiatives.

INCOME

To calculate per capita income, the total amount of income earned for a population in a year is divided by the total population within the labor force. This can be seen in the equation below.

$$\text{Per Capita Income} = \frac{\text{Total Annual Income}}{\text{Labor Force Population}}$$

Table 2.9: Per Capita Income Comparison, 1980-2014

Source: U.S. Census Bureau 2000 and 2010, ACS 2014 Estimates, NHGIS.

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|-----------------------------|---------|----------|----------|----------|----------|
| Boiling Spring Lakes | \$6,582 | \$15,013 | \$18,079 | \$23,381 | \$23,012 |
| Shallotte | \$5,751 | \$14,989 | \$21,168 | \$23,397 | \$23,649 |
| Southport | \$6,002 | \$12,821 | \$23,059 | \$33,532 | \$25,262 |

Per capita income in the City of Boiling Spring Lakes has increased steadily over the last 40 years, indicating a positive economic well-being in the community and the effects of inflation. Per capita income will likely increase in the future as Southeastern North Carolina continues to grow. Table 2.9 shows the per capita income for Boiling Spring Lakes, Shallotte, and Southport from 1980 to 2014. All three communities have comparable per capita incomes. Table 2.10 shows that the median household income in the City of Boiling Spring Lakes comparable to the state and county overall. This is a positive finding as many smaller rural municipalities have much lower household incomes. In fact, both Shallotte and the City of Southport have lower median household incomes.

Table 2.10: Median Household Income Comparison, 1980-2014

Source: U.S. Census Bureau 2000 and 2010; ACS 2014 Estimates, NHGIS.

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|-----------------------------|----------|----------|----------|----------|----------|
| North Carolina | \$14,481 | \$26,647 | \$39,184 | \$45,570 | \$46,693 |
| Brunswick County | \$12,883 | \$23,480 | \$35,888 | \$45,806 | \$46,955 |
| Boiling Spring Lakes | \$15,882 | \$30,469 | \$37,165 | \$46,464 | \$46,000 |
| Shallotte | \$13,083 | \$32,375 | \$40,000 | \$41,616 | \$32,292 |
| Southport | \$13,059 | \$26,910 | \$33,714 | \$38,480 | \$41,410 |

*EMPLOYMENT***Table 2.11: Top 10 Employers in Brunswick County, 2nd Quarter 2015**

Source: NC Department of Commerce.

| Rank | Company Name | Industry | Employment Range |
|------|-------------------------------------|------------------------------------|------------------|
| 1 | Brunswick County Board of Education | Education & Health Services | 1000 + |
| 2 | Duke Energy | Trade, Transportation, & Utilities | 1000 + |
| 3 | County of Brunswick | Public Administration | 1000 + |
| 4 | Wal-Mart Associates Inc | Trade, Transportation, & Utilities | 500-999 |
| 5 | Food Lion | Trade, Transportation, & Utilities | 500-999 |
| 6 | Brunswick Novant Medical Ctr. | Education & Health Services | 250-499 |
| 7 | Brunswick Community College | Education & Health Services | 250-499 |
| 8 | Lowes Food Stores Inc. | Trade, Transportation, & Utilities | 250-499 |
| 9 | Dosher Memorial Hospital | Education & Health Services | 250-499 |
| 10 | Troon Golf Llc. | Leisure & Hospitality | 250-499 |

Table 2.12: Employment by Industry, 2000-2014

Source: U.S. Census Bureau 2000 and 2010, ACS 2014 Estimates.

| Industry | 2000 | 2010 | 2014 |
|--|-------|-------|-------|
| Agriculture, forestry, fishing and hunting, and mining | 1.5% | 1.5% | 4.3% |
| Construction | 18.2% | 13.1% | 11.6% |
| Educational services, and health care and social assistance | 14.9% | 13.8% | 14.9% |
| Arts, entertainment, and recreation, and accommodation and food services | 8.5% | 11.8% | 16.5% |
| Finance and insurance, and real estate and rental and leasing | 6.7% | 2.8% | 6.1% |
| Information | 1.6% | 1.2% | 0.0% |
| Professional, scientific, and management, and administrative and waste management services | 5.6% | 12.9% | 14.6% |
| Manufacturing | 5.1% | 7.1% | 1.9% |
| Other services, except public administration | 6.1% | 4.6% | 1.5% |
| Public Administration | 5.4% | 4.4% | 4.9% |
| Retail Trade | 14.6% | 14.0% | 17.5% |
| Wholesale Trade | 2.0% | 7.1% | 0.3% |
| Transportation and warehousing, and utilities | 10.0% | 12.8% | 5.9% |

Table 2.11 shows the top employers in Brunswick County. In the second quarter of 2015, the County Board of Education employed the most people in the County. None of the top 10 employers are headquartered in Boiling Spring Lakes. Table 2.12 shows the percentage of the population employed in each industry within the City of Boiling Spring Lakes. In 2000, the largest industry in the City was construction. In 2010, the largest industry changed to retail trade, which continues to be the largest industry in 2014, followed closely by entertainment, education, and the professional sector. South Brunswick High School and Middle School are located within the City, providing employment to the area. While retail trade is still the largest sector in 2014, the percentage of people working in that sector has changed very little from 2010. Additionally, Military Ocean Terminal Sunny Point provides

more than 250 jobs to the Region; considering the close proximity to Boiling Spring Lakes, it is likely that many residents may be civilian employees of Sunny Point.

Table 2.13: Travel Time to Work (% of Population), 2000-2010

Source: U.S. Census Bureau 2000 and 2010.

| | 2000 | 2010 | 2014 |
|-------------------------|-------|-------|-------|
| Less than 10 min | 6.3% | 5.1% | 7.7% |
| 10 to 14 min | 9.2% | 15.4% | 6.1% |
| 15 to 19 min | 26.8% | 25.1% | 25.6% |
| 20 to 24 min | 19.2% | 15.9% | 16.4% |
| 25 to 29 min | 4.1% | 3.7% | 4.3% |
| 30 to 34 min | 13.0% | 14.9% | 10.8% |
| 35 to 44 min | 4.3% | 13.1% | 13.2% |
| 45 to 59 min | 6.4% | 5.6% | 7.2% |
| 60 or more min | 6.7% | 1.3% | 8.8% |

Table 2.13 shows that in 2000, most commuters took 15-19 minutes to travel to work. This also holds true in 2010 and 2014. Almost 40% of the population commutes 30 minutes or more to work. Many of these residents may commute to New Hanover County or to one of the other locations throughout Brunswick County. Shorter travel times indicate that the person is staying closer to home where wages may not be as high as the more populated areas.

Table 2.14: Comparison Mean Travel Time to Work (Minutes), 2000-2014

Source: U.S. Census Bureau 2000 and 2010, ACS 2013 Estimates.

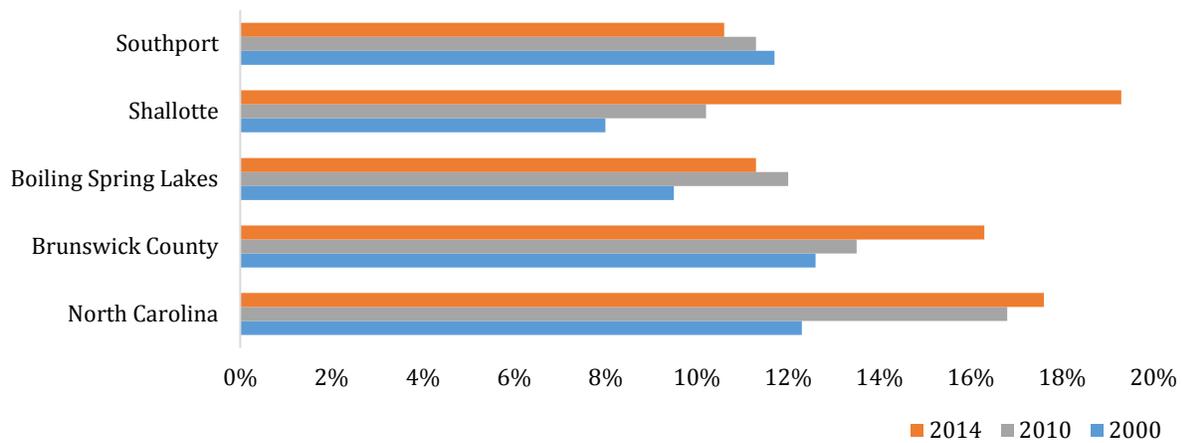
| | 2000 | 2010 | 2014 |
|-----------------------------|------|------|------|
| North Carolina | 24.0 | 23.4 | 23.7 |
| Brunswick County | 24.6 | 24.2 | 23.5 |
| Boiling Spring Lakes | 25.5 | 22.4 | 29.5 |

Table 2.14 shows the mean travel time to work for Boiling Spring Lakes, Brunswick County, and North Carolina. The commute times for residents of Boiling Spring Lakes from 2000-2014 is very similar to the commute times of both Brunswick County and North Carolina.

POVERTY CHARACTERISTICS

Besides the need to understand the economic conditions of a community, recognizing the poverty rate is important for determining federal, state, and local aid eligibility. The percentages in Figure 2.3 indicate the percent of the population living below the poverty level. The poverty rate in the City of Boiling Spring Lakes increased after 2000, but has begun to drop again in 2014. This metric is concurrent with data from Brunswick County and the State of North Carolina, whose poverty rate also increased since 2000. Boiling Spring Lakes, however, has never had a poverty rate as high as the State or the County, indicating that the population is financially successful in comparison. This increase in poverty rate could be attributed to the Recession of 2008 where the economy declined both nationally as well as locally.

Figure 2.3: State, County, and Municipality Comparison
Poverty Rate, 2000-2014



Source: U.S. Census Bureau 2000 and 2010, ACS 2014

EDUCATIONAL ATTAINMENT

The educational attainment of a community, the highest level of education completed, can be highly indicative of population’s health, employment, and income level. A more educated community tends to have increased workforce productivity and involvement in society.

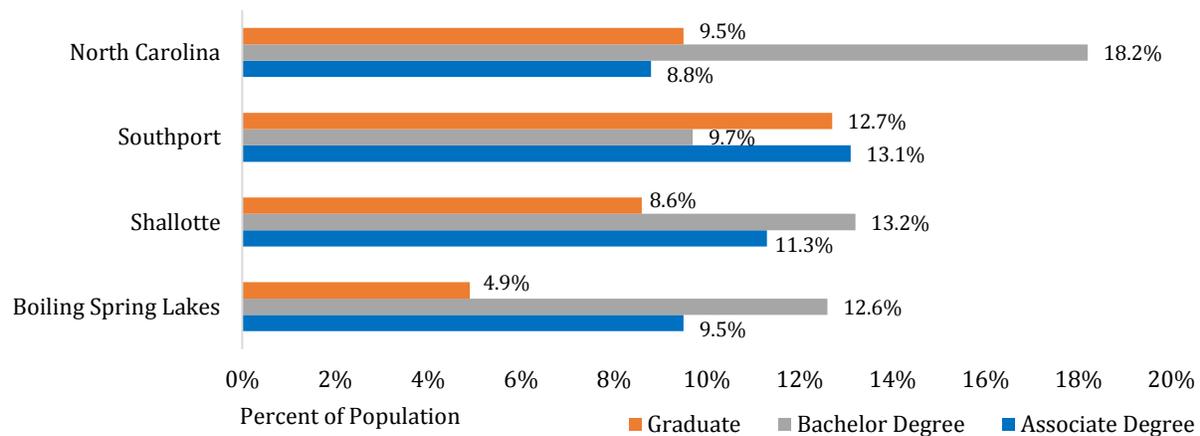
Table 2.15: Total Educational Attainment, Age 25 and Over (% of Total), 2000-2014

Source: U.S. Census Bureau 2000 and 2010, ACS 2014 Estimates.

| | 2000 | 2010 | 2014 |
|--------------------|-------|-------|-------|
| High School | 36.6% | 42.2% | 35.5% |
| Associate’s | 8.2% | 6.7% | 9.5% |
| Bachelors | 11.7% | 12.3% | 12.6% |
| Graduate | 3.4% | 5.5% | 4.9% |

Table 2.15 shows that in the City of Boiling Spring Lakes, the percentage of residents with a degree in higher education has remained fairly constant with increases in the number of people earning Associate degrees. In a visual comparison, Figure 2.4 shows just the percentage of people in North Carolina, Boiling Spring Lakes, Shallotte, and Southport that have an Associate’s Degree and a Bachelor Degree. Shallotte has higher educational attainment levels for Bachelor and Associate degrees than Boiling Spring Lakes. Southport has the highest Associate degree and Graduate degree attainment relative to the other municipalities, but a lower Bachelor degree attainment.

**Figure 2.4: State and Municipality Comparison
Educational Attainment, 2014**

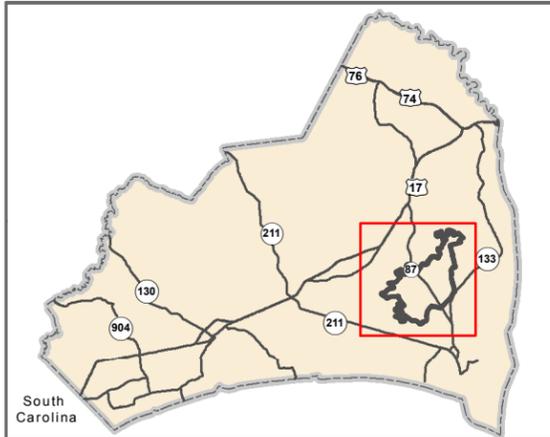


Source: U.S. Census Bureau ACS 2014 Estimates

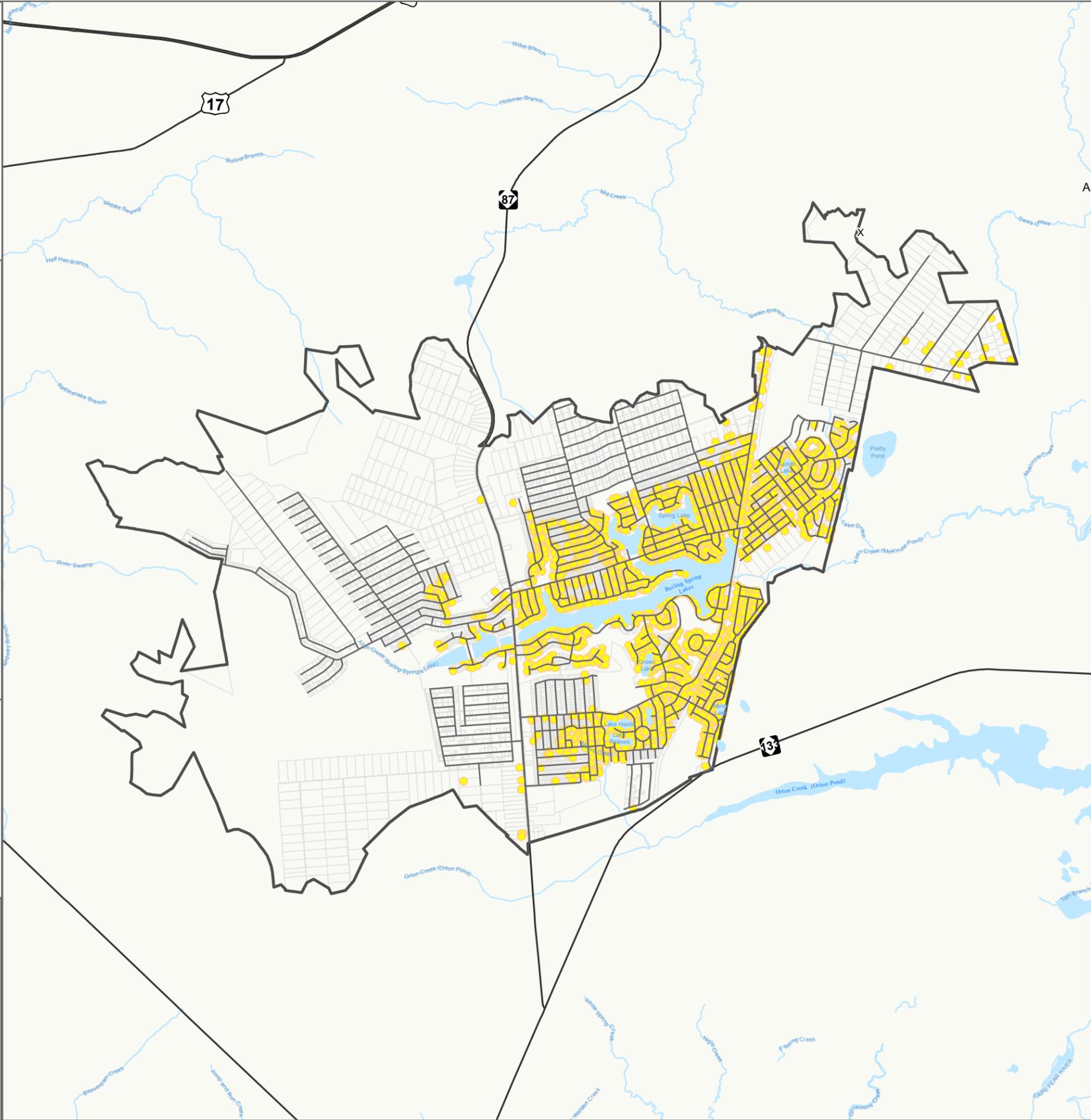
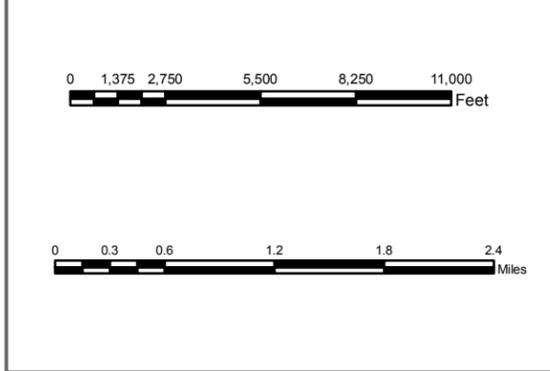
SUMMARY

The City of Boiling Spring Lakes is an area accustomed to beautiful natural areas, a relatively young population, and a comfortable socio-economic status. The population is estimated to grow by another 5,000 people in the next 30 years. As the population in the City of Boiling Spring Lakes continues to increase, other statistics related to the economy, education, and poverty will follow similar trends. By taking into account these existing trends, this land use plan will attempt to provide solutions to improve conditions in the city over time as the population grows and the demand for services increases.

- The population of Boiling Spring Lakes has almost doubled since 2000 and is expected to double again in the next 30 years.
- The median age in the City is 41 years and the highest percentage of the population is made up of the Baby Boomer generation (50-69 years).
- Boiling Spring Lakes has a low vacancy rate at 13%.
- Median home value in the City is similar to Shallotte and only slightly lower than the Brunswick County statistic.
- More than half the housing stock in Boiling Spring Lakes was built after 2000.
- Almost 70% of the population of renters in the City allocate 30% or more of their income to pay for housing.
- The City has a median household income that is similar to that of North Carolina.
- The top industry in the City is retail trade, followed closely by arts, entertainment, recreation, and accommodation.
- The poverty rate in Boiling Spring Lakes is low compared to the State and the County.



Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 2.1 Existing Housing Units

Legend

- Housing Unit
- City of BSL

Total Housing Units data obtained from Brunswick County.



Map Prepared By:
Cape Fear Council of Governments
1480 Harbour Drive
Wilmington, NC 28401

CHAPTER 3: NATURAL SYSTEMS ANALYSIS

The Natural Systems Analysis defines, describes, and analyzes the natural features and environmental conditions found in the City of Boiling Spring Lakes. There are several features identified that contribute to quality of life and property values for residents and could impact development suitability for certain types of new development or potential redevelopment.

This chapter contains a series of maps and inventories to visually display the condition, location, and extent of the natural environment within the City. These maps can be used as a general reference for the City when making land use decisions in an effort to ensure land use compatibility. All referenced maps are located at the end of the chapter.

NOTE: There are no CAMA Areas of Environmental Concern (AECs) within the City's planning jurisdiction.

ANALYSIS OF NATURAL FEATURES

SOIL CHARACTERISTICS

In 1982, major fieldwork was completed for the Brunswick County Soil Survey. The soil survey provides a detailed explanation of limitations for the various soil series that exist in the county. In Boiling Spring Lakes, there are approximately 17 different soil series, as seen in Table 3.1. The most predominant soil series in the City are the Murville mucky fine sand and the Leon fine sand. Both soil series have significant limitations for the construction of dwellings and for their ability to provide drainage for septic tank effluent. As stated in the 1998 CAMA Land Use Plan, the majority of development has occurred on Mandarin and Kureb fine sands, which have higher suitability for dwellings, but are limited in septic tank absorption. Map 3.1 displays areas of varying suitability for dwellings based upon soil composition. The majority of land that has been developed for residential use is classified as "Not Limited" for dwelling construction, whereas land in the western portion of the corporate limits is "Very Limited" in its suitability for residential construction.

Further, all soil series that exist within the City are "Very Limited" in their ability to absorb septic tank effluent. It should be noted, however, that the majority of soils in Brunswick County are limited in their ability to absorb septic tank effluent. Portions of the City are available to be served by sewer. In the future, if intensive development wishes to locate in Boiling Spring Lakes, sewer service must be provided. More discussion regarding water and sewer service is provided in Chapter 5. Map 3.1 displays the soil series in Boiling Spring Lakes.

Table 3.1: Soil Series Attributes, 2015

Source: Brunswick County Soil Survey.

| Soil Series Name | Suitability for Dwellings | Septic Tank Absorption Suitability | Suitability for Paths/Trails | Acres | Percent of Total |
|---|---------------------------|------------------------------------|------------------------------|------------------|------------------|
| Baymeade and Marvyn soils, 6 to 12 percent slopes | Somewhat limited | Very limited | Very limited | 22.13 | 0.14% |
| Baymeade fine sand, 1 to 6 percent slopes | Not limited | Very limited | Very limited | 150.07 | 0.97% |
| Croatan muck | Very limited | Very limited | Very limited | 1,754.83 | 11.37% |
| Dorovan muck | Very limited | Very limited | Very limited | 65.42 | 0.42% |
| Foreston loamy fine sand | Somewhat limited | Very limited | Somewhat limited | 47.27 | 0.31% |
| Goldsboro fine sandy loam, 0 to 2 percent slopes | Somewhat limited | Very limited | Somewhat limited | 14.05 | 0.09% |
| Kureb fine sand, 1 to 8 percent slopes | Not limited | Very limited | Very limited | 1,714.98 | 11.11% |
| Leon fine sand | Very limited | Very limited | Very limited | 3,938.84 | 25.53% |
| Lynchburg fine sandy loam | Very limited | Very limited | Very limited | 49.71 | 0.32% |
| Mandarin fine sand | Somewhat limited | Very limited | Very limited | 1,245.53 | 8.07% |
| Muckalee loam | Very limited | Very limited | Very limited | 58.55 | 0.38% |
| Murville mucky fine sand | Very limited | Very limited | Very limited | 5,581.13 | 36.17% |
| Pantego mucky loam | Very limited | Very limited | Very limited | 114.19 | 0.74% |
| Rains fine sandy loam | Very limited | Very limited | Very limited | 25.38 | 0.16% |
| Torhunta mucky fine sandy loam | Very limited | Very limited | Very limited | 129.60 | 0.84% |
| Wando fine sand, 0 to 6 percent slopes | Not limited | Very limited | Very limited | 0.15 | 0.00% |
| Water | Not rated | Not rated | Not rated | 513.47 | 3.33% |
| Woodington fine sandy loam | Very limited | Very limited | Very limited | 5.51 | 0.04% |
| Total | | | | 15,430.80 | 100.00% |

SURFACE WATER QUALITY CLASSIFICATIONS

Surface Water Classifications are designations applied to surface water bodies, such as streams, rivers, and lakes, which define suitable uses for the applicable water body (e.g. swimming, fishing, drinking water supply) and carry with them an associated set of water quality standards to protect those uses. Surface water classifications are a regulatory tool used to manage and protect all streams, rivers, lakes, and other surface waters in North Carolina. Classifications and their associated protection rules may be designed to protect

water quality, fish and wildlife, or other special characteristics. Each classification has associated standards that are used to determine if the designated uses are being protected. All surface waters in Boiling Spring Lakes are Class B or C waters (described below) that also have a designation as “swamp waters” due to their low velocity and high nutrient content. Map 3.2 shows the Surface Water Classifications in the City of Boiling Spring Lakes.

Class B

Waters protected for all Class C uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis. This classification refers to the lakes found in the city.

Class C

Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner. Streams and creeks in and around the city are classified with this designation.

Swamp Waters (Sw)

Supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams. A water labeled as a swamp water classification are those waters which have low velocities and dissolved oxygen levels. These waters are naturally more acidic (have lower pH values).

Map 3.2 also shows Federal, State, and Private lands that exist within the city boundaries. State owned lands are maintained mainly by the Department of Agriculture Plant Conservation Program. This layer is mostly a collection of fee-simple properties and easements where natural resource conservation is one of the primary management goals.

NON-COASTAL WETLANDS

The Water Pollution Control Act Amendments (Clean Water Act) of 1972, and the revised Act of 1977, marked an important step in regulating water pollution. First, it increased the funding levels available through the construction grants program for assistance in the building of water treatment plants. Second, it instituted technology based effluent standards as opposed to stream base standards. Third, it established a national permit system for regulating point source discharges. Most importantly, the Act established a national policy and specific goals for restoring and maintaining the chemical, physical, and biological properties of the nation’s fishable and swimmable waters.

Several sections instituted programs under the Clean Water Act that significantly affect development projects today, including Section 401, which requires water quality certification for activities that may cause a discharge into navigable waters or wetlands; Section 402, which established the National Pollution Discharge Elimination System (NPDES) for wastewater discharge permits; and Section 404, which regulates the discharge of dredge and fill material into navigable waters or wetlands. The evolution of the implementation of the Clean Water Act was the shift in the enforcement and day-to-day administration of the programs from the U.S. Environmental Protection Agency to the states, and in the case of the NPDES program, to the local governments.

Wetlands are important ecological features in much of the southeast. As a protected ecosystem, wetlands must be delineated to ensure adequate care is given by the city and the state. Map 3.3 shows that the City of Boiling Spring Lakes has significant wetland areas that cover most of the undeveloped land within the city boundary.

Pocosin wetlands are present in much of the western half of the city, where undeveloped land persists. The name “Pocosin” is derived from the Native American term used to describe a “swamp on a hill.” Pocosin wetlands are described as follows:

Palustrine scrub/shrub communities (i.e. non-Estuarine Scrub/Shrub) dominated by evergreen shrubs, often mixed with pond or loblolly pines. Typically occur on saturated, acid, nutrient poor, sandy or peaty soils; usually removed from large streams; and subject to periodic burning.

WATER SUPPLY WATERSHEDS

The United States is divided into hydrologic units which represent a geographic area showing the surface drainage basin and watershed boundaries. These units are classified into six levels: regions, sub-regions, basins, subbasins, watershed, and subwatersheds where region is the largest geographic area and subwatershed is the smallest. Each hydrologic unit can be identified by a unique hydrologic unit code (HUC) whose length is based off the level of classification. Map 3.4 shows that the City of Boiling Spring Lakes is located primarily in the Lower Cape Fear subbasin (HUC8 03030005). Within that subbasin is the Liliput Creek-Cape Fear River watershed (HUC10 0303000507) and the Town Creek watershed (HUC10 0303000506).

Within these watersheds are the subwatersheds Bell Swamp-Rice Creek (HUC12 030300050602), Liliput Creek (HUC12 030300050701), and Orton Creek (HUC12 030300050703) in which Boiling Spring Lakes is located. The western edge of the Boiling Spring Lakes city boundary is located in the Carolina Coastal subbasin (HUC8 03040208), within the Lockwoods Folly River watershed (HUC10 0304020801) and within subwatershed Middle Swamp (HUC12 030402080101).

This map also shows the location of weirs in Boiling Spring Lakes. A weir is a low dam built across a river to regulate the flow of water. Other water features like marshes and swampy areas are noted as well.

ENVIRONMENTALLY FRAGILE AREAS

Map 3.5, the Biodiversity/Wildlife Habitat map, displays the relative conservation value of land in the City of Boiling Spring Lakes. The conservation value is based upon the biodiversity of aquatic and terrestrial species and communities, large-scale landscapes, including core wildlife habitats and habitat connectors, and lands important to ecosystem processes, such as riparian buffers and wetlands. The majority of the city falls within the 7 to 10 conservation values, indicating the highest conservation priority. This finding is consistent with the abundance of natural resources and local wildlife present in the Boiling Spring Lakes area.

ADDITIONAL NATURAL FEATURES



The North Carolina Natural Heritage Program collects information on the geographic location of rare plants and animals, exemplary or unique natural communities, and important animal assemblages (e.g., heronries and colonial waterbird nesting sites). Collectively, these plants, animals, natural communities, and animal assemblages are referred to as "elements." Many of these element occurrences are on private land and are not accessible without landowner permission as shown on Map 3.6. The program tracks vertebrate animals, invertebrate animals, vascular plants, nonvascular plants, and animal assemblages. The data was created as part of an initiative to identify, evaluate, and prioritize areas that are important to North Carolina’s ecological system. In addition, the Significant Natural Heritage Areas displayed on Map 3.6 are rated based on their abundance of natural species and habitat. “Exceptional” is the highest categorical ranking.

Source: USFWS

Data inputs include significant natural heritage areas, rare species occurrences, core wildlife habitats areas, important aquatic resources (e.g., trout streams, fish habitat, fish nursery areas, and outstanding resource waters), wetlands, and watersheds as well as a handful of other smaller factors. These data inputs are processed and combined to show conservation priorities statewide.

Table 3.2: Natural Communities, Rare Plants, and Rare Animals

Source: 1998 Boiling Spring Lakes Land Use Plan, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/northcarolina/placesweprotect/boiling-spring-lakes.xml>.

| Natural Communities | Rare Plants | Rare Animals |
|---------------------|------------------------|-------------------------|
| 404 Wetland areas | Rough-leaf loosestrife | American Alligator |
| Pocosin | Venus Fly-trap | Red-Cockaded Woodpecker |
| Carolina Bays | Pitcher Plants | ---- |
| ---- | Orchids | ---- |

The City of Boiling Spring Lakes has several ecologically important communities and species. The most notable is the red-cockaded woodpecker (RCW, see image), a species of bird that inhabits long-leaf pine forests. They are currently federally listed as endangered under the Endangered Species Act. Other important species are listed in Table 3.2.

