

Gates County, NC: Comprehensive Plan



Adopted by the County Board of Commissioners: December 5, 2016
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| Environmental Conditions Discussion of environmental conditions within the planning jurisdiction to include an assessment of the following conditions and features: | |
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| Existing Land Use and Development | |
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| Policies | | |
| <ul style="list-style-type: none"> • Policies that exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern. | N/A | 6-1 |
| Policies that address the Coastal Resources Commission’s (CRC’s) management topics: | | |
| Public Access Management Goal: <i>Maximize public access to the beaches and the public trust waters of the coastal region.</i> | | |
| The planning objectives for public access are local government plan policies that: | | |
| <ul style="list-style-type: none"> • Address access needs and opportunities. | P.3, I.1, I.3 | 6-4 |
| <ul style="list-style-type: none"> • Identify strategies to develop public access. | P.1, P.2, I.2, I.4, I.5, I.6 | 6-4 to 6-5 |
| <ul style="list-style-type: none"> • Address provisions for all segments of the community, including persons with disabilities. | P.2, I.1 | 6-4 |
| <ul style="list-style-type: none"> • For oceanfront communities, establish access policies for beach areas targeted for nourishment. | N/A | N/A |
| Land Use Compatibility Management Goal: <i>Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, and avoids risks to public health, safety, and welfare.</i> | | |
| The planning objectives for land use compatibility are local government plan policies that: | | |
| <ul style="list-style-type: none"> • Characterize future land use and development patterns. | P.4, P.6, P.7, P.10, P.13, P.20, P.24, P.26, P.38, P.39, P.44, I.7, I.10, I.11, I.16, I.18, I.34 | 6-6 to 6-14 |
| <ul style="list-style-type: none"> • Establish mitigation criteria and concepts to minimize conflicts. | P.5, P.8, P.9, P.11, P.16, P.17, P.18, P.21, P.23, P.25, P.30, P.34, P.42, I.8, I.9, I.12, I.14, I.15, I.17, I.19, I.21, I.26, I.30 | 6-6 to 6-14 |

| | Policy Citation(s) | Page Reference(s) |
|--|--|-------------------|
| Infrastructure Carrying Capacity Management Goal: <i>Ensure that public infrastructure systems are sized, located, and managed so the quality and productivity of AECs and other fragile areas are protected or restored.</i> | | |
| The planning objectives for infrastructure carrying capacity are local government plan policies that: | | |
| <ul style="list-style-type: none"> Establish service criteria. | P.46 to P.51, I.35, I.36, I.38, I.39, I.40, I.44, I.45, I.46, I.47 | 6-15 to 6-16 |
| <ul style="list-style-type: none"> Ensure improvements minimize impacts to AECs and other fragile areas. | P.54, I.41, I.42 | 6-15 to 6-16 |
| Natural Hazard Areas Management Goal: <i>Conserve and maintain barrier dunes, beaches, floodplains, and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.</i> | | |
| The planning objectives for natural hazard areas are local government plan policies that: | | |
| <ul style="list-style-type: none"> Establish mitigation and adaptation concepts and criteria for development and redevelopment, including public facilities. | P.57, P.58, P.62, I.49, I.53, I.55 | 6-18 |
| <ul style="list-style-type: none"> Minimize threats to life, property, and natural resources resulting from erosion, high winds, storm surge, flooding, or other natural hazards. | P.55, P.56, P.59, P.60, P.61, I.51, I.52, I.54 | 6-18 |
| Water Quality Management Goal: <i>Maintain, protect, and where possible, enhance water quality in all coastal wetlands, rivers, streams, and estuaries.</i> | | |
| The planning objectives for water quality are local government plan policies that: | | |
| <ul style="list-style-type: none"> Establish strategies and practices to prevent or control nonpoint source pollution. | P.64, I.61 | 6-19 to 6-20 |
| <ul style="list-style-type: none"> Establish strategies and practices to maintain or improve water quality | P.64, P.65, P.66, P.67, I.57, I.58, I.59, I.61 | 6-19 to 6-20 |

| | Policy Citation(s) | Page Reference(s) |
|--|---------------------------|--------------------------|
| Future Land Use Map | Page Reference(s) | |
| <ul style="list-style-type: none"> ● Map of future land uses that depicts the policies for growth and development and the desired future patterns of land use and development with consideration given to natural system constraints and infrastructure. <ul style="list-style-type: none"> ○ Descriptions of land uses and development associated with the future land use map designations. | 5-6 | |
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| Tools for Managing Development | | |
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| Action Plan and Implementation Schedule | | |
| <ul style="list-style-type: none"> ● Description of actions that will be taken by the local government to implement policies that meet the CRC’s management topic goals and objectives, specifying fiscal year(s) in which each action is anticipated to start and finish. | 6-3, 7-1 to 7-4 | |
| <ul style="list-style-type: none"> ● Identification of specific steps the local government plans to take to implement the policies, including adoption and amendment of local ordinances, other plans, and special projects. | 7-1 to 7-4 | |

Section 1. Introduction

PLAN PURPOSE

This plan responds to two North Carolina statutory planning requirements. North Carolina General Statutes (NCGS) 160A-383 specifies that zoning regulations shall be made in accordance with a Comprehensive Plan. Secondly, Gates County is one of the twenty counties included in the Coastal Area Management Act of 1974 (CAMA). The Act establishes a cooperative program of coastal area management between local governments and the State. Land use planning lies at the center of local government's involvement. Subchapter 7B - Land Use Planning Guidelines of the North Carolina Administrative Code, October 1989, were promulgated for the purpose of assisting localities with the preparation of land use plans and set forth standards for their review. These guidelines were being reviewed and amended in 2015/2016. The revised guidelines provide more local flexibility in coastal planning than was provided by the previous guidelines.

This land use plan update, when certified by the North Carolina Coastal Resources Commission (CRC), will become part of the North Carolina Coastal Management Plan for the protection, preservation, orderly development, and management of the coastal area of North Carolina.

While the state requirements provide some guidelines for plan preparation, there are broader and more important reasons to engage in the planning process. Basically, planning should begin with understanding Gates County and its people and learning how to care for them. Choices must be made about the natural, manmade, and financial resources in the county. The county's budget should be compared to the plan to ensure that public money will be spent in accordance with the county's goals and objectives.

The plan should be:

- Comprehensive in setting goals and objectives for all aspects of the county.
- Part of a continuous planning process that is timely and responsive to the needs and desires of the county.
- The legal basis for land use regulations (including CAMA requirements) and a guide for a capital improvements plan for county budgeting.

The planning process is divided into four steps:

1. **Basic Goals.** For local planning, determining basic goals may mean asking questions such as the following: Do we want to grow? Do we want to arrest decline? Do we want to be a center for high-tech industry? What balance do we want between investment in highways and in mass transit?

2. Study and Analysis. Among other things, planners address land use, population trends, the economic base of the community, and physiographic features.
3. Plan or Policy Preparation. Plans or policies will be prepared for the county as a whole or for a segment of it. It is a basic statement of how the county will develop, in what direction, and perhaps at what pace.
4. Implementation and Effectuation. To carry out the plan, tools such as county ordinances, capital improvements programs, and general guidelines for private development and public investment will be specified.

A comprehensive plan is a statement by the community of what it is today, and what it would like to be in the future. A comprehensive plan is an official public document, adopted by the chief legislative body.

In summary, the plan will:

- Review historical data.
- Discuss principal issues.
- Define problems associated with growth.
- Define main trends and produce forecasts.
- Provide a generalized future land use map.
- Define public, private, or public-private programs which should be implemented or improved.
- Define goals, policies, and implementing actions, including specific responses to CAMA requirements.

PLANNING PROCESS

This plan is an update to the county's 2003-2004 CAMA Core Land Use Plan. Preparation of this document was undertaken to produce a workable, creative, and dynamic plan to guide future long-term growth and development throughout the next twenty years. The intent of this plan is to establish a solid foundation of the ongoing planning program and to serve as the primary policy guide for short- and long-range planning and programmatic decision-making within Gates County.

CITIZEN PARTICIPATION

Gates County has employed a variety of educational efforts and participation techniques to assure that all socioeconomic segments of the community and non-residential property owners have opportunities to participate during CAMA land use plan development. Examples are surveys or questionnaires, informational brochures or material, community outreach, and public information meetings.

At the start of this land use plan update process, the Board of Commissioners adopted a citizen participation plan to be implemented – and amended as necessary – during the update process (see Appendix A). Interested citizens had opportunities to participate in the development of the land use plan update through oral and written comments as provided for in the citizen participation plan. A Comprehensive Plan Advisory Committee (CPAC) was appointed to supervise the preparation of the draft plan. Copies of informational land use plan update materials were provided at all meetings of the CPAC. Copies of the draft land use plan update were provided for review and comments to the North Carolina counties of Pasquotank, Perquimans, Chowan, Camden, and Hertford, and to the City of Suffolk, Virginia. The CPAC submitted the draft plan to the Gates County Planning Board for review and recommendation to the Gates County Board of Commissioners. The Board of Commissioners conducted a public hearing and adopted the plan on December 5, 2016. The plan was certified by the Coastal Resources Commission on February 8, 2017.

VISION STATEMENT

Gates County desires to remain a slow paced, rural area. The county seeks to maintain its abundant charm and beauty by protecting its forest resources, agricultural lands, and natural environment systems. It will accomplish these objectives by: balancing residential and commercial land uses; protecting and preserving view sheds; protecting and preserving the natural environment and public trust waters; promoting controlled growth and prudent land use; and discouraging over-development and strip development along State-maintained roads. The goals, policies, and strategies contained in this plan support this vision statement.

PUBLIC INPUT

During the citizen participation process, the following assets and issues were identified:

Assets

At the beginning of the planning process, interviews were conducted with thirteen (13) Gates County citizens. Based on input received, the County's major assets were identified and subsequently, refined at a public input meeting conducted on September 28, 2015. The following summarizes the County's Top 5 assets which will affect future land use in priority order. Protection of these assets should be a future County concern.

1. Merchant's Mill Pond
2. Agriculture
3. School system; Forestry (tie)
4. Wildlife
5. Existing local business

Issues

During the public input process, the following issues which will affect future land use were identified (in priority order). These issues should be considered in the County's future decision-making process.

1. Improve/increase County's revenue
2. Improve communication between County and its citizens
3. Protect natural resources; Protect farmland/forestland (tie)
4. Law enforcement; Improve schools; Business incentives (tie)

These assets and issues all influence land use, development, water quality, and other environmental concerns in the planning area. The County is placing great emphasis on stimulating economic growth. The "green" assets of the County including Merchant's Mill Pond, agriculture, forestry, and wildlife all provide a foundation for tourism and agricultural/forestry activity. These activities are reflected in the composition of the future land use map. These activities also provide support for the County's existing local businesses. The County desires to expand its technological and manufacturing opportunities. Such expansion is dependent on the County improving the school system, providing business incentives, improving regional transportation accessibility, promoting industrial land use on US 13, and improving/expanding the County's sewer system.

