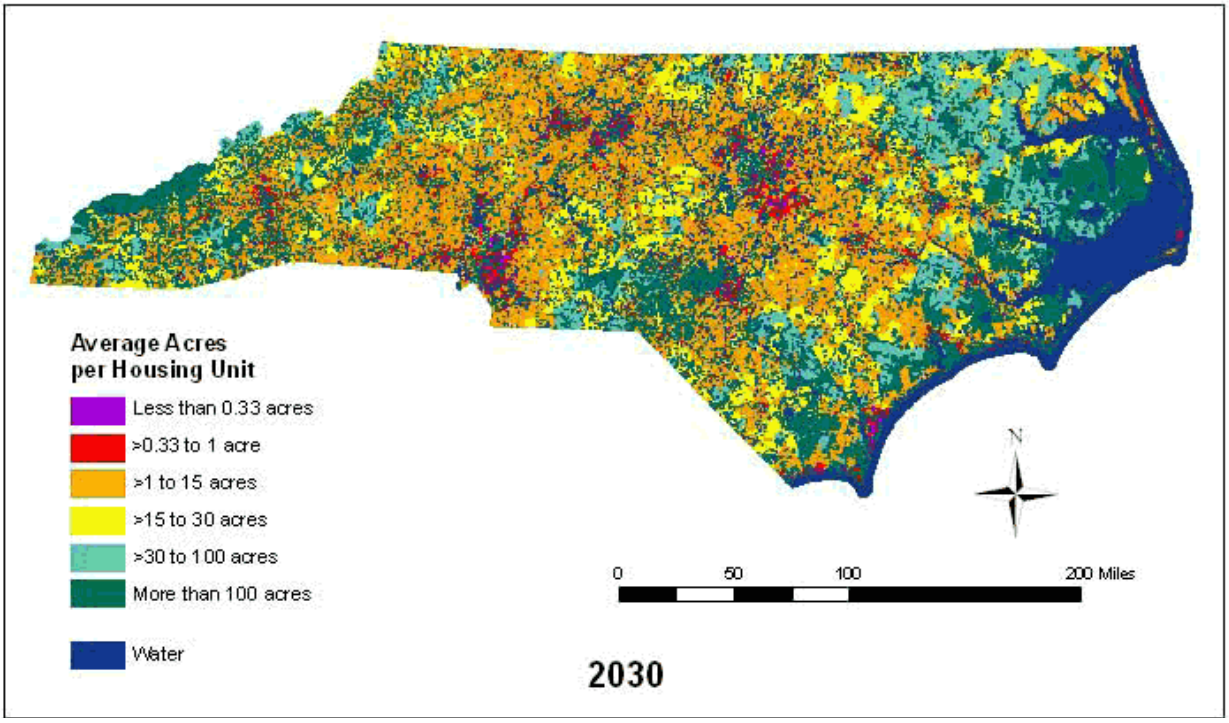
Chapter 1
North Carolina's Outdoor Recreation Setting

This chapter will provide a glimpse of several important factors that inherently affect the outdoor recreation setting in North Carolina.

POPULATION AND GROWTH

North Carolina has been, and continues to be, one of the fastest growing states in terms of population in the United States. Between 1990 and 2010, some 2.9 million new residents came to call North Carolina home, which constituted a 44% growth spurt in that twenty year span, bringing North Carolina's population to 9.5 million. According to the U.S. Census Bureau, North Carolina's population grew at an annual rate of 1.7% between 2000 and 2010, far exceeding the nation's average growth rate of 1%. The Census Bureau also reported that one third of the state's growth between 2000 and 2010 occurred in just two counties – Mecklenburg and Wake – while 75% occurred in the 20 largest counties (includes Wake and Mecklenburg).

Projected Housing Density



Furthermore, migration accounted for 80% of North Carolina's growth during this time and the U.S. Census Bureau estimates that between 2010 and 2015, the number of people born outside of North Carolina could surpass the number of native North Carolinians living in the state.