In specific high cluster areas, or in areas that have an active pine tree cavity on the property, or where there is known to be active cavity within 200 feet of that property, coordination with the US Fish and Wildlife Service must take place prior to development activity. Certain areas of Boiling Spring Lakes could require a much more intensive review process and possibly require a Habitat Conservation Plan to be prepared by the property owner. This process is the same if the property is 0.25 acres or 50 acres. These areas often require tree surveys on the parcel and usually require adjacent RCW surveys as well.

NATURAL HAZARDS

FLOOD HAZARD

In support of the National Flood Insurance Program (NFIP), FEMA has undertaken a nationwide effort of flood hazard identification and mapping to produce Flood Hazard Boundary Maps (FHBMs), Flood Insurance Rate Maps (FIRMs), and Flood Boundary and Floodway Maps (FBFMs). Several areas of flood hazards are commonly identified on these maps. One of these areas is the Special Flood Hazard Area (SFHA), which is defined as an area of land that would be inundated by a flood having a 1-percent chance of occurring in any given year (also referred to as the base flood or 100-year flood). The 1-percent-annual chance standard was chosen after considering various alternatives. The standard, in the opinion of the agency, constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development. Development may take place within the SFHA, provided that development complies with local floodplain management ordinances. Flood insurance is required for structures with a mortgage that are located within the SFHA. Flood insurance is available to protect federal financial investments and assistance used for acquisition and/or construction purposes within communities participating in the NFIP.

Map 3.7 shows that the City of Boiling Spring Lakes has very little area at risk of a 100-year or 500-year flood event. Those areas that are in danger of flooding occur in a one percent annual flood plain or a 500-year flood plain. The one percent annual flood plain is labeled as AE and is indicative of land area that has a one percent annual chance of flooding. Those areas labeled "0.2% Annual Chance Flood Hazard" are located within the 500-year flood plain. Preliminary flood insurance maps have been prepared for Brunswick County and the City of Boiling Spring Lakes. Very little change is noted in the preliminary maps. Figure 3.1 displays changes from the current maps to the preliminary maps. Areas shown as red/pink are increases in the flood hazard area, whereas green signifies a reduction in the flood zone. The preliminary maps are expected to become official by summer 2016.

HURRICANE DAMAGE

As a municipality in a coastal county, Boiling Spring Lakes has experienced several hurricanes events, which has resulted in limited damage. Table 3.3 shows the damage cost estimations for the city for seven different hurricane events since 1996.

Table 3.3: Damage/Loss Estimation from Hurricanes, 1996-Present

Source: NC Department of Public Safety Division of Emergency Management /Recovery

| Event | Cost Estimation |
|---------------------------------|-----------------|
| Hurricane Bertha -- 1996 | \$10,907.00 |
| Hurricane Fran - 1996 | \$13,791.00 |
| Hurricane Bonnie - 1998 | \$0.00 |
| Hurricane Floyd - 1999 | \$243,918.00 |
| Hurricane Isabel - 2003 | \$0.00 |
| Hurricane Ophelia - 2005 | \$30,703.00 |
| Hurricane Irene - 2011 | \$4,935.00 |
| TOTAL | \$304,254.00 |

HAZARDOUS SITES

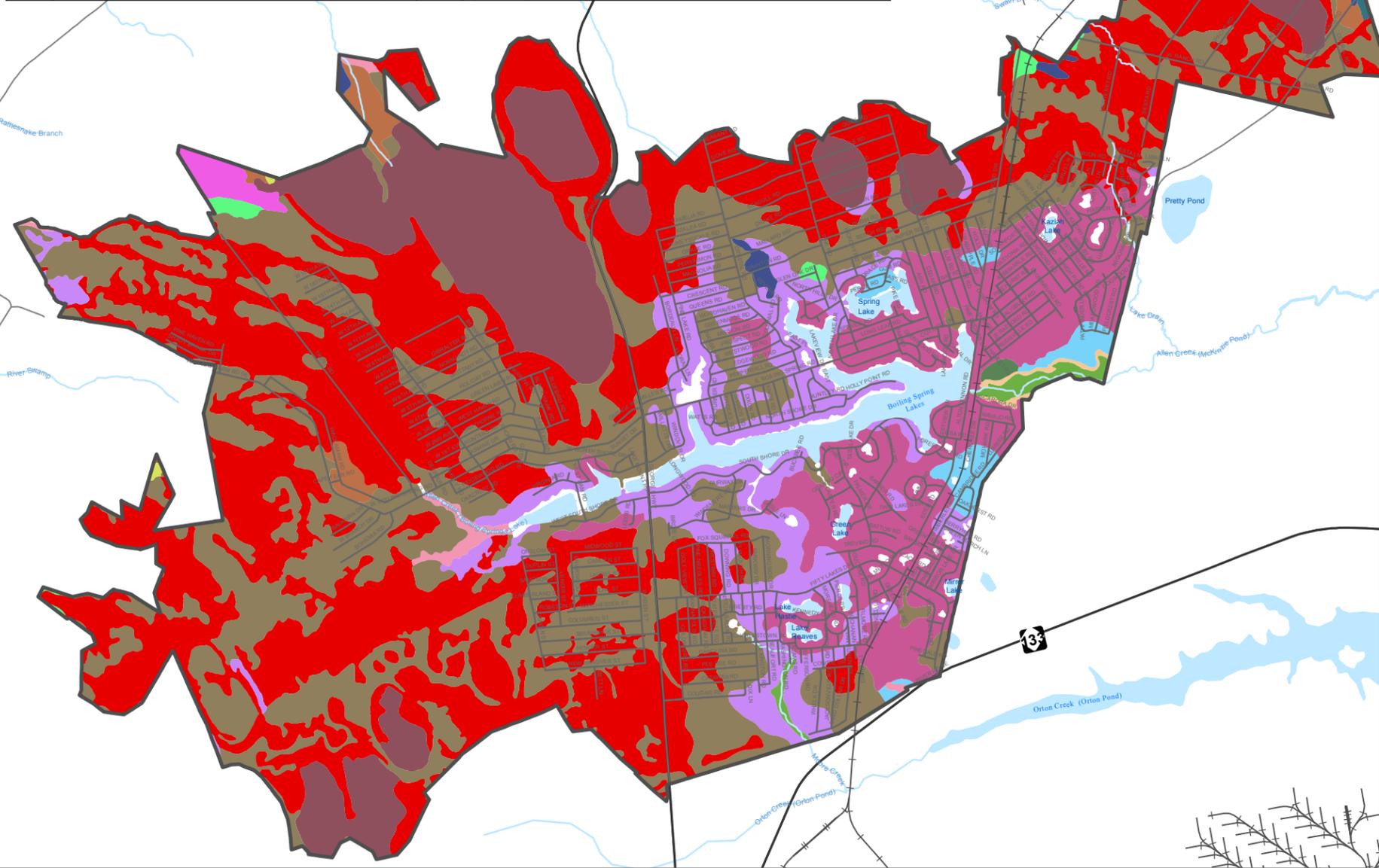
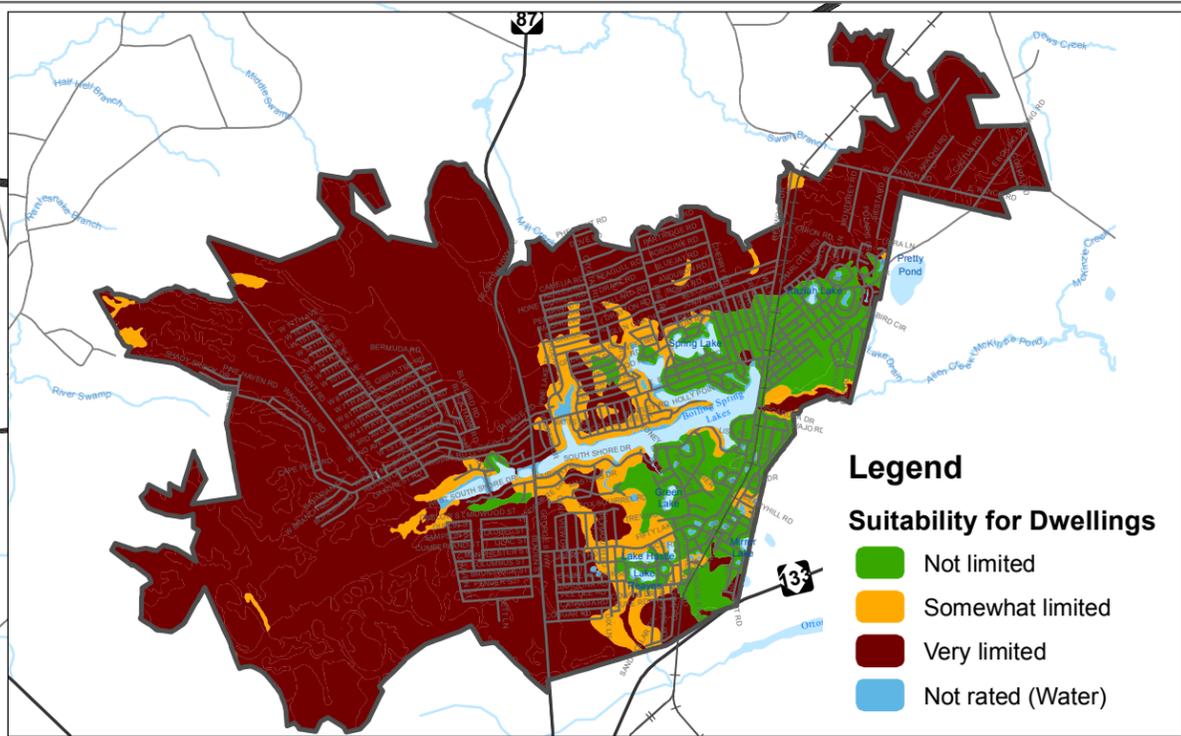
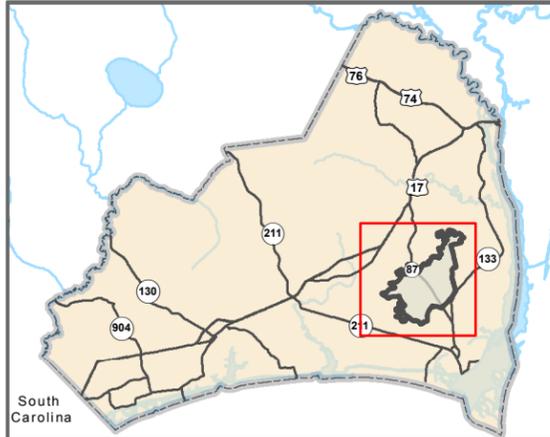
Map 3.8 shows underground storage tanks that could potentially contain hazardous materials. This layer contains contamination incident information related to these storage tanks. The attribute table contains incident names and numbers, address, latitude and longitude information, and GPS locational data. It also shows Pre-Regulatory Landfill Sites which are defined as a land area, whether publicly or privately owned, on which municipal solid waste disposal occurred prior to January 1, 1983, but not thereafter, and it does not include any landfill used primarily for the disposal of industrial solid waste. The Emergency Services Center for Brunswick County was deemed applicable and has been included in this map. The City's Emerging Action Plan (EAP) has identified City Hall as the City's Emergency Center during officially declared emergencies such as hurricanes.

SUMMARY

- The most predominant soil series in the city are the Murville mucky fine sand and the Leon fine sand. Both soil series have significant limitations for the construction of dwellings and for their ability to provide drainage for septic tank effluent.
- The City of Boiling Spring Lakes has significant wetland areas that cover most of the undeveloped land within the city boundary. Pocosin and remnant "Carolina Bays" are wetland ecosystems found in the city.
- The majority of the city falls within the Boiling Spring Lakes Wetland Complex, classified as an "exceptional" Significant Natural Heritage Area and indicating the

highest conservation priority. This finding is consistent with the abundance of natural resources and local wildlife present in the Boiling Spring Lakes area.

- The City of Boiling Spring Lakes has several ecologically important communities and species. The most notable is the red-cockaded woodpecker, a species of bird that inhabits long-leaf pine forests. They are currently federally listed as endangered under the Endangered Species Act.
- The City of Boiling Spring Lakes has very little area at risk of a 100-year or 500-year flood event.



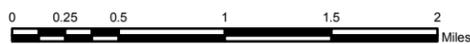
City of Boiling Spring Lakes



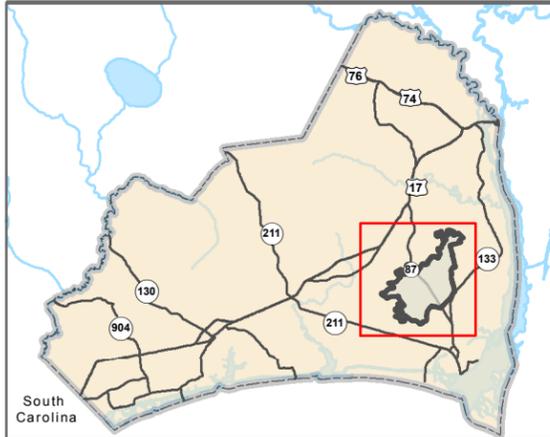
Comprehensive CAMA Land Use Plan

Map 3.1: Soil Series

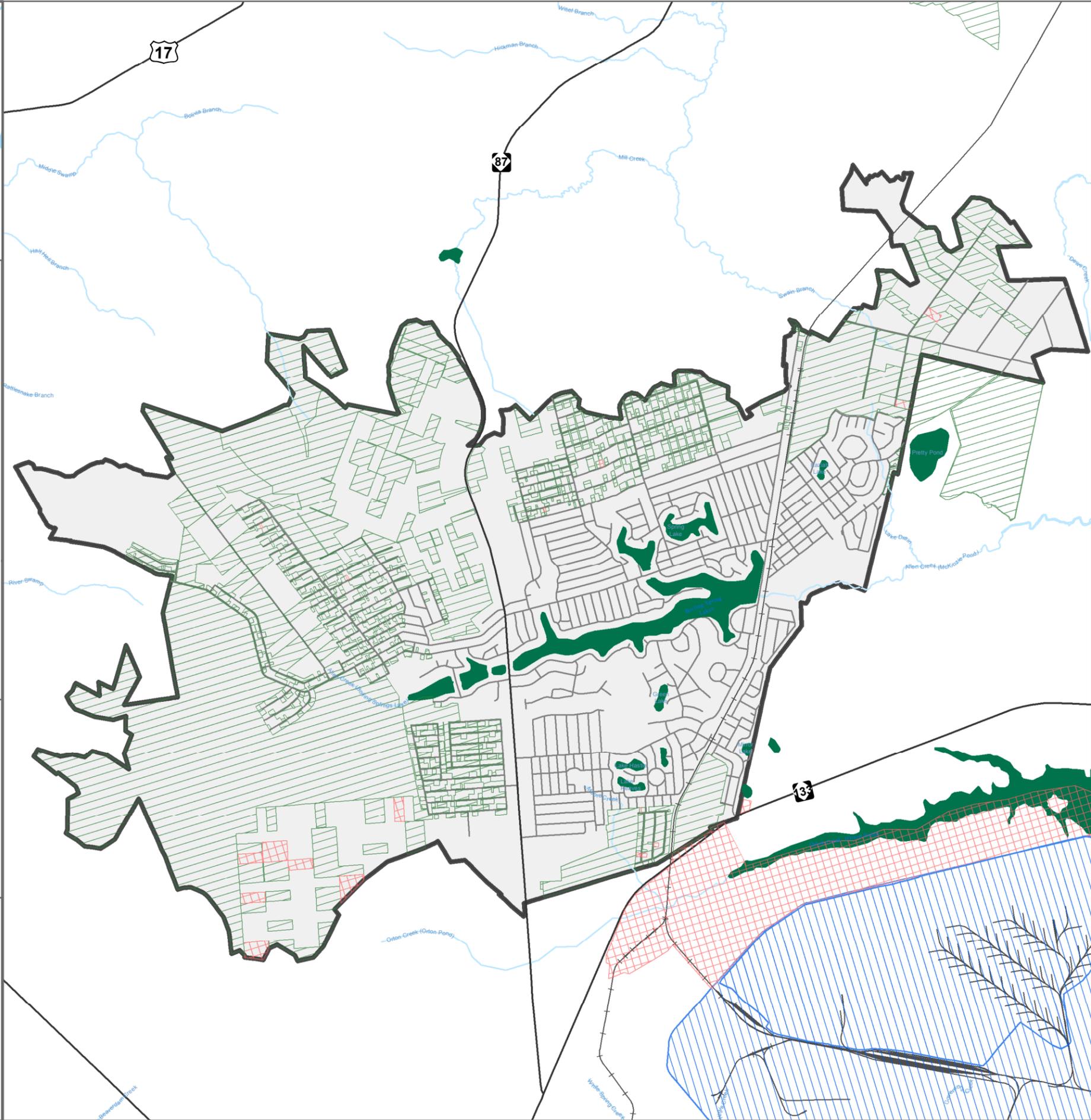
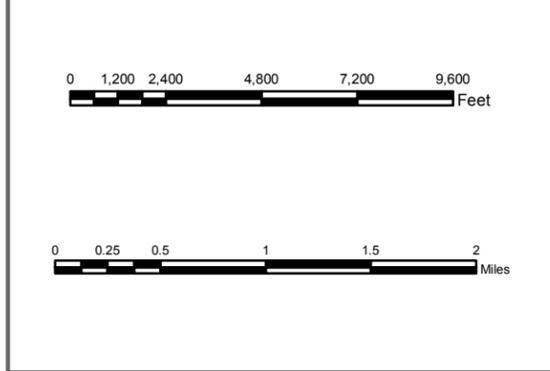
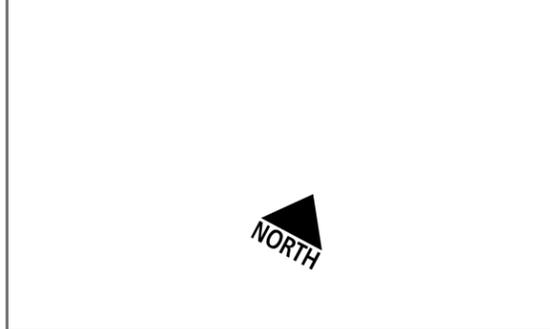
Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



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City of Boiling Spring Lakes



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Map 3.2 Surface Waters and Managed Land Areas

Legend

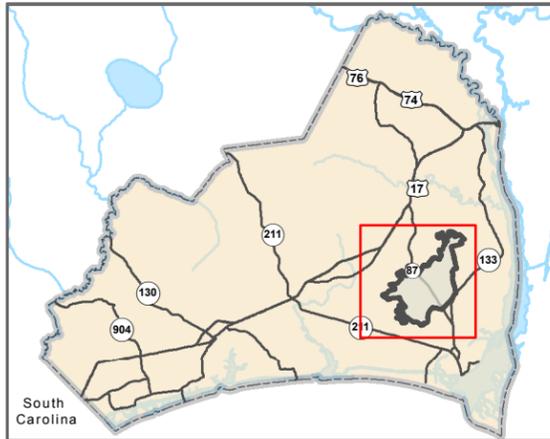
- Roads
- City Boundary
- Class C; Swamp Waters
- Class B; Swamp Waters

Managed Areas

- Federal
- State
- Private



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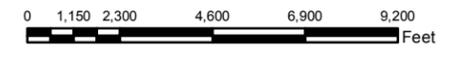
South Carolina

Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



Data source provided by the North Carolina Center for Geographical and Information Analysis.

Field verification is necessary for 100% accuracy of wetlands.



City of Boiling Spring Lakes



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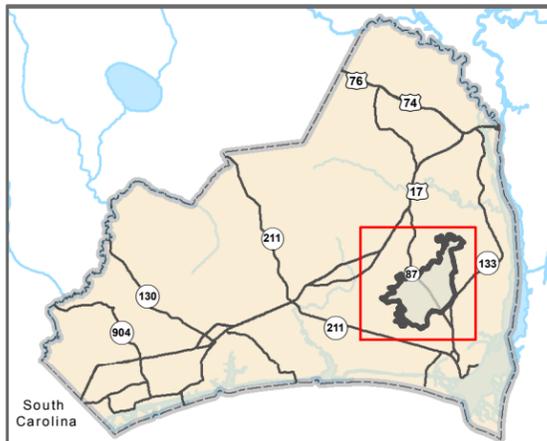
Map 3.3 Wetlands

Legend

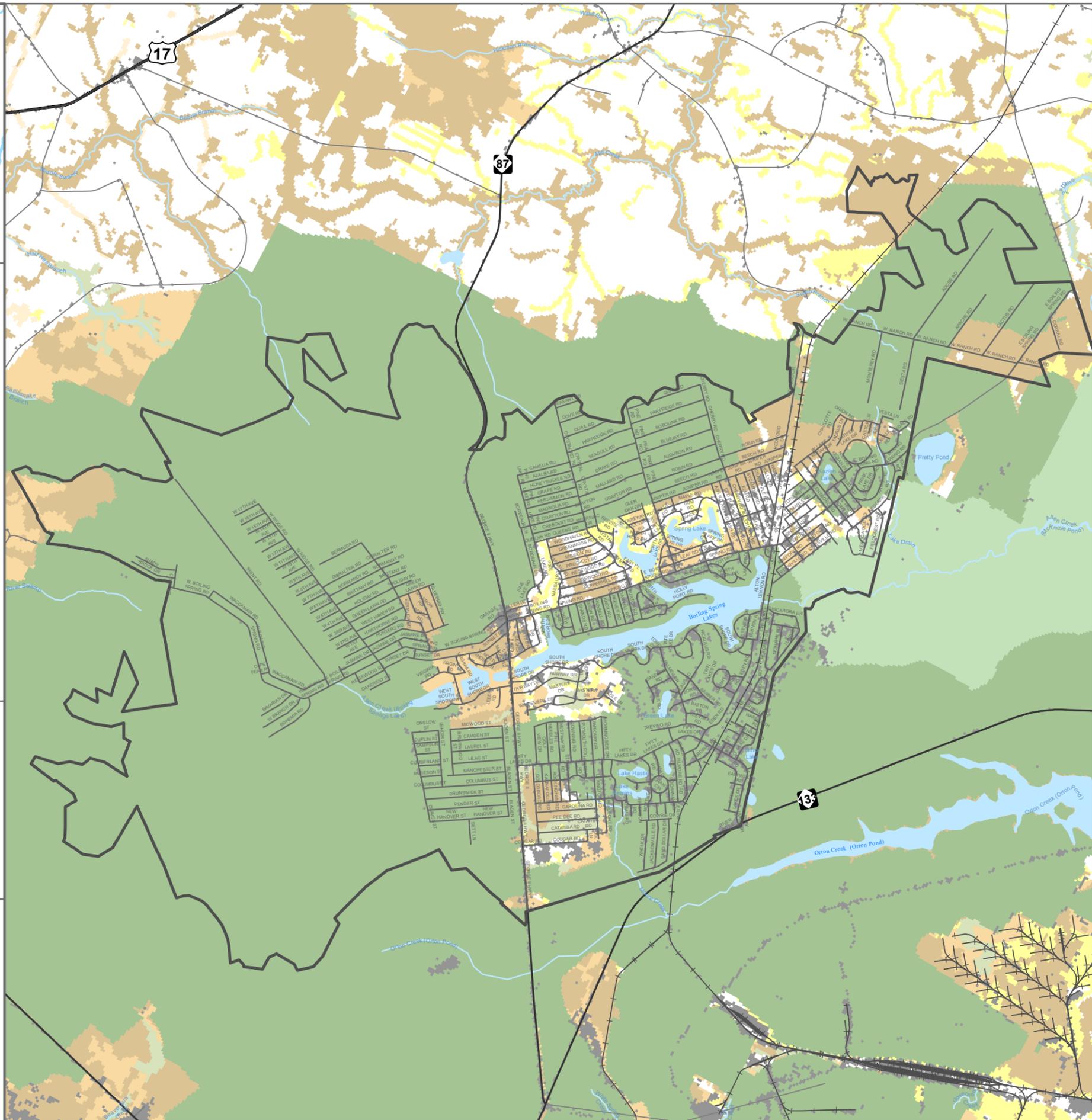
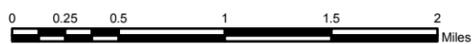
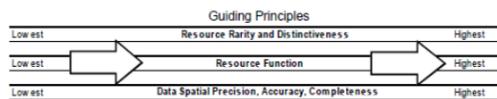
-  Roads
-  City Boundary
-  Water Features
-  Wetlands



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City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan

Map 3.5 Biodiversity/Wildlife Habitat

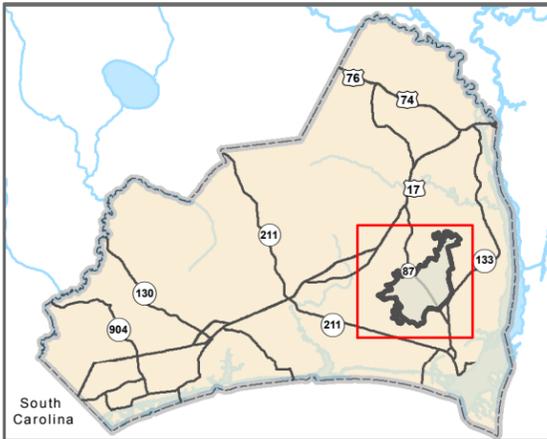
Legend

- City Boundary
- Water Features
- Roads
- Biodiversity/Wildlife Habitat Relative Conservation Value**
- 9-10 (Maximum)
- 8
- 7
- 6
- 5
- 2-4
- 1 (Moderate)
- 0 (Unrated)
- Impervious surface >20%

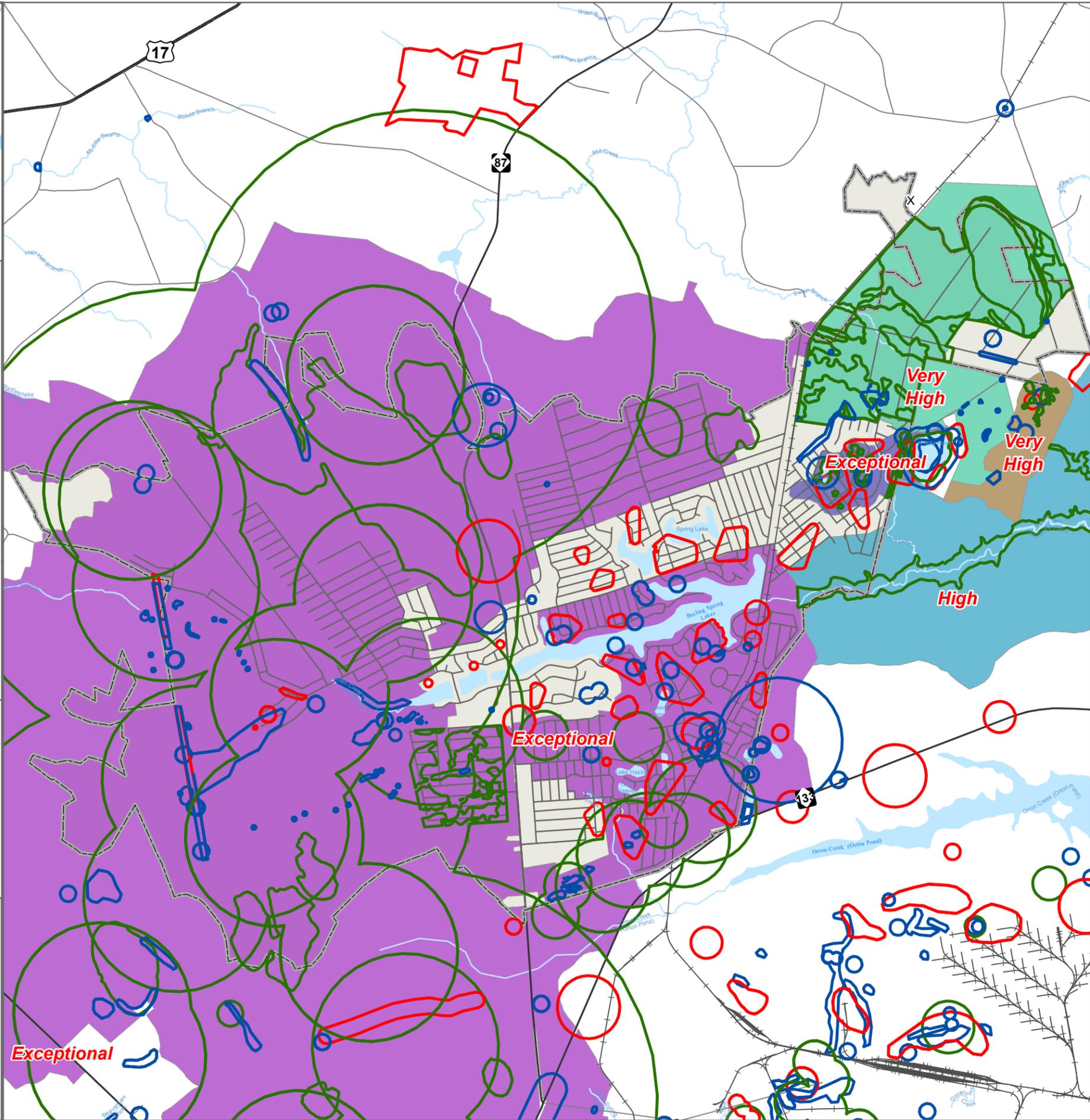
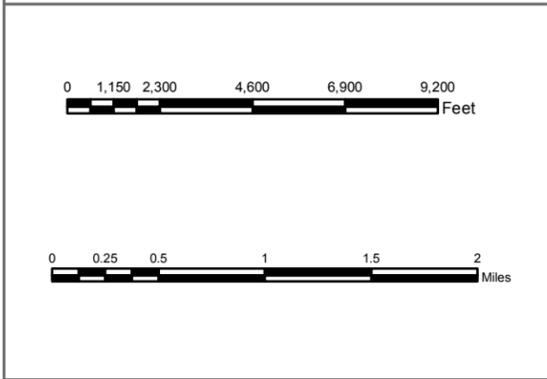
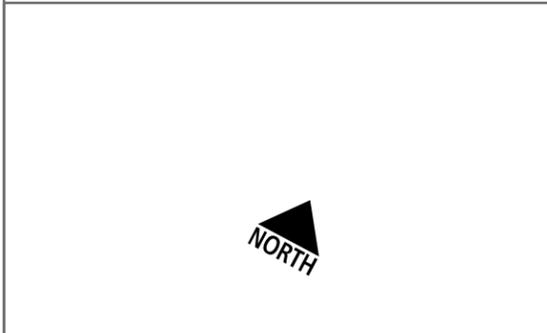
The Biodiversity/Wildlife Habitat Assessment (BWHA) considers relative conservation value for all data inputs, and assigns a maximum score to all 30m x 30m cells based on those inputs. Areas that receive a maximum value of 7-10 are of highest conservation value.