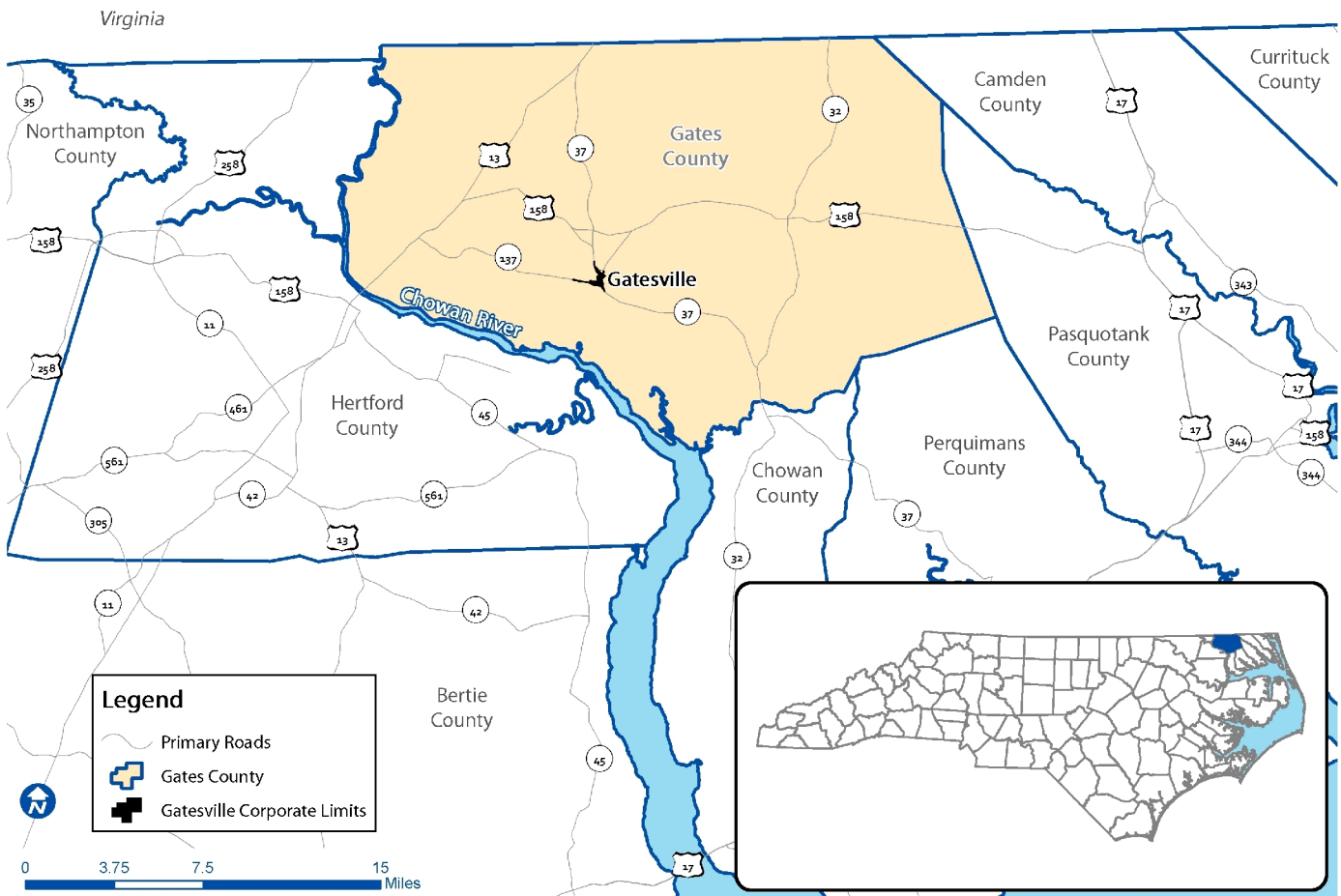
In addition, the following CAMA issues will be discussed: public access, land use compatibility, infrastructure carrying capacity, natural hazard areas, and water quality.

REGIONAL LOCATION

Gates County is located in the Northern Coastal Plain of North Carolina on the North Carolina/ Virginia state line. The county is adjacent to Suffolk, Virginia, and immediately southwest of Chesapeake, VA. US 13 extends north-south through the western portion of the county. Greenville, North Carolina, is approximately 56 miles south of the county. Primary east/west access to the county is provided by US 158, which provides access to Elizabeth City, NC. The I-95 corridor is located approximately 50 miles west of the county via US 158. NC 37 and NC 32 provide access to Edenton in Chowan County, NC, which is located southeast of Gates County. See Map 1.

The closest air carrier service is the Norfolk International Airport. General aviation service is available at both the Suffolk and Hertford County general aviation airports. There is no rail service within the county.

Map 1: Gates County Regional Location



HISTORY

Pre-1700s

Before the settlement of the area by the Europeans, the Nansemond, Chesapeake, Chowanoc/Chowanoke, Meherrin, and Nottoway Indians made their homes here.



Image Courtesy of the Meherrin Indian Tribe.

1728-1780

The area grew from a thick wooded and inhospitable land to an agrarian community with many of the same resources that many surrounding areas had.



Image Courtesy of www.the-athenaeum.org.

1779

Gates County was formed from Chowan, Hertford, and Perquimans County. Named in honor of General Horatio Gates, who commanded the American Army at the Battle of Saratoga.

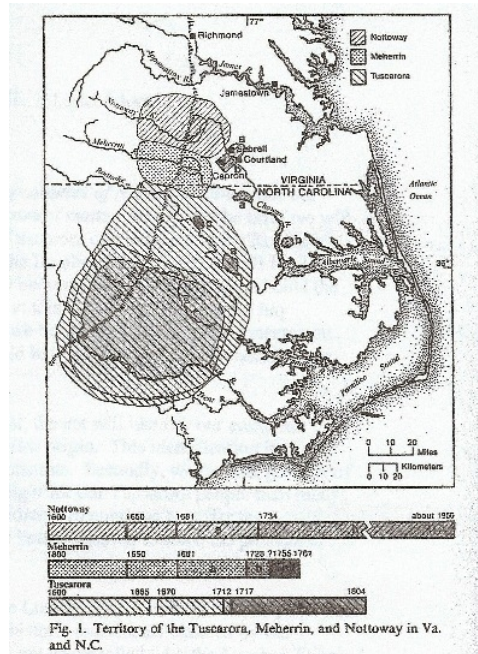


Fig. 1. Territory of the Tuscarora, Meherrin, and Nottoway in Va. and N.C.

Image Courtesy of the *Handbook of American Indians North of Mexico*, Frederick Webb Hodge, US Government Printing Office, 1910.

After 1711

Few Native Americans were found in the county, although there continues to be a population of Meherrins living in Hertford, Bertie, Gates, and Northampton counties.

1780

A courthouse, prison and stocks were built in Gates Court House (now Gatesville). The Legislature passed an act in 1830-1831 which changed the name of the county seat from Gates Court House to Gatesville.



Image Courtesy of Gates County, NC

1836

A second Federal-style courthouse was built, which now houses the Gates County Historical Society.

Late 1800s

The railroad opened Gates County to new opportunity. It remained this way until the railroads stopped running through the county in 1979, after highways made truck shipment cheaper than the rails.

1973

Merchants Millpond State Park is established, resulting in increased tourism and economic development to Gates County.



Image Courtesy of Gates County, NC

Section 2. Community Profile

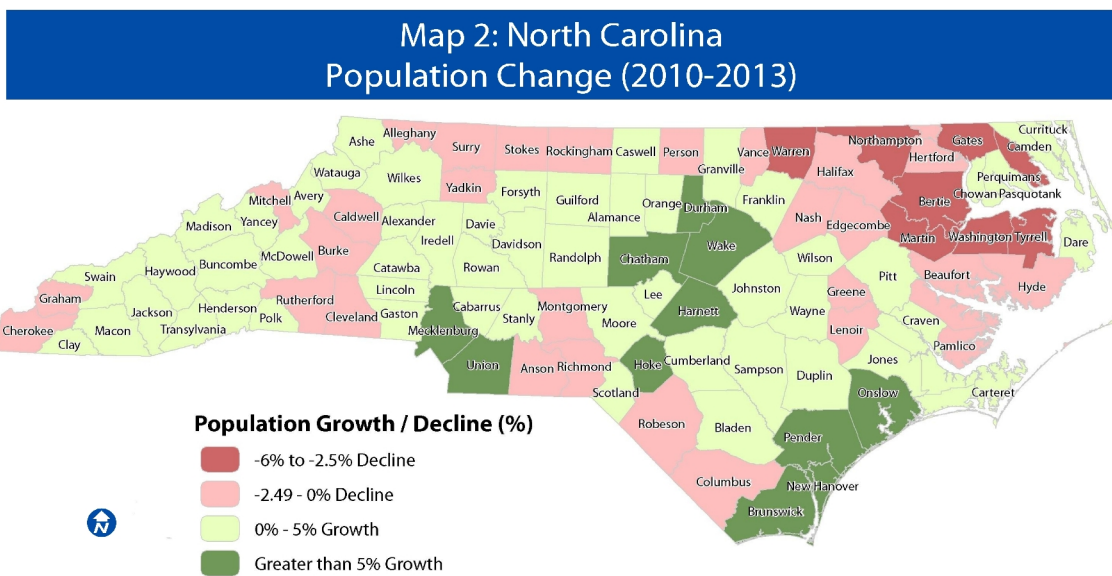
INTRODUCTION

This section provides a synopsis of the current population, housing, and economic conditions in Gates County. Demographic data is sourced from both the 2000 and 2010 U.S. Census, NC Office of State Budget & Management (NCOSBM), and the NC Department of Commerce, Division of Employment Security. This synopsis provides a foundation for assessing Gates County’s future.

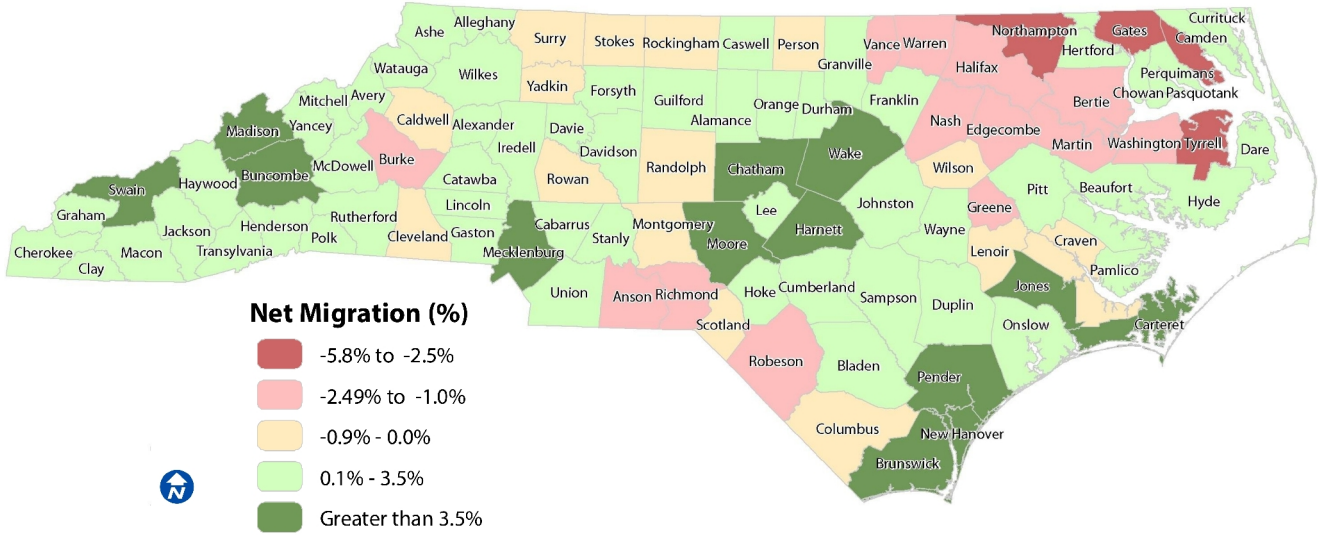
POPULATION

Regional Population Growth

In order to accurately assess Gates County’s population change, the regional population must be considered. The county is included in the North Carolina Northeast Economic Region. Most of the growth occurred in nine of the Region’s 17 counties. The 1980 to 2014 population change for the entire region, each of its counties, and North Carolina is included in Table 1. From 1980 to 2014, the Region’s total population grew by 44.3% from 375,348 people to 541,758. Most of that growth occurred in Beaufort, Pitt, Camden, Chowan, Currituck, Dare, Pasquotank, and Perquimans counties. Those counties are influenced by in-county urban growth and outward growth from the Chesapeake, Virginia area. The remaining portions of the Northeast Region experienced little consistent population growth. In fact, the eight remaining counties experienced a population decline. Gates County had a total population increase of 34.04%. However, the county’s highest population total occurred in 2010 with a population of 12,197. This high declined slightly to 11,864 in 2014. The population decline is the result of out-migration. This out-migration is evident throughout most of eastern North Carolina. Maps 2 and 3 depict 2010-2013 population change and net migration, respectively, for North Carolina’s counties.