Although only the 28th largest state in terms of size, it is the 14th fastest growing state since 2010. In addition, North Carolina is currently the 10th most populace state and is projected to move into the 7th spot by the year 2030.

The North Carolina population is aging as "Baby Boomers" retire, birth rates have slowed and average life expectancy increases. The median age in the state rose from 26.5 in 1970 to 36.2 in 2000. In 2010, the median age was 38.5 years old. The average life expectancy for a person born in 2010 is nearly 79 years old, an increase of about three years in the past two decades.

The 2010 Census in North Carolina reported a 25% rise in the Hispanic/Latino population since 1990. This segment of the population makes up for 8.4% of the state's total population and it is the 11th largest Hispanic/Latino population in the United States. Furthermore, North Carolina has the 6th fastest growing Hispanic/Latino population in the country.

In 2012, the median household income in North Carolina was $45,150, down 3.4% from 2009; compared to the national numbers of $51,171, down 4.4% from 2009. Unemployment in North Carolina peaked in 2009 at 11.26%; fell to 9.6% in 2012 and fell even further to 6.5% in July 2014, compared to 6.2% national average.

Although unemployment is lower today than 5 years ago, median income is also lower. These factors, along with the rapid population growth and increasing diversity, create many challenges, socially and economically. Moreover, these ever-changing circumstances affect the planning and coordination of North Carolina's outdoor recreation programming and overall conservation of the state's natural resources.

With this expansive growth, comes the need for increased development, which reduces the availability of land for recreation. Herein lays the importance of ensuring that open space and land suitable for recreation purposes is sought and acquired at a pace equal to growth and other development. Funding and planning for such, will be a major challenge for North Carolina, but it is a challenge that be must met head-on to ensure the continued high quality of life environment that North Carolinians have come to love and expect. Growth, in general, contributes to economic vitality and represents a net positive for long-term employment prospects, but growth should not cloud the vision for the need to bolster public lands for recreational and conservation purposes.

Tourism is one of North Carolina's largest industries. In 2013, domestic travelers spent $20.2 billion across the state, a 4.4% increase from the previous year, and a record high visitor spending figure. Of that $20.2 billion total, $1.9 billion was spent on recreation-related travel services. Tourism dollars directly supported 197,690 jobs for North Carolina residents, up 2% from 2012 and also a record high.

The industry contributed $4.6 billion to the state's payroll in 2013 and traveler spending generated over $3 billion in tax receipts (federal, state and local combined).

North Carolina ranks sixth in person-trip volume by state behind only California, Florida, Texas, New York, and Pennsylvania. North Carolina's many and wondrous natural resources, vacation spots, outdoor recreation areas, and recreation opportunities have become preferred destinations for both domestic and international travelers, which has had a significant economic impact on state and local economies, offering yet further motivation to increase and protect these precious resources.

GEOGRAPHY

The geography of North Carolina falls naturally into three regions – the Appalachian Mountains (formed mostly by the Blue Ridge and Great Smoky Mountains), the Middle or Piedmont Plateau, and the Eastern or Tidewater section, also known as the Coastal Plain. North Carolina covers 53,821 square miles and is 503 miles long by 150 miles wide. In terms of size, it is the 28th largest state in the U.S.

Appalachian Mountains: North Carolina's mountain ranges are defined by distinct characteristics. The Smoky Mountain chain is more continuous, more elevated, more consistent in its direction and height, and rises very uniformly from 5,000 to 6,621 feet. The Blue Ridge is composed of many fragments scarcely connected into a continuous and regular chain. Its higher summits range from 5,000 to 6,700 feet; its average elevation is from 3,000 to 4,000 feet.