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City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan

Map 3.6 Element Occurrences and Significant Natural Heritage Areas

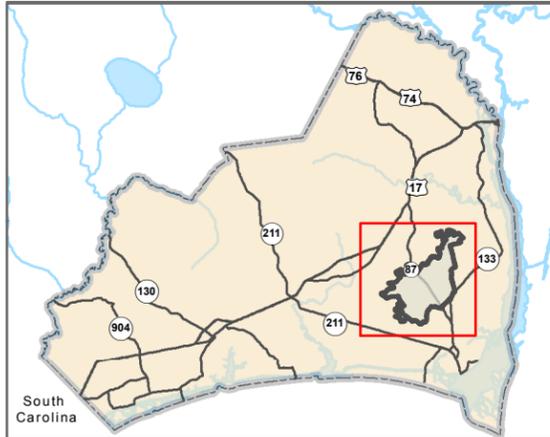
Legend

- City Boundary
- Water Features
- Roads
- Significant Natural Heritage Area**
 - Blue Pond/Allen Creek
 - Boiling Spring Lakes Wetland Complex
 - Funston Bays
 - Hog Branch Ponds
 - Pretty Pond Limesink Complex
- Element Occurrences**
 - Plant
 - Animal
 - Natural Community
 - Animal Assemblage

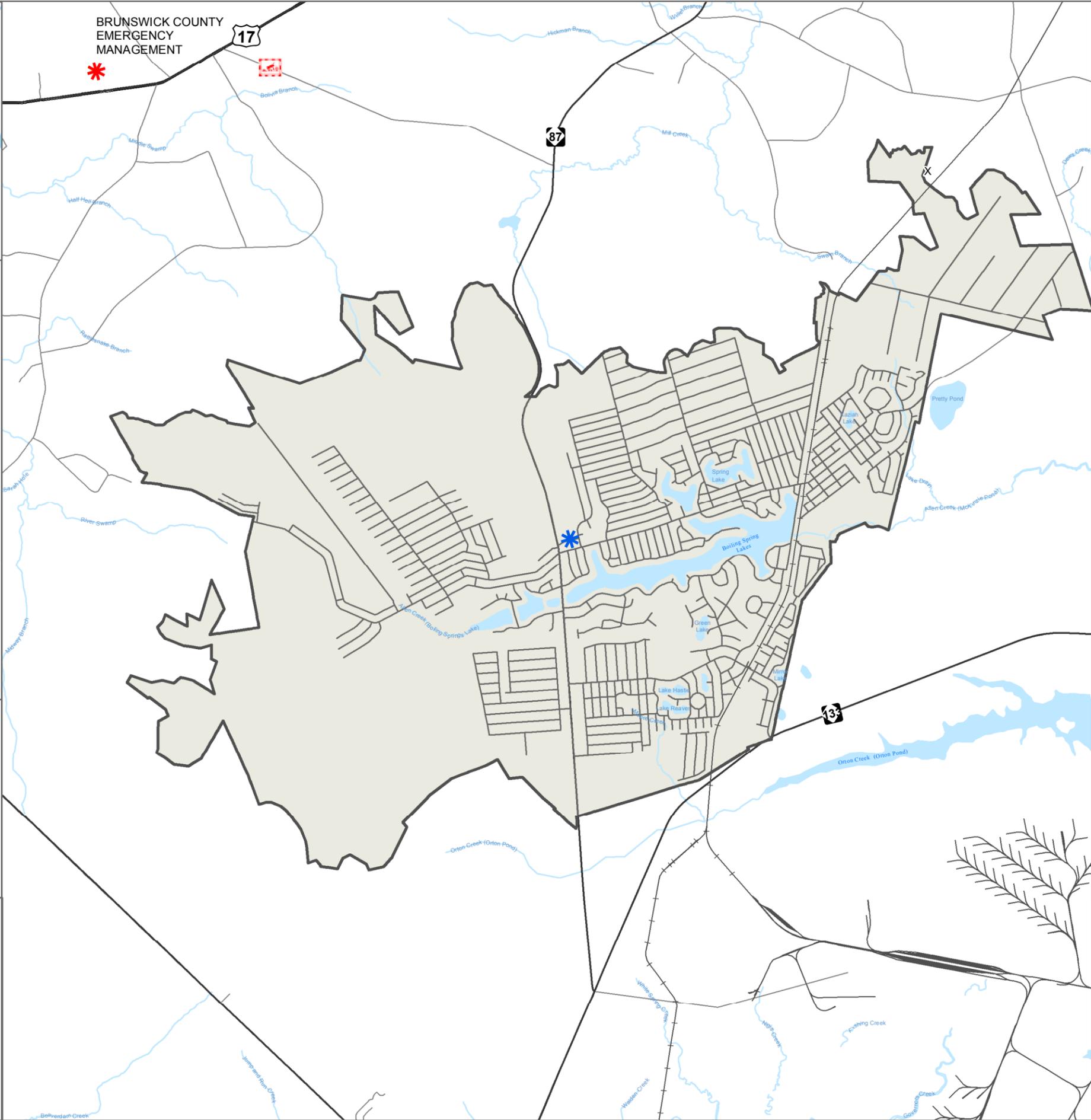
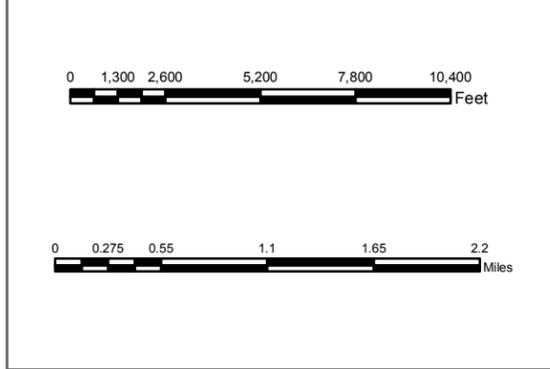
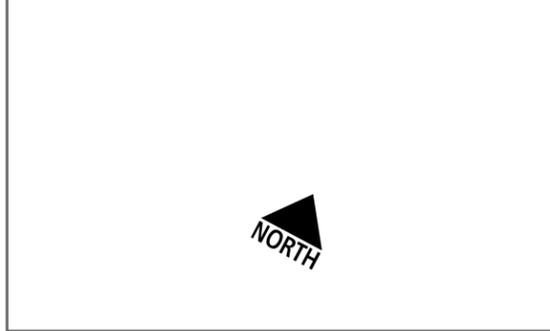
The Natural Heritage Program collects information on occurrences of rare plants and animals, exemplary or unique natural communities, and important animal assemblages (e.g., heronries and colonial waterbird nesting sites). Collectively, these plants, animals, natural communities, and animal assemblages are referred to as "elements of natural diversity" or simply as "elements." Specific occurrences of these elements are referred to as "element occurrences."



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City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan

Map 3.8 Hazardous Sites

Legend

- Pre-Regulatory Landfill Sites
- Underground Storage Tanks
- County Emergency Operations Center
- City Emergency Operations Center (City Hall)
- Roads
- City Boundary
- Water Features

Pre-Regulatory Landfill Sites:
This data set represents the locations of non-permitted landfills that closed prior to January 1, 1983 when waste disposal permitting regulations commenced. The legislation in 2007 (SB1492) resulted in adding new provisions to the Inactive Hazardous Sites Response Act for addressing these landfills.

Underground Storage Tanks:
This layer contains UST contamination incident information. The attribute table contains incident names and numbers, address, lat/long, confirmed risk, qualifiers for GPS data, and open/closed status.



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CHAPTER 4: ANALYSIS OF LAND USE AND DEVELOPMENT

Analyzing existing land use provides a snapshot of growth and development patterns within a particular jurisdiction and at a specific time. When analyzing this data, it allows a community to better understand the development trends that have occurred over time and those that may be likely to continue into the future. Put simply, the existing land use analysis is a description of the development that exists today. For example, if a parcel is developed with a single-family home, then the corresponding existing land use classification is single-family residential.

An analysis of vacant land and future development potential based upon zoning classification is provided in this section. The information in this Section is used in establishing the City's Future Land Use Map.

More specifically, included in this Section are:

- A description of the land use analysis process;
- Tables listing existing land use and zoning statistics;
- Graphics and maps showing the existing land use and vacant lands by zoning district; and
- A build-out analysis.

SOURCE OF EXISTING LAND USE ANALYSIS AND MAP

The Existing Land Use Map and associated analysis and tables were created by the Cape Fear Council of Governments using Brunswick County Tax Records, aerial photos, and a review of past land use plans.

LAND USES IDENTIFIED IN THE PLANNING JURISDICTION

The existing land uses in the planning jurisdiction include:

- Single-Family Residential
- Commercial
 1. Retail shops/stores
 2. Convenience stores
 3. Restaurants
 4. Hotel/motel
- Recreation (park, golf course, clubhouse and/or common area)
- Office and Institutional (office, church, or governmental building)
- Vacant (undeveloped land)

EXISTING LAND USE ANALYSIS AND MAP

The existing land use map for the City displays the same general pattern of development as previous land use plans (see Map 4.1). Single-family residential development accounts for the greatest percentage of developed land within the corporate limits. However, close to 90% of land within the corporate limits is currently undeveloped. Much of this vacant acreage is owned by the State of North Carolina and is managed for conservation purposes. Of the more than 14,000 acres of vacant land in Boiling Spring Lakes, more than 6,400 acres are located in conservation easements and are thus unlikely to be developed. These lands are located primarily on the western portion of the City. For more information please see Map 3.2.

Non-residential development is mostly located along NC 87 and West Boiling Spring Road. The commercial core of Boiling Spring Lakes is found in the vicinity of City Hall and between the NC 87 intersections of Boiling Spring Road and North Shore Drive (see the inset on Map 4.1). Residential land use patterns are oriented to the lakes and the golf course. The majority of developed land is located east of NC 87. More than 200 acres of land are allocated to recreational use in the City. The largest contributor to this land use category is the Lakes Country Club.

Table 4.1: Boiling Spring Lakes Existing Land Use

Source: Brunswick County Tax Records, Aerial Photos, Cape Fear Council of Governments.

| Existing Land Use | Acres | Percent of Total |
|---------------------------|-----------|------------------|
| Commercial | 42.58 | 0.27% |
| Office and Institutional | 86.58 | 0.55% |
| Recreation | 216.70 | 1.37% |
| Single-Family Residential | 1,399.26 | 8.85% |
| Vacant | 14,068.97 | 88.96% |
| Total | 15,814.09 | 100.00% |

LAND USE TRENDS

The City's 1998 Land Use Plan is the most recent plan to provide a comprehensive analysis of existing land uses. At the time the plan was adopted, there were 612 acres of single-family-residential housing in the City. As of 2016 that number has increased to nearly 1,400 acres, more than doubling the amount of acreage dedicated to single-family housing in 1998. During that same time, the amount of commercial development nearly doubled from 22 acres in 1998 to more than 40 acres as of January 2016. These trends coincided with the substantial increase in population that occurred from 2000 to 2014.

The ratio of commercial development to the number of supporting City residents has remained nearly identical for the last fifteen years. In the year 2000, there were approximately 135 residents for every acre of commercial development in the City. According to the most recent population figure and acres of commercial development in the City, approximately 135 persons per acre of commercial development is still accurate. By utilizing this ratio it is possible to roughly forecast the amount of commercial

development that may occur over the next twenty to thirty years. Should the same ratio of commercial development to residents hold true over the next twenty years then an additional 25 acres of commercial development may be constructed within the City by 2035. This estimate is based upon the population projection provided on page 2-2. While this estimate is a mere approximation, it still provides the City with an understanding of the potential demand for new commercial development.

More than 600 acres of vacant commercially zoned land currently exists within the Boiling Spring Lakes City boundary. Land that is zoned for commercial use in the C-1 and C-1A districts do not permit residential uses. Based on the estimates above, it may be unrealistic to require only commercial uses in these districts. The creation of a new district or the permitting of residential uses along the commercial corridor may enhance the viability of these vacant lands for development.

As for housing permits and trends, from 2010 to 2015 there were 111 permits for new home construction. Building permits for new housing have increased in the last two years, however, with more than 40 housing units permitted in 2015. Permits for new homes were very limited from 2010 to late 2015. Data obtained from the 1998 land use plan show that building permit activity was higher from 1992 to 1997 than at any time from 2010 to 2015. In 2015, the average construction value for new homes was \$128,000.

ZONING AND DEVELOPMENT POTENTIAL

ZONING DISTRICTS

The City of Boiling Spring Lakes has thirteen separate zoning districts: two commercial, one office/institutional, one industrial, six residential, one conservation district, and one recreational. Further detail regarding each zoning district can be found in the City's Unified Development Ordinance (UDO). Map 4.2 displays the zoning district locations within the City boundaries.

Single-family and two-family dwellings are permitted with supplemental regulations in the residential and conservation districts. Manufactured housing is permitted in the R-5 and R-6 zoning districts. The C-1, C-2, and C-1A zoning districts serve as the primary commercial districts in the City. The C-1 zoning district allows for commercial development along the NC 87 corridor. The C-1A district allows for non-residential uses that will generate fewer vehicle trips. The C-1A district is located on West Boiling Spring Road west of NC 87. County wastewater service is available for land in both commercial zoning districts.

DEVELOPMENT POTENTIAL

As mentioned previously, there is a vast amount of vacant land available for development within Boiling Spring Lakes. While much of the vacant land is undevelopable due to conservation easements, there still remains more than 6,300 acres of land that is available for development. In the future, vacant lands zoned for residential uses may be limited in their ability to obtain a septic permit from the Brunswick County Environmental Health

Department. A site evaluation must be conducted by the Health Department prior to issuance of a building permit. Please see Map 3.1 for more information regarding soil suitability for residential development.

Map 4.3 displays vacant land by the applicable zoning district in Boiling Spring Lakes. The map and acreage tables below only depict land that is vacant and not managed for conservation purposes. More than 600 acres of vacant commercial land exist along the NC 87 corridor. Much of this acreage is located in the C-1 commercial district. Barring extreme population growth, much of this vacant commercial acreage will remain undeveloped for the foreseeable future.

To encourage additional development along NC 87, the City should consider allowing multi-family residential development south of Boiling Spring Lake. Standalone residential development should not be allowed within the existing commercial core, but should be permitted in areas where commercial development may be less feasible. Considerations for multi-family development should also be explored north of Miller Road. Standalone residential development should not be allowed within the existing commercial core displayed on Map 4.1. However, mixed-use development that includes a vertical mixture of uses would support the existing retail businesses in the commercial core and should be allowed. Such a mixture of uses should require that all ground floor uses be non-residential and that upper stories be occupied for residential use.

Table 4.2: Boiling Spring Lakes Vacant Land in Non-Residential Districts

Source: Brunswick County GIS, Cape Fear Council of Governments (conservation easement lands not included).

| Non-Residential Zoning District | Vacant Acreage | % of Total District |
|---------------------------------|----------------|---------------------|
| C-1 | 595 | 72% |
| C-1A | 17 | 76% |
| REC* | 487 | 74% |
| Total | 1,099 Acres | N/A |

*Uses within this district support golf course recreation and lake areas.

As shown in Table 4.3, there are more than 5,200 acres of vacant land that are zoned for residential purposes. In order to determine future growth impacts it is possible to estimate the total number of housing units that will be located within a given jurisdiction based upon the availability of residentially zoned vacant land. To do so, the minimum lot size requirement is used to calculate the total number of lots that could be subdivided for future housing units. This methodology does not, however, take into account environmental constraints such as septic suitability, 404 wetland delineation, and/or the presence of endangered wildlife. As such, the calculations shown in Table 4.3 should be viewed as merely an estimate of development potential.

Based on the minimum lot size requirements, it is estimated that an additional 9,961 housing units would be constructed in the City once built-out. Again, this number is exaggerated as environmental constraints and septic limitations would likely lower the total number of housing units that could be constructed in the City. Nonetheless, should

this figure come to fruition, it is estimated that an additional 25,000 residents would inhabit the City. Comparatively, based on the five-year trend of building permit activity, it is estimated that only 660 additional houses will be constructed over the next thirty years.

It should be noted that the addition of 25,000 residents would coincide with the development of roughly 185 acres of commercial land uses (based on the existing per capita ratio of commercial development). This would still leave more than 420 acres of vacant commercially zoned land in the City. This is a clear indication of the excess supply of commercially zoned land in the City.

Table 4.3: Boiling Spring Lakes Vacant Land in Residential Districts

Source: Brunswick County Tax Records, Aerial Photos, Cape Fear Council of Governments (conservation easement lands not included).

| Residential Zoning District | Vacant Acreage | Potential Housing Units |
|-----------------------------|----------------|-------------------------|
| R-1 | 892 | 3,012 |
| R-2 | 1,199 | 4,050 |
| R-3 | 311 | 1,051 |
| R-4 | 7 | 22 |
| R-5 | 397 | 1,340 |
| R-6* | 2,340 | 468 |
| CON* | 85 | 17 |
| Total | 5,231 Acres | 9,960 Housing Units |

*Minimum lot size is five acres.

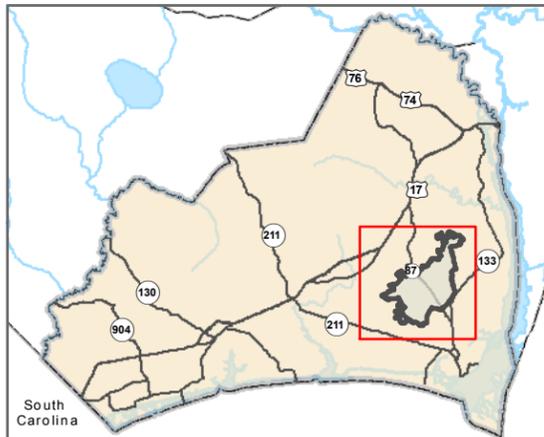
HISTORICAL, CULTURAL AND SCENIC RESOURCES

According to the 2010 Comprehensive Historical/Architectural Site Survey of Brunswick County, there are no historically significant sites in Boiling Spring Lakes. On the NC State Historic Preservation Office online map there are two bridges and a dam that are shown as historic resources. Based on data from the NC State Historic Preservation Office, there are no structures listed in the National Register of Historic Places.

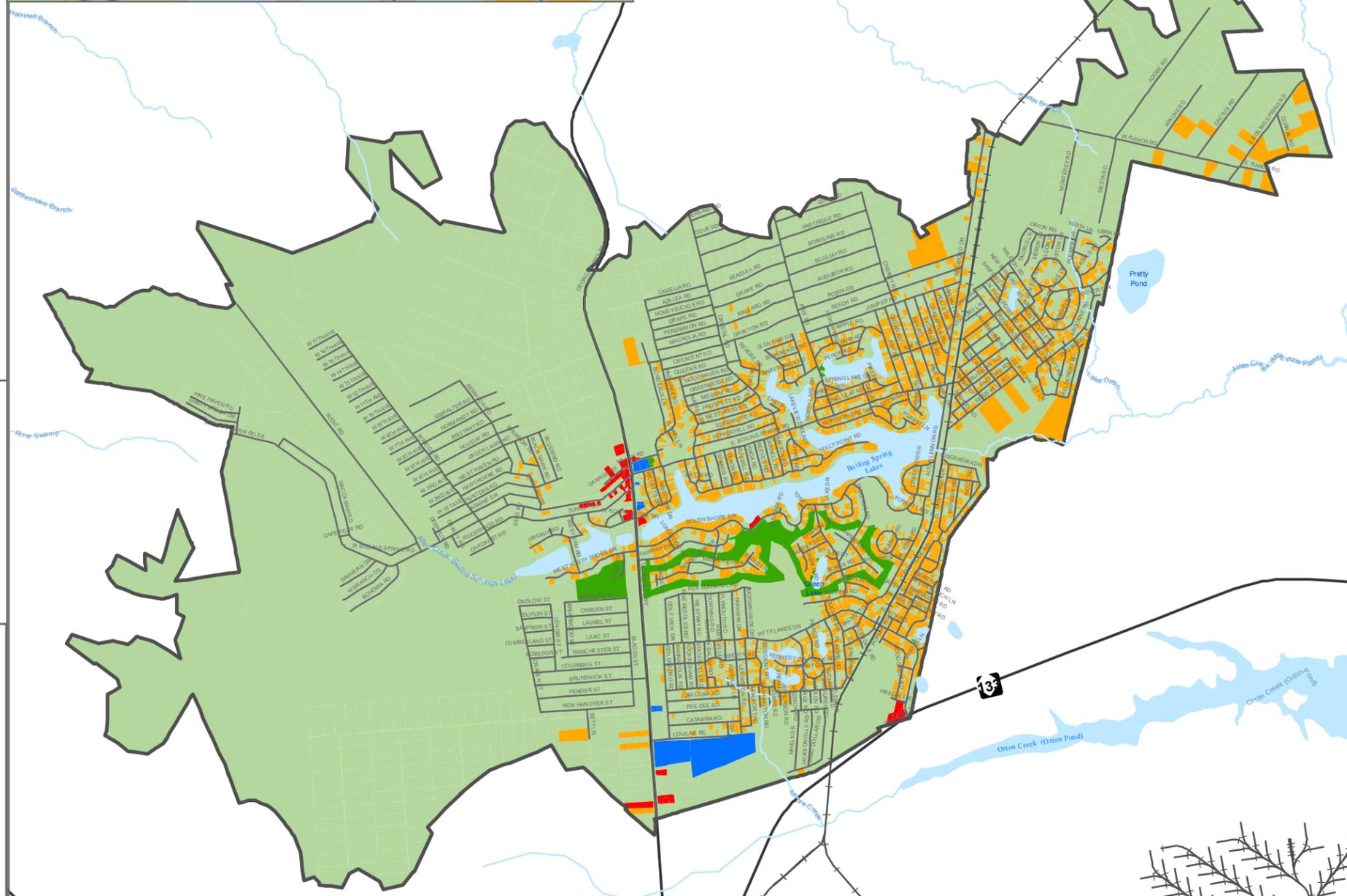
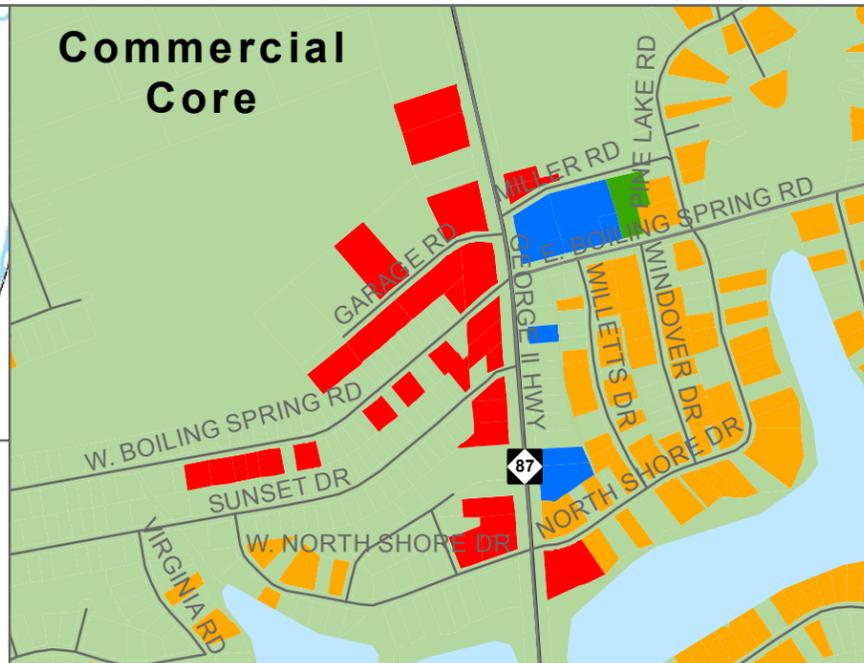
SUMMARY

- Single-family residential development accounts for the greatest percentage of developed land within the corporate limits. However, close to 90% of land within the corporate limits is currently undeveloped.
- Non-residential development is mostly located along NC 87 and West Boiling Spring Road. The commercial core of Boiling Spring Lakes is found in the vicinity of City Hall and between the NC 87 intersections of Boiling Spring Road and North Shore Drive
- More than 600 acres of vacant commercially zoned land currently exists within the Boiling Spring Lakes City boundary. Only 42.58 acres of land is currently used for commercial purposes.

- Potentially, more than 9,500 new housing units could be constructed in the city. The analysis does not account for environmental constraints. This estimate is unlikely to occur within the next 30 years.



Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 4.1 Existing Land Use

Legend

-  Roads
-  City Boundary
- Existing Land Use**
-  Commercial
-  Office and Institutional
-  Single-Family Residential
-  Recreation
-  Vacant

Existing Land Use determination was derived using Brunswick County Tax Department data.



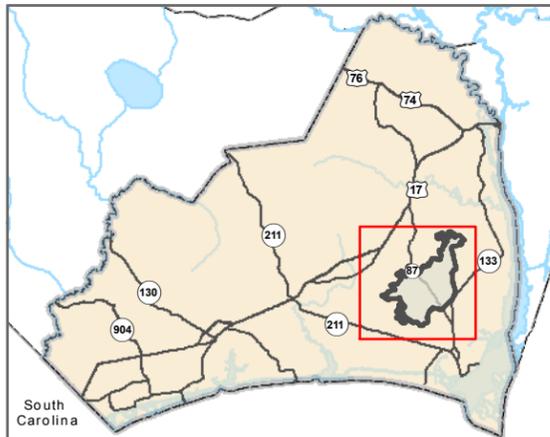
Map Prepared By:
Cape Fear Council of Governments
1480 Harbour Drive
Wilmington, NC 28401



0 1,200 2,400 4,800 7,200 9,600 Feet

1 in = 1 miles

0 0.275 0.55 1.1 1.65 2.2 Miles



South Carolina

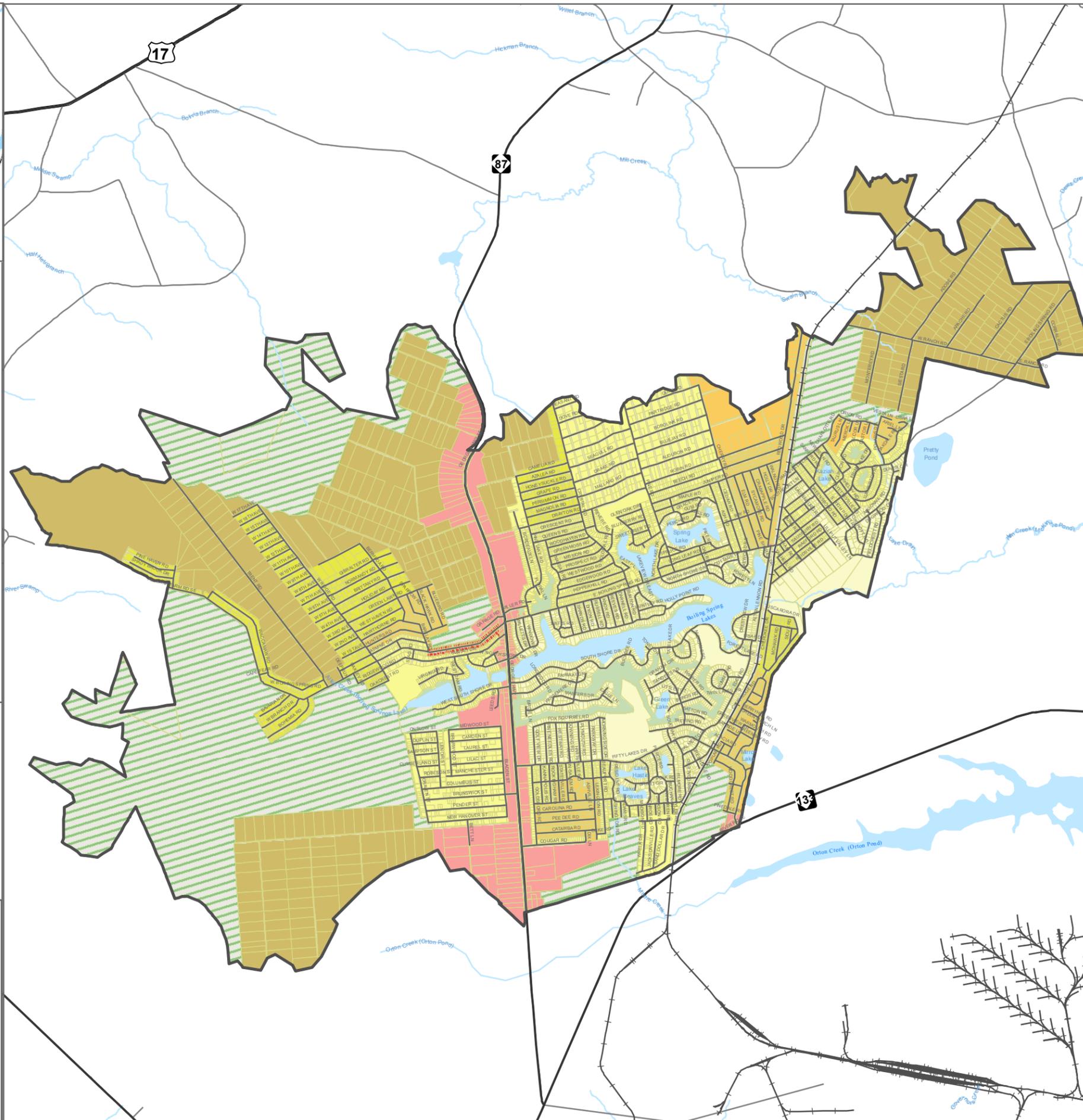
Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



0 1,150 2,300 4,600 6,900 9,200 Feet

1 in = 1 miles

0 0.25 0.5 1 1.5 2 Miles



City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan

Map 4.2 Zoning Map

Legend

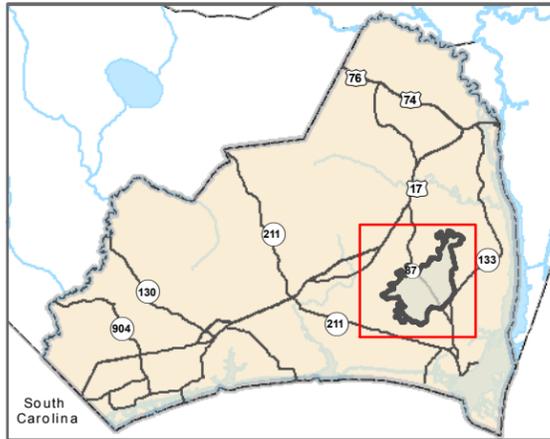
- Roads
- Parcels
- City Boundary
- Water Features