Map 3: North Carolina Net Migration (2010-2013)



Overall, the Region’s growth has lagged behind the state’s population increase of 70.42% from 1980 to 2014. It is expected that the majority of the Region will continue to see slow to moderate growth, with Gates County experiencing some increased growth due to in-migration from the urbanized southeast area of Virginia. Map 4 provides a distribution of the county’s 2013 population (based on Census data).

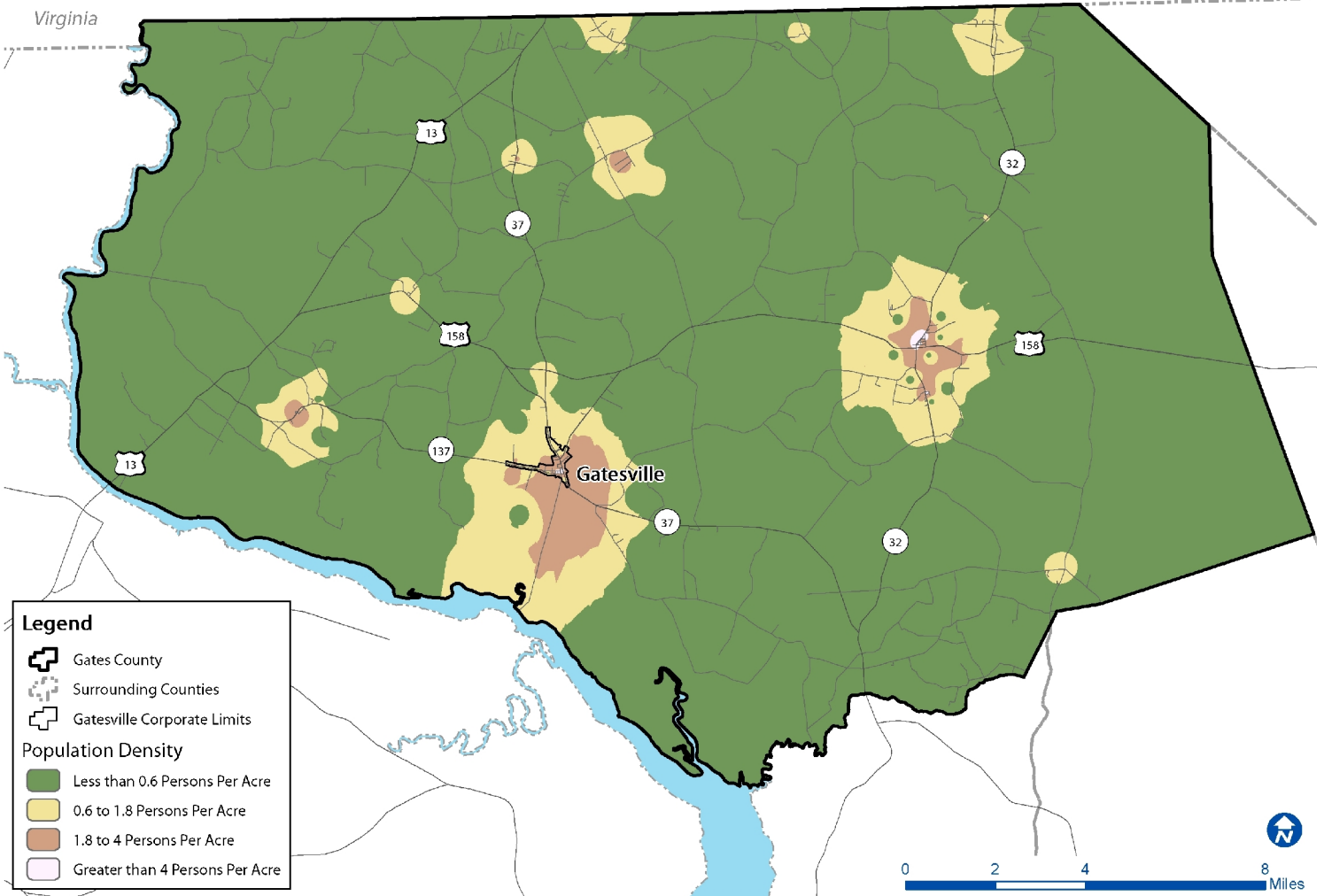
Seasonal population is limited in Gates County. In 2013, there were only 53 dwelling units vacant for seasonal recreation or occasional use. This figure was a decline from the 2010 total of 78 seasonal units. In 2013, the average Gates County household size was 3.57. At the 2013 household size, the 53 seasonal units would have accommodated 189 people, or only 1.6% of the county’s permanent population. Thus, seasonal population has no significant impact in the county.

Table 1. Northeast Region Population Change, 1980-2014

| | 1980 | 1990 | 2000 | 2010 | 2013 | 2014 Est. | % Change '80-'90 | % Change '90-'00 | % Change '00-'10 | % Change '10-'13 | % Change '13-'14 | % Change '80-'14 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|------------------|------------------|------------------|------------------|------------------|
| Beaufort County | 40,235 | 42,286 | 44,959 | 47,759 | 47,575 | 49,069 | 5.10% | 6.32% | 6.23% | -0.39% | 3.14% | 21.96% |
| Bertie County | 20,967 | 20,388 | 19,773 | 21,282 | 20,879 | 20,910 | -2.76% | -3.02% | 7.63% | -1.89% | 0.15% | -0.27% |
| Camden County | 5,813 | 5,904 | 6,885 | 9,980 | 10,037 | 9,921 | 1.57% | 16.62% | 44.95% | 0.57% | -1.16% | 70.67% |
| Chowan County | 12,526 | 13,506 | 14,526 | 14,793 | 14,782 | 14,797 | 7.82% | 7.55% | 1.84% | -0.07% | 0.10% | 18.13% |
| Currituck County | 554 | 13,736 | 18,191 | 23,547 | 23,880 | 24,509 | 2379.42% | 32.43% | 29.44% | 1.41% | 2.63% | 4324.01% |
| Dare County | 13,311 | 22,746 | 29,966 | 33,920 | 34,289 | 37,352 | 70.88% | 31.74% | 13.20% | 1.09% | 8.93% | 180.61% |
| Gates County | 8,851 | 9,305 | 10,516 | 12,197 | 11,982 | 11,864 | 5.13% | 13.01% | 15.99% | -1.76% | -0.98% | 34.04% |
| Halifax County | 55,091 | 55,517 | 57,371 | 54,691 | 54,251 | 54,415 | 0.77% | 3.34% | -4.67% | -0.80% | 0.30% | -1.23% |
| Hertford County | 23,306 | 22,517 | 22,601 | 24,669 | 24,516 | 24,602 | -3.39% | 0.37% | 9.15% | -0.62% | 0.35% | 5.56% |
| Hyde County | 5,856 | 5,411 | 5,827 | 5,810 | 5,771 | 6,045 | -7.60% | 7.69% | -0.29% | -0.67% | 4.75% | 3.23% |
| Martin County | 25,866 | 25,078 | 25,593 | 24,505 | 24,147 | 24,096 | -3.05% | 2.05% | -4.25% | -1.46% | -0.21% | -6.84% |
| Northampton County | 22,523 | 20,806 | 22,087 | 22,099 | 21,645 | 21,537 | -7.62% | 6.16% | 0.05% | -2.05% | -0.50% | -4.38% |
| Pasquotank County | 28,395 | 31,297 | 34,896 | 40,661 | 40,419 | 40,639 | 10.22% | 11.50% | 16.52% | -0.60% | 0.54% | 43.12% |
| Perquimans County | 9,455 | 10,449 | 11,368 | 13,453 | 13,463 | 13,538 | 10.51% | 8.80% | 18.34% | 0.07% | 0.56% | 43.18% |
| Pitt County | 83,893 | 107,923 | 133,798 | 168,148 | 170,485 | 170,970 | 28.64% | 23.98% | 25.67% | 1.39% | 0.28% | 103.80% |
| Tyrrell County | 3,964 | 3,856 | 4,149 | 4,407 | 4,272 | 4,416 | -2.72% | 7.60% | 6.22% | -3.06% | 3.37% | 11.40% |
| Washington County | 14,742 | 13,997 | 13,723 | 13,228 | 12,958 | 13,078 | -5.05% | -1.96% | -3.61% | -2.04% | 0.93% | -11.29% |
| Northeast Region | 375,348 | 424,722 | 476,229 | 535,149 | 535,351 | 541,758 | 13.15% | 12.13% | 12.37% | 0.04% | 1.20% | 44.33% |
| North Carolina | 5,795,278 | 6,626,118 | 8,049,319 | 9,535,483 | 9,651,380 | 9,876,597 | 14.34% | 21.48% | 18.46% | 1.22% | 2.33% | 70.42% |

Source: US Census Bureau.

Map 4: Gates County
Population Density (2012)



Age and Gender Composition

Table 2 provides the county’s population distribution by sex and median age for 2000, 2010, and 2013. Both the median age and male/female distribution have remained fairly constant since 2000. The county’s 2013 median age of 42.4 was higher than North Carolina’s median age of 37.6. The county’s higher median age reflects a loss of the county’s younger population. The male/female distribution has remained constant with close to a 50/50 split.

Table 2. Gates County Age and Sex Distribution, 1990 to 2013

| | 1990 | % of Total | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| Male | 4,597 | 49.4% | 5,155 | 49.0% | 5,962 | 48.9% | 5,941 | 49.6% |
| Female | 4,708 | 50.6% | 5,361 | 51.0% | 6,235 | 51.1% | 6,041 | 50.4% |
| Total | 9,305 | 100.0% | 10,516 | 100.0% | 12,197 | 100.0% | 11,982 | 100.0% |
| Median Age | 34.2 | | 38.1 | | 42.0 | | 42.4 | |

Source: US Census Bureau.

Racial Composition

The racial composition of the county is unusual for many northeastern North Carolina counties (see Table 3). From 1990 to 2013, the percentage of the county which was White increased from 54.8% to 63.7%. Many northeastern North Carolina counties have experienced a decline in the percentage of the population which is White.

Table 3. Gates County Racial Composition, 1990 to 2013

| | 1990 | % of Total | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|-------------------------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| White | 5,101 | 54.8% | 6,213 | 59.1% | 7,768 | 63.7% | 7,671 | 64.0% |
| Black or African American | 4,180 | 44.9% | 4,120 | 39.2% | 4,044 | 33.2% | 4,075 | 34.0% |
| American Indian or Alaska Native | 8 | 0.1% | 44 | 0.4% | 65 | 0.5% | 23 | 0.2% |
| Asian | 12 | 0.1% | 26 | 0.2% | 17 | 0.1% | 43 | 0.4% |
| Native Hawaiian or Pacific Islander | 1 | 0.0% | 3 | 0.0% | 10 | 0.1% | 0 | 0.0% |
| Some Other Race | 3 | 0.0% | 11 | 0.1% | 73 | 0.6% | 37 | 0.3% |
| Two or More Races | 0 | 0.0% | 99 | 0.9% | 220 | 1.8% | 133 | 1.1% |
| Total | 9,305 | 100.0% | 10,516 | 100.0% | 12,197 | 100.0% | 11,982 | 100.0% |

Source: US Census Bureau.

HOUSING

Dwelling Unit Growth

From 1990 to 2013, the total number of housing units in Gates County increased from 3,696 to 5,190, an increase of 40%. This increase was significant for a rural county with no urbanized area. From 2010 to 2013, the county's inventory increase was 2.9%, or a total of 144 dwelling units.

Table 4. Gates County Housing Occupancy, 1990 to 2013

| | 1990 | % of Total | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|---------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| Owner Occupied | 2,719 | 73.6% | 3,202 | 73.0% | 3,595 | 71.2% | 3,548 | 68.4% |
| Rental Occupied | 633 | 17.1% | 699 | 15.9% | 811 | 16.1% | 911 | 17.6% |
| Vacant | 344 | 9.3% | 488 | 11.1% | 640 | 12.7% | 731 | 14.1% |
| Total Housing Units | 3,696 | 100.0% | 4,389 | 100.0% | 5,046 | 100.0% | 5,190 | 100.0% |

Source: US Census Bureau.