The mountain region includes many of the tallest peaks east of the Rocky Mountains. The tallest of the Appalachian Mountains is Mount Mitchell, which is the tallest point east of the Mississippi River. The mountain region is approximately 180 miles in length and twenty to fifty miles wide. The mountains lie within the Appalachian-Blue Ridge forests eco-region and are heavily forested. They often feature thick underbrush, except a few areas which are devoid of trees and are called balds.

Piedmont: The central region of North Carolina is referred to as the Piedmont plateau. The piedmont is a hilly region and includes the state's largest cities. Elevations in the Piedmont vary from 300 to 1,100 feet above sea level. There are a few isolated mountain ranges sprinkled here, mostly on the western side, but few of them reach over 1,200 feet. The Piedmont lies within the Southeastern mixed forests eco-region. The Fall Line separates the Piedmont from the Coastal Plain section of North Carolina

Figure 1.1. Geographic Regions of North Carolina

Coastal Plain: The Coastal Plain, covering roughly 45% of the state, is the largest geographic region of North Carolina. The Coastal Plain begins along the fall line, a line of hills which stretch from the South Carolina border through Fayetteville, then Raleigh, and finally through Henderson, near the Virginia border. The fall line marks where the Piedmont plateau drops down to the Coastal Plain; it also marks where waterfalls begin to appear on streams and rivers in the state. The hills of the fall line drop 150 to 350 feet in an eastward direction, but it is not particularly noticeable, as the drop is rather gradual occurring over a width of 1 – 3 miles. East of the fall line, the Coastal Plain is relatively flat, with sandy soils ideal for growing tobacco, cotton, soybeans, and melons.

The Coastal Plain section embodies the two largest landlocked sounds in the United States; the Albemarle Sound in the north and the Pamlico Sound in the south. The Pamlico Sound is larger than the state of Connecticut. The easternmost part of the Coastal Plain is home to the Outer Banks, known as the "Graveyard of the Atlantic" due to the vast number of ships that have wrecked along its beaches and shoals due to robust storms and strong tides. There are over 300 miles of shoreline and beautiful beaches along the Atlantic Ocean, stretching north from the Outer Banks, to Sunset Beach, the extreme southernmost point along the North Carolina coast.

Hydrology

North Carolina is a place with rich water resources- from tumbling mountain streams to massive reservoirs in the Piedmont to its sprawling coastal waters. Water sustains the state's quality of life by interconnecting social, economic, and environmental systems. More than 9 million North Carolina residents depend on water for drinking, irrigation, manufacturing and industrial processes, mining, recreation, and hydropower. Diverse wildlife find food, shelter and breeding grounds in the state's plentiful rivers and wetlands. The state has 3,375 miles of tidal shoreline, more than 300 miles of coastline, vast reservoirs, 17 major river basins and a huge network of groundwater.

Water conservation is sometimes overlooked because of North Carolina's rather ample sources of water. However, times of drought are a reminder of the importance of protecting water quality and quantity.

North Carolina receives an average of 48 inches of rain per year, falling primarily as rain. The Coastal Plain gets about 48 – 60 inches annually; the Piedmont usually sees 40 – 50 inches; and the Mountain regions can receive anywhere from 38 – 90 inches depending on the slopes. Annual winter precipitation ranges from 1 inch at the Outer Banks to 50 inches of snow on some of the higher mountain peaks and upper slopes.

Tropical storms influence North Carolina's weather and water resources an average of twice a year. While they can be quite damaging with high winds and tremendous surges of water, they also can be beneficial. Tropical systems can account for as much as 25% of annual rainfall totals and often can be a source for quenching a prolonged drought. Furthermore, precipitation from tropical storms is a valuable resource for refilling reservoirs and recharging groundwater levels.

Groundwater levels rise and fall during and after rain. Levels are higher in late winter and early spring due to slower rates of evapotranspiration and lower in summer due to higher evapotranspiration. While groundwater is a renewable resource, it is possible to remove it faster than it can be replenished, especially with an ever-increasing population and growth of business, industry, agriculture and development in general. Depletion of groundwater is becoming more and more of a problem in some parts of Eastern North Carolina. Therefore conservation is becoming increasingly important and must be aggressively addressed.