Zoning Districts

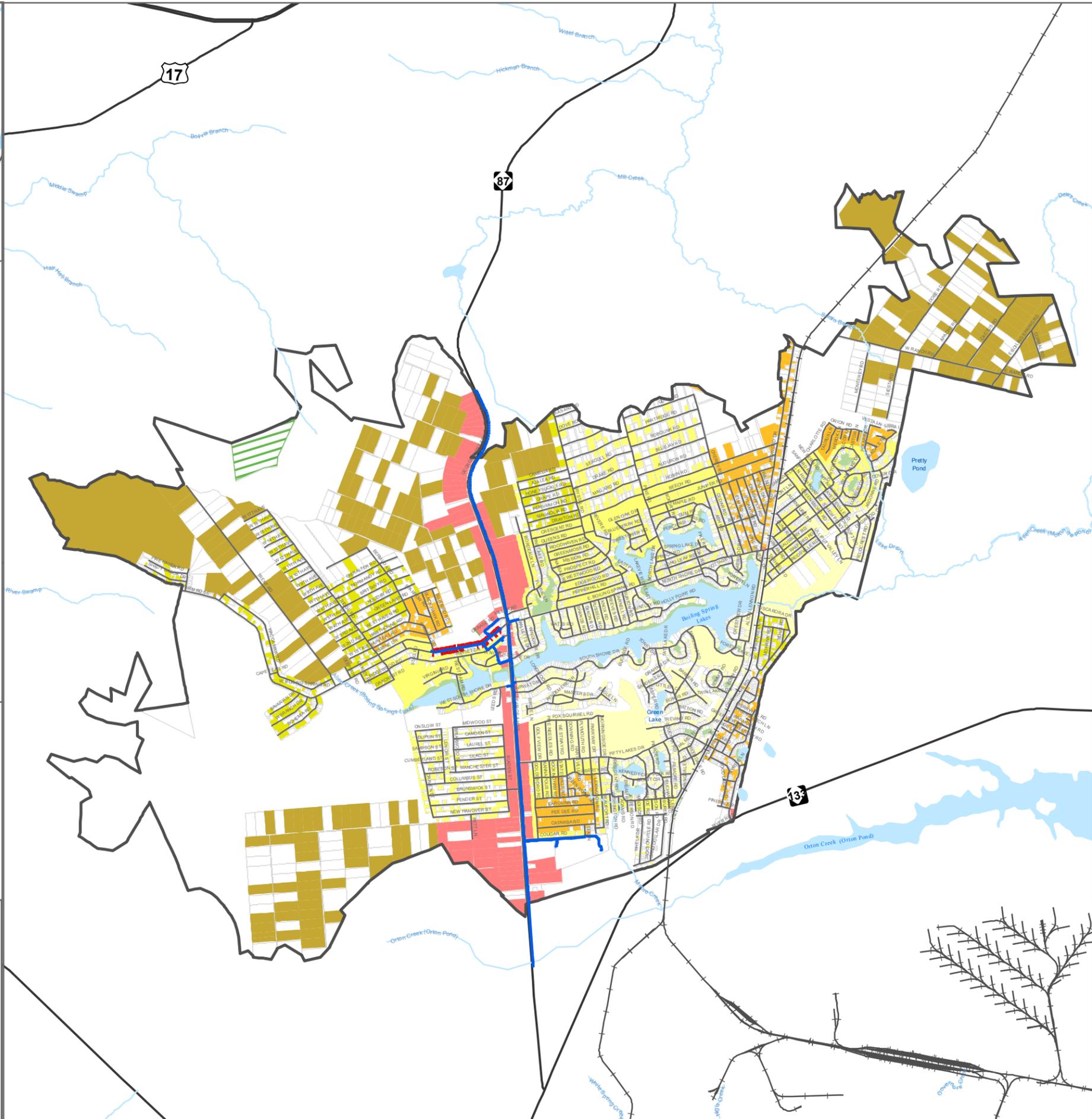
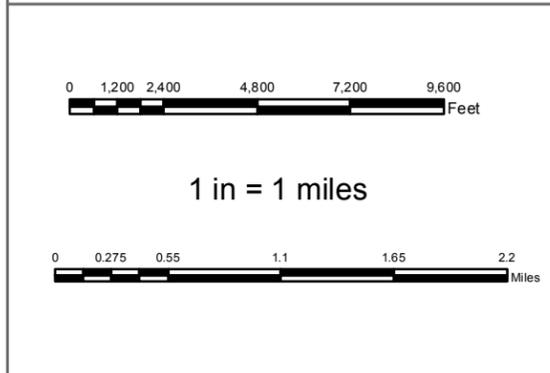
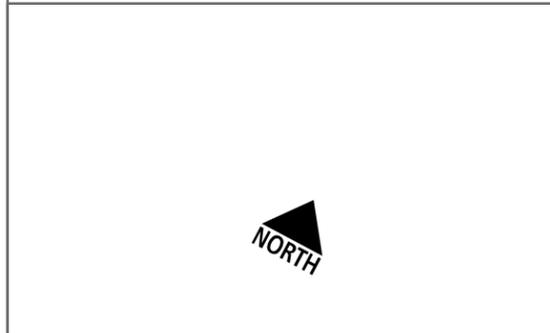
- C-1 (Commercial)
- C-1A (Commercial)
- Conservation
- R-1 (Residential)
- R-2 (Residential)
- R-3 (Residential)
- R-4 (Residential)
- R-5 (Residential)
- R-6 (Residential)
- Recreation



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Cape Fear Council of Governments
1480 Harbour Drive
Wilmington, NC 28401



Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 4.3 Vacant Zoning

Legend

- Roads
- City Boundary
- Wastewater Lines

Vacant Zoning*

- C-1 (Commercial)
- C-1A (Commercial)
- Conservation
- R-1 (Residential)
- R-2 (Residential)
- R-3 (Residential)
- R-4 (Residential)
- R-5 (Residential)
- R-6 (Residential)
- Recreation

*The vacant zoning layer does not include land that is managed for conservation purposes.

Existing Land Use determination was derived using Brunswick County Tax Department data.



Map Prepared By:
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Wilmington, NC 28401

CHAPTER 5: ANALYSIS OF COMMUNITY FACILITIES

The CAMA planning guidelines state that the jurisdiction should evaluate existing and planned capacity, location and adequacy of community facilities that serve the community's existing and planned population and economic base; that protect important environmental factors such as water quality; and that attract land development. The following community facilities and services are analyzed in this section:

- Water Supply;
- Wastewater;
- Stormwater;
- Transportation;
- Parks/Recreation Facilities; and
- Police.

WATER SUPPLY SYSTEM

Boiling Spring Lakes' residents purchase water directly from the Brunswick County Utility Department. Water infrastructure is available to all areas in the City Limits, but costs to extend infrastructure to new development are the responsibility of the developer (see Map 5.1 displaying the Water Supply System Infrastructure). The majority of residents are served by the County water supply system, those that are not must rely on private wells for potable water. The Brunswick County Utility Department obtains its water from the Cape Fear River at the Northwest Water Treatment Plant (Northwest WTP) and from groundwater wells at the 211 Water Treatment Plant (211 WTP). Water supplied to the Northwest WTP is purchased from the Lower Cape Fear Water and Sewer Authority, which pumps surface water from the King's Bluff Reservoir, located up river from Lock and Dam No. 1 on the Cape Fear River. The 211 WTP obtains raw groundwater from 15 wells that tap into the Castle Hayne Aquifer. Boiling Spring Lakes' residents are located in the Northwest WTP service area and thus receive water from the Cape Fear River.

The Cape Fear River basin, the state's largest river basin, extends from near Greensboro and High Point in the Piedmont to the Wilmington area on the coast. The area includes all or part of 27 counties. More than 21 percent of the state's population lives in the more than 9,000-square-mile basin area. A state law passed in 2015 authorized the N.C. Department of Environmental Quality to study all uses of ground and surface water in the Cape Fear River Basin, including public water systems, industrial facilities and agricultural operations. The study is supposed to identify potential conflicts among the various users and offer recommendations for developing and enhancing coordination in order to avoid or minimize those conflicts. A final report is due in 2017.

Along all existing water lines or lines constructed and placed into operation, owners of undeveloped property in Boiling Spring Lakes requesting a permit to construct a

residential, commercial, and/or industrial structure are required to connect to the County water supply system. Residential structures more than two hundred (200) feet from the water main are not required to connect to the system.

The City's existing and future water demand is analyzed as part of the Brunswick County Local Water Supply Plan. The Water Supply Plan is reviewed by the North Carolina Division of Water Resources to ensure adequate supplies are being maintained to avoid shortages and to be available during emergencies (i.e. fires). According to the 2014 Local Water Supply Plan, Brunswick County has the capacity to meet the anticipated demand through the year 2060 for all its existing and future customers – including residents of Boiling Spring Lakes. This calculation includes estimated population projections for seasonal and permanent residents. The Water Supply Plan anticipates that by the year 2060, future water demand (27.61 MGD) will only account for 59% of the available supply (47.18 MGD). Future supply sources are yet to be determined, but may include a purchase agreement from the Lower Cape Fear River Water and Sewer Authority. The Brunswick County Utility Department plans to add an additional 12 MGD of supply to the Northwest WTP by the year 2020. Current capacity is 24 MGD at the Northwest WTP and 6.0 MGD at the 211 WTP. Improvements to the Northwest WTP are expected to be phased over a number of years.

For planning purposes, the Brunswick County Utility Department must also account for peak day usage. Over the last few years, peak day usage has never exceeded more than 90% of plant capacity. In 2015, the peak day usage occurred on July 10, 2015, with a total flow of 26.24 MGD – approximately 87% of total capacity. However, demand capacity did not exceed 80% for more than three consecutive days.

The County is also evaluating the feasibility of aquifer storage and recovery. Aquifer storage and recovery is used by utilities nationwide to reduce peak demand for water treatment plant capacity and to provide redundancy in the case of a raw water emergency. By storing the water underground, it stays clean and drinkable so it can be used during times of high water use or in case of emergency. The County is currently in phase 2 of the project, which includes the actual testing of wells and their recovery.

While the total water consumption has remained relatively stable over the last ten years, staff with Brunswick County Utilities note that potable water usage per capita is declining and irrigation consumption is increasing.

NOTE: The purpose of this Land Use Plan is not necessarily to identify and secure an exact future water supply amount based on estimates. As the main water supply distributor in the area, Brunswick County is the primary source for securing future water capacity to meet expected demand. Assisting the County in increasing its water supply capacity and infrastructure should be a policy of the City to ensure that its own future water supply demands can also be met.

WASTEWATER

In Boiling Spring Lakes, residential wastewater is handled primarily by septic tank systems. In 2013, the Brunswick County Utility Department completed installation of low pressure wastewater distribution lines along NC 87, West Boiling Spring Road, and portions of Garage Road, Sunset Drive, and West North Shore Drive (see Map 5.1). Development that is located outside of the service area for these wastewater lines must secure a septic permit from the Brunswick County Health Department prior to construction. The conventional septic system consists of a tank, drain field, and soil beneath the drain field. The tank serves as a storage and collector of solids and is typically sized for the number of bedrooms in a home. Failure of septic systems occurs when the system no longer provides proper waste treatment or drainage. Water quality issues can result from tank failures when wastewater seeps into the groundwater or the drain field is full of sewage. Past issues have arisen regarding septic tank failures in the City. However, there are no plans to provide a City-wide wastewater distribution system (sewer).

Sewer systems are generally necessary in areas where development density, the proximity to surface waters, or soil conditions prevent the proper function of septic systems. In recent decades there has been a greater need for sewer service in Brunswick County due to its abundance of surface waters, marginal soil conditions, and ever-increasing housing density. In Boiling Spring Lakes, collected wastewater is pumped to the West Brunswick Regional Wastewater Treatment Plant (WWTP). The West Brunswick Regional WWTP is the largest of the County's sewer treatment facilities and has a capacity of 6.0 MGD.

Property owners that would like to connect to the sewer system have several options available to them:

- Neighborhood Water & Sewer Main Extension Policy Petition Process – Neighborhoods may request that the County install water and/or sewer mains into their subdivision. At least 50% of the property owners must sign a petition to start the process. The County then prioritizes all petition projects and the Board of Commissioners determines which projects will be designed and constructed in a given year. A Special Assessment District is created for each project to be constructed and the cost of construction is then assessed back to the property owners up to a set maximum amount established in advance by the Brunswick County Board of Commissioners.
- Rural Sewer Program – Allows existing structures adjacent to a high pressure force main that have failing septic systems to connect to the high pressure force main using a grinder pump system. Fees for this type of connection are available on the Brunswick County Web site.
- Property Owner Petition – If an area has sufficient interest via petition, then the County will fund the extension of sewer mains within their operating budget. The standard tap fees apply. The area of N. Shore Drive/Willets/Windover was recently

selected and funds will allocated as part of the County's FY 2017 budget for construction of those lines.

STORMWATER SYSTEM

Many communities have varying topography (hills and valleys) that enable the use of buried, closed-pipe systems to move stormwater (rainfall) from roadways and properties to local receiving waters by sloping or pitching the pipes. However, in Boiling Spring Lakes the landscape is relatively flat and drainage swales (ditches) are used to collect and convey stormwater as open-channel flow.

Since the ground surface is relatively level, water collected in these ditches does not necessarily flow out until dry. One significant advantage of open channel flow is that permeable ditch bottoms allow downward percolation of water (which does not occur in piped systems). This advantage becomes less evident after heavy or extended rainfall when a saturated condition can result. The primary purpose of the roadway ditch system is to provide temporary storage during rainfall events and to prevent flooding of the roadway pavements.

The Public Works Department is continuously monitoring ditches, and cleaning out obstructions when appropriate. Grass or other vegetation is not always an obstruction, and as such may prevent erosion or promote bio-retention in the swales.

Culverts (pipes) are another important component of the system, and the Public Works Department assists contractors and homeowners in the proper placement of culverts under driveways to make sure they are installed at the proper elevation. Once installed, it is the property owner's responsibility to maintain the driveway and the culvert/ditch system for eight (8) feet on either side of the driveway (per City Ordinance).

The City has identified drainage issues at the following locations:

- Holly, Walnut, and Redwood Drive
- Trevino, Souchak, and Fifty Lakes Drive

The City has solicited proposals for the completion of a Stormwater Master Plan and corresponding Management Ordinance. Both initiatives will help the City maintain and improve the overall stormwater drainage system.

TRANSPORTATION SYSTEMS

TRAFFIC COUNTS AND CRASHES

To evaluate transportation and roadway deficiencies, Annual Average Daily Traffic Counts (AADT) are typically compared to a road's design capacity. Traffic on key segments of various roadways is counted and calculated annually and then compared to a standard

road design capacity. For example, a two-lane roadway has a different design capacity than a roadway that has two-lanes with a center turn lane.

The annual traffic count used for the comparison is called the Annual Average Daily Traffic Count (AADT). The AADT is the number of vehicles passing in both directions over a single point on a roadway over the course of a year divided by the 365 days in a year. If 50,000 vehicles pass a single point on the road in a year, the AADT is 137 vehicles per day ($50,000 / 365 = 137$).

In Boiling Spring Lakes, the highest traffic volumes occur on NC 87, where a range of 11,000 to 13,000 vehicles travel per day. The second highest traffic counts border the southeastern boundary of the City along NC 133 (River Road) where 7,800 vehicles per day traverse the road. The most significant traffic counts in the area are found on NC 211, southwest of the City (See Map 5.2 for more information). It is anticipated that the recent construction of the Midway Bridge (second Oak Island Bridge) and the extension of Middleton Boulevard will reduce the traffic counts on NC 87. However, the Wilmington Bypass (currently under construction) may increase the number of vehicles traversing NC 87. This is important because in 2014 the roadway (NC 87) was functioning at or above capacity (11,000 vehicles per day capacity) within the Boiling Spring Lakes City Limits. The completion of the Long Beach Road Extension may also have an impact on traffic patterns. At a minimum, the Long Beach Road Extension allows for a shorter travel distance from the City to the commercial and retail outlets along NC 211 and Old Long Beach Road.

As for vehicular accidents, there was one fatal crash reported between 2009 and 2013. The accident occurred on East Boiling Spring Road at the intersection of Nassau Road. The intersection of East Boiling Spring Road and NC 87 has also been identified by NCDOT as a high frequency crash location. From 2007 to 2011, there were 13 crashes reported at this intersection.

Two deficient bridges were identified on NC 87 in the 2010 Brunswick County Comprehensive Transportation Plan. The two bridges are located on Allen Creek (within the City) and on Orton Creek (just south of the City Limit line).

NON-MOTORIZED TRANSPORTATION

Non-motorized transportation is increasingly important nationwide. Non-motorized transportation refers to alternative travel choices such as cycling or walking. While non-motorized transportation is often considered a leisure travel mode, it can also be utilized to travel from point A to B for utilitarian purposes. In Boiling Spring Lakes there are limited opportunities for walking and cycling. Sidewalks are minimal, but many residential streets have speeds limits that allow for walking or cycling on the roadway.

In 2009, the City partnered with the County to prepare an informal bicycle plan. The plan identifies two routes for bicycle travel; however, the plan was never formally adopted by the City. Brunswick County is currently in the process of developing a Countywide Greenway and Blueway Plan. The plan will address facility recommendations for the City.

The City should also consider pursuing grant funds to complete an NCDOT funded Bicycle and Pedestrian Plan. Note: The Parks and Recreation Department has also identified the provision of bicycle and pedestrian facilities as a high priority for the City.

RAIL

CSX's Navassa to Malmo branch line provides a rail connection and service at Leland with a second railroad in Brunswick County. This railroad is the US Military Railroad that is owned and operated by the US Government. The US Military Railroad runs from Leland southward to Sunny Point and carries military supplies that are loaded on ships at Sunny Point.

AVIATION

The Cape Fear Regional Jetport provides general aviation service to Brunswick County residents and visitors via more than 5,500 linear feet of runway length. Over the course of a year, more than 72,000 arrivals and departures are conducted at the airport. According to a 2015 study by the North Carolina State Institute for Transportation Research and Education, the airport provides a \$215 million economic impact to the region. Additionally, it is estimated that the airport contributes more than 1,700 jobs to the local economy.

The closest commercial air service to Boiling Spring Lakes is available in Wilmington and Myrtle Beach.

PUBLIC TRANSPORTATION

The public transportation agency for Brunswick County is the Brunswick Transit System (BTS). General transportation is provided throughout the county by BTS through its Dial-A-Ride program. All residents of the county are eligible for the service, which requires a reservation 48 hours in advance. The service is available from Monday through Friday 7:00 a.m. to 4:00 p.m. Trips can be cancelled with at least two hours' notice. Depending on the length of the journey, fares can be \$1.50, \$3.00 or \$5.00 for one way service. Trips can be taken throughout Brunswick County any day of the week, but trips into New Hanover County are also available on Tuesdays and Thursdays. BTS has a fleet of 16 vans and buses for the county's transportation needs; several are equipped for persons with special needs as determined by the ADA. Human service transportation is also available from BTS and is sponsored by the appropriate agency.

Taxi companies based near Boiling Spring Lakes include Southport Taxi in Southport, AE Cab in Southport, A-1 Transport in Oak Island and A-Cab Oak Island in Oak Island. Uber's Wilmington service area includes the whole of Brunswick County.

There is currently no intercity bus service to Boiling Spring Lakes or elsewhere in Brunswick County; the closest Greyhound stations are in Wilmington and Myrtle Beach.

FUTURE RECOMMENDATIONS

The Statewide Transportation Improvement Plan (STIP), which identifies the transportation projects that will receive funding during a 10-year period, is a state and federal requirement. Federal law requires it to be updated at least every four years. NCDOT, however, updates it every two years. Boiling Spring Lakes has no projects identified in the STIP. However, just south of city limit line, the Orton Creek Bridge on NC 87 is scheduled to be replaced as part of the STIP. The project is expected to commence in 2021.

Additional improvement projects were identified in the 2010 Brunswick County Comprehensive Transportation Plan. However, none of the projects that will impact Boiling Spring Lakes have been selected for funding. The recommended projects are merely conceptual until they have been designated for funding as part of the STIP. Those projects are described in Table 5.1.

Table 5.1: 2010 Brunswick County Comprehensive Transportation Plan Roadway Recommendations

Source: 2010 Brunswick County Comprehensive Transportation Plan

| Roadway | Description |
|--------------------|---|
| NC 87 (widening) | Widen to a multi-lane boulevard from Wildwood Drive at the northern Boiling Spring Lakes (BSL) town limits to the BSL southern town limits. |
| Antenna Farm Road | Recommend improvements and connection to Midway Road via West Boiling Spring Road. |
| Northern Connector | New roadway to be constructed that would connect NC 87 with Redwood Road/Old Mill Creek Road. |

PAVEMENT MANAGEMENT

Paving of roads is an ongoing project in Boiling Spring Lakes. The Public Works Department has established criteria for the selection of roads to be paved in a given year. The department also hopes to prepare a five-year Capital Improvement Plan for road paving and management. Pavement management is a challenging program for any community, complicated by the need to evaluate the best use of limited funds that are available. Many of the City's roads were constructed without enough base material to support heavy traffic. The City's Pavement management program addresses both new roadway paving and the repair of distressed sections.

For every new road constructed in the City, a properly compacted, free-draining subbase material is installed to provide proper pavement support for long lasting performance. To minimize the City's cost, the Public Works Department purchases and spreads this material in advance of the work by paving contractors. Each year a certain number of new roads are paved. These roads are selected based on factors such as housing density, existing conditions of roadway surfaces, and budgetary constraints. As an eligible community, the City receives annual financial assistance from a DOT administered State-Aid program (the

Powell Bill). Powell Bill funds must be used for resurfacing streets within the City limits or for maintaining, repairing, constructing, reconstructing or widening any street. The funds may also be used for planning, construction, and maintenance of bikeways, greenways, or sidewalks.

PARKS AND RECREATION FACILITIES

As a community with abundant open space, the City of Boiling Spring Lakes has access to many parks and recreational facilities. Besides the community center and the school facilities, the City has eight leisure parks, the community garden, and the Lakes Golf Course. The nature trail at the community center also provides an option for residents choosing to walk for pleasure or exercise. The majority of recreational facilities are located in close proximity to residential neighborhoods in the City. In addition, many of the parks are oriented to the lakes that exist in the City. Map 5.3 displays the location of parks and recreation facilities available to residents. Table 5.2 provides an overview of the facilities and their respective amenities. While not listed in Table 5.2, the farmers market has become a significant feature in the community and has been identified on Map 5.3.

Table 5.2: Park Locations and Amenities

Source: Boiling Spring Lakes Parks and Recreation Department, 2009-2014 Parks, Recreation, and Open Space Master Plan.

| Facility | Size (acres) | Amenities |
|---|--------------|--|
| Alton Lennon Park | <1 | Boat ramp, picnic shelter, two bench swings, seasonal restroom facilities, swimming area. |
| Spring Lakes Park | 2.1 | Two picnic shelters, two bench swings, picnic tables, seasonal restroom facilities, boat launch. |
| Plant A Seed, Feed A Community Garden | <1 | 14 raised planting beds for flowers, herbs, and produce |
| Robert Muse Memorial Park | 1.4 | Playground, tennis court, basketball court, volleyball court, picnic shelter, year-round restroom facilities, BSL Free Little Library. |
| Charles Schneiders Park | <1 | Playground with swings, picnic shelter with picnic tables, half-court basketball court. |
| North Lake Park | 2.7 | Fishing dock, bench swings, seasonal restroom facilities, leashed pets allowed. |
| Mirror Lake Park | <1 | Bench swing, picnic table, swimming beach, seasonal restroom facilities. |
| Seminole Lake Park | 1.6 | Bench swing, swimming beach, seasonal restroom facilities. |
| Tate Lake Park | <1 | Swimming, picnic table |
| Boiling Spring Lakes Community Center Park | 35.48 | Disc Golf Course, paved parking lot, grassed parking area, bike rack, benches, tetherball pole, swings, butterfly garden, open play area, picnic tables, bench swing, 15 acres of wetlands |

In 2009, the “2009-2014 Parks, Recreation and Open Space Master Plan” was adopted by the City. The plan contains an assessment of existing facilities, discussion of public input, and recommendations for personnel and facilities. The recommendations and improvements were to be completed by the City over a five year period. The plan

recommendations were categorized into five areas: (1) land acquisitions, (2) area and facility development, (3) program and service development, (4) policy and procedure considerations, and (5) personnel considerations. Status of the land acquisition and area and facility development are summarized below.

LAND ACQUISITION

- Acquire land surrounding the “Boiling Spring”
 - Status: In negotiations. Current landowner unwilling to sell for appraised value.
- Acquire land adjacent to the Community Center Park
 - Status: Incomplete. This property is owned by the State of North Carolina as a conservation easement.
- Acquire land adjacent to the Big Lake
 - Status: To be requested as part of the 2016/17 budget.
- Acquire vacant parcels at either end of the existing North Lake Park
 - Status: Ongoing negotiation.

AREA AND FACILITY DEVELOPMENT

- Convert the existing Community Center in a Senior Center and Special Events Venue
 - Status: To be completed if new multi-purpose recreation center were to be built.
- Connect existing parks by a system of non-motorized facilities
 - Status: High priority, but only a conceptual idea at this point.
- Partner with Brunswick County to construct a full-service, multi-purpose recreation center
 - Status: High priority, but will require a feasibility study that is yet to be done.
- Develop existing City owned land into small neighborhood parks and/or mini-parks
 - Status: Not a priority at this time.
- Continue upgrading and expanding existing park facilities including the Community Center, Robert Muse Park, North Lake Park, Spring Lake Park, Alton Lennon Park, Seminole Lake Park, Charles Schneiders Park, Mirror Lake Park, Tate Lake Park, and various City property.
 - Status: Ongoing process. Expansion of waterfront park land is a continuing effort for the department. Schneiders Park has been outfitted with an updated playground, a playground is scheduled to be installed at the Community Center, and a disc golf course was developed. The disc golf course has an estimated 11,000 users per year.

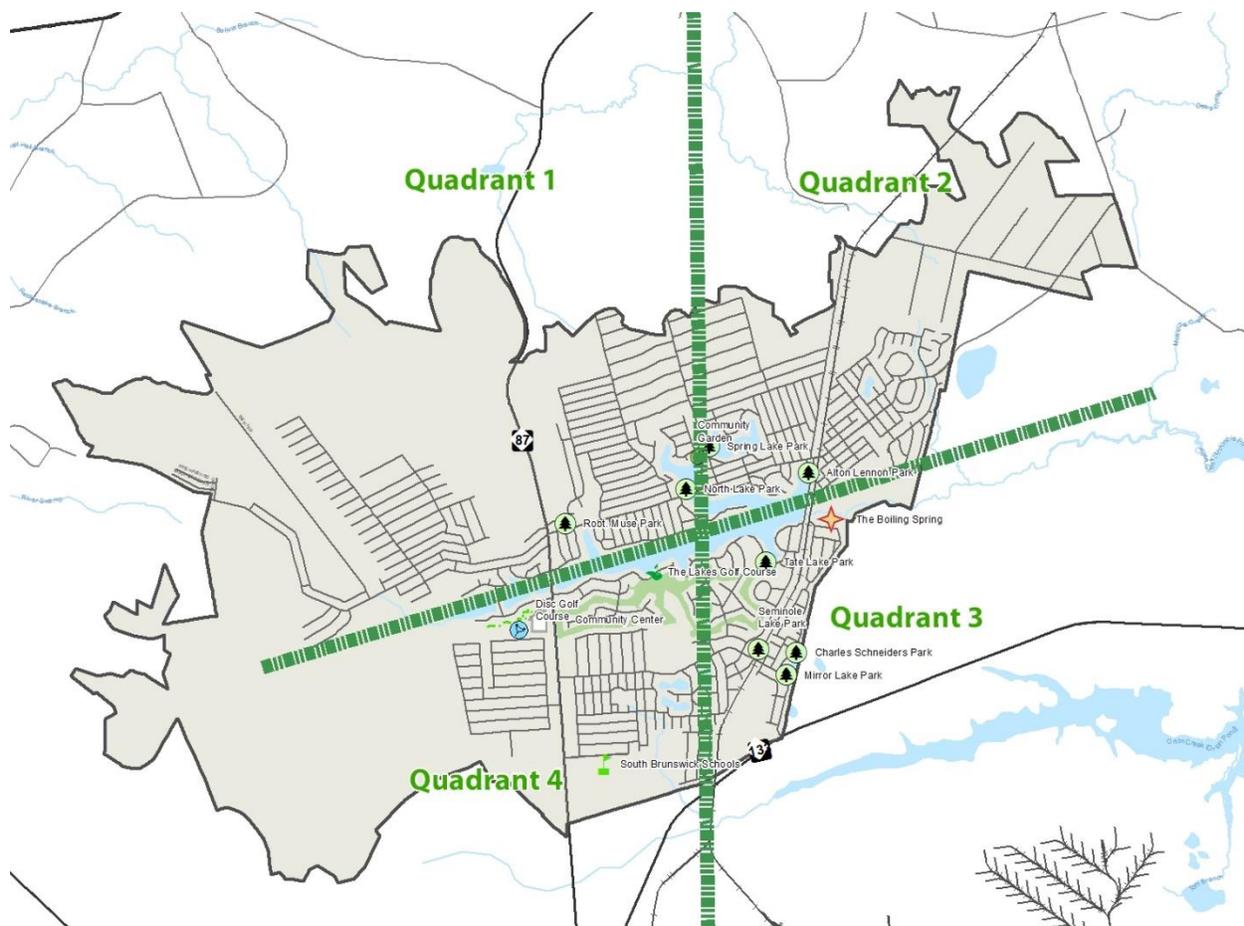
PARKS AND RECREATION DEPARTMENT PRIORITIES

1. Construct a new multi-purpose recreation center on the east side of NC 87. The current location of the existing community center on the west side of NC 87 makes

the facility difficult to access for the majority of residents (this is particularly true of residents attempting to access the facility via walking or cycling). A feasibility study will need to be conducted to understand the costs and needs associated with such a facility.

2. Provide more options for bicycle and pedestrian transportation.
3. Identify land to be acquired for a new multi-purpose recreation center.
4. Identify four City quadrants that can be utilized to determine parks/recreation facility level of service needs. The quadrants should be studied in detail as part of an update to the 2009-2014 Parks, Recreation and Open Space Master Plan.