For comparison, North Carolina's housing unit percentage increase was 20%. During the last decade, the county's housing growth has slowed significantly.

Age of Dwelling Units

The age of the county's housing has increased. From 2000 to 2010, the percentage of the total housing inventory which was 30 years old or older rose from 39% to 44%. Table 5 provides a summary of housing age for 2000 to 2013.

Table 5. Gates County Year Structure Built, 2000 to 2013

| | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|-----------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| Built 2010 or later | 0 | 0.0% | 0 | 0.0% | 1 | 0.0% |
| Built 2000 to 2009 | 0 | 0.0% | 314 | 6.2% | 649 | 12.5% |
| Built 1990 to 1999 | 1,108 | 25.2% | 1,285 | 25.5% | 1,363 | 26.3% |
| Built 1980 to 1989 | 829 | 18.9% | 1,213 | 24.0% | 902 | 17.4% |
| Built 1970 to 1979 | 711 | 16.2% | 633 | 12.5% | 546 | 10.5% |
| Built 1960 to 1969 | 433 | 9.9% | 413 | 8.2% | 432 | 8.3% |
| Built 1950 to 1959 | 375 | 8.5% | 463 | 9.2% | 441 | 8.5% |
| Built 1940 to 1949 | 374 | 8.5% | 184 | 3.6% | 364 | 7.0% |
| Built 1939 or earlier | 559 | 12.7% | 541 | 10.7% | 492 | 9.5% |
| Total | 4,389 | 100.0% | 5,046 | 100.0% | 5,190 | 100.0% |

Source: US Census Bureau.

Dwelling Unit Value

Table 6 provides the county’s owner-occupied dwelling unit values for 1990 to 2013. In 2010, the median owner-occupied home value in Gates County was \$120,200. Statewide, the median housing value was \$149,100, approximately 24% higher than that in Gates County. In 2013, almost 50% of the county’s owner-occupied dwelling units were valued at \$149,999 or less.

Table 6. Gates County Owner-Occupied Dwelling Unit Value, 1990 to 2013

| | 1990 | % of Total | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|-----------------------------------|-----------------|-------------------|-----------------|-------------------|------------------|-------------------|------------------|-------------------|
| Less than \$50,000 | 705 | 50.4% | 415 | 22.8% | 524 | 14.6% | 497 | 14.0% |
| \$50,000 to \$99,999 | 586 | 41.9% | 898 | 49.4% | 1,018 | 28.3% | 633 | 17.8% |
| \$100,000 to \$149,999 | 87 | 6.2% | 365 | 20.1% | 628 | 17.5% | 640 | 18.0% |
| \$150,000 to \$199,999 | 16 | 1.1% | 89 | 4.9% | 628 | 17.5% | 788 | 22.2% |
| \$200,000 to \$299,999 | 5 | 0.4% | 51 | 2.8% | 551 | 15.3% | 628 | 17.7% |
| \$300,000 to \$499,999 | 0 | 0.0% | 0 | 0.0% | 158 | 4.4% | 297 | 8.4% |
| \$500,000 to \$999,999 | 1 | 0.1% | 0 | 0.0% | 23 | 0.6% | 55 | 1.6% |
| \$1,000,000 or more | 0 | 0.0% | 0 | 0.0% | 65 | 1.8% | 10 | 0.3% |
| Total Owner-Occupied Units | 1,400 | 100.0% | 1,818 | 100.0% | 3,595 | 100.0% | 3,548 | 100.0% |
| Median (Dollars) | \$54,233 | | \$77,200 | | \$120,200 | | \$150,200 | |

Source: US Census Bureau.

Housing Affordability

It is difficult to obtain a precise picture of housing affordability in any jurisdiction. However, most measures of housing affordability consider 30% of gross income an allowable/affordable expenditure for housing. For homeowners, the costs includes mortgage payments, taxes, insurance, and utilities. For renters, housing cost includes rent and utilities.

Table 7 provides housing mortgage/rent cost data for Gates County. In 2013, approximately 35.5% of homeowners in Gates County had a mortgage to which 30% or more of their income is allocated to housing costs. According to the 2010 Census, 25.1% of homeowners in the county allocated that level of income to their mortgage – representing a 41.4% increase in homeowners burdened by a large mortgage payment in the 3-year period.

The number of renters paying a significant portion of household income for living purposes also grew from 2010 to 2013. In 2010, 38.3% of renters used more than 30% of their income to pay rent. By 2013, the percentage of renters burdened by their living costs increased to 57.6%, significantly increasing the amount of individuals facing difficulties paying rent. Across the

state, this trend held true as burdened mortgage owners and renters increased from 20.7% and 33.4%, respectively, to over 32% of mortgage owners and close to half (48.9%) of all renters in 2010.

Additionally, in 2010, the percentage of housing units lacking complete plumbing facilities in Gates County (1.2%) was more than double the statewide average (0.5%).

Table 7. Gates County Housing Costs and Condition, 2000 to 2013

| | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|--------------------------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| With a mortgage | 1,004 | | 1,415 | | 2,071 | |
| >30% | 374 | 37.3% | 355 | 25.1% | 736 | 35.5% |
| Specified rent-occupied units | 680 | | 598 | | 724 | |
| >30% | 203 | 29.9% | 229 | 38.3% | 417 | 57.6% |
| Occupied housing units | 3,901 | | 4,665 | | 4,459 | |
| Lacking complete plumbing facilities | 72 | 1.8% | 45 | 1.0% | 52 | 1.2% |
| Lacking complete kitchen facilities | 48 | 1.2% | 14 | 0.3% | 34 | 0.8% |

Source: US Census Bureau.

Units in Structure

A majority of housing within Gates County is comprised of single-family residential construction (71.1% of the overall housing stock). There has been a slight increased in these units since the year 2000 at a rate of 4.8%. Manufactured homes make up a majority of the remaining units (27.6%). It should be noted that there is a significant lack of multi-family housing in the County.

Table 8. Gates County Units in Structure, 2000 to 2013

| | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|---------------------|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| 1-unit, detached | 2,803 | 63.9% | 3,467 | 68.7% | 3,690 | 71.1% |
| 1-unit, attached | 6 | 0.1% | 16 | 0.3% | 35 | 0.7% |
| 2 units | 8 | 0.2% | 0 | 0.0% | 25 | 0.5% |
| 3 or 4 units | 13 | 0.3% | 0 | 0.0% | 0 | 0.0% |
| 5 to 9 units | 12 | 0.3% | 0 | 0.0% | 0 | 0.0% |
| 10 to 19 units | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 20 or more units | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Mobile Home | 1,533 | 34.9% | 1,563 | 31.0% | 1,430 | 27.6% |
| Boat, RV, van, etc. | 14 | 0.3% | 0 | 0.0% | 10 | 0.2% |
| Total Housing Units | 4,389 | 100.0% | 5,046 | 100.0% | 5,190 | 100.0% |

Source: US Census Bureau.

ECONOMY

Employment by Industry

According to the US Census, in 2013, the Education, Health, and Social Services industry (24.8%) had the largest number of employees in Gates County (it is important to note that all employees may not be listed in this table). Close to 17% of the workforce is employed in the Manufacturing industry. Retail trade was the third largest employer at 15.3%. These three categories provided 56.8% of all employment within the county. Table 9 provides a summary of Gates County employment by industry from 2000 to 2013.

Table 9. Gates County Employment by Industry, 2000 to 2013

| Industry | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|---|-------|------------|-------|------------|-------|------------|
| Agriculture, forestry, fishing and hunting, mining | 263 | 6.1% | 193 | 3.8% | 163 | 3.5% |
| Construction | 377 | 8.7% | 611 | 12.1% | 442 | 9.5% |
| Manufacturing | 952 | 22.0% | 842 | 16.7% | 783 | 16.7% |
| Wholesale trade | 115 | 2.7% | 129 | 2.6% | 131 | 2.8% |
| Retail trade | 460 | 10.6% | 636 | 12.6% | 714 | 15.3% |
| Transportation and warehousing, and utilities | 271 | 6.3% | 286 | 5.7% | 197 | 4.2% |
| Information | 55 | 1.3% | 32 | 0.6% | 13 | 0.3% |
| Finance, insurance, real estate, and rental and leasing | 186 | 4.3% | 164 | 3.2% | 212 | 4.5% |
| Professional, scientific, management, administrative, and waste management services | 216 | 5.0% | 223 | 4.4% | 32 | 0.7% |
| Educational, health, and social services | 857 | 19.8% | 1,221 | 24.2% | 1,159 | 24.8% |
| Arts, entertainment, recreation, accommodation and food services | 211 | 4.9% | 211 | 4.2% | 262 | 5.6% |
| Other services (except public administration) | 193 | 4.5% | 153 | 3.0% | 231 | 4.9% |
| Public administration | 174 | 4.0% | 347 | 6.9% | 336 | 7.2% |
| Employed Person 16+ | 4,330 | 100.0% | 5,048 | 100.0% | 4,675 | 100.0% |

Source: US Census Bureau.

Leading Employers

The Gates County Board of Education is the single largest employer in the county. There are only three employers with 50 or more employees. All other significant in-county employers employ fewer than fifty people. Table 10 summarizes the county's Top 25 employers. In 2014, the annual unemployment rate for Gates County was 5.9% compared to 6.1% for the State.

Table 10. Gates County Top 25 Employers, 2014 4th Quarter

| Rank | Company | Industry | Employment Range |
|-------------|-------------------------------------|-----------------------------------|-------------------------|
| 1 | Gates County Board of Education | Education & Health Services | 250-499 |
| 2 | Gates County | Public Administration | 100-249 |
| 3 | Ashton Lewis Lumber Co Inc | Manufacturing | 50-99 |
| 4 | Gates Milling Inc | Manufacturing | Below 50 |
| 5 | Shoreline Healthcare Management LLC | Information | Below 50 |
| 6 | Gates Cotton Gin Inc | Natural Resources & Mining | Below 50 |
| 7 | LGC Group Inc | Trade, Transportation & Utilities | Below 50 |
| 8 | Blas Yovanni R Sanchez | Natural Resources & Mining | Below 50 |
| 9 | Family Foods of Gatesville Inc | Trade, Transportation & Utilities | Below 50 |
| 10 | Doris & Rogers Kitchen | Leisure & Hospitality | Below 50 |
| 11 | Gates County Rescue Squad | Education & Health Services | Below 50 |
| 12 | Sarem Farms Inc | Natural Resources & Mining | Below 50 |
| 13 | NC Department of Transportation | Public Administration | Below 50 |
| 14 | Healthcare Services Group Inc | Professional & Business Services | Below 50 |
| 15 | US Postal Service | Trade, Transportation & Utilities | Below 50 |
| 16 | Tarheel Bar B Que Inc | Leisure & Hospitality | Below 50 |
| 17 | Miller Funeral Home | Other Services | Below 50 |
| 18 | National Vision Inc | Trade, Transportation & Utilities | Below 50 |
| 19 | Discount Family Foods Inc | Trade, Transportation & Utilities | Below 50 |
| 20 | Gates County Animal Clinic PA | Professional & Business Services | Below 50 |
| 21 | G P Kittrell & Son Inc | Trade, Transportation & Utilities | Below 50 |
| 22 | Dixie Auto Parts | Trade, Transportation & Utilities | Below 50 |
| 23 | Dollar General | Trade, Transportation & Utilities | Below 50 |
| 24 | State Employees Credit Union Inc | Financial Activities | Below 50 |
| 25 | Bundy Logging Co Inc | Natural Resources & Mining | Below 50 |

Source: NC Commerce, Labor and Economic Analysis Division.

Agriculture

In 2013, the agriculture, forestry, fishing and hunting, mining industry grouping (see Table 9) included only 3.5% of Gates County’s total employment. However, agriculture is a vital part of the County’s economy in both direct economic production/value and “spin-off” to support businesses.