In North Carolina, all municipalities and large private utilities are required to have a Water Shortage Response Plan in place. Among other things, the plan establishes different stages of water shortage severity and it must outline appropriate responses for each stage so that essential needs are met, including drinking water supply, water quality, aquatic habitat, and power generation.

In addition, the North Carolina Division of Water Resources has implemented a river basin water supply planning strategy to ensure that the state has sustainable water resources to meet future needs. Historically, natural wetlands dominated floodplains and river deltas, and most level land in the coastal plain. When colonization began, North Carolina had about 7.2 million acres of wetlands. Since that time, wetlands have been drained for agriculture, forestry, flood control, road construction and urban development. Now about half of the remaining acreage that was once wetlands still exists. According to the most recent figures available, about 5.1 million acres of North Carolina, close to 17 percent of the state, is still wetland. The Coast Plain contains 95 percent of the state's wetlands.

As North Carolina continues to be one of the fastest growing states in the nation, meeting growing water supply needs will require local and state governments, along with consumers working together to coordinate successful monitoring, planning and regulation. Smart decisions today will help ensure plentiful water for tomorrow.

Vegetation and Wildlife

North Carolina has approximately 300 species of trees and almost 3,000 varieties of flowering plants. Along the coast and Coastal Plain region, plant life begins with Sea Oats predominating on the dunes and Salt Meadow and Cordgrass in the marshes. Further inland Wax Myrtle,

Yaupon, Red Cedar, and Live Oak are common and plentiful trees. Blackwater swamps support dense stands of Cypress and Gum trees.

Pine Trees are a common sight in the Piedmont area, including the Long Leaf (state tree), Loblolly, Shortleaf, and Virginia Pine. Sweet Gum and Tulip Poplars spring up beneath the tall pines, later giving way to an Oak-Hickory Climax forest. Dogwood (the state flower) decorates the understory. The abundance of plants reaches extraordinary proportions in the Mountain region. The deciduous forests on the lower slopes contain Carolina Hemlock, Silver Bell, Yellow Buckeye, Sugar Maple, Yellow Birch, Tulip Poplar, and Beech. Spruce and Fir dominate the highest mountain peaks. Twenty-seven plant species are listed as endangered.

Pleasure Island – Sea Oats

The White-tailed Deer is the principal big game animal of North Carolina, and the Black Bear is a tourist attraction in the Great Smoky Mountains National Park. The Wild Boar was introduced to the mountains during the 19th century; beavers have been reintroduced and are now the state's principal furbearers. The largest native carnivore is the Bobcat.

North Carolina game birds include the Bobwhite Quail, Mourning Dove, Wild Turkey, and numerous duck and goose varieties. Trout and Smallmouth Bass flourish in the clear mountain streams of North Carolina, while Catfish, Pickerel, Perch, Crappie, and Largemouth Bass thrive in fresh water. The sounds and surf of the coastal area yield Channel Bass, Striped Bass, Flounder and Bluefish to anglers.

The Gray Wolf, Elk, Eastern Cougar, and Bison are extirpated in North Carolina. The American Alligator, which is protected by the state, has returned in large numbers to eastern swamps and

lakeshores. Thirty animal species have been listed by the U.S. Fish and Wildlife Service as threatened or endangered including the Bald Eagle, Red-Cockaded Woodpecker, four species of whale, and five species of sea turtles. This diversity of wildlife and vegetation in the state is considered to be among the greatest in the nation.

North Carolina's State Symbols from Nature

Bird: Cardinal
Fish: Channel Bass
Flower: Dogwood
Tree: Long-leaf Pine
Reptile: Eastern box turtle
Carnivorous Plant: Venus flytrap
Shell: Scotch Bonnet
Wildflower: Carolina Lily