Map 5.4: Proposed Parks and Recreation Quadrant Study Areas



LAKE MANAGEMENT

As most of the lakes are over 50 years in age or older, they have been experiencing typical problems associated with aquatic vegetation and water quality. The City has been contracting with an outside firm to perform aquatic vegetation treatment via spraying. A mechanical harvesting operation will soon remove grasses that have developed due to past

drought conditions exposing lakes beds to air/sun. It is important to aggressively maintain the water quality of the lakes for recreational and fishing as this is what the City is recognized for.

POLICE

The Boiling Spring Lakes police department has 12 full-time officers, 2 part-time officers, 1 civilian, and 2 volunteers. The department maintains 12 vehicles with 2 additional vehicles currently out-of-service. In 2015, the department responded to 5,080 calls for service, which is an 11% increase from 2014.

The mission statement of the department is to work “in partnership with the community to provide a safe environment and enhance the quality of life through courteous, honest, and professional delivery of law enforcement services.”

Listed below are several significant achievements of the Department in 2015:

- Collected over 41 pounds of unwanted medications in the Prescription Drop Box
- Successfully secured over \$15,000.00 in Grant funds from the Governor’s Crime Commission
- Hosted the 26th Annual “Small Fry Fishing Tournament”
- Co-Sponsored the Halloween Trunk or Treat with BSL Parks and Recreation Department
- Handled 5,080 Calls for Service/~11% increase from last year
- Filed Reports on 703 incidents/~38% increase from last year
- Investigated 90 Motor Vehicle Crashes
- Made 98 Arrests

Short-term needs for the department include the addition of two more officers and the replacement of two high mileage vehicles. In the future the department wishes to purchase vehicles that are more conducive to driving on the unpaved roadways in the City. The department would also like to establish a Career Development Plan that would allow for merit pay increases. Such a program could help with personnel retention.

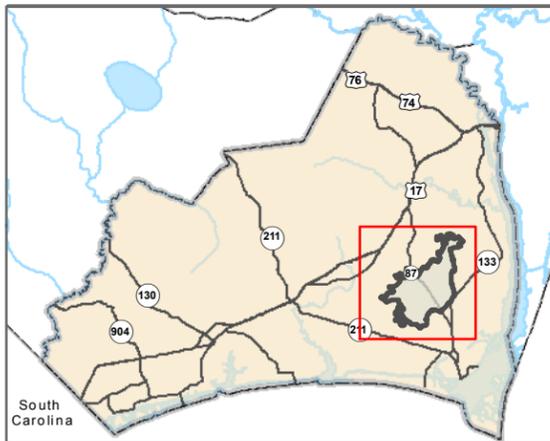
In early 2016, a feasibility study was prepared for a new police department facility. The feasibility study notes that the department has stretched the use of the available space to the maximum extent possible while consistently maintaining a high level of service. According to the study, the department suffers from severe lack of space for all aspects of the department including office space, records storage, evidence storage, locker and shower facilities and equipment storage. The existing facility is located adjacent to the City Hall (See Map 5.5 for more information).

The study resulted in four options that address the current and long term needs of the department.

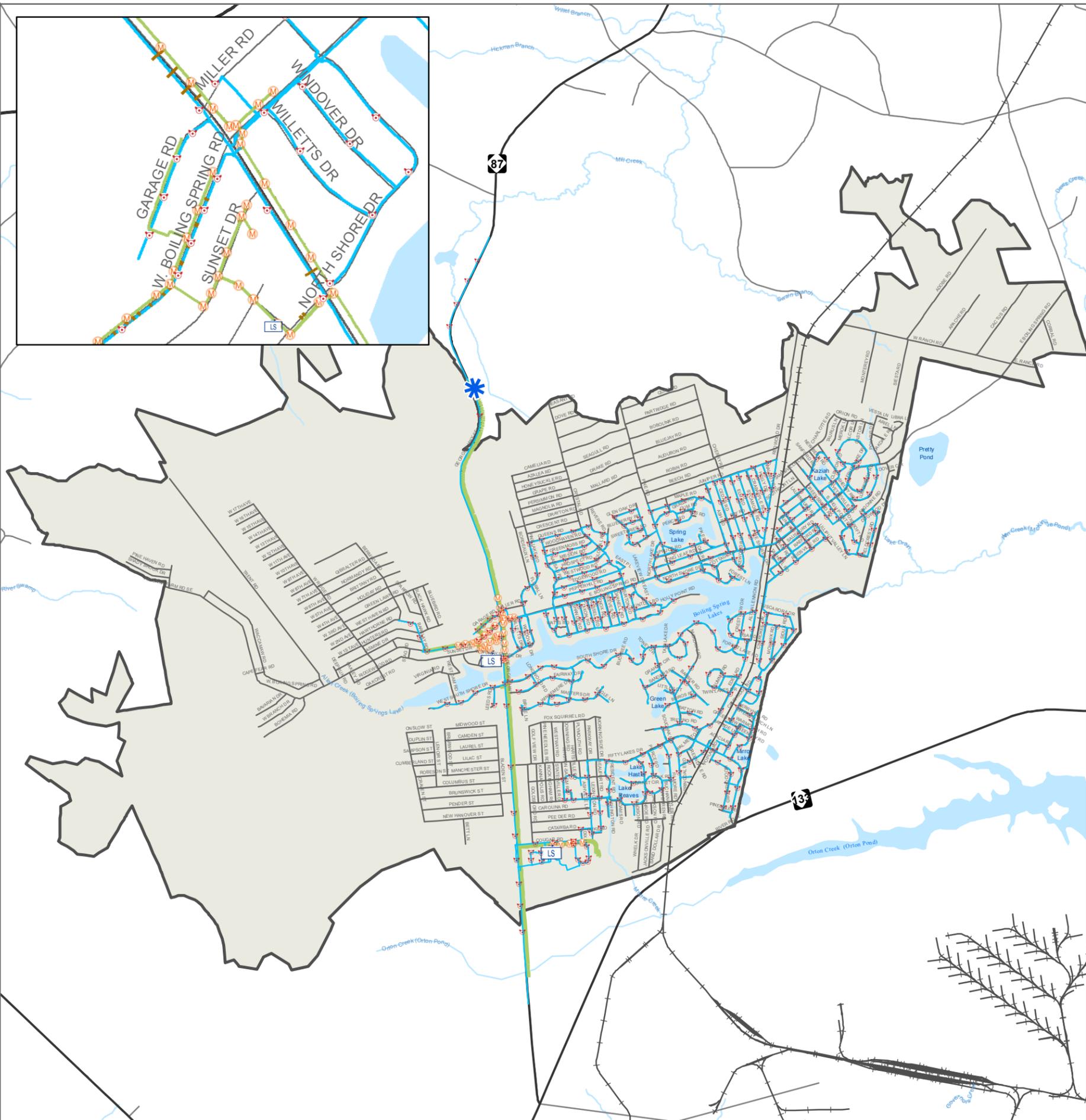
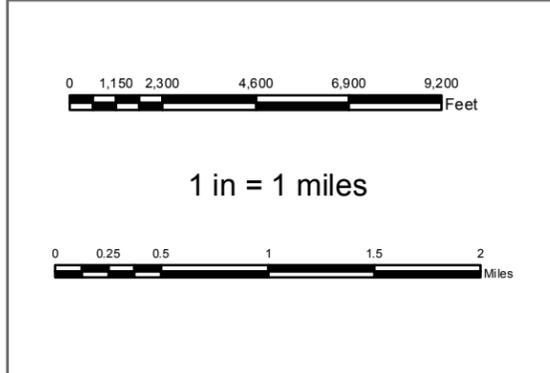
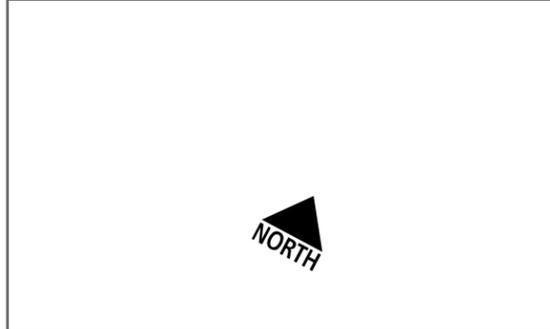
- Option #1 - Maintain the department in the existing facility while constructing an addition to add more usable area for the Police Department.

- Option #2 - Temporarily move the Police Department out of the existing facility and completely demolish the structure. Construct an addition to the existing City Hall for the new Police Department.
- Option #3 – Temporarily move the Police Department out of the existing facility and completely demolish the structure. Construct an entirely new facility adjacent to, but not connected to the existing City Hall.
- Option #4 – Option #4 is identical to Option #3 except the new facility would be built on a new piece of property yet to be determined.

The department recommends Option 2. However, no firm plans are in place to proceed with any of the options identified by the feasibility study.



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City of Boiling Spring Lakes



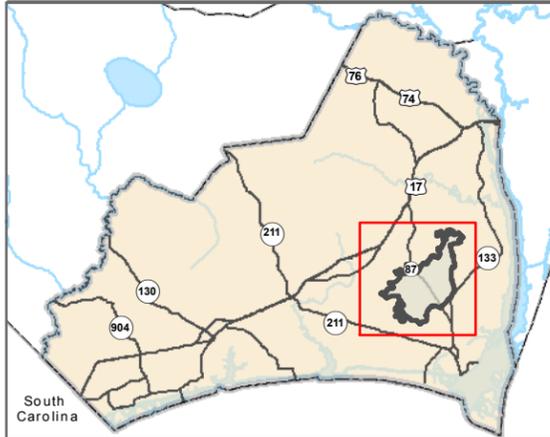
Comprehensive CAMA Land Use Plan Map 5.1 Water and Sewer Distribution Lines

Legend

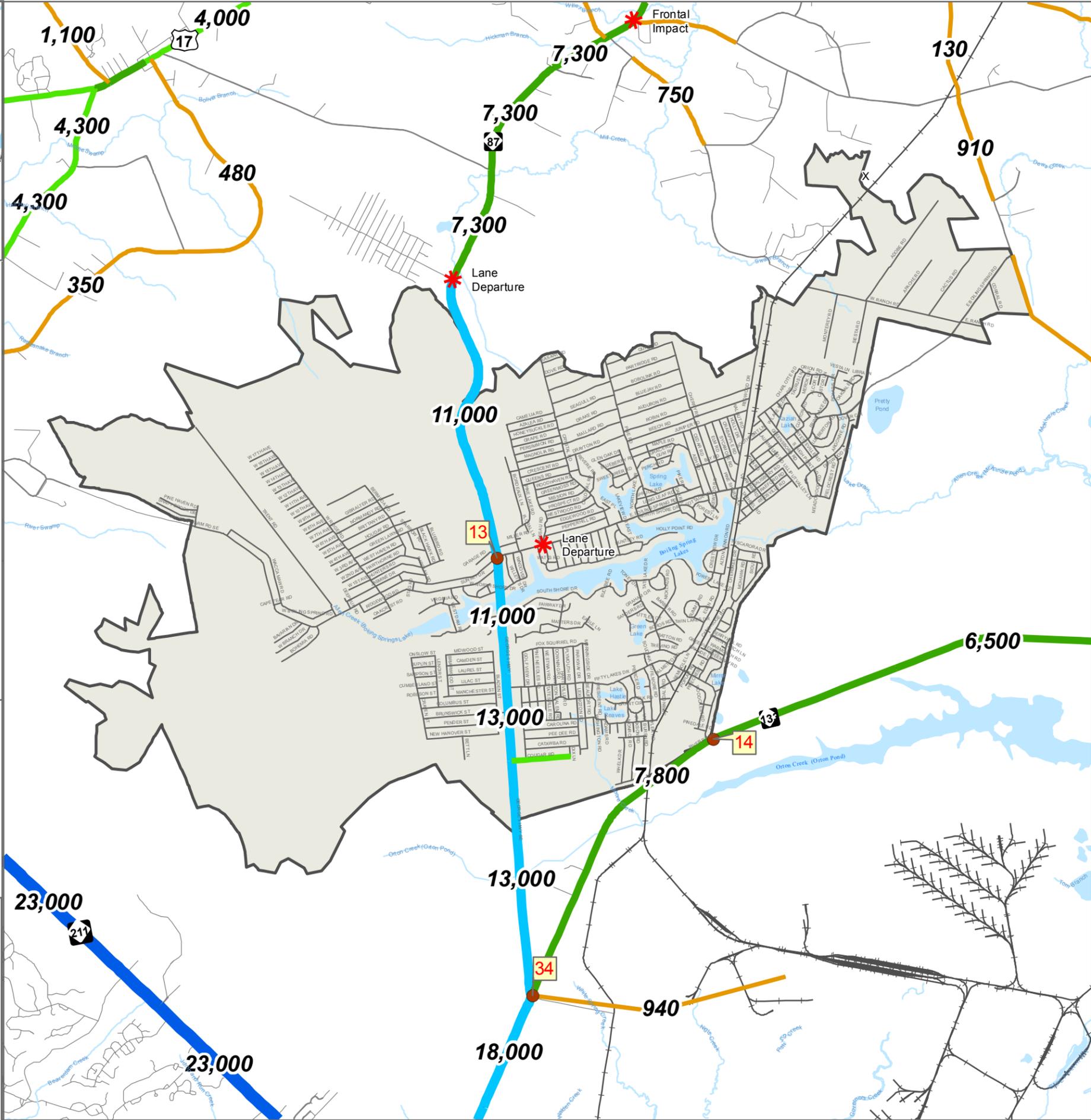
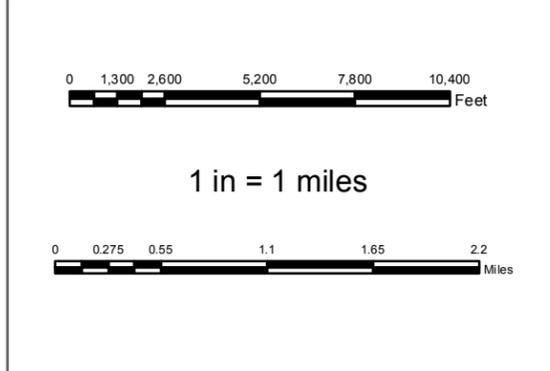
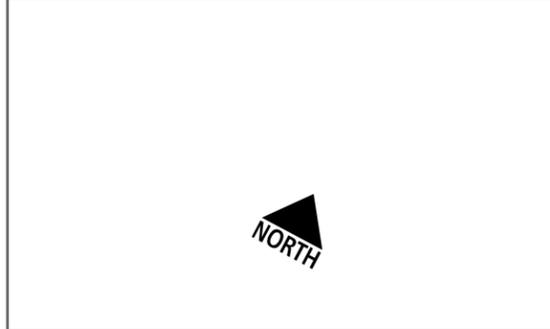
- City Boundary
- Water Features
- Roads
- Lift Station
- Hydrants
- Manholes
- Water Tank
- Water Lines
- Wastewater Lines



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City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 5.2 Traffic Volume & Crashes

Legend

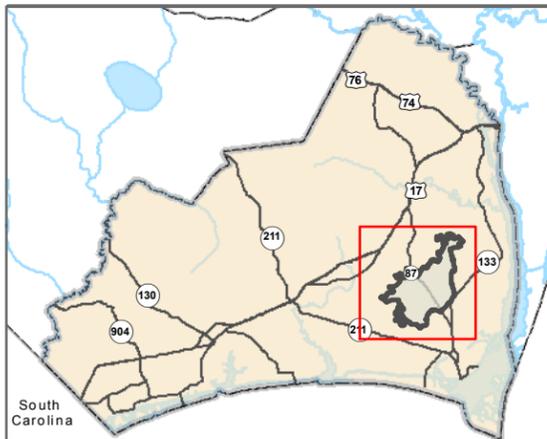
- City Boundary
 - Water Features
 - Roads
 - High Frequency Crash Intersections
 - Fatal Crash
- 2014 NCDOT Traffic Data**
2014 AADT (All Routes)
- 9 - 1,999
 - 2,000 - 4,999
 - 5,000 - 9,999
 - 10,000 - 19,999
 - 20,000 - 34,999

Annual average daily traffic, abbreviated AADT, is a measure used primarily in transportation planning and transportation engineering. It is the total volume of vehicle traffic of a highway or road for a year divided by 365 days.

Data source: NCDOT



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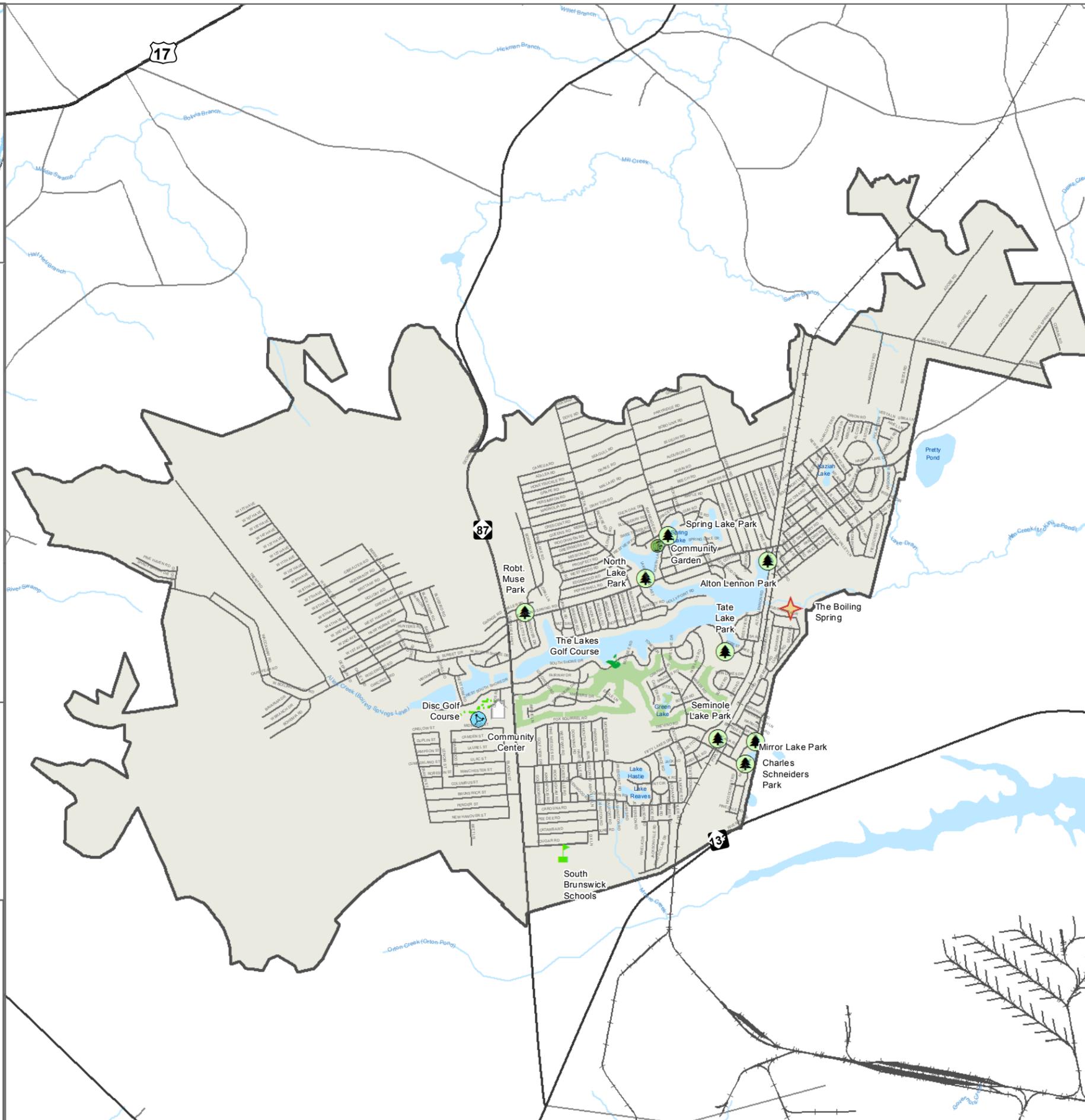
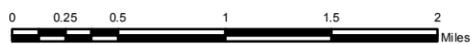


South Carolina

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1 in = 1 miles



City of Boiling Spring Lakes



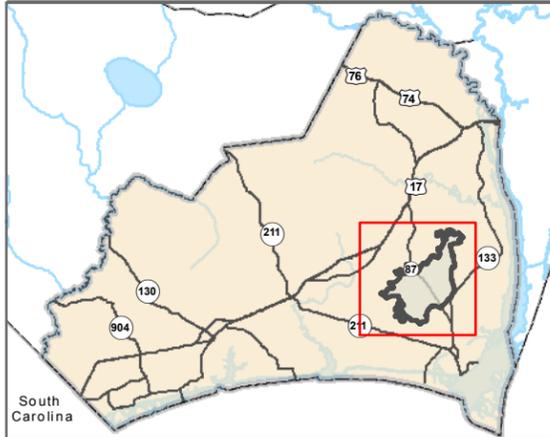
Comprehensive CAMA Land Use Plan Map 5.3 Parks and Recreation Facilities

Legend

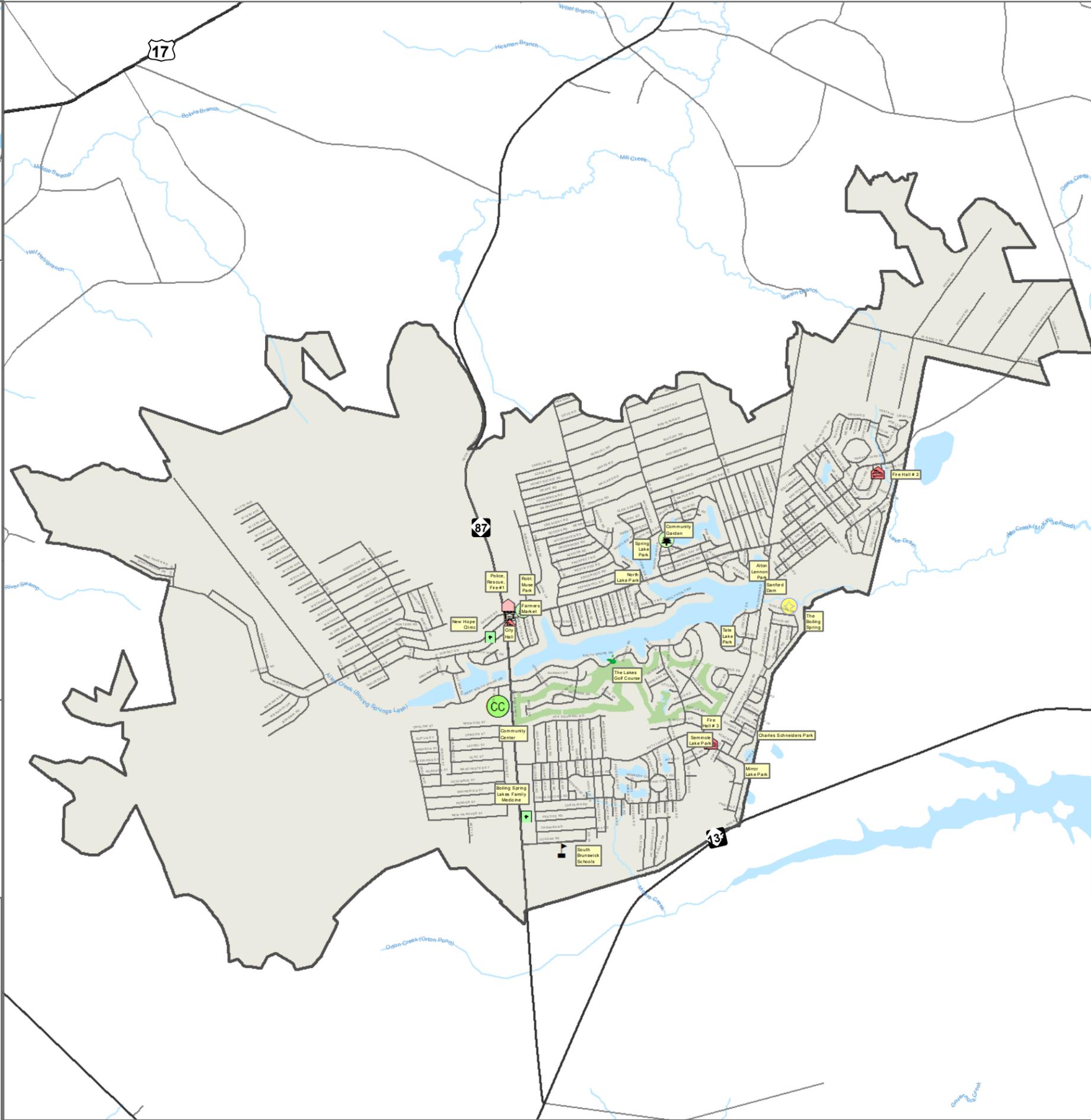
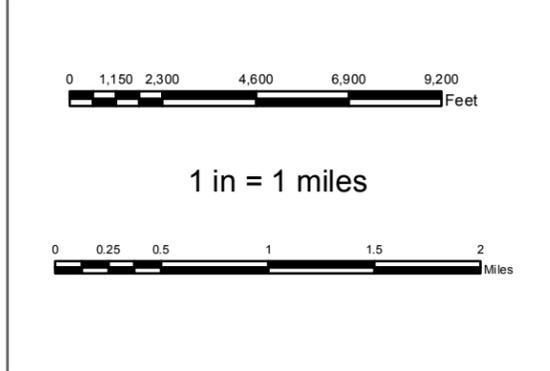
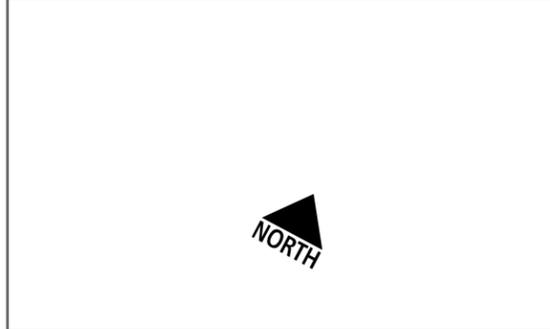
- City Boundary
- Nature Trail
- BSL Golf Course
- Recreation Facilities
 - Disc Golf Course
 - The Lakes Golf Course
 - The Boiling Spring
 - S. Brunswick Schools
 - Community Center
 - Community Garden
 - Alton Lennon Park
 - Charles Schneiders Park
 - Mirror Lake Park
 - North Lake Park
 - Robt. Muse Park
 - Seminole Lake Park
 - Spring Lake Park
 - Tate Lake Park



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City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 5.5 Community Facilities

Legend

City Boundary

Community Facilities

- Boat Ramp/ Rec Area
- City Hall & Library
- Community Center
- Farmers Market
- Police, Rescue, Fire Hall # 1
- Fire Hall # 2
- Fire Hall # 3
- East Lake Park
- Robt. Muse Park
- Spring Lake Park
- Sanford Dam
- South Brunswick Schools
- The Boiling Spring
- The Lakes Golf Course
- Medical Facilities



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CHAPTER 6: PLAN FOR THE FUTURE

INTRODUCTION

This section of the plan focuses on future growth and demand which may have an impact on land use and transportation. Citizen input garnered as a result of the plan is also summarized in this section. Forecasts of growth and demand are, at best, difficult. Constantly changing local, regional, national, and international factors significantly influence the City of Boiling Spring Lakes and the surrounding region.

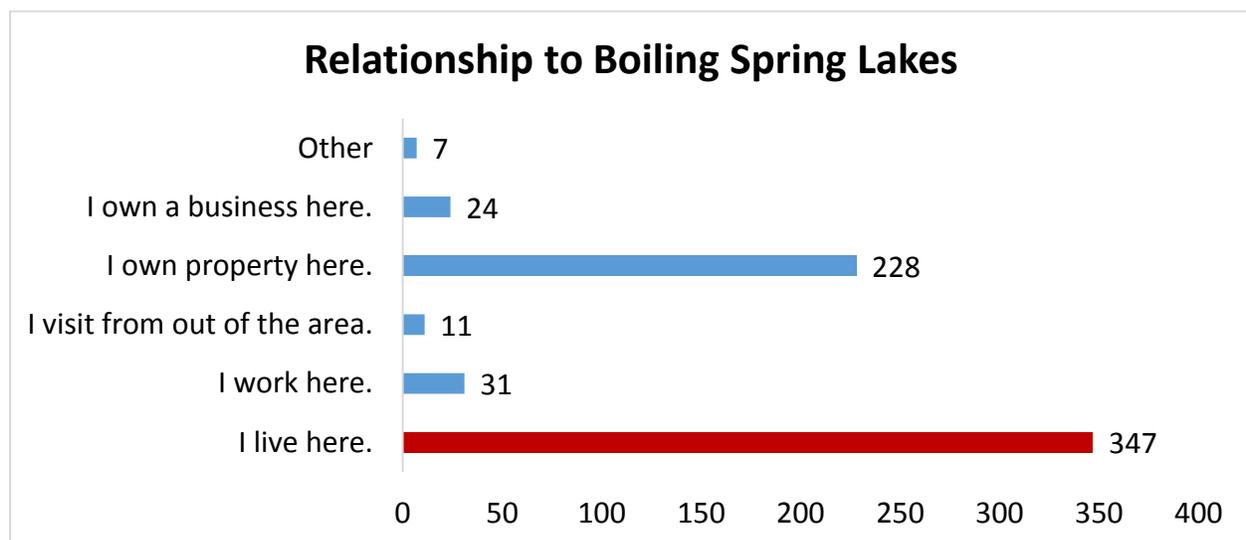
This section includes a description of public input, future population projections, housing and development opportunities, community facility needs, growth and development pressures, and economic development aspirations. This chapter builds on existing conditions and analysis and will complement chapters seven and eight of the land use plan by providing introductory considerations that are factored into the future land use and goals/policies section of the plan.

COMMUNITY SURVEY RESULTS

A short survey was distributed to Boiling Spring Lakes residents and was available online and in hard copy format. The survey was designed to determine the most significant priorities for Boiling Spring Lakes moving forward. Exactly 400 residents completed the survey. The results are provided on the following pages.