In 2012, the average market value of products sold per farm was \$367,127. This amount was a 39% increase from 2007 when the average per farm was \$264,525. In addition, from 2007 to 2013, the number of farms increased slightly from 181 to 182. The total value of farm products in 2012 was \$66,817,000, or 40% higher than it was in 2007 at \$47,879,000. This economic production is significant in consideration that farm and forest lands are the most productive real property tax revenue sources in return for governmental services demanded/required. Table 11 provides a summary of farm commodity rankings for Gates County among the 100 North Carolina counties.

| Table 11. Gates County Ranked Items Among North Carolina’s Counties | | |
|--|-----------------|-------------------|
| Market Value of Agricultural Products Sold (\$1,000) | Quantity | State Rank |
| Total value of agricultural products sold | 66817 | 50 |
| Value of crops including nursery and greenhouse | 30662 | 47 |
| Value of livestock, poultry, and their products | 36155 | 43 |
| Value of Sales by Commodity Group (\$1,000) | | |
| Grains, oilseeds, dry beans, and dry peas | 21642 | 28 |
| Tobacco | (D) | 70 |
| Cotton and cottonseed | 5330 | 26 |
| Vegetables, melons, potatoes, and sweet potatoes | 94 | 96 |
| Fruits, tree nuts, and berries | 4 | 97 |
| Nursery, greenhouse, floriculture, and sod | (D) | (D) |
| Cut Christmas trees and short rotation woody crops | - | - |
| Other crops and hay | 3543 | 16 |
| Poultry and eggs | 28085 | 38 |
| Cattle and calves | 338 | 79 |
| Milk from cows | - | - |
| Hogs and pigs | 7566 | 32 |
| Sheep, goats, wool, mohair, and milk | 31 | 58 |
| Horses, ponies, mules, burros, and donkeys | 130 | 51 |
| Aquaculture | - | - |
| Other animals and other animal products | 5 | 77 |

| Top Crop Items (acres) | | |
|---|---------|----|
| Soybeans for beans | 22994 | 26 |
| Wheat for grain, all | 11548 | 19 |
| Winter wheat for grain | 11548 | 19 |
| Cotton, all | 8724 | 25 |
| Upland cotton | 8724 | 25 |
| Top Livestock Inventory Items (number) | | |
| Broilers and other meat-type chickens | 1125530 | 33 |
| Hogs and pigs | 22637 | 33 |
| Cattle and calves | 792 | 88 |
| Rabbits, live | 602 | 3 |
| Layers | 440 | 80 |

Source: 2012 US Census of Agriculture.

In 2012, poultry and eggs, soybeans, and grains were the County's most important products. Except for live rabbits, the County's highest state ranking for a commodity were cotton and soybeans at 26.

Income

In 2013, the median household income in Gates County was \$46,592. The county's 2000-2013 household income is provided in Table 12.

| | 2000 | 2010 | 2013 |
|---------------------------------|-------------|-------------|-------------|
| Median Household Income | \$35,647 | \$45,682 | \$46,592 |
| Mean Household Income | \$43,668 | \$54,399 | \$54,917 |
| Persons Below Poverty Level (%) | 17.0% | 20.5% | 19.6% |

Source: US Census Bureau.

For comparison, the 2013 median household income for North Carolina was \$46,334. In 2000, the county was below the State's median household income of \$39,184. Thus, the county has risen to the State's median household income level. This fact is unusual for a rural eastern North Carolina community.

In 2013, nearly 20% of the county's population lived below the poverty line. This figure is slightly higher than the 17.5% poverty rate for all of North Carolina.

Educational Attainment

Table 13 provides a summary of educational attainment for Gates County from 2000 to 2013. In 2013, 83.4% of the county’s population 25 years old or older had a high school diploma or higher. In addition, 46.7% had some college or a complete college education. Relative to many other rural counties, Gates County has a well educated population.

| | 2000 | % of Total | 2010 | % of Total | 2013 | % of Total |
|---|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| Less than 9 th grade | 742 | 10.5% | 523 | 6.4% | 496 | 6.0% |
| 9 th to 12 th grade, no diploma | 1,288 | 18.2% | 891 | 10.9% | 876 | 10.6% |
| High school graduate (includes equivalency) | 2,506 | 35.3% | 3,179 | 38.9% | 3,033 | 36.7% |
| Some college, no degree | 1,369 | 19.3% | 2,077 | 25.4% | 2,066 | 25.0% |
| Associate’s degree | 447 | 6.3% | 646 | 7.9% | 835 | 10.1% |
| Bachelor’s degree | 585 | 8.2% | 654 | 8.0% | 711 | 8.6% |
| Graduate or professional degree | 158 | 2.2% | 204 | 2.5% | 248 | 3.0% |
| Population 25 years and over | 7,095 | 100.0% | 8,177 | 100.0% | 8,263 | 100.0% |

Source: US Census Bureau.

In 2013, the county’s Kindergarten to 12th grade enrollment was 1,650 students. In 2014, the average SAT score was 1,379 on a scale of 2,400, with 29.6% of high school graduates taking the SAT.

Vehicle Availability and Travel Time to Place of Work

In 2013, approximately 4.66% of the Gates County households did not have a vehicle available. Many rural counties have 10% or higher of its households without vehicles. The availability of vehicles in a rural area is obviously critical to access to work, food, and health services. Table 14 provides a 2013 summary of travel time to work for the Gates County workforce.

| | Number | % of Total |
|---------------------|---------------|-------------------|
| Less than 5 minutes | 145 | 3.0% |
| 5 to 9 minutes | 377 | 7.8% |
| 10 to 14 minutes | 344 | 7.1% |
| 15 to 19 minutes | 310 | 6.4% |
| 20 to 24 minutes | 413 | 8.6% |

| | Number | % of Total |
|------------------|---------------|-------------------|
| 25 to 29 minutes | 190 | 3.9% |
| 30 to 34 minutes | 794 | 16.5% |
| 35 to 39 minutes | 240 | 5.0% |
| 40 to 44 minutes | 298 | 6.2% |
| 45 to 59 minutes | 683 | 14.2% |
| 60 to 89 minutes | 715 | 14.8% |
| 90+ minutes | 311 | 6.5% |
| Total | 4,820 | 53.4% |

Source: US Census Bureau.

Only 24% of the county’s workforce traveled 20 minutes or less to work. This closely relates to the 1,367 traveling workers or 27.9% of the workforce, who worked in the county in 2013. Approximately 72.1% of the traveling workforce worked in another North Carolina county or out of state.

Quality of Life

Quality of life factors are increasingly important to businesses when selecting their locations. The following data summarizes some key quality of life indicators for Gates County.

| Table 15. Gates County Key Quality of Life Factors | |
|---|----------|
| Taxes | |
| FY2014-15 Property Tax Rate per \$100 Value | \$0.6400 |
| FY2013-14 Annual Taxable Retail Sales (\$mil) | \$28.6 |
| 2015 Tier Designation | 1 |
| Childcare | |
| 2015Q1 Licensed Child Care Facilities | 14 |
| 2015Q1 Licensed Child Care Enrollment | 157 |
| Healthcare Providers | |
| 2012 Number of Physicians | 1 |
| 2012 Physicians per 10,000 Population | 0.8 |
| 2012 RNs per 10,000 Population | 16.9 |
| 2012 Dentists per 10,000 Population | 0.8 |
| 2012 Pharmacists per 10,000 Population | 0.8 |

Source: NC Department of Commerce.

Business Park

There is one privately-owned commercial park in Gates County. The Merchants Commerce Park includes approximately 147 acres and is located on US 158 across from the Gates County High School. Tenants of the park are provided sewer service by the County's sewage system. The current tenants include the Gates County Community Center, Gates County Library, State Employees Credit Union, and the Gates House Meridian Assisted Living Facility. Additional businesses are being sought.

Section 3. Existing Conditions

ENVIRONMENTAL FACTORS

Physiography and Drainage

Gates County is drained by numerous tributaries of the Chowan River and the Great Dismal Swamp. Water flow in the tributaries is generally slow or very slow. The general slope of the county is to the south and east. About 92 percent of the land is nearly level, about 6 percent is gently sloping, and about 2 percent is sloping to steep.

The county is underlain primarily by the Croatan formation of the Pliocene era. These sediments are made up of unconsolidated sands, silts, and clays. The county is made up of five physiographic areas. Those areas are the uplands of the Wicomico Surface, the uplands of the Talbot Surface, the marine and river terraces of the Pamlico Surface, the Great Dismal Swamp, and the wooded floodplains along streams.

Soil drainage in Gates County is based on the concept of the "dry edge" effect. The soils on slopes near drainageways generally have a deeper seasonal high water table than that of the soils at greater distances from the drainageways. Some areas on the Talbot Surface have a large acreage of poorly drained, clayey soils. These wetter soils are in the central part of the county in areas that have few natural drainageways and little or no relief.

Climate

In winter, the average temperature is 40 degrees F., and the average daily minimum temperature is 29 degrees. The lowest temperature on record, which occurred at Murfreesboro on January 21, 1985, is -7 degrees. In summer, the average temperature is 76 degrees and the average daily maximum temperature is 88 degrees. The highest recorded temperature, which occurred at Murfreesboro on August 2, 1980, is 103 degrees. The average length of the frost-free season is 210 days from April 3rd to October 30th. However, killing frosts have occurred as late as April 26th and as early as October 1st.

The total annual precipitation is 48 inches. Of this, 26 inches, or 50 percent, usually falls in April through September. The growing season for most crops falls with this period. In two (2) years out of ten (10), the rainfall in April through September is less than 19 inches. The heaviest one-day rainfall during the period of record was 7.75 inches at Murfreesboro on September 26, 1985. Thunderstorms occur on about 45 days each year, and most occur in summer.

The average seasonal snowfall is 6 inches. The greatest one day snow fall on record for the area was 26.0 inches in Edenton on March 1, 1927. On the average, one day had at least one (1) inch of snow on the ground. The number of such days varies greatly from year to year.

The average relative humidity in mid-afternoon is about 55 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 60 percent of the time possible in summer and 55 percent in winter. The prevailing wind is from the southwest. Average windspeed is highest, 9 miles per hour, in spring.

Environmentally Fragile Areas

Areas of Environmental Concern are the foundation of the Coastal Resources Commission's permitting program for coastal development. An AEC is an area of natural importance. It may be easily destroyed by erosion or flooding or it may have environmental, social, economic, or aesthetic values that make it valuable.

The Coastal Resource Commission designates areas as AECs to protect them from uncontrolled development that may cause irreversible damage to property, public health or the environment, thereby diminishing their value to the entire state. Statewide, AECs cover almost all coastal waters and less than 3% of the land in the 20 coastal counties. There are no environmentally fragile areas where resource functions are being impacted as a result of development, this includes areas that are being impacted or loss as a result of incompatible development.

Fragile areas are those areas that are not explicitly defined as AECs but that could cause significant environmental damage or other diminution of quality of life if not managed. These include wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests. These areas must be evaluated pursuant to State regulations at 15A NCAC 7H for the CAMA Land Use Planning process.

This section of the plan evaluates the following AECs and fragile areas in Gates County: estuarine waters, public trust areas, coastal shorelines, wetlands, and significant natural heritage areas/protected lands.

Estuarine Waters (AEC)

An estuary can be defined as a semi-enclosed coastal body of water that has a free connection to the open sea and within which sea water is measurably diluted with fresh water derived from land drainage. Estuaries serve as transition zones between fresh and salt water and are protected from the full force of ocean wind and waves by barrier islands, mudflats, and/or sand.

Estuaries provide significant environmental and economic benefits. The sheltered waters support an abundance and diversity of plant and animal life, including marine mammals, shore birds, fish, crabs, clams and other shellfish, and reptiles. A number of marine organisms, including many of the commercially valuable fish species, depend on the estuaries for spawning, nursing, or feeding.