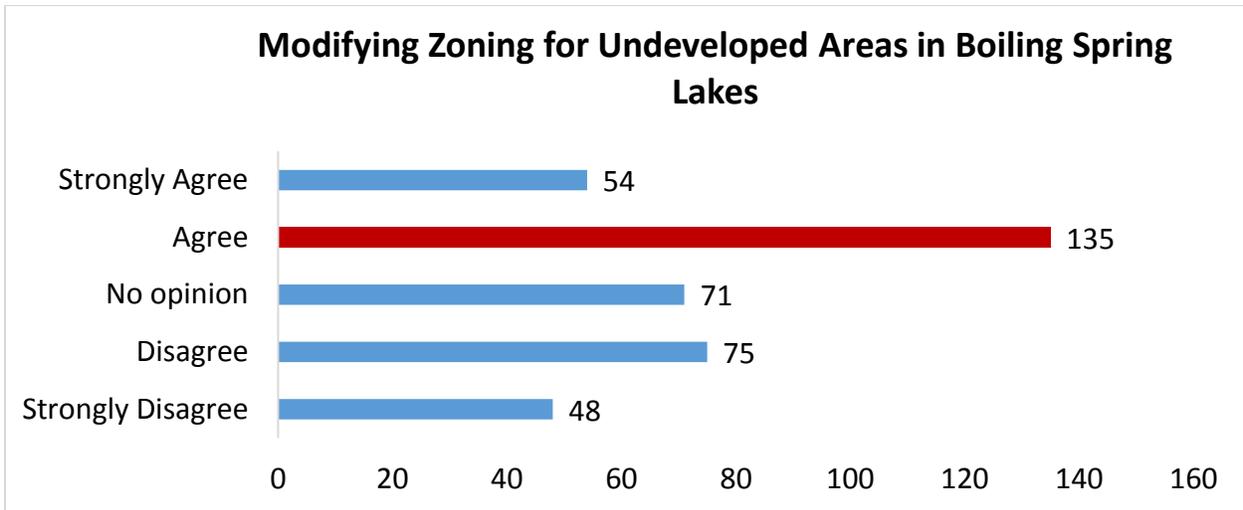
Question 1: Please best describe your relationship to the City of Boiling Spring Lakes. [Select all that apply]

The vast majority of survey respondents currently live in Boiling Spring Lakes, with 88% answering “I live here” and 58% of respondents own property in the City.



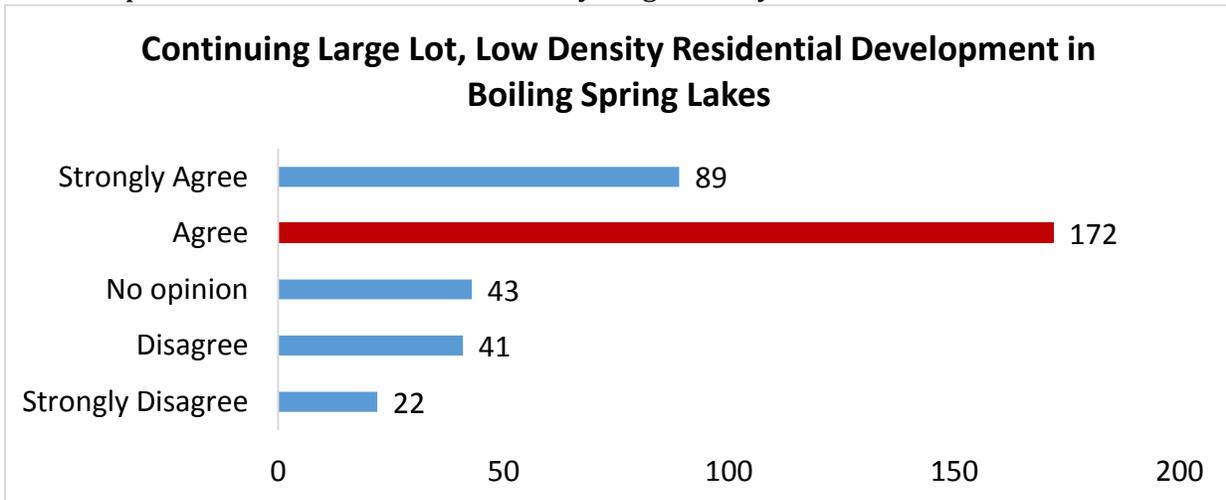
Question 2: Should Boiling Spring Lakes modify its zoning regulations to allow more residential uses in its undeveloped areas?

Half of respondents either agree or strongly agree that the City should modify its zoning regulations to allow more residential uses in undeveloped areas. More than 30% of respondents disagree or strongly disagree with this statement. Fewer than 20% had no opinion on the question. The results of this question support additional housing options and residential uses.



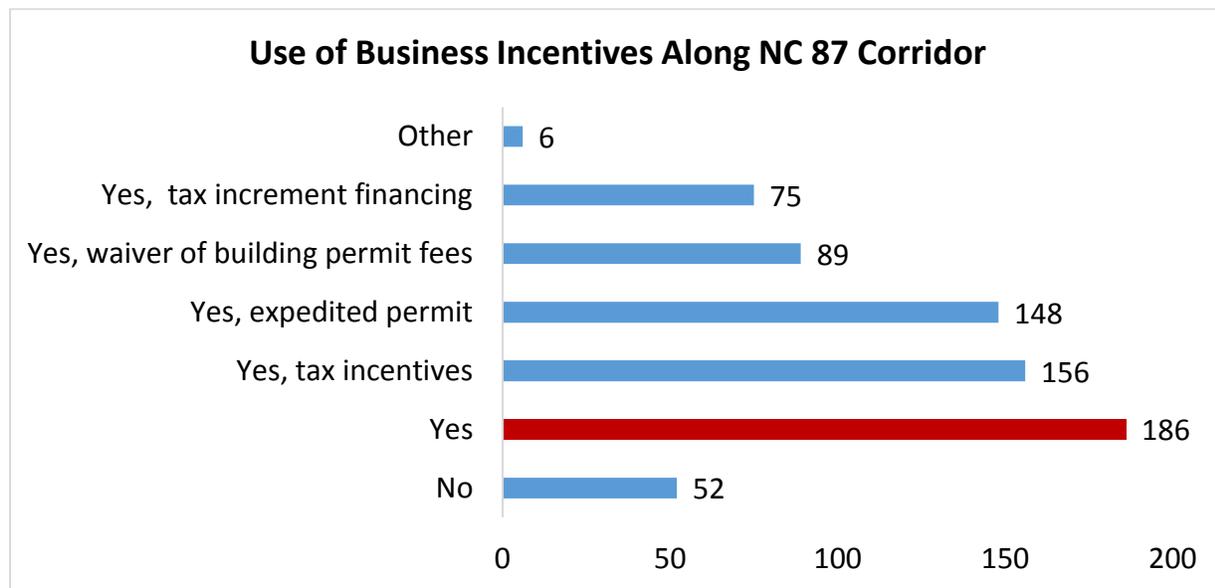
Question 3: Low density and large lot residential areas should continue to be the development pattern within Boiling Spring Lakes.

A large majority of respondents agree that Boiling Spring Lakes should continue a low density, large lot residential development pattern, with 71% either agreeing or strongly agreeing with the question. Only 17% disagreed or strongly disagreed. The predominant land use pattern should remain low density single family residential.



Question 4: Should the City offer incentives to promote development of business along the 87 corridor, and what type of incentives would you support? [Select all that apply]

Only 14% of respondents said “No” to this question. Nearly 50% of respondents said “Yes” with no qualifications. Approximately 40% of respondents encourage the City to use tax incentives, and 39% of respondents want the City to expedite permits. The vast majority of respondents support incentives to encourage growth along the NC 87 Corridor.



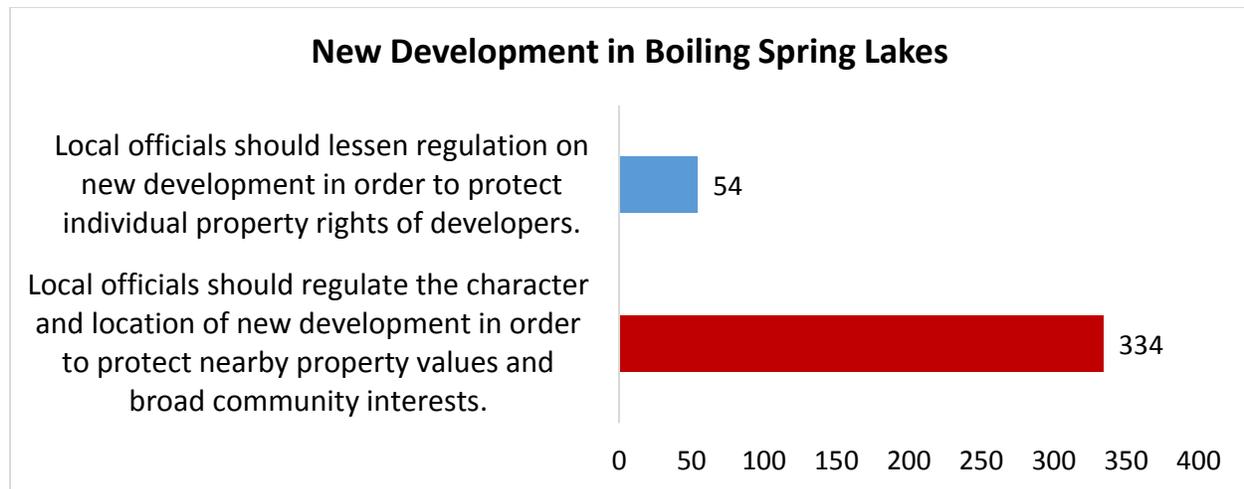
Question 5: Prioritize what kind of new private development you would most like to see in Boiling Spring Lakes.

The rankings are as follows:

- 1 Grocery Stores or shopping centers
- 2 Single Family Subdivisions
- 3 Restaurants
- 4 Small businesses
- 5 Medium-Density Housing
- 6 Focus on development of vacant parcels
- 7 Manufacturing/Industrial development
- 8 Other

Question 6: Which statement about regulating new development do you agree with more?

Nearly nine out of ten respondents, 86% total, believe that local officials should regulate the character and location of new development in order to protect nearby property values and broad community interests. Only 14% agreed that officials should lessen regulation to protect property rights. The results of this question support development standards for new growth and zoning regulations that protect established neighborhoods.



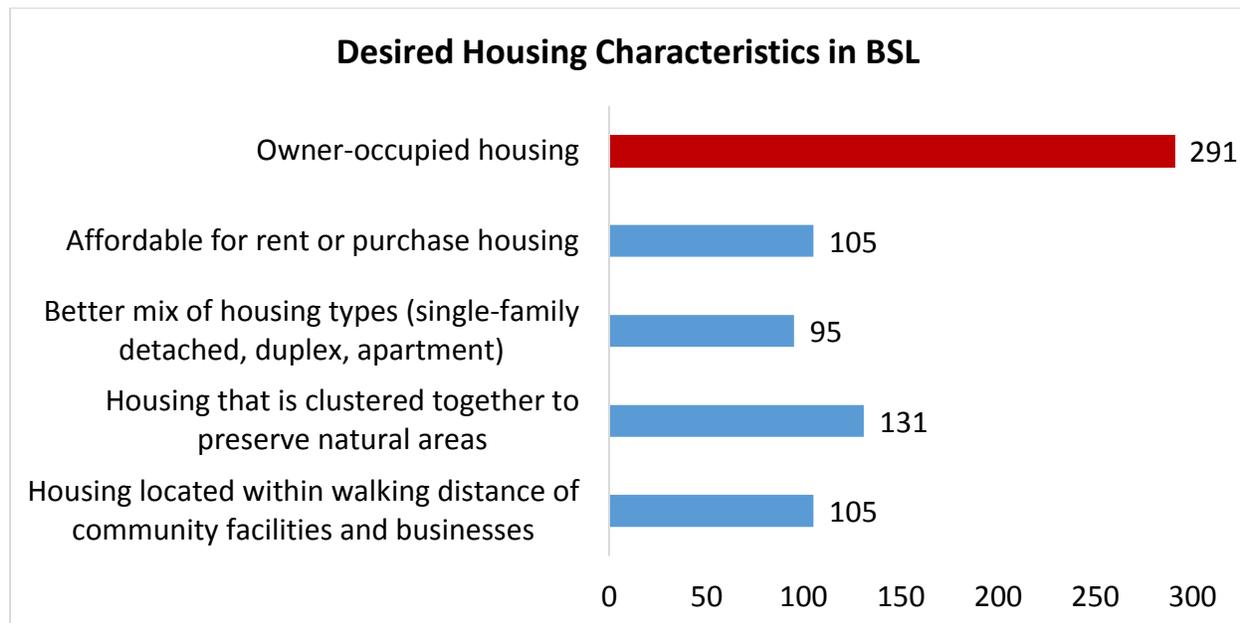
Question 7: Rank which approaches you think should be used to make Boiling Spring Lakes more attractive to new and existing businesses and residents.

The rankings are as follows:

- 1 Protect neighborhoods and fishing areas
- 2 Improve access to and availability of public open spaces and recreational opportunities
- 3 Enhance the appearance of existing structures and landscaping
- 4 Improve public safety and the sense of security
- 5 Improve marketing efforts of the City's assets
- 6 Reduce development fees
- 7 Ease development regulations and restrictions
- 8 Identify underserved markets
- 9 Other

Question 8: Which of the following housing characteristics should be encouraged in the City? [Select as many as three]

An overwhelming majority of respondents (78%) believe that providing “Owner-Occupied Housing” should be the most important housing characteristic in the City. Just over one third (34%) of respondents believe that “Housing that is clustered together to preserve natural areas” is important, and 28% of respondents believe that housing should be “located within walking distance of community facilities and businesses.” One quarter of respondents want a better mix of housing types, while 28% desire more affordable housing.



Question 9: Rank the following natural and environmental issues in priority order.

The ranking are as follows:

- 1 Drinking water quality
- 2 Water quality of streams, rivers, and marshes and other water bodies
- 3 Stormwater runoff and flood prevention
- 4 Air Quality
- 5 Public forest and natural areas for wildlife
- 6 Protection of areas for rare and protected species
- 7 Waste management and recycling
- 8 Industrial contamination
- 9 Other

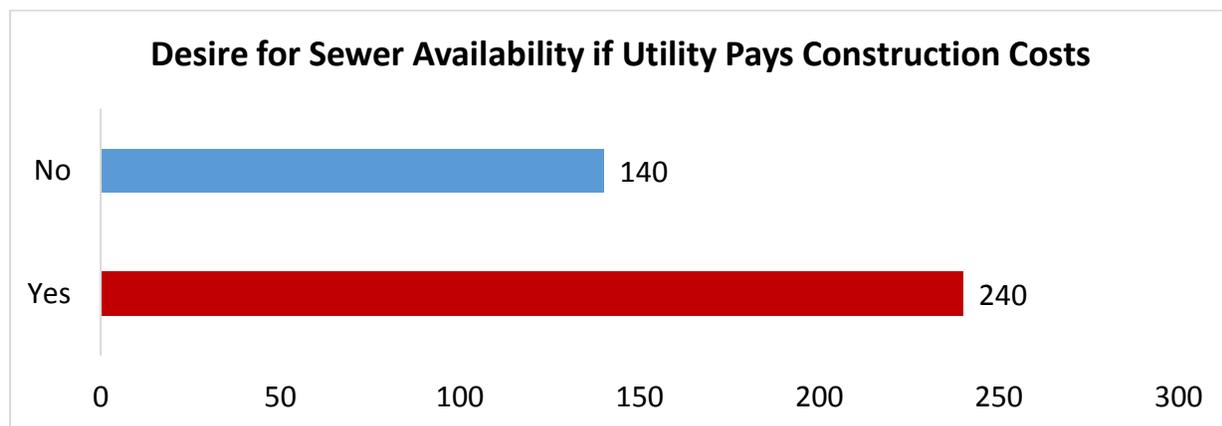
Question 10: Which transportation issue is more important to you?

The rankings are as follows:

- 1 Road Maintenance
- 2 Adequate street lighting
- 3 Road Drainage
- 4 Traffic and congestion on local roads
- 5 Adequate sidewalks and bike lanes
- 6 Vehicular safety
- 7 Proper signage
- 8 Multi-use paths
- 9 Public transportation availability
- 10 Other

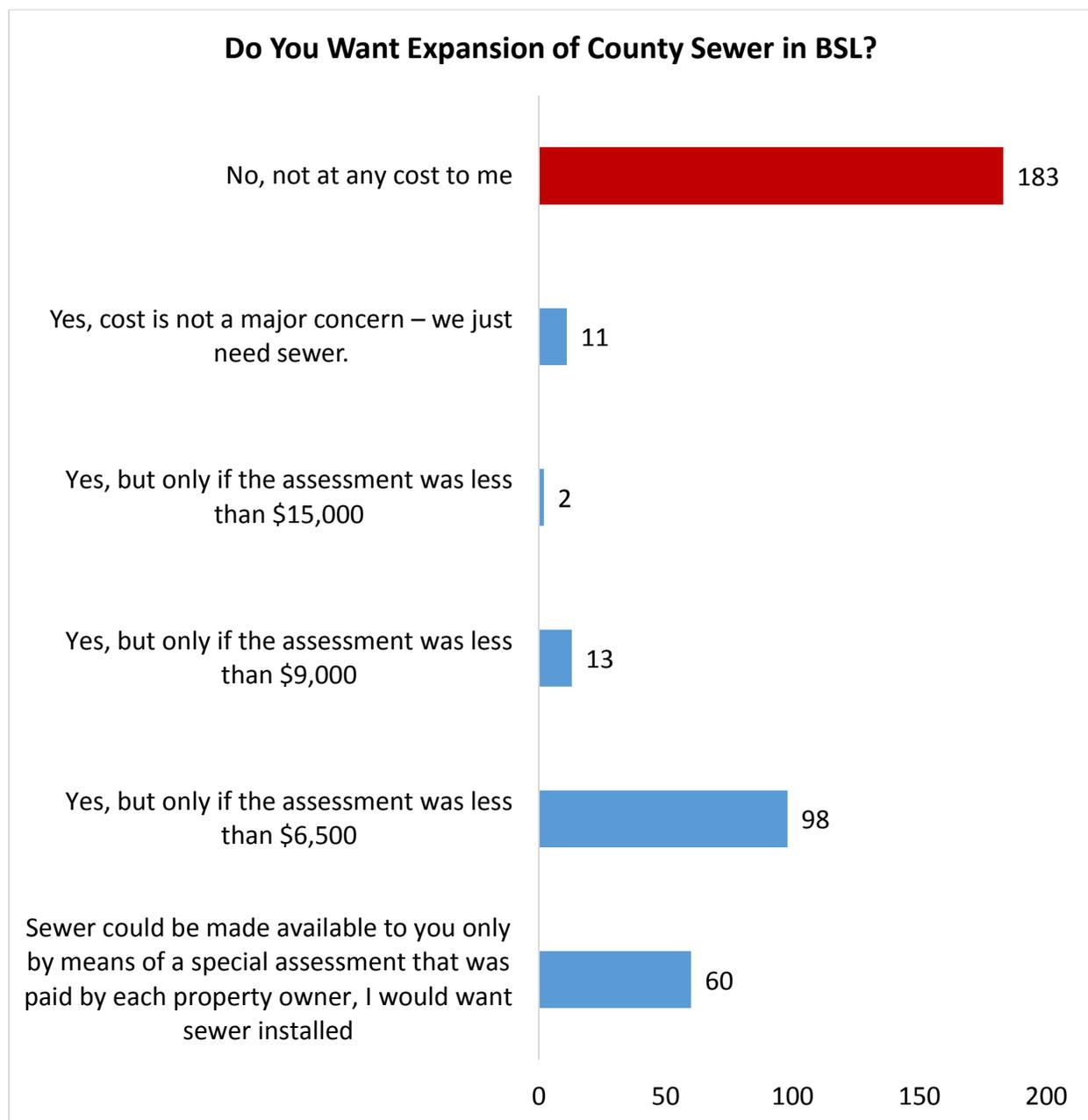
Question 11: Would you like for sewer to be made available to you if the construction costs were paid by the utility? [Tap fees would apply at the time of connection]

Nearly two thirds of respondents answered yes (63% total), while 37% answered no. Many respondents support the expansion of sewer. However, their support is entirely dependent upon the associated costs.



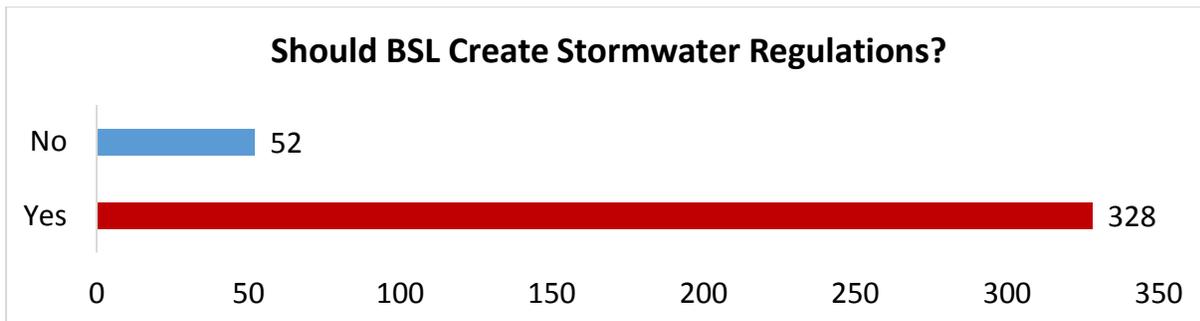
Question 12: Would you like the City of Boiling Spring Lakes to promote an extension to the County sewer system to expand under the following scenarios?

Half of respondents answered “No, not at any cost to me,” and 28% of respondents answered “Yes, but only if the assessment was less than \$6,500.” Only 16% of respondents would agree to expand the system if an assessment fee were assessed to each property owner, 4% are willing to pay up to \$9,000 for an assessment, and 0.5% of all respondents are willing to pay up to \$15,000. A mere 3% are willing to pay whatever is necessary to bring in sewer service. Again, survey results show that the expansion of sewer is entirely dependent upon associated costs.



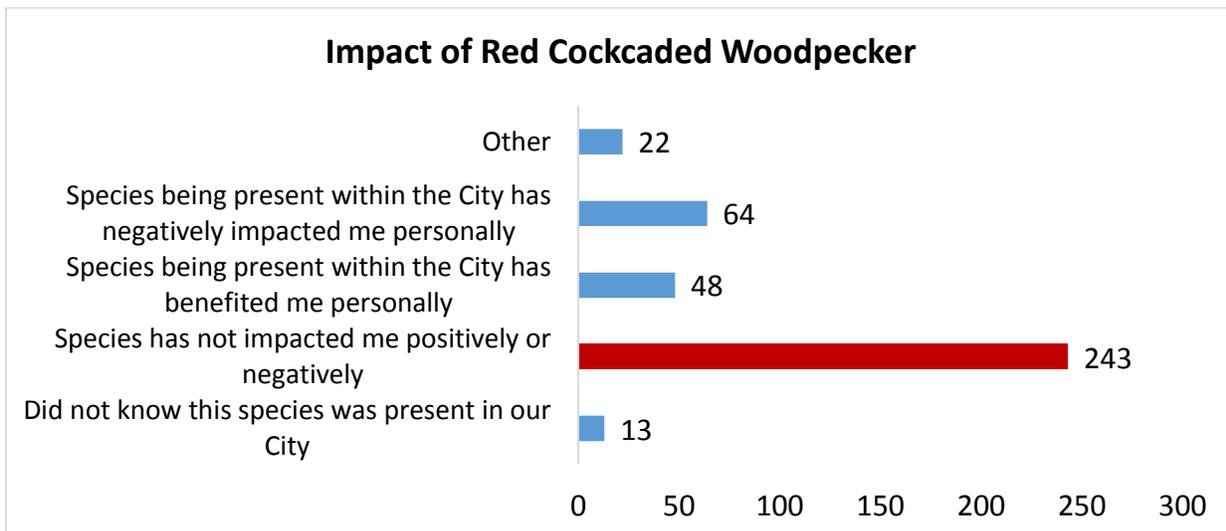
Question 13: Should the City move forward with development of formalized stormwater management regulations to manage stormwater runoff and flood prevention?

The vast majority of respondents answered yes (86% total), with 14% saying no to stormwater regulations.



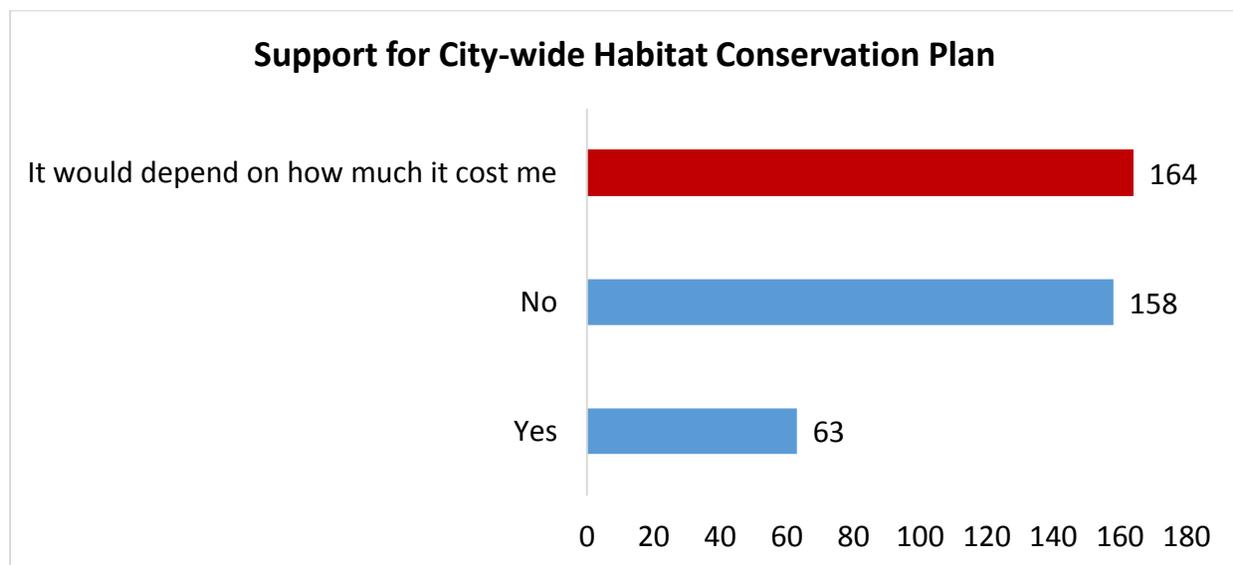
Question 14: Within the City limits, there are known areas where the federally endangered red-cockaded woodpecker is present. What is your perspective on this species in regards to how you see its presence within the City in relation to your daily life?

Nearly two thirds of respondents (63%) answered that the “species has not impacted me positively or negatively.” Only 16% have been negatively impacted and 12% have benefited from the presence of the woodpecker.



Question 15: If a City-wide Habitat Conservation Plan was implemented to both protect the red-cockaded woodpecker and to make building and development processes less burdensome for the individual property owner, would you be willing to pay a fee to move this plan forward? This plan would decrease federal agency involvement on an individual property level and give the City more autonomy over development and tree removal in areas with the federally endangered red-cockaded woodpecker.

Only 17% of respondents stated that they would support a conservation plan without reservations. More than eight out of ten respondents at least have reservations about a conservation plan, with 43% of respondents answering “It would depend on how much it cost me” and 41% answering “No.” Support for implementation of a City-wide Habitat Conservation Plan is mixed. Associated costs must be provided prior to the decision to support such a plan.



Top 10 Public Input Priorities

The survey results and comments provided by respondents indicate significant issues that are of importance residents of Boiling Spring Lakes. Based on survey results, the top ten public input priorities were developed. It should be noted that these priorities are goals and intentions of the survey respondents and are to serve merely as a resource. These priorities are by no means a mandate for future funding or policy change. The priorities are listed in order of significance.

1. Expand commercial and retail opportunities such as a grocery store and/or drug store.
2. Enhance stormwater management and flood control measures in the City.
3. Expand the repaving program to ensure more City streets are paved.
4. Increase code enforcement efforts to address dilapidated, derelict, and unkempt residential areas.
5. Determine feasibility of sewer expansion and respective costs associated with the expansion. The survey indicated mixed opinions regarding sewer expansion.
6. Maintain the City's small-town character in light of increasing growth pressures.
7. Provide sidewalks along major roads.
8. Provide more walking paths, multi-use trails (greenways), bike routes, and pedestrian-scaled lighting.
9. Encourage the reestablishment of a City of Boiling Spring Lakes Post Office.
10. Make a final decision regarding implementation of a City-wide Habitat Conservation Plan. Determine costs to be placed on property owners and the City and survey all residents to gauge public opinion prior to a final decision.

POPULATION PROJECTIONS

According to projections that were calculated in Chapter 2 of the plan, it is anticipated that the City will experience significant population growth over the next thirty years. Estimated population projections anticipate the City adding more than 5,000 people over the next thirty years or more than 160 new residents a year (more than three each week) for the next thirty years. It should be noted that the population projection used to estimate this increase in population is closely tied to growth in the County as a whole. Nonetheless, the City will undoubtedly experience growth in the future, and while determining an exact figure for this increased growth is impossible, it is important to plan accordingly.

The recent installation of sewer lines on NC 87 will also have an impact on the growth potential in the City. Where lands were previously unsuitable for more dense residential development, they are now viable for such due to the availability of sewer.

Table 6.1: Population Projection, 2010-2045

Source: Office of State Budget and Management.

| Year | Brunswick County | Boiling Spring Lakes |
|------|------------------|----------------------|
| 2010 | 108,085 | 5,372 |
| 2015 | 121,581 | 6,043 |
| 2020 | 137,036 | 6,811 |
| 2025 | 152,492 | 7,579 |
| 2030 | 167,951 | 8,347 |
| 2035 | 183,410 | 9,116 |
| 2040 | 198,212 | 9,851 |
| 2045 | 213,887 | 10,631 |

HOUSING

In Boiling Spring Lakes, detached single-family housing is the predominant residential land use. Limited duplex housing units exist and minimal rental housing is available. Recent changes to the City's Unified Development Ordinance (UDO) will allow more housing choices within the City in the future. Multi-family residential development is now permitted as a use in the City's development ordinance. This change in development regulations supports housing options that may be more suited to seniors or those in search of affordable housing. Additionally, minimum living area requirements in the UDO may deter housing development in the City. The R-1 zoning district, in particular, has a minimum living area requirement of 1,500 square feet. This requirement is 300 and 500 feet more than the other single-family residential districts in the City.

Over the next thirty years, many new housing units will need to be constructed to accommodate the estimated population increase. Based on data from the 2010 Census, the average household size is 2.53 persons. Using this statistic, it is anticipated that more than 1,800 housing units will be necessary to accommodate the population increase of more than 5,000 new residents by 2045. Should the average household size decline due to the

areas aging population, then the City should anticipate a demand for even more housing units. For example, if the City's average household size were to decline to only 2.0 persons per household then 2,500 new housing units would be needed. Analysis done as part of Chapter 4 notes that approximately 5,200 acres of vacant residentially zoned land is available for future development. This is more than enough land to accommodate the anticipated demand for housing over the next thirty years.