Estuaries also serve as a water filtration system by removing sediments, nutrients, and pollutants before they reach the ocean. Cleaner water is the result, which benefits marine life and the people that inhabit the surrounding area. Estuaries also assist with flood control, with porous salt marsh soils and grasses absorbing flood waters and dissipating storm surges. They provide natural barriers between the land and the ocean. In Gates County, estuarine waters are found along the Chowan River.

Public Trust Areas

The North Carolina Division of Coastal Management (DCM) defines public trust areas as the coastal waters and submerged lands that every North Carolinian has the right to use for activities such as boating, swimming, or fishing. These areas often overlap with estuarine waters, but they also include many inland fishing waters. The following lands and waters are considered public trust areas:

- All waters of the Atlantic Ocean and the lands underneath, from the normal high water mark on shore to the state's official boundary three miles offshore;
- All navigable natural water bodies and the lands underneath, to the normal high watermark on shore (a body of water is considered navigable if you can float a canoe in it). This does not include privately-owned lakes where the public doesn't have access rights;
- All water in artificially-created water bodies that have significant public fishing resources and are accessible to the public from other waters; and
- All waters in artificially-created water bodies where the public has acquired rights by prescription, custom, usage, dedication or any other means.

Public trust areas must be delineated by on-site analysis. Under CAMA regulations, all lands 30 feet landward of public trust areas are subject to the restrictions specified for estuarine shorelines. In Gates County, the waters of the Chowan River and its tributaries are considered public trust areas.

Coastal Shorelines

The Coastal Shorelines category includes estuarine shorelines and public trust shorelines. Estuarine shorelines AEC are those non-ocean shorelines extending from the normal high water level or normal water level along the estuarine waters for a distance of 75 feet landward. The areas support the ecological function of estuaries and are highly vulnerable to erosion caused by wind or water and to damage caused by development. Development along estuarine shorelines can exacerbate water quality problems within estuarine waters and expedite the threats of shorefront erosion and flooding. Public trust shorelines AECs are those non-ocean shorelines immediately contiguous to public trust areas, as defined in Rule 07H.0207(a), located inland of the dividing line between coastal fishing waters and inland fishing waters as set forth in that agreement and extending 30 feet landward of the normal high water level or normal water level.

Wetlands

Wetlands are lands that are saturated or covered with a shallow layer of water for part of the year and are not necessarily permanently wet. Many wetlands occur in areas where surface water collects or where underground water discharges to the surface, making the area wet for extended periods of time. Coastal wetlands are any marsh in a coastal area that regularly or occasionally floods by lunar or wind tide, and that include certain plant species. Wetlands include a variety of natural systems such as marshes, swamps, and pocosins. While they may not all look the same, they share certain characteristics such as wetland vegetation, hydric soils, and hydrologic features.

Wetlands provide natural functions that benefit the area around them. Wetlands are critical for water quality protection. Stormwater runoff that may have toxins washes into water bodies contaminating them. Wetlands provide a buffer between the two that traps sediment, removes nutrients, and detoxifies chemicals. Wetlands are also useful for flood protection by storing water and slowly releasing it. Wetlands assist with the stabilization of shorelines to protect from erosion, and they also provide a safe wildlife habitat.

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including freshwater wetlands. Activities in waters of the United States that are regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. The basic premise of the program is that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. On-site evaluation is needed to determine the exact locations of 404 wetlands.

Section 401 of the Clean Water Act states that any activity requiring a Federal 404 permit (a US Army Corps of Engineers permit for the discharge of dredged or fill material) that results in a discharge to waters or freshwater wetlands, then a 401 Water Quality Classification is also required. When the state issues a 401 classification, this certifies that a given project will not degrade waters of the state or otherwise violate water quality standards.

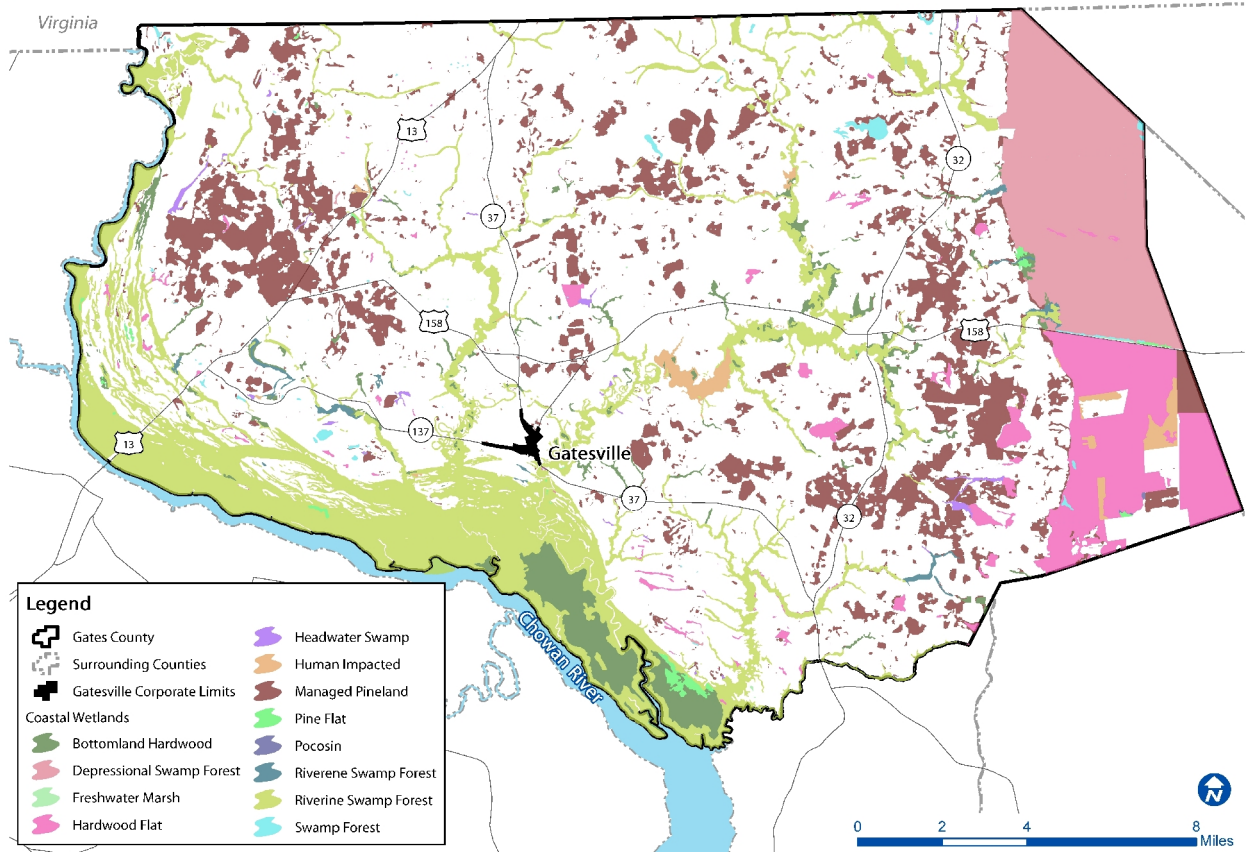
According to the North Carolina Coastal Regional Evaluation of Wetland Significance (NC-CREWS), approximately 37.7% of Gates County is considered to be a wetland. The locations of these wetlands are delineated on Map 5. Almost all of the county's wetlands are freshwater forested/shrub wetlands. There are very limited amounts of freshwater emergent, freshwater pond, and riverine wetlands.

Table 16. Gates County Wetlands

| Wetland Name | Acres | % of County Acreage |
|---------------------------|------------------|---------------------|
| Bottomland Hardwood | 5,110.18 | 2.34% |
| Depressional Swamp Forest | 13,154.80 | 6.03% |
| Freshwater Marsh | 63.28 | 0.03% |
| Hardwood Flat | 9,663.82 | 4.43% |
| Headwater Swamp | 364.62 | 0.17% |
| Human Impacted | 1,360.01 | 0.62% |
| Managed Pineland | 22,468.38 | 10.30% |
| Pine Flat | 420.04 | 0.19% |
| Pocosin | 12.02 | 0.01% |
| Riverine Swamp Forest | 28,372.49 | 13.01% |
| Swamp Forest | 526.03 | 0.24% |
| Total | 81,515.67 | 37.37% |

Source: North Carolina Division of Coastal Management, Wetlands Inventory

Map 5: Gates County Wetlands



Natural Heritage Program Natural Areas

Natural resource fragile areas are generally recognized to be of educational, scientific, or cultural value because of the natural features of the particular site. Features in these areas serve to distinguish them from the vast majority of the landscape. These areas include complex natural areas, areas that sustain remnant species, pocosins, wooded swamps, prime wildlife habitats, or registered natural landmarks.

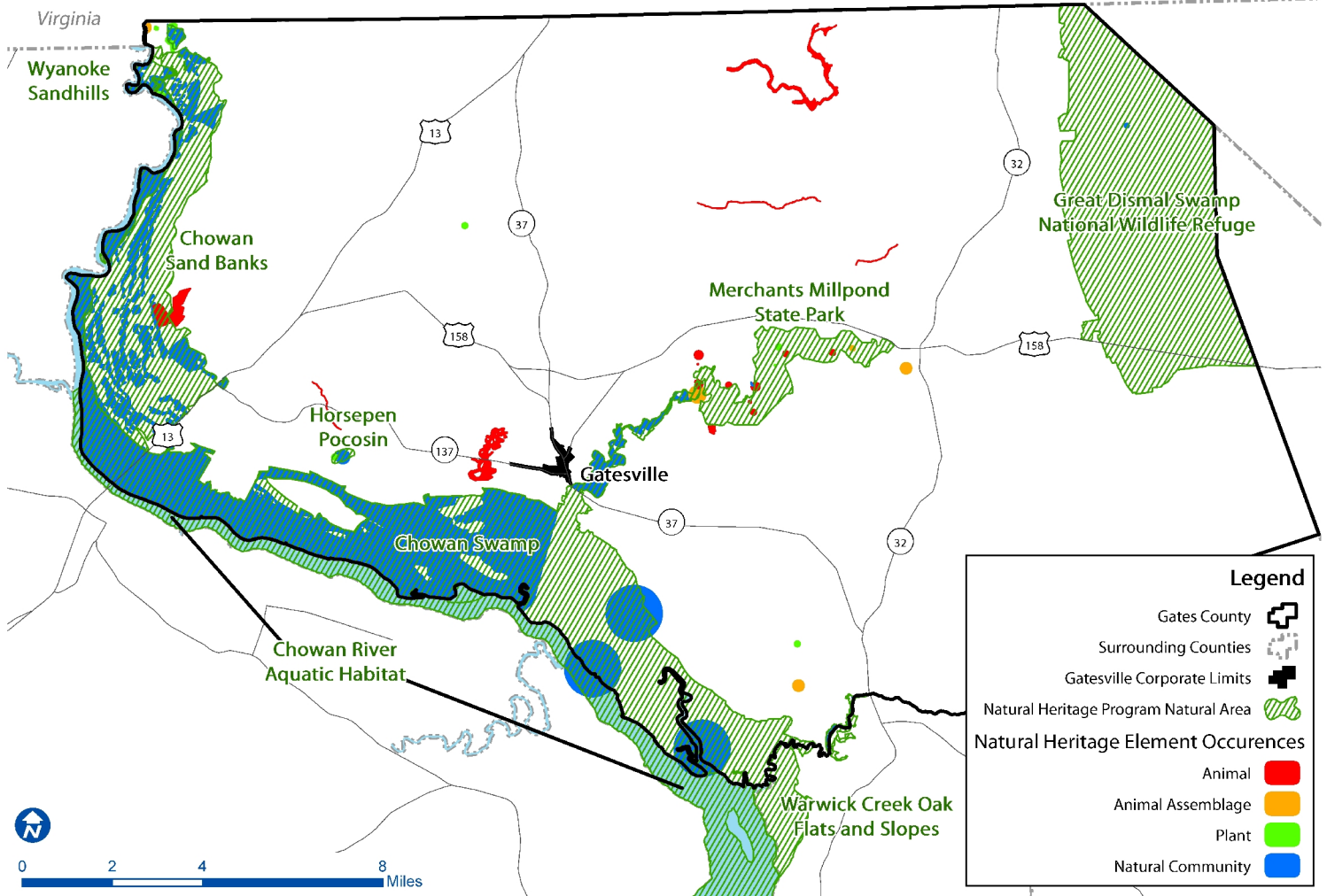
The North Carolina Natural Heritage Program of the Division of Parks and Recreation works to identify and facilitate protection of the most ecologically significant natural areas remaining in the state. Natural areas may be identified because they provide important habitat for rare species or because they contain outstanding examples of the rich natural diversity of this state.