The addition of new rooftops will further support the public's desire for more commercial and retail development. More dense housing in close proximity to the commercial core may make the area more attractive to future business establishments.

FUTURE FACILITY DESIRES

Additional community facilities and services may be necessary to accommodate the future population of Boiling Spring Lakes. The most significant impact on future development is the extent to which sewer service will be made available to residents and developers. Currently, County sewer service is available along NC 87. Any decision regarding sewer expansion and service must be made in concert with Brunswick County as they are the entity that provides the service. As stated in the survey results, there are mixed feelings regarding the expansion of sewer. According to survey results, the assessment fee for expansion is the most important variable when deciding upon sewer expansion.

Other community facility needs that must be addressed in the future include the stormwater system, transportation system, parks and recreation, police, and the potential for a new library. A more detailed description of the existing conditions and future desires is provided in Chapter 5 of the Land Use Plan. A summary of the most significant facility needs is provided below:

Stormwater System

- Complete a Stormwater Master Plan and develop a corresponding Management Ordinance
- Address localized drainage issues

Transportation System

- Connect Antenna Farm Road to Midway Road via West Boiling Spring Road
- Continue to pave roads based upon prioritization process and available funding
- Identify locations for bicycle and pedestrian facilities by completing a NCDOT funded Comprehensive Bicycle and/or Pedestrian Transportation Plan

Parks and Recreation

- Construct a new multi-purpose recreation center on the east side of NC 87
- Provide more options for bicycle and pedestrian transportation and recreation

Police

- Identify the most prudent option for the construction/renovation of the City police department based upon the 2016 feasibility study.

Library

- Analyze and identify future opportunities for expanding the existing library

GROWTH AND DEVELOPMENT PRESSURES

Boiling Spring Lakes is a residential community with limited industry or large employers. Many of the City's residents commute to their places of employment outside of the City, but return to the area to live in a place that offers a small-town feel and a natural setting. As a result, the City should strive to maintain its quality of life and small-town character in order to retain its current residents and to attract others. Protection of existing single-family neighborhoods should be an important goal of the City throughout the next thirty years. However, the City should strive to further diversify its residential land use patterns in locations that will not impact existing neighborhoods.

Over the next thirty years, the City will be faced with significant growth and development pressures. In order to maintain the existing quality of life, the City must be prudent in its administering of development regulations. Care should be taken to protect established single-family neighborhoods and encourage high-quality non-residential development. Where opportunities for growth are suitable, such as along the NC 87 Corridor, the City should be amenable to the development of more substantial commercial, office, mixed use, and/or multi-family residential projects. By diversifying the land use base the City will provide more options for economic development and also increase the tax base.

ECONOMIC DEVELOPMENT ASPIRATIONS

The survey results indicate a strong desire for increased commercial and retail development in the City. A grocery store, in particular, was highlighted as the most desired commercial establishment of survey respondents (Note: some respondents reported their strong distaste for increased commercial development).

Strategies for attracting a large retail entity, such as a grocery store, can include increased marketing, incentives, or the completion of research and market analysis. Partnership with Brunswick County Economic Development Department should be pursued in the desire to increase retail establishments in the City. In 2014, Retail Strategies was hired to complete a Retail Market Research and Strategic Plan for Brunswick County. The plan provided recommendations for retail recruitment and summarized several opportunities for retail growth in the county. The complete report can be found on the Brunswick County Economic Development website. See the following for more information:

Retail Recruitment

- In today's retail environment, retailers have choices. Retailers and restaurant chains with aggressive expansion plans have many more potential locations than planned new stores. We believe it is important that communities have a pro-active retail recruitment plan in place and the infrastructure to implement the plan. The "infrastructure" includes, but is not limited to:
 - Research that goes significantly beyond demographics and maps

- Staff or an outside consultant focused entirely on Retail Recruitment
- Retail Property Database
- Marketing and Retail Conference Attendance

Retail Opportunities

- New retail and restaurant chains will identify sites for expansion to accommodate the growing population.
- Both Southport and Shallotte have strong seasonal population impacts. The economic impact of tourist shopping patterns should be proven by a credible source and used in aggressively marketing the potential consumer expenditure dollars available to new retailers considering the market.
- The employment base, residential density and strong retail market in Wilmington offers advantages for Leland to capitalize on the close proximity to the City. Existing regional and local chains can consider opening in Leland.
- Retail Leakage in each of the retail trade areas indicates the opportunity to recruit new retail and restaurants to Shallotte, Supply, Southport and Leland. Additionally, these retail GAPS could also be filled with new franchise opportunities or by assisting the current retailers in each market with the expansion of their product and service offerings. Retirees and Veterans qualify as strong franchise owners.
- The retirees' strong buying power yields opportunities for higher-end stores, pet stores, and hobby/craft stores to enter and be sustainable in the market. It also provides opportunities for retailers looking to capture the spending on adult age children and grandchildren by the age 55+ segment. Several of the national retail chains that service retiree's consumer shopping needs are not currently located in Brunswick County.
- Brunswick County falls within the distribution route of supply trucks providing goods to existing retail stores in Wilmington (NC) and Myrtle Beach (SC).
- Although Supply is not currently incorporated and has limited retail development, the location offers enough separation from Wilmington (NC) and Myrtle Beach (SC), to support additional retail expansion with limited cannibalization on existing stores located in those two markets. The fifth highest traffic count in the county is at the intersection of Highway 17 & Southport-Supply Road.
- A regional destination shopping center in Central Brunswick County that provides a unique experience for retirees and tourists would create the draw for a successful shopping hub.

Based on the report, it is unlikely that a large retail entity will locate in the City within the next five years. However, this is entirely contingent on the market demand and support for such. Over time, the City's increasing population will make the area more attractive to retailers. In the meantime, the City should strive to attract local business establishments, office parks, restaurants, drug stores, and similar establishments that will provide a resource for residents.

SUMMARY

Survey Results

- According to survey results, the respondents generally support an expanded commercial development area and a more diversified land use base.
- Opinions regarding future expansion of sewer, from the perspective of survey respondents, is based entirely on the associated costs of expansion and the property owners' willingness to pay the assessment fee.
- Stormwater management and flood control is a significant issue identified by many survey respondents.

Population Projections

- Estimated population projections anticipate the City adding more than 5,000 people over the next thirty years. Based on this projection, it is estimated that the City will add more than 160 new residents a year or more than three each week for the next thirty years.

Housing

- Over the next thirty years, many new housing units will need to be constructed to accommodate the estimated population increase. Based on data from the 2010 Census, the average household size is 2.53 persons. Using this statistic, it is anticipated that more than 1,800 housing units will be necessary to accommodate the population increase of more than 5,000 new residents by 2045.

Growth and Development Pressures

- Where opportunities for growth are suitable, such as along the NC 87 Corridor, the City should be amenable to the development of more substantial commercial, office, mixed use, and/or multi-family residential projects. By diversifying the land use base the City will provide more options for economic development and also increase the tax base.

Economic Development Aspirations

- Strategies for attracting a large retail entity, such as a grocery store, can include increased marketing, incentives, or the completion of research and market analysis. Partnership with the Brunswick County Economic Development Commission should be pursued in the desire to increase retail establishments in the City.

CHAPTER 7: FUTURE LAND USE

The Future Land Use Classification Map is created to provide guidance for zoning and land use decisions. In Boiling Spring Lakes, the Future Land Use Classification Map (Map 7.1) largely resembles the Official Zoning Map. The map visually depicts the City's long range land use and development goals to be implemented by the City. The map is intended to show the community's planned future growth patterns in distinct areas (i.e. the "future land classification areas") within the City's planning jurisdiction. The map also shows the planned future boundaries of those respective areas to ensure that incompatible uses or types of development do not encroach.

To be used in conjunction with the Future Land Use Classification Map are the Future Land Use Classification Guidelines. The guidelines provide the desired land uses and development characteristics for each respective area, as well as the intensity and density goals for each area. While the Future Land Use Classification Map and guidelines establish goals and policy direction for various areas in the City's planning jurisdiction, it is the City's Official Zoning Map and Unified Development Ordinance (UDO) that codifies the actual development regulations within the planning jurisdiction. Where the Future Land Use Classification Map and Guidelines differ from the Official Zoning Map and UDO, considerations for implementation of the tenets of this chapter are provided.

IMPORTANT NOTE: Any official land use or development related decisions made by the City after the adoption of this Land Use Plan are expected to be generally consistent with both the policy statements in Chapter 8 and the development guidelines outlined in this chapter. An amendment to the City's UDO that is inconsistent with the Future Land Use Classification Map and Future Land Use Classification Area Development Guidelines must provide justification as to why it is reasonable and in the public interest.

FUTURE LAND USE CLASSIFICATION GUIDELINES

This section defines the future land use classification guidelines for Boiling Spring Lakes. The future land use classification includes six (6) land use categories. All of the future land use categories are connected to the City's zoning districts in effect in 2016. North Carolina General Statutes require that all rezoning decisions and ordinance amendments be reviewed for consistency with the City's Land Use Plan and that if a rezoning/amendment is inconsistent with the plan, the City must state why the decision was made.

Each future land use category includes a description, desired uses, and desired density, which is classified based on minimum lot size or dwelling units per acre (du/a). Dwelling units per acre are the number of residential units constructed per acre of lot size. Considerations for implementation of the future land use classification guidelines are provided where there exists an inconsistency with the City's Unified Development Ordinance. The following narrative outlines the key desired development guidelines for

each individual future land use classification area depicted on the Future Land Use Classification Map.

IMPLEMENTATION

To implement the guidelines outlined in this chapter, ordinance amendments should be considered where the character of the future land use classification description is not supported by the requirements of the Unified Development Ordinance (UDO). It is important to remember that the future land use map and category descriptions are not regulatory in nature and are to be used a tool for revising existing development standards and guiding zoning-related decisions. The land use plan does not require that these changes be made, but rather offers guidance in the event that there is a desire to revise development regulations.

HOW TO USE THE FUTURE LAND USE MAP AND GUIDELINES

Upon adoption of this plan, the Planning Board, Board of Commissioners, and citizens of Boiling Spring Lakes should reference this chapter in reviewing land use and development related decisions and policy implementation. Predicting substantial and significant changes to the Boiling Spring Lakes land use pattern over the next five, ten, or fifteen years is an impossible task. As such, where significant changes occur or are proposed to occur in the future, then the Future Land Use Classification Map should be amended to reflect such. This will aid in consistency with changes to the City's Official Zoning Map.

Each future land use classification (note: category is used interchangeably throughout this chapter) contained in this chapter is described with a short narrative and supporting development guidelines. The color that identifies that future land use category on the Future Land Use Classification Map is also provided on the page containing the narrative and development guidelines as an aid for users of this document.

CITY CENTER

This future land use category should provide a concentration of commercial, service, institutional, and residential uses that will serve both residents of Boiling Spring Lakes and the county. The land use category should contain a mix of high intensity, pedestrian-oriented uses compatibly designed and arranged around development nodes on each side of NC 87. The future land use classification is intended to promote social activity and the cultural value of the City Center. Commercial, retail, and a vertical mixture of uses is preferred. Shared and reduced parking standards should be encouraged in this future land use category. Standalone multi-family residential development should be discouraged from fronting on NC 87 in this land use category.

Development within this land use category should be designed according to an integrated land use pattern with a focus on human scale architectural design features. Buildings should be constructed from a limited range of high-quality materials that create a cohesive design. Building facades should be composed of windows and doors that provide maximum transparency for the pedestrian. Blank walls should be discouraged. Surface parking lots should be heavily shaded and landscaped. Stormwater infrastructure should be located behind buildings or incorporated into the design of the development as an amenity. Brick, stone, stucco, and tinted, textured, or polished masonry units are the preferred building materials.

City Center

Desired Uses:

- Light impact commercial/retail uses that encourage pedestrian activity. Examples include restaurants, cafes, grocery stores, drug stores, and retail-oriented uses.
- Office & Institutional
- Upper Story Residential

Inappropriate Uses:

- Standalone residential development
- Multi-family residential development with frontage on NC 87
- Industrial uses

Desired Density:

- Residential uses: 14 to 20 dwelling units per acre (du/a)
- Multi-family residential within a Planned Unit Development may have a density above 20 du/a contingent upon appropriate supplementation standards and conditions

Implementation Considerations:

- Establishment of a new City Center/Downtown Mixed Use Zoning District.
- Reduced front setbacks for development without frontage on NC 87.
- The City should consider prohibition of plastic siding, reflective metal panels, and smooth cast faced concrete block.
- The City should consider revising and enhancing landscape requirements. Street yard landscaping requirements should require one canopy/shade tree for every 30 linear feet of road frontage. However, where overhead utility lines are present smaller tree species should be planted so as not to impact the power lines. Vehicular surface areas should be landscaped such that canopy trees provide maximum shade coverage.
- The City should consider enhancing the buffer requirements in this land use classification. An opaque evergreen buffer screen should be considered between single-family residential uses/zoning and non-residential/multi-family residential uses/zoning.
- The City should consider establishment of architectural design guidelines for the City Center future land use category that address façade design, massing, materials, colors, and roof treatments.
- The City should consider development of a City Center Master Plan that provides conceptual building sites and appropriate urban design schematics.



COMMERCIAL MIXED USE

This future land use category provides access to retail, office, and multi-family residential uses. These land uses are primarily accessed by the automobile. Street trees, internal circulation patterns, sidewalks, and bicycle facilities should be provided for this land use category. The preferred land use mix is primarily commercial/retail and office with multi-family residential uses and vertical and horizontal mixed use development. Development within this category should provide ample landscaping and street trees to present an inviting environment to travelers passing through the City. The most important component of this land use category is the range of uses permitted. More intense commercial uses requiring larger lots sizes, parking area, and stormwater infrastructure are permitted in this land use category.

Big box buildings, such as department stores, variety stores, warehouse retail centers, grocery stores, furniture outlets, and similar buildings shall be designed such that the exterior façade has the appearance of several smaller, human scale, buildings through the use of vertical treatments and elements that break up the horizontal wall.

Internal circulation patterns should create street-like spaces lined with on-street angled or parallel parking and parking areas should connect to adjoining sites. Sidewalks should connect all buildings within the site and to adjoining sites. Sidewalks should have street trees and pedestrian lighting.

Desired Uses:

- Most commercial, retail, office, & institutional uses
- Multi-family Residential
- Planned Unit Developments

Commercial Mixed Use

Inappropriate Uses:

- Single-family residential uses & duplexes
- Industrial uses

Desired Density:

- Residential uses: 20 dwelling units per acre (du/a) or less
- Planned Unit Developments may have a density above 20 du/a contingent upon appropriate supplementation standards and conditions

Implementation Considerations:

- Shared driveway requirements and future vehicular and pedestrian connections to adjoining sites
- Vegetative buffering should be such that adjacent single-family residential uses are not impacted by noise or light from development within this land use category. An

opaque evergreen buffer screen should be considered between single-family residential uses/zoning and non-residential/multi-family residential uses/zoning

- The City should consider prohibition of plastic siding, reflective metal panels, and smooth cast faced concrete block within this land use category.
- Street yard landscaping requirements should require one canopy/shade tree for every 30 feet of road frontage. However, where overhead utility lines are present smaller tree species should be planted so as not to impact the power lines. Vehicular surface areas should be landscaped such that canopy trees provide maximum shade coverage.
- An overlay district should be provided for NC 87 that requires a cohesive landscape plan, shared driveways, adjoining vehicular and pedestrian site connections, parking area shade/canopy trees, and a coordinated palate of site amenities.



LIGHT INDUSTRIAL

The purpose of this land use category is to establish and protect industrial areas for the use of light industrial operations and heavy commercial uses such as building material suppliers, auto repair, auto sales, and other establishments with extensive outdoor storage or those that will have an impact on neighboring properties. These areas should have excellent transportation access (or potential access) and available essential infrastructure including water and sewer. These areas may be individual industrial sites or integrated industrial parks.

Light industrial uses create minimal emission of smoke, dust, fumes, glare, noise, and vibrations. The land use plan supports the location of industrial development adjacent to major roadways. Light industrial uses are preferred. Constraints to Heavy Industrial uses exist due to wetlands and hydric soils found in Boiling Spring Lakes. Industrial areas should be buffered with either Office & Institutional or Open Space land uses.

Light Industrial

Desired Uses:

- Light Industrial
- Light Manufacturing
- Office
- Heavy Commercial

Inappropriate Uses:

- Heavy Industrial
- Heavy Manufacturing
- Residential Uses

Desired Density:

- Non-residential uses: 10,000 square feet minimum lot size

Implementation Considerations:

- Require conditions and supplemental regulations for most uses
- Establishment of a minimum lot size and setbacks in the Unified Development Ordinance (UDO)

RESIDENTIAL

The location of the residential land use category is based on existing single-family residential development patterns, constraints to development (i.e., floodplains, wetlands, etc.), and the location of infrastructure. Future parks and recreation areas may be located in the residential land use class. The desired density within the residential land use categories will be determined by the underlying zoning district. Educational and recreational uses are encouraged throughout. Cul-de-sac development is discouraged. Constraints to development as a result of Red Cockaded Woodpecker habitat occurs primarily west of NC 87. Hydric soils are present throughout much of the planning jurisdiction, thus making it more difficult for septic tank permits and posing an additional barrier to development. Map 3.1 displays soils within the City's planning jurisdiction that are unsuitable for dwellings. The presence of wastewater lines along NC 87 could potentially enhance the development suitability of formerly unbuildable residential lots should service be extended to such locations.

Desired Uses:

- Single-Family Residential & Duplex
- Recreation/Open Space
- Institutional & Education Uses with limited traffic generation

Residential

Inappropriate Uses:

- Commercial/retail Uses
- Multi-family Residential Uses

Desired Density:

- Residential uses: 2.8 du/a or less

Implementation Considerations:

- Reduction or elimination of minimum living area requirements
- Reduced front yard and rear yard setbacks
- Establishment of manufactured home park district

RECREATION

The Recreation future land use category is intended to preserve future public and private recreation/open space lands. Recreation lands such as golf course fairways and the City parks and recreation facilities should be preserved for use by future generations. In order to protect property values and enhance quality of life, these lands should be protected from future development. In the event that golf course operations are no longer commercially viable, then a transition to public open space and/or preservation of these lands should be pursued. Options should be explored through a public/private partnership with the City. Pervious or unpaved surface parking should be encouraged in this future land use category to limit stormwater runoff.

Desired Uses:

- Preserved open space
- Active and passive recreation uses
- Golf course amenities and clubhouses
- Nature trails
- Parks, piers, and docks
- Nature center and ecotourism amenities
- Public restrooms



Recreation

Inappropriate Uses:

- Non-residential development
- Residential development

Desired Density:

- Residential uses: N/A

Implementation Considerations:

- Preservation of golf course fairways for future use as public open space
- Addition of arboretums, botanical gardens, docks, piers, and bulkheads as a permitted use in the Recreation Zoning District
- Riparian buffering along water bodies

CONSERVATION

This land use category includes: state-owned conservation lands, flood hazard areas, and significant concentrations of wetlands. These lands serve as resources for the public at large through environmental education opportunities, natural aesthetic qualities, and as important cultural resources. Development is strongly discouraged within this future land use category.

Desired Uses:



- Nature trails
- Preserved open space
- Coastal educational uses that have limited environmental impact
- Forestry and agricultural uses
- Passive recreation areas
- Very low density residential uses

Inappropriate Uses:

- Non-residential development
- Multi-family residential development

Desired Density:

- Residential uses: 0.2 du/a or less

Implementation Considerations:

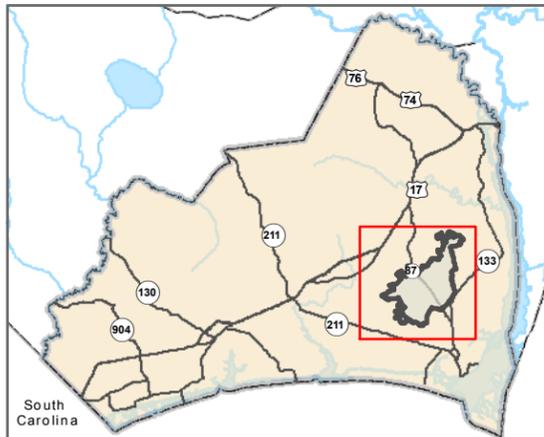
- Expansion of the Conservation Zoning district to limit development of environmentally sensitive lands and those that are highly unsuitable for residential/non-residential growth
- Removal of greenhouse, plant nursery, governmental offices, and accounting agencies as permitted uses in the Conservation Zoning District

Breakdown of the percent of land in the jurisdiction allocated to the various future land use classification areas is provided in table 7.1.

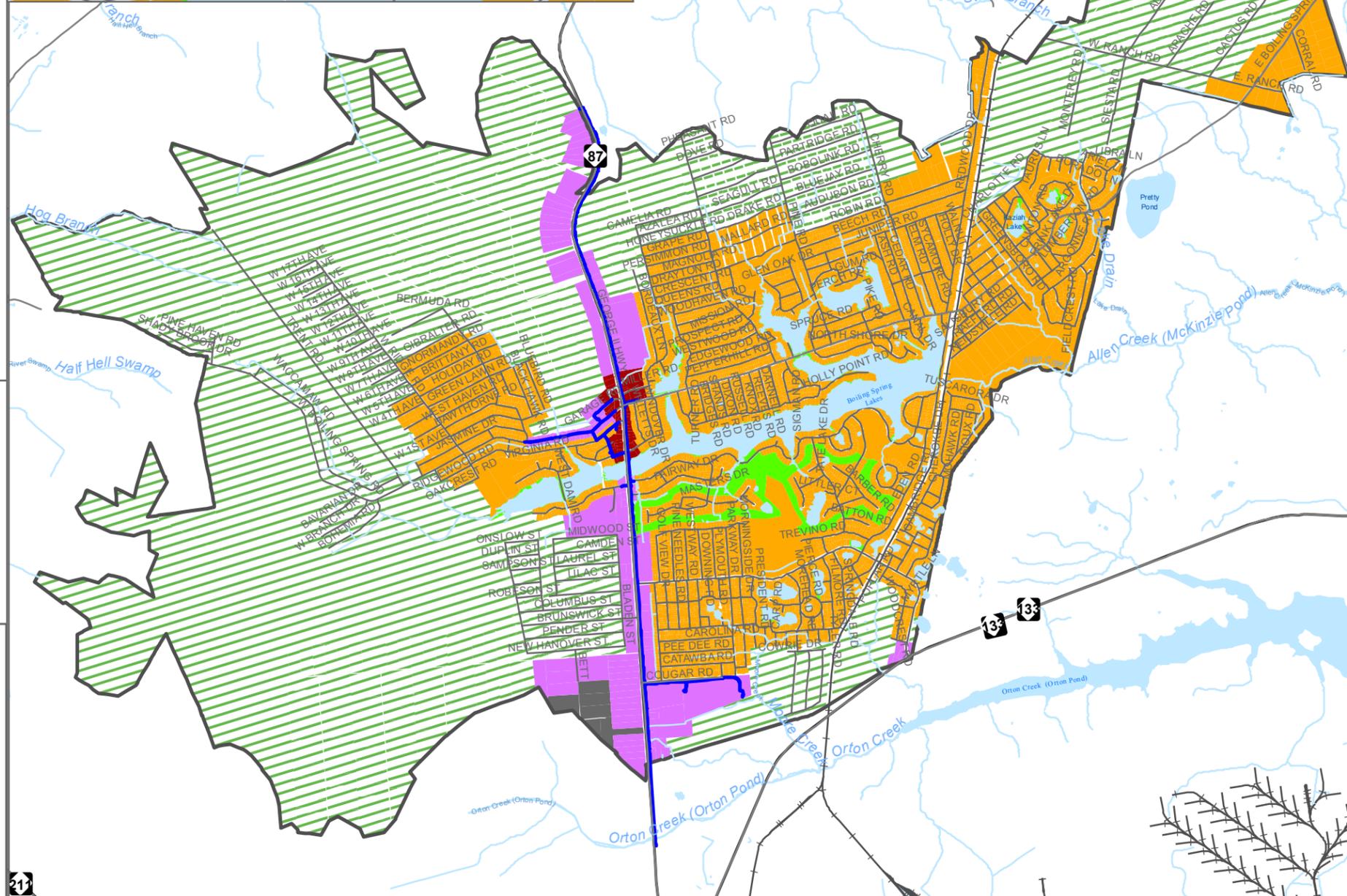
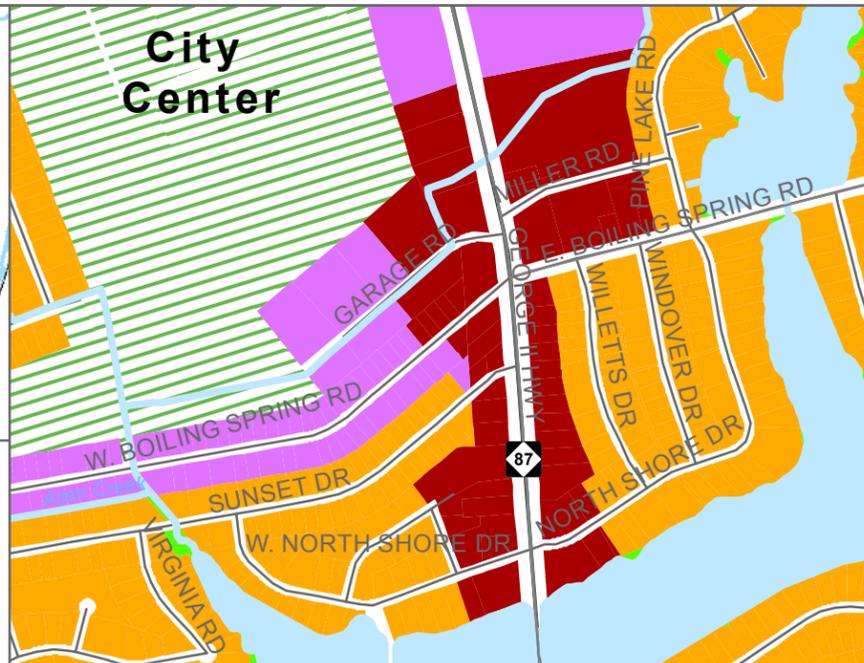
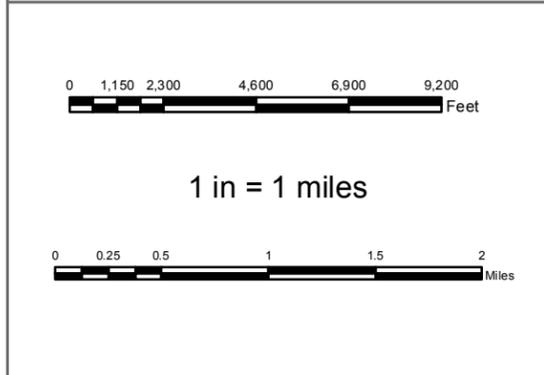
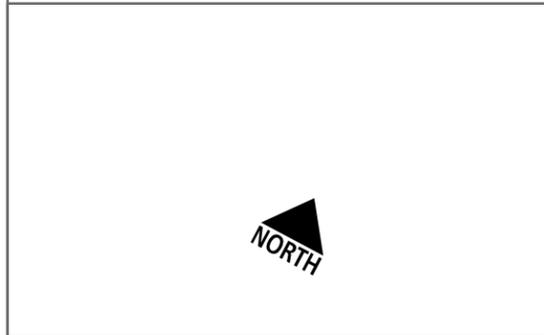
Table 7.1: Future Land Use in the Planning Jurisdiction

Source: Cape Fear Council of Governments GIS

| Future Land Use | Acres | Percent |
|----------------------|-----------|---------|
| City Center | 53.47 | 0.34% |
| Commercial Mixed Use | 687.78 | 4.35% |
| Light Industrial | 61.27 | 0.39% |
| Residential | 3,765.07 | 23.81% |
| Recreation | 660.24 | 4.17% |
| Conservation | 8,926.70 | 56.45% |
| Right-of-Way | 1,659.57 | 10.49% |
| Total | 15,814.10 | 100.00% |



Map is to be used for general purposes only. Spatial data used to generate this map was gathered from disparate sources and represent a condition at a fixed period in time. 100% accuracy of spatial data to current circumstances cannot be guaranteed. The Cape Fear Council of Governments is not legally responsible for the misuse of this map.



City of Boiling Spring Lakes



Comprehensive CAMA Land Use Plan Map 7.1 Future Land Use

Legend

Wastewater Lines

Roads

City Boundary

Future Land Use

City Center

Commercial Mixed Use

Light Industrial

Residential

Recreation

Conservation



Map Prepared By:
Cape Fear Council of Governments
1480 Harbour Drive
Wilmington, NC 28401

CHAPTER 8: GOALS, POLICIES, & TOOLS FOR MANAGING DEVELOPMENT

LAND USE AND DEVELOPMENT RELATED GOALS OF THE CITY

Throughout the planning process, the City identified several existing and emerging issues facing Boiling Spring Lakes. Policies and action items were developed from the needs and issues expressed by the community, staff, and City officials. The policies and action items are based upon the five “Land Use Plan Management Topics” established by the Coastal Resources Commission (CRC) and shall comply with all state and Federal rules.

DEFINITIONS OF ACTIONS AND DESCRIPTIVE WORDS USED IN POLICIES

The following is a list of definitions for the action-words used in the City’s policy statements. This list is used to help in clarifying a policy’s meaning and intent.

Shall: An obligation to carry out a course of action.

Should: An officially adopted course or method of action intended to be followed to implement community goals. Though not as mandatory as "shall", it is still an obligatory course of action unless clear reasons can be identified that an exception is warranted.

May: Implies permission to pursue a course of action or implies that a course of action is probable and likely. While “may” leaves room for flexibility for a range of choices, it does not imply a “may” or “may not” status as used in policy statements.

Create: Bring about the desired goal, usually with City staff and Planning Board involved at all levels from planning to implementation. This could include financial support by the City.

Consider: Implies permission to pursue a course of action or implies that a course of action is probable and likely.

Continue: Follow past and present procedures to maintain desired goal, usually with City staff involved at all levels from planning to implementation.

Encourage: Foster the desired goal through City regulation, staff recommendation and decisions.

Ensure: To make certain or sure an action is implemented, usually with City staff involvement. Financial support by the City should be provided if needed.

Discourage: Inhibit an undesired course or action through City regulation, staff recommendation and decisions.

Enhance: Improve current regulations and decisions towards a desired state through the use of policies and City staff at all levels of planning. This could include financial support by the City.

Identify: Catalog and confirm resource or desired item(s) through the use of City staff and actions.

Implement: Actions to guide the accomplishment of the plan recommendations.