There are numerous significant protected lands and natural heritage areas in Gates County. The county is an environmentally rich area. All of the significant natural heritage areas and protected lands which fall within Gates County are identified in Table 17 and delineated on Map 6. These areas are comprised of general areas of resource potential and areas defined as resource areas protected through ownership restrictions. Map 6 also includes general areas of resource potential (element occurrences) that are recognized but have no formal protections regarding growth and development. Appendix B provides a US Fish & Wildlife Services list of endangered/threatened species in Gates County. Appendix C provides a NC Heritage Program list of plant species which exists in the County.

| Table 17. Gates County Natural Heritage Program Natural Areas | | | |
|--|-----------------|-------------------|--------------------|
| Natural Heritage Program Natural Areas | Acres | % of NHPNA | % of County |
| Chowan River Aquatic Habitat | 27,339.6 | 36.74% | 12.52% |
| Chowan Sand Banks | 7,956.7 | 10.69% | 3.64% |
| Chowan Swamp | 21,524.4 | 28.93% | 9.86% |
| Great Dismal Swamp National Wildlife Refuge and Vicinity | 14,974.6 | 20.12% | 6.86% |
| Horsepen Pocosin | 66.8 | 0.09% | 0.03% |
| Merchants Millpond State Park | 2,230.3 | 3.00% | 1.02% |
| Warwick Creek Oak Flats and Slopes | 197.2 | 0.26% | 0.09% |
| Wyanoke Sandhills | 119.8 | 0.16% | 0.05% |
| TOTAL | 74,409.4 | 100.00% | 34.07% |

Note: Gates County includes 218,406.2 acres. Source: NCGIA, NC Parks and Recreation, HCP, Inc.

Map 6: Gates County
Natural Heritage Program Natural Areas



Slopes in Excess of 12%

Areas of excessive slope are considered to be areas with slopes in excess of 12%. The topography within Gates County is relatively flat; however, some areas along the Chowan River may be exceptions. According to the Soil Survey of Gates County, North Carolina, there is only one soil with the possibility of being in excess of 12% in Gates County. Excess slope has had little impact on land use and/or development within Gates County.

Excessive Erosion Areas

Excessive erosion of shoreline areas has not been a problem along the Chowan River within Gates County.

Areas of Resource Potential

Regionally Significant Parks

Merchants Millpond State Park is a regionally significant park and is discussed in the Community Facilities section.

Marinas and Mooring Fields

Marinas are defined as any publicly- or privately-owned dock, basin, or wet boat storage facility constructed to accommodate more than ten boats and providing any of the following services: permanent or transient docking spaces, dry storage, fueling facilities, haulout facilities, and repair service. Excluded from this definition are boat ramp facilities allowing access only, temporary docking, and none of the preceding services. There are no marinas located in Gates County.

A “freestanding mooring” is any means to attach a ship, boat, vessel, floating structure, or other water craft to a stationary underwater device, mooring buoy, buoyed anchor, or piling (not associated with an existing pier, dock, or boathouse). When more than one freestanding mooring is used in the same general vicinity it is commonly referred to as a mooring field. There are no mooring fields in Gates County.

Floating Homes

A floating home or structure is any structure, not a boat, supported by a means of flotation, designed to be used without a permanent foundation, which is used or intended for human habitation or commerce. A structure will be considered a floating structure when it is inhabited or used for commercial purposes for more than thirty days in any one location. A boat may be deemed a floating structure when its means of propulsion has been removed or rendered inoperative and it contains at least 200 square feet of living space area. Currently, there are no floating homes located within Gates County.

Aquaculture

As defined under N.C. General Statute 106-758, aquaculture is the propagation and rearing of aquatic species in controlled or selected environments, including, but not limited to ocean ranching. There is no significant aquaculture in Gates County.

Channel Maintenance

The Chowan River provides a route for fishermen and recreational boat traffic. Proper maintenance of channels is very important to Gates County. If silt or other deposits fill in the channels, safe and efficient movement of vessels could be impeded. At the present time, there is no channel maintenance program in Gates County.

Marine Resources (Water Quality)

The North Carolina Division of Water Resources assigns water quality classifications to all named waters of the State of North Carolina. The classifications are based upon the existing or contemplated best usage of the various streams and segments of streams within a basin, as determined through studies, evaluations, and comments received at public hearings. The state water classification system is summarized in Table 18.

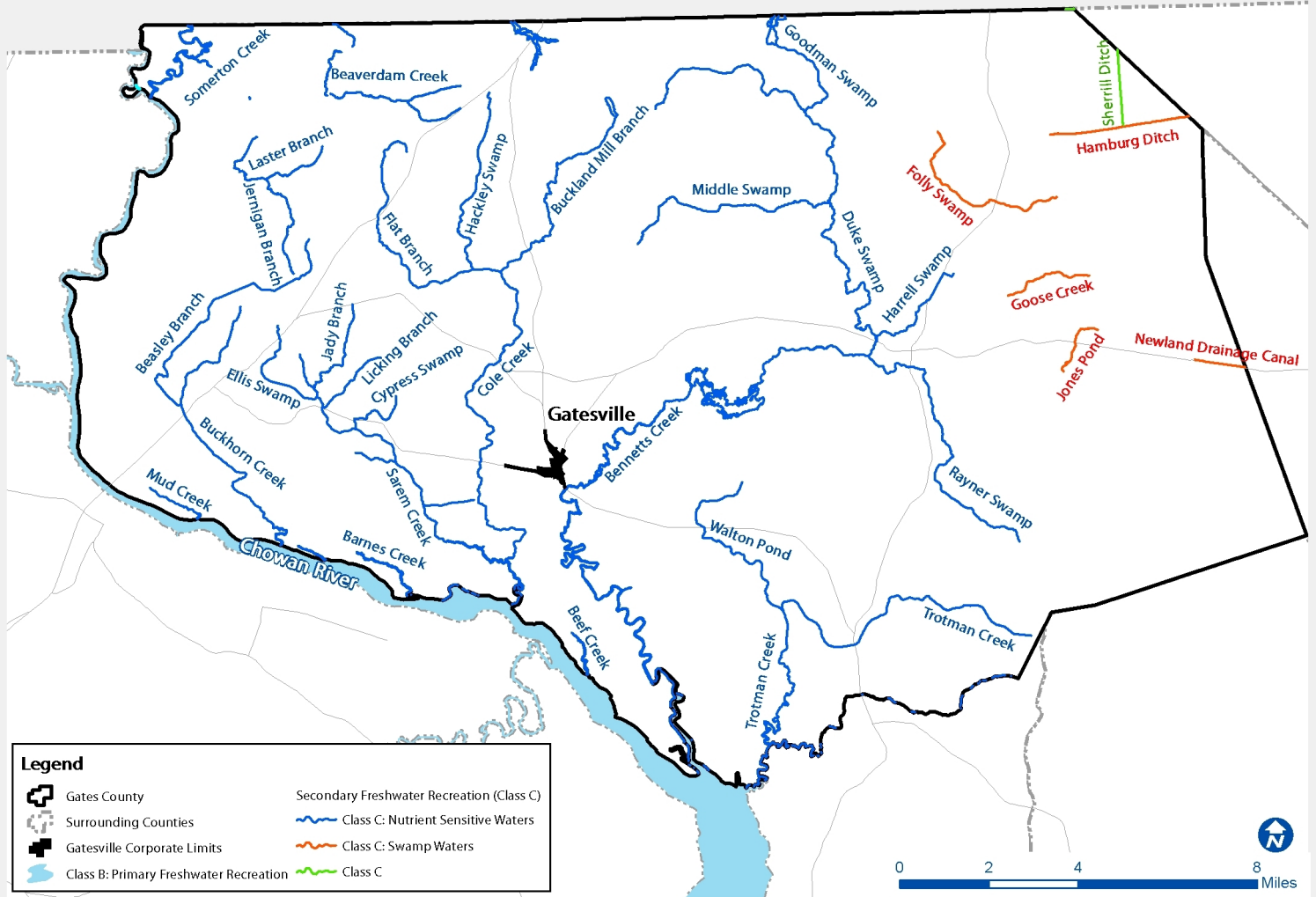
Table 18. NC Division of Water Resources Water Body Classifications

| PRIMARY FRESHWATER AND SALTWATER CLASSIFICATIONS* | |
|---|--|
| CLASS | BEST USES |
| C and SC | Aquatic life propagation/protection and secondary recreation |
| B and SB | Primary recreation and Class C uses |
| SA | Waters classified for commercial shellfish harvesting |
| WS | <i>Water Supply watershed.</i> There are five WS classes ranging from WS-I through WS-V. WS classifications are assigned to watersheds based on land use characteristics of the area. Each water supply classification has a set of management strategies to protect the surface water supply. WS-I provides the highest level of protection and WS-V provides the least protection. A Critical Area (CA) designation is also listed for watershed areas within a half-mile and draining to the water supply intake or reservoir where an intake is located. |
| SUPPLEMENTAL CLASSIFICATIONS | |
| CLASS | BEST USES |
| Sw | <i>Swamp Waters:</i> Recognizes waters that will naturally be more acidic (have lower pH values) and have lower levels of dissolved oxygen. |
| Tr | <i>Trout Waters:</i> Provides protection to freshwaters for natural trout propagation and survival of stocked trout. |
| HQW | <i>High Quality Waters:</i> Waters possessing special qualities including excellent water quality, Native or Special Native Trout Waters, Critical habitat areas, or WS-I and WS-II water supplies. |
| ORW | <i>Outstanding Resource Waters:</i> Unique and special surface waters that are unimpacted by pollution and have some outstanding resource values. |
| NSW | <i>Nutrient Sensitive Waters:</i> Areas with water quality problems associated with excessive plant growth resulting from nutrient enrichment. |

*Primary classifications beginning with an "S" are assigned to saltwaters. Source: NC Department of Environmental Quality.

The Gates County water classifications are delineated on Map 7. Most of the County's surface waters are Class C: Nutrient Sensitive Water; however, in the eastern portion of the County, there are several watercourses that are classified Class C: Swamp Waters and Class C. There are no water supply watersheds or wellhead protection areas in Gates County.

Map 7: Gates County Surface Waters



Under section 303(d) of the Clean Water Act, states, territories and authorized tribes (included in the term State here) are required to submit lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet water quality standards. There are currently no 303(d) waters in Gates County.

Finfish, Finfish Habitat, and Primary Nursery Areas

The North Carolina Marine Fisheries Commission (MFC) has adopted definitions in rule for anadromous spawning and nursery areas. Anadromous fish spawning areas are those areas where evidence of spawning of anadromous fish has been documented by direct observation of spawning, capture of running ripe females, or capture of eggs or early larvae [NCAC 31.0101(20)(C)]. Anadromous fish nursery areas are those areas in the riverine and estuarine systems utilized by post-larval and later juvenile anadromous fish [NCAC 31.0101(20)(D)].

Wetlands are of great importance to fisheries production serving as sources of biological productivity, directly and indirectly, nursery areas and reducing sedimentation/turbidity to improve water quality.

The waters of the Pasquotank River basin are an important habitat for several anadromous fish species. In the state, the Albemarle Sound is considered the most important nursery and spawning area for anadromous and freshwater fish. Anadromous species found in the area include blueback herring (*Alosa aestivalis*), alewife (*Alosa pseudoharengus*), hickory shad (*Alosa mediocris*), American shad (*Alosa sapidissima*), Atlantic sturgeon (*Acipenser oxyrinchus*) and striped bass (*Morone saxatilis*). The first two species (blueback herring and alewife) are often generally referred to as "river herring". All of these fish have a very large range extending along the Atlantic from Canada to northern Florida. Blueback herring that were tagged during the summer in Canada have been recaptured in the Roanoke River in North Carolina, and fish tagged in North and South Carolina waters have been recaptured in Georges Bank, Canada. Striped bass are an important recreational and commercial fishery from Maine to North Carolina. In North Carolina, more than 50% of total landings of striped bass have been taken from the Albemarle Sound area.

Chowan River is a documented spawning and nursery area for blueback herring, alewife, American shad, hickory shad, and striped bass. The shoreline of the river in Gates County is utilized by these species for spawning and nursery. Catherine (Warwick), Bennetts, Beef, Sarem, Shingle (Island), Barnes, Spikes, Buckhorn, Mud and Somerton Creeks are also documented spawning and nursery areas for blueback herring and alewife. All of these waters are also utilized by white perch, yellow perch, catfishes, and other commercially and recreationally important species for spawning and nursery. Commercial and recreational fisheries are important throughout the Chowan system.

The Chowan River is known for some of the best fishing in the state, with largemouth bass, bluegill, chain pickerel, black crappie, perch, and herring being some of the most sought-after species. However, the Chowan River is noteworthy for more than good fishing. Approximately one hundred miles of the Chowan River are considered to be a significant aquatic habitat by the North Carolina Natural Heritage Program. The Chowan River has received this designation because of the diversity of its freshwater mussel populations, many of which are rare and vulnerable.

The Chowan River is a vital resource for commercial and recreational fishers. Recreationally important gamefish species that reside in the river include largemouth bass, black crappie, and many sunfish species. Commercially important species include several anadromous fish species such as blueback herring, alewife, hickory shad, American shad, Atlantic sturgeon, and striped bass. Blueback herring and alewife are commonly referred to as river herring. There are no primary nursery areas in Gates County.

Shellfish

All waters within Gates County are closed to shellfishing. No changes in this status are anticipated.

Chronic Wastewater Treatment System Malfunctions

There is only one central public wastewater treatment plant system in Gates County. The system was operated by the North Carolina Department of Corrections for its facility in Gates County, but is now owned and operated by the County. The treatment plant also serves the Gates County High School and the Merchants Commerce Park (see page 3-38). The facility has not experienced any chronic system malfunctions. All areas of the county are served by the Gates County Water System. The water from the deep wells of this system is not threatened by septic effluent or discharge from package treatment plants.

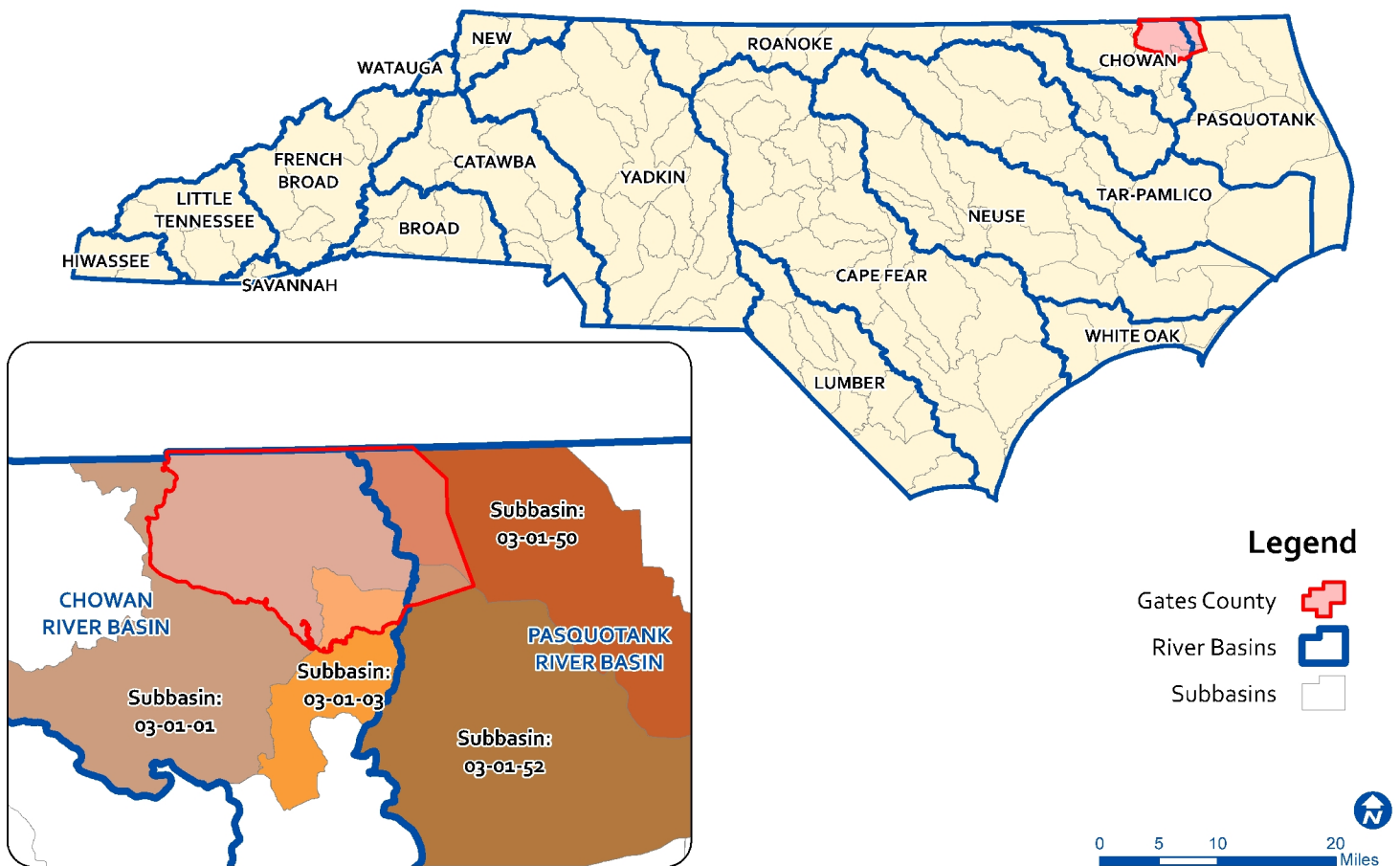
Public Health Hazards

The Gates County Health Department has been contacted to identify subdivisions in the county experiencing septic tank problems and to identify areas in the county experiencing chronic septic system problems. The Department estimates that about 80% of the county has areas or sites that have experienced septic tank problems. Areas highlighted include Sunbury, Easons Crossroads, Eleanor's Crossroad/Highway 37N, including Buckland. The department works to help develop solutions for problem systems. The department will refer severe problems to the Management Entities Program of the Albemarle Regional Health System for more intensive problem-solving with respect to septic system installation or repair.

Water Quality

Basinwide water quality plans are prepared by the NC Division of Water Resources (DWR) for each of the seventeen major river basins in the state. Each basinwide plan is revised at five-year intervals. While these plans are prepared by the DWR, their implementation and the protection of water quality entails the coordinated efforts of many agencies, local governments, and stakeholders in the State. Gates County lies within portions of two river basins. These are the Chowan River Basin and the Pasquotank River Basin; however, it should be noted that Gates County is predominantly located in the Chowan River Basin. Map 8 provides a general delineation of the North Carolina River Basins and Subbasins.

Map 8: Gates County River Basins and Subbasins



The Chowan River Basin is located in the northeastern coastal plain of North Carolina and southeastern Virginia. The North Carolina portion includes all or part of Northampton, Hertford, Gates, Bertie, and Chowan Counties. The Chowan River is formed at the border of Virginia and North Carolina by the confluence of the Nottoway and Blackwater Rivers, and its streams flow southeastward towards the Albemarle Sound. Approximately 75 percent (4,061 square miles) of the river’s watershed lies within the Virginia border.

The Chowan River Basin in North Carolina is composed of two major drainages: Chowan River and the Meherrin River. The Chowan River basin is part of the Albemarle-Pamlico Estuarine system, the second largest estuarine system in the United States. All of the waters in the basin are designated as Nutrient Sensitive Waters. Many waterbodies in this basin are transitional in nature (i.e., from Coastal A to Swamp) making water quality monitoring difficult. Some creeks and rivers flushing rates are influenced by tides and wind, while others receive swamp drainage. There are four waterbody segments that were not rated because DWR criteria for Coastal B waters have not been finalized. Overall, water quality in Chowan River Basin is generally good.

Subbasin 03-01-01

The upper Chowan River subbasin is located in the Middle Atlantic Plains ecoregion of North Carolina. Subbasin 03-01-01 is the largest, in terms of land area, impacting Gates County. Major tributaries to the Chowan River in this subbasin include the Wiccacon River and Ahoskie Creek. The Wiccacon River (Hoggard Swamp), from source to the Chowan River (22.5 miles), is Impaired in the aquatic life category due to a Fair bioclassification. It is the only impaired waterbody in the Chowan River Basin and is not located in Gates County. Portions of Merchants Millpond State Park and Chowan Swamp State Natural Area, administered by the Division of Parks and Recreation, protects more than 6,000 acres. Merchants Millpond supports a diverse assemblage of aquatic plants including several rare species.

There are five minor National Pollutant Discharge Elimination System (NPDES) wastewater discharge permits in this subbasin with a total permitted flow of 0.04 MGD. The largest facility is Aluminum Casting Technology in Hertford County, permitted to discharge 0.024 MGD of industrial process and commercial waste into Ahoskie Creek. However, the facility has discontinued its operation and will likely apply to rescind its NPDES permit. There are 10 non-discharge permits and nine stormwater permits in this subbasin.

Subbasin 03-01-01 at a Glance

Land and Water Area
 Total Area: 579 mi.²
 Land Area: 569 mi.²
 Water Area: 10 mi.²

Land Cover (percent)
 Forest/Wetland: 73%
 Cultivated Crop: 24%
 Surface Water: 2%
 Urban: <1%
 Pasture/Managed Herbaceous: 1%

Counties
 Bertie, Gates, and Hertford

Municipalities
 Ahoskie, Aulander, Cofield, Como, Gatesville, and Winton

Monitored Waterbody Statistics

Aquatic Life
 Total: 137.7 mi.
 Supporting: 70.6 mi.
 Not Rated: 44.6 mi.
 Impaired: 22.5 mi.

Recreation
 Total: 39.8 mi.
 Supporting: 39.8 mi.

Subbasin 03-01-03

This subbasin contains the middle section of the Chowan River, below Bennetts Creek (Merchants Millpond) and above Rockyhock Creek, and includes the Indian Creek and Catherine Creek tributaries. The entire subbasin is designated as Nutrient Sensitive Waters. This subbasin contains the Colerain/Cow Island Swamp and Slopes Natural Heritage Area. Tidal Cypress-Gum Swamp, a designated significant natural heritage area, is found along much of the shoreline of the Chowan River and represents an important wetland ecosystem within the Chowan River Basin.

Land use is mainly forested wetlands and agricultural cropland. The largest municipality in the subbasin is Colerain, with a population of approximately 221 persons and has experienced an overall net decline since 1990.

One minor and one major NPDES permit have been issued in this subbasin with a total permitted flow of 1.52 MGD. Perry-Wynns Fish Company in Bertie County is permitted to discharge 0.02 MGD. It is classified as a minor industrial process and commercial NPDES facility and is currently in compliance. Edenton Dyeing and Finishing LLC in Chowan County is permitted to discharge 1.5 MGD. It is classified as a major industrial process and commercial NPDES facility. By permit, Edenton Dyeing and Finishing must also conduct whole effluent toxicity (WET) testing. The facility failed seven WET tests during the last two years of the assessment period and enforcement was taken on five separate occasions. Edenton Dyeing and Finishing is currently in compliance with their permit limits, but the facility also recently closed. There are no permitted non-discharge systems or stormwater discharges in this subbasin.

Chowan River Basin Recommendations