Maintain: Keep in good condition the desired state of affairs through the use of City regulations and practices by staff. Financial support by the City should be provided if needed.

Prevent: Stop described event through the use of appropriate City regulations, staff actions, Planning Board actions, and City finances, if needed.

Promote: Advance the desired state through the use of City policies and codes and Planning Board and staff activity at all levels of planning. This could include financial support by the City.

Protect: Guard against a deterioration of the desired state through the use of City policies and regulations, staff, and, if needed, financial support by the City.

Provide: Take the lead role in supplying the needed financial and staff support to achieve the desired goal. The City is typically involved in all aspects from planning to implementation to maintenance.

Support: Supply the needed staff support, policies, and financial assistance at all levels to achieve the desired goal.

Sustain: Uphold the current state through City policies, decisions, financial resources, and staff action.

Work: Cooperate and act in a manner through the use of City staff actions, and policies to create the desired goal.

POLICY SECTION INTRODUCTION AND POLICY STATEMENTS

The City has established a set of land use and development related policies to act as guidelines to be followed during any official decision making process. The City policies also provide citizens, property owners, and developers with a predictability of official actions. City policies in this Plan were established based on the City's Vision Statement, public input priorities, identification of needs and issues facing the community, and the analysis of trends in local demographics, environmental conditions, existing land uses, and availability of community facilities.

For simplification in the organization and presentation of City policies, all policies have been separated by their subject matter into five general Management Topic area categories that relate to each policy's respective subject matter. The Management Topic area categories used in this Plan include; 1) Land Use Compatibility; 2) Public Access; 3) Infrastructure Carrying Capacity; 4) Natural Hazard Areas; and 5) Water Quality.

To avoid repetition, policy statements that may be applicable to multiple Management Topics are only stated once under the Management Topic they apply to the most, but are referred to under any subsequent Management Topics they may also apply.

IMPORTANT NOTE: Any official land use or development related decisions made by the City after the adoption of this Land Use Plan are expected to be consistent with both the policy statements in this chapter and the future land use map and guidelines in Chapter 7. City decisions that are inconsistent with the policy statements, must provide explanation as to why it is reasonable and in the public interest.

MANAGEMENT TOPIC: PUBLIC ACCESS

CAMA Public Access Goal:

"Maximize public access to the beaches and the public trust waters of the coastal region."

City Public Access Goals:

- Recognize and prepare for land acquisition opportunities to enhance or expand the City's public access facilities.
- Encourage and facilitate alternatives to traditional vehicular traffic to reach public access sites and other destinations in City (i.e. bicycle and pedestrian interconnectivity, and public or private shuttle services).
- Preserve and protect access to existing parks along the large lakes within the City.
- Identify lakes to be maintained by the City to provide for continued public access.

PUBLIC ACCESS POLICY STATEMENTS

1. Support for State and Federal Access Programs

Boiling Spring Lakes supports the utilization of state and federal, as well as local, resources to develop additional access areas.

2. Preservation of Existing Public Access Sites

The City should not approve any development activity that would cause an existing public access site to become permanently unusable without adequate and immediate replacement with an equal and similarly located public access site.

3. Parks and Recreation Master Plan

- a) The City shall consider updating the 2009 – 2014 Parks, Recreation and Open Space Master Plan to identify additional opportunities for recreation.
- b) The City shall identify four City quadrants that can be utilized to determine parks/recreation facility level of service needs.
- c) The City shall identify the appropriate number of lakes to be maintained for public use.

4. Enhancing Public Access Facilities

- a) The City shall encourage the acquisition of land encompassing and surrounding “Boiling Spring”—a minimum of five (5) acres to a maximum of twenty-five (25) acres.
- b) The City shall encourage the acquisition of any and all available land adjacent to and/or contiguous to the existing Community Center Park—approximately twenty (20) to fifty (50) acres.
- c) The City shall encourage the acquisition of any available land adjacent to and/or contiguous to the “Big Lake.”
- d) The City shall encourage the acquisition of vacant parcels of land at either end of the existing North Lake Park boundaries.
- e) The City shall encourage the acquisition of properties that become available that are affordable and/or offer specific advantages for parks, recreation and open space such as greenways, trails, neighborhood parks, “mini-parks”, general open space and environmentally sensitive areas.

5. Access to Conservation Lands

The City shall pursue options for obtaining access to State owned land by working with The Nature Conservancy and the State of North Carolina.

MANAGEMENT TOPIC: LAND USE COMPATIBILITY

CAMA Land Use Compatibility Goal:

“Ensure that development and use of resources or preservation of land balances protection of natural resources and fragile areas with economic development, avoids risks to public health, and welfare and are consistent with the capability of the land.”

City Land Use Compatibility Goals:

- Maintain and enhance quality of life (i.e. City’s environmental health, aesthetics, amenities, and property values).

- Preserve the traditional character, intensity, and density of the residential areas, particularly the existing single-family neighborhoods and areas.
- Ensure that adequate open space and/or recreational areas are provided for and enhanced to serve the growing population.
- Encourage mixed-use development in appropriate areas as a way to increase efficiency of land use and lessen the need for using automobiles for travel within City.
- Increase bicycle and pedestrian interconnectivity and accessibility.
- Preserve and enhance the existing commercial core.
- Protect and enhance the quality of existing residential neighborhoods, utilizing regular code enforcement as appropriate.
- Expand opportunities for age appropriate housing.
- Encourage and facilitate high quality commercial development along NC 87.
- Develop a City Center which the cultural, civic, and social hub of Boiling Spring Lakes.
- Expand the range of goods and services available to City residents.

LAND USE COMPATIBILITY POLICY STATEMENTS

6. Unified Development Ordinance

The City shall update the Unified Development Ordinance (UDO) to address legislative changes, site plan review standards, subdivision regulations, dimensional standards, and other items deemed necessary by the Planning Board, Board of Commissioners, and City staff. The UDO should also be revised to improve consistency with this Land Use Plan.

7. Land Use Plan

- a) The City shall initiate review of the goals, policies, and contents of this plan on annual basis. Such review will be conducted by the Planning Board one year following adoption. An informal presentation and report of the accomplishments completed as a result of the land use plan will be delivered to the Board of Commissioners by the Planning Board Chairman.
- b) The City shall prepare an implementation status report for the Division of Coastal Management every two years. The status report should detail actions completed according to Table 8.2 in this Chapter.
- c) The City shall update the Land Use Plan every 5-7 years to address changing dynamics, population growth, economic development, and housing needs.

8. Prime Wildlife Habitat Areas

The City will continue to partner with the US Fish and Wildlife Service (USFWS) in permitting tree removal and development within Cockaded Woodpecker (RCW) cluster zones. The prime wildlife habitat areas in the Boiling Spring Lakes planning area are often home to Red Cockaded Woodpeckers, thus requiring coordination with the USFWS prior to development and tree removal.

9. Protection of Wetlands

The City of Boiling Spring Lakes supports the preservation of wetlands through the enforcement of Federal 404 regulations under the Army Corps of Engineers. Wetlands are present throughout the City's planning jurisdiction which may require potential developers to establish jurisdictional delineation by the US Army Corps of Engineers (USACE Wilmington office). If wetlands are found on site, then it will require an Army Corps permit and NC Division of Water Resources permit for work done within the delineated wetland.

10. Constraints to Development

- a) The City shall inform property owners and potential real estate interests of hydric soil limitations, where possible, in order to protect buyers from the purchase of unbuildable lots. All septic tanks must be in compliance with state health regulations as permitted by the Brunswick County Health Department. Hydric soils are present throughout the City's planning jurisdiction. Where sites are deemed unsuitable for septic tanks a property owner must apply for review within 90 days of the initial determination. If upon further review the site remains unsuitable, then the property is deemed unbuildable unless sewer service can be provided.
- b) All new construction and substantial improvements in the 100-year flood zones must comply strictly to the City's Flood Damage Prevention Ordinance. Development may be constructed in areas with limitations for building foundations only if corrective measures for stabilizing foundations are incorporated into the building design, and strictly adhere to applicable flood zone regulations and stormwater regulations.

11. Types of Development to Be Encouraged

- a) Boiling Spring Lakes desires as much as practicable that all development be designed and placed to be compatible with its existing residential character, while enhancing growth opportunities along the NC 87 corridor. A 75' front setback is desired for all development that fronts on NC 87. This should be addressed through the establishment of an NC 87 Overlay District (300' from the centerline).

- b) The City shall establish architectural design guidelines for the City Center future land use category and consider the creation of a new zoning district.
- c) The City may develop a City Center Master Plan that provides conceptual building sites and appropriate urban design schematics.
- d) All new development will adhere to the City's building and development regulations and to the density requirements set forth in the Unified Development Ordinance (UDO).

12. Types of Urban Growth Patterns Desired

The City shall support an orderly growth pattern which reinforces the community's residential character and protects the environment, while enhancing growth opportunities along the NC 87 corridor.

13. Types, Density, and Location of Anticipated Residential Development

The City encourages both the development and preservation of a variety of housing types to meet the needs and desires of current and future citizens. To meet those needs and desires, the City will administer the following policies:

Protection of Single-family Areas

- a) The City shall maintain areas exclusively for conventional single-family dwellings for the growing population.
- b) The City shall continue code enforcement to address and mitigate derelict and unkempt properties that pose impacts to property values.
- c) The City shall consider removing minimum living area requirements for all residential zoning districts.
- d) The City shall consider reducing the front and rear setbacks for all residential zoning districts.

Multi-Family Areas

- e) The City shall allow multi-family development in designated and appropriate areas and as permitted in the C-1 and C-2 commercial districts.
- f) The City shall encourage multi-family development along NC 87.

Manufactured Housing Areas

- g) The City shall provide areas for mobile home and manufactured housing development in the R-3, R-5, and R-6 zoning districts.

Planned Unit Developments

- h) The City shall provide zoning accommodations for Planned Unit Developments where feasible. Such residential developments will allow for flexibility in design

and remove limits to minimum living area requirements and lot sizes, while encouraging clustering and a preservation of natural areas.

14. Types of Commercial Development Desired

The City plans to enhance and promote quality commercial development through the following:

- a) The City will continue to enforce its current development ordinances and local building permit process in order to achieve a desired balance between commercial and residential development. Adequate buffering between residential and commercial districts will be required. Requests for additional commercial zoning will be carefully evaluated in terms of the needs of the community for such development.
- b) The City will encourage commercial development to locate along NC 87 and within the City Center designation identified on the Future Land Use map. The City desires to create a City Center, which will be the civic and cultural hub of the community. Development of the City Center should be designed to reduce vehicular trips and to encourage walking within the area and from adjacent sites.
- c) City Center developments should be designed with internal circulation patterns that are conducive to the pedestrian. Such developments are to be oriented in internal fashion so as not to encourage non-motorized users to traverse NC 87. Development nodes should exist on both sides of NC 87 with rear connections to residential uses on each respective side of the roadway where feasible.
- d) The City will market the NC 87 corridor as an ideal location for future businesses, retail establishments, and offices.
- e) The City will work with the Southport-Oak Island Chamber of Commerce Economic Development Committee to strengthen commerce and small business opportunities in the City.

15. Types and Location of Industry Desired

Light Industry is generally encouraged where minimal impacts of noise, light, dust, and debris will impact neighboring property owners. Water and sewer service must be present for future industrial uses.

16. Density of Future Multi-family Developments

Density for Multi-family developments should not exceed 20 dwelling units per acre unless included as part of a Planned Unit Development.

17. Bicycle and Pedestrian Interconnectivity

The City supports and shall pursue efforts to increase bike and pedestrian pathways connecting commercial areas with residential and recreational opportunities.

18. Land Use and Development Decisions Consistent with the Land Use Plan

Any official City land use and development related actions (e.g. re-zonings, text amendments, stormwater rules, etc.) must provide a statement of consistency in regards to the policies and/or future land use map contained within this land use plan. The statement must provide specific clarification as to why the action was consistent or inconsistent with the policies and/or future land use map.

MANAGEMENT TOPIC: INFRASTRUCTURE

CAMA Infrastructure Goal:

“Ensure that public infrastructure systems are appropriately sized, located and managed so the quality and productivity of areas of environmental concern and other fragile areas are protected or restored.”

City Infrastructure Goals:

- Maintain and enhance quality of life (i.e. City’s environmental health, aesthetics, amenities, and property values).
- In conjunction with Brunswick County and the NC Department of Transportation, alleviate traffic congestion on local streets and thoroughfares by managing the number, design standard, and location of driveway access points for commercial, multi-family, or other large developments.
- In conjunction with Brunswick County, expand sewer service where such a request is initiated through property owner petition.
- Maintain an adequate and effective stormwater management system and program.
- In conjunction with Brunswick County, ensure a safe and sufficient supply of water for both potable and firefighting uses.

INFRASTRUCTURE POLICY STATEMENTS

19. Development Encouraged to use NC DOT’s Access Management and Recommended Design Standards

The City supports the principles of Access Management and encourages the use of the recommended street and driveway design standards found in the North Carolina Department of Transportation’s “Policy on Street and Driveway Access”.

20. Access Management for Commercial, Multi-family, and Mixed-use Developments

The City encourages abutting multi-family, mixed-used developments, and/or commercial developments to reduce driveway access points along NC 87 by utilizing

shared (joint-access) driveways or creating internal (marginal) accessways to service traffic moving among those types of highly trafficked developments.

21. Encouraged Street Design Within Major Developments

In addition to the minimum requirements for subdivision street design:

- a) The City encourages planned residential developments, mixed-use developments, and other applicable subdivision developments to implement street designs that maximize:
 - i. Bike and pedestrian accessibility and safety (i.e. sidewalks, bike lane, crosswalks, etc.);
 - ii. Incorporation of effective and aesthetically appropriate street calming devices; and
 - iii. Interconnectivity with existing local streets, bike, and pedestrian pathways, as well as any abutting commercial and recreational areas.
- b) In the provision of sidewalks, bike lanes and roundabouts, and where uncontrolled stormwater runoff may be increased by such infrastructure, the City encourages:
 - i. The use of permeable (pervious) materials as approved by the North Carolina Division of Water Resources or limiting sidewalks to one side of the street to minimize impervious surfaces; and,
 - ii. The design of these features should utilize Best Management Practices (BMP) similar to those outlined in the Brunswick County Low Impact Development (LID) standards to collect stormwater runoff from the street surface.

22. Antenna Farm Road Extension

The City supports efforts to connect to Midway Road via West Boiling Spring Road.

23. Resurfacing Improvements

Whenever it is necessary to resurface, fill potholes or repair cracks or other defects on any public street due to normal traffic use, the City shall undertake the resurfacing as funds are appropriated.

24. Bicycle and Pedestrian Plan

- a) The City shall pursue grant funds to complete an official NCDOT Comprehensive Bicycle and/or Pedestrian Transportation Plan. Grant applications are typically due November/December of each year. A 20% local cash match is required.
- b) The City shall consider partnering with Brunswick County to implement the recommendations of the county's 2016 Greenway and Blueway Plan.

25. Crosswalks

- a) The City shall consider increasing aesthetically appropriate crosswalks and signals to accommodate and facilitate additional bike and pedestrian accessibility in City.
- a) The City supports the installation of a pedestrian signal to facilitate safe crossing of NC 87 at the intersection of East Boiling Spring Road.

26. Water and Sewer System Connection

Along all existing water lines or wastewater lines and all water lines or wastewater lines hereafter constructed and placed into operation, all owners of developed property in Boiling Spring Lakes requesting a permit to construct a new structure for dwelling, commercial, or industrial purposes shall be required to connect with the water line or wastewater line collection line, respectively, owned or operated by Brunswick County or on behalf of Brunswick County.

27. Ownership and Operation of Sewer System

The City will not own or operate any portion of the planned sewer system within its planning jurisdiction. Residents, business owners, and other system users in the Boiling Spring Lakes planning jurisdiction will be retail customers of the Brunswick County Public Utilities sewer system.

28. Ownership and Operation of Water System

The City will not own or operate any portion of the water system within its planning jurisdiction. Residents, business owners and other system users in the Boiling Spring Lakes planning jurisdiction will be retail customers of the Brunswick County Public Utilities water system.

29. On-going Coordination With Brunswick County Public Utilities

The City shall continue coordination with Brunswick County to ensure that a County public utilities capital improvement program is continually updated and adequately funded. In the absence of adequate capital improvements timing or funding, City policy is to insist County water and sewer systems have adequate capacity to provide a quality service to existing City customers as a first priority, before committing to new growth and development.

MANAGEMENT TOPIC: NATURAL HAZARD AREAS

CAMA Natural Hazard Areas Goal:

“Conserve and maintain barrier dunes, beaches, flood plains, coastal wetlands and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.”

City Natural Hazard Areas Goals:

- Reduce the flooding danger to property and human health by managing density and structure setbacks in flood hazard areas.
- Reduce flooding and water quality impacts associated with uncontrolled stormwater runoff.

NATURAL HAZARD AREA POLICY STATEMENTS

30. Hazard Mitigation Plan

The City shall refer to the Southeast Regional Hazard Mitigation Plan for policy guidance and recommendations on any City restructuring of emergency services, emergency services preparedness, emergency command procedure, public awareness, or evacuation procedure.

31. Flood Mitigation

- a) Boiling Spring Lakes shall remain an active participant in the National Flood Insurance Program (NFIP) and is supportive of its hazard mitigation elements. Boiling Spring Lakes shall continue to enforce a Flood Damage Prevention Ordinance in accordance with the NFIP, including a two-foot free board requirement. Boiling Spring Lakes also supports continued enforcement of the 404 wetlands development permit processes in areas potentially susceptible to flooding.
- b) The City shall require no more than 30% impervious coverage on all lots unless an engineered solution is provided.

32. Public Acquisition of Hazardous Areas

The City of Boiling Spring Lakes shall encourage the purchasing by conservation groups of parcels located in hazard areas or those rendered unbuildable, for the purpose of conservation of open space.

MANAGEMENT TOPIC: WATER QUALITY

CAMA Water Quality Goal:

“Maintain, protect and where possible enhance water quality in all coastal wetlands, rivers, streams and estuaries.”

City Water Quality Goals:

- Maintain and enhance quality of life (i.e. City’s environmental health, aesthetics, amenities, and property values).
- Preserve, conserve, and/or otherwise protect valuable and beneficial natural resources (in particular surface water and wetlands).
- In conjunction with Brunswick County, establish and maintain an adequate and effective stormwater management system and program.

WATER QUALITY POLICY STATEMENTS

33. Stormwater Program

- a) The City shall continue to participate in an interlocal agreement with Brunswick County for the implementation and administration of County stormwater regulations by County staff within the Boiling Spring Lakes planning jurisdiction.
- b) The City supports the continuance of provisions in the Brunswick County stormwater regulations which exceed state minimum requirements. Those provisions include requiring stormwater management rules for all commercial development regardless of site size, and rules for any development activity which uses more than four inches of fill on the site.
- c) The City shall establish a stormwater management plan to identify additional treatments for reducing runoff volume.
- d) The City shall retain the option of adopting additional local stormwater related standards if it is deemed necessary to further protect surface water quality and limit localized flooding. It is anticipated that the City will adopt a stormwater management plan in fiscal year 2017.
- e) The City shall consider applying for funding to complete a Watershed Restoration Plan to encourage a reduction in stormwater runoff and a subsequent enhancement of surface water quality.

34. Erosion and Sediment Control

- a) The City shall continue, at a minimum, to require the Erosion and Sedimentation Control standards for construction activities found in the North Carolina Sedimentation Pollution Control Act.

35. Low Impact Development (LID)

- a) The City will consider the results of Low Impact Development practices implemented in the Lockwood's Folly watershed and other similar watersheds to determine its practicality for use in the Boiling Spring Lakes planning jurisdiction. Such LID practices required may include retaining/infiltrating most of the runoff on-site, maximizing the use of permeable pavements, reducing the amount of impervious coverage, and clustering housing to allow a profitable development density while maximizing open space.

TOOLS FOR MANAGING DEVELOPMENT

The following section outlines tools for managing development and specifies the role of the land use plan in the process. The implementation and tools for managing development section provides:

- 1) A guide for land use decision-making;
- 2) Existing development program;
- 3) Action plan and implementation schedule; and
- 4) A conclusion regarding the plan update process and generalized implementation timeline.

GUIDE FOR LAND USE DECISION MAKING

ROLE AND STATUS OF THE PLAN

The City's Comprehensive Land Use Plan is a guiding tool that establishes the desired direction for land use and development in the community. Although the statements and policies in the Land Use Plan do not have the authority of an ordinance or regulation, they do provide an opportunity to amend such ordinances to reflect future goals. The City's securing of state or Federal grant/loan funding may also be contingent upon review of consistency with the City's Land Use Plan, and to whether the City's policies are adequate to meet state and federal standards regarding funded projects.

This plan establishes goals, policies, and strategies for issues that will affect Boiling Spring Lakes for the next twenty years and beyond. Each goal, policy, and strategy is to be applied equally regardless of cultural, economic, or ethnic composition of the area. The goals, policies, and strategies will also assist officials in making long-range decisions in such areas as land use changes, transportation planning, economic development strategies, and intergovernmental coordination.

In addition, any future City zoning ordinance and/or map amendments to accommodate development projects must also be evaluated for their consistency with this Land Use Plan.

Any City decisions to amend zoning regulations must be evaluated, even if they do not relate to a land use, dimensional standard, or area that is not under the purview of state or federal permitting.

North Carolina General Statute 160A-383 requires planning board review of zoning amendments and a written statement on the consistency of the proposed amendment with the Land Use Plan, as well as any other relevant plans (such as a small area plan, transportation plan, stormwater master plan, etc.) that have been adopted by the City's governing board. The statute does include provisions that allow the City's governing board to proceed and adopt proposed zoning amendments in which the planning board may determine to be inconsistent with adopted plans, if the City governing board can provide a statement as to why the action taken is reasonable, necessary, and in the public interest. The City's governing board is required to adopt such a statement on plan consistency or inconsistency before adopting or rejecting any zoning amendment.

INTENDED USES OF THE PLAN

In addition to the above, the Land Use Plan shall also be used for the following:

- The approval of routine and major developments (including redevelopments) shall be consistent with the policy direction and goals of the Land Use Plan.
- Amendments to development related ordinances (e.g. rezoning petitions), conditional use permit review, as well as creation and approval of new ordinances shall be consistent with the policy direction and goals of the Land Use Plan.
- The approval of capital improvements (e.g. water, sewer, and stormwater systems, etc.), and related projects, shall be consistent with and prioritized based on the policy direction and goals of the Land Use Plan.
- City Administration/Planning Staff shall consult the Plan and use it as a basis for making recommendations to the planning board and the City governing board in such actions as development approval and ordinance amendments. If the proposed development or amendment is in conflict with the policy direction or goals of the Land Use Plan, staff shall notify the planning board and the City governing board of the possible inconsistency.

In addition to the City Planning Board and City Board of Commissioners, the Land Use Plan may also be used by:

- The Public - The Land Use Plan shall be available to any interested member of the public. The Plan can inform the public of the direction and future of their community and give them a sense of knowing and understanding what is going

- on. Public knowledge of the goals and policies of the Land Use Plan will also assist the public in forming support or opposition for actions in their community.
- Landowners and Developers - The Land Use Plan provides developers and landowners with guidance and expectations on the types of land uses and development that are desired by the community. Knowledge of expectations and possible requirements of development will aid developers and land owners in preparing sound proposals and plans which will be more likely to be approved by City officials in a more time-efficient manner. The Land Use Plan and its mapping and analysis can also provide landowners and developers with general information that could make them aware of possible capabilities and limitations of their property.
 - City Staff - City staff, beyond the Administration/Planning Department, can use the plan as a tool for evaluating project proposals (such as new public access sites or bike paths) and for preparing plans for public facilities and infrastructure (such as stormwater system upgrades). City Staff could also use the plan and its policies and goals when preparing its budget requests and recommendations, and make reference to the plan when preparing applications for grants and other assistance.
 - Area Jurisdictions – Local jurisdictions that may be affected, either positively or negatively, by actions of the City can use the plan to understand and predict the intents and purposes behind such actions. Area jurisdictions may also want to coordinate with the City on achieving certain common goals, or in implementing similar policies. Such common goals could be the improvement of surface water quality in the local watershed which includes multiple jurisdictions.

EXISTING DEVELOPMENT PROGRAM

The City Code of Ordinances and Unified Development Ordinance contains all the local ordinances and many of the regulations used by the City to manage growth and development. Some of the primary ordinances, regulations, and plans regarding land use management are listed in Table 8.1 below.

Table 8.1: Existing Development Program

| Ordinances/Regulations | Responsible Department |
|--|--|
| Unified Development Ordinance <ul style="list-style-type: none"> • Land Use and Structural Dimension Standards • Density and Intensity Restrictions • Open Space Requirements • Landscape/Tree Removal Restrictions • Parking Regulations | Administration/Building Inspections & Planning |
| Subdivision Ordinance | Administration/Building Inspections & Planning |
| Flood Damage Prevention Ordinance | Administration/Building Inspections & Planning |
| Building Code (State Building Code) <ul style="list-style-type: none"> • Filling, Grading and Excavating • Relocation/Demolition of Structures | Building Inspections & Planning |
| Water and Sewer Use Ordinance | Administration |
| Stormwater Management Ordinance <ul style="list-style-type: none"> • Stormwater Management • Illicit Discharge | Administration/Building Inspections & Planning * |
| Nuisance Ordinance | Administration |
| Adopted Plans | |
| CAMA Land Use Plan | Administration/Building Inspections & Planning |
| Hazard Mitigation Plan | Administration /Contains Implementation Measures for All Departments |

| | |
|---------------------------|--|
| Emergency Operations Plan | Administration /Contains Implementation Measures for All Departments |
|---------------------------|--|

* The City of Boiling Spring Lakes has an interlocal agreement with Brunswick County in the administration of the stormwater ordinance.

IMPLEMENTATION SCHEDULE

The following table outlines a schedule to assist the City in implementing the goals and policies of this land use plan. The implementation schedule is to be used as a resource for City staff and officials. The schedule is not a mandate for the allocation of funding nor does it require such.

Table 8.2: Schedule for Implementing Goals and Policies

| Action Item | To be done in Fiscal Year | Department Responsibility |
|---|---------------------------|---|
| Public Access | | |
| Update Parks and Recreation Open Space Master Plan | FY 2016-2017 | Parks & Recreation |
| Acquire land around the “Boiling Spring” | FY 2017-2018 | Parks & Recreation |
| Acquire any and all land adjacent to the existing Community Center Park | FY 2017 - 2022 | Parks & Recreation |
| Acquire any available land adjacent to and/or contiguous to the “Big Lake.” | FY 2017 - 2022 | Parks & Recreation |
| Land Use Compatibility | | |
| Update the Unified Development Ordinance (UDO) address legislative changes, site plan review standards, subdivision regulations, dimensional standards, and other items deemed necessary by the Planning Board, Board of Commissioners, and City staff. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Develop and adopt a Stormwater Management Ordinance. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Initiate review of the goals, policies, and contents of this plan on annual basis. | FY 2017-2018 | Administration, Building Inspections & Planning |
| Prepare an implementation status report for the Division of Coastal Management every two years | FY 2018-2019 | Administration, Building |

| | | |
|--|--------------|--|
| | | Inspections & Planning |
| Update the Land Use Plan every 5-7 years to address changing dynamics, population growth, economic development, and housing needs. | FY 2021-2023 | Administration, Building Inspections & Planning |
| Expand the Conservation Zoning District to encompass unbuildable lots where feasible. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Establish an Overlay District for the NC 87 Corridor to protect 75' front setbacks. Once in place, reduce setbacks within the commercial zoning districts. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Establish architectural design guidelines for the City Center future land use category and consider the creation of a new zoning district. | FY 2017-2018 | Administration, Building Inspections & Planning |
| Develop a City Center Master Plan that provides conceptual building sites and appropriate urban design schematics. | FY 2017-2018 | Administration, Building Inspections & Planning |
| Consider removing minimum living area requirements for all residential zoning districts. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Reduce the front and rear setbacks for all residential zoning districts. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Provide zoning accommodations for Planned Unit Developments where feasible. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Revise the Permitted Use Table to reduce the number of uses permitted in the Conservation Zoning district. | FY 2016-2017 | Administration, Building Inspections & Planning |
| Infrastructure | | |
| Pursue grant funds to complete an official NCDOT Comprehensive Bicycle and/or Pedestrian Transportation Plan. | FY 2017-2018 | Administration, Parks & Recreation, Public Works |

| | | |
|--|--------------|--|
| Partner with Brunswick County to implement the recommendations of the county's 2016 Greenway and Blueway Plan. | FY 2017-2022 | Administration, Parks & Recreation, Public Works |
| Increasing crosswalks and signals to accommodate and facilitate additional bike and pedestrian accessibility in City. | FY 2017-2018 | Administration, Parks & Recreation, Public Works |
| Natural Hazard Areas | | |
| Take steps to implement the recommendations contained in the Southeast Regional Hazard Mitigation Plan. | FY 2016-2021 | Administration /Contains Implementation Measures for All Departments |
| Encourage the purchasing by conservation groups of parcels located in hazard areas or those rendered unbuildable, for the purpose of conservation of open space. | FY 2016-2026 | Administration, Parks and Recreation |
| Water Quality | | |
| Continue to participate in an interlocal agreement with Brunswick County for the implementation and administration of County stormwater regulations. | FY 2016-2026 | Administration, Building Inspections & Planning, Public Works |
| Establish a stormwater management plan to identify additional treatments for reducing runoff volume. | FY 2016-2017 | Administration, Building Inspections & Planning, Public Works |
| Apply for funding to complete a Watershed Restoration Plan to encourage a reduction in stormwater runoff and a subsequent enhancement of surface water quality. | FY 2018-2019 | Administration, Building Inspections & Planning, Public Works |
| Consider the results of Low Impact Development practices implemented in the Lockwood's Folly watershed and other similar watersheds to determine its practicality for use in the Boiling Spring Lakes planning jurisdiction. | FY 2017-2018 | Administration, Building Inspections & Planning, Public Works |

CONCLUSION

This Comprehensive Land Use Plan contains the adopted goals and policies for the City of Boiling Spring Lakes, which are to be implemented and followed over the next five to ten year planning period and beyond if an update is not conducted within 10 years. The intent of the goals and policies detailed in this plan are to be carried out in good faith by current and future elected officials and City staff. Any public decisions by City officials regarding growth and development (e.g. rezonings, land use related ordinance revisions, conditional use permits, capital improvement projects, public grants, etc.) are to remain consistent with the policies, goals, and objectives in this plan. To allow flexibility if circumstances or community preferences change, the Comprehensive Land Use Plan can be updated or amended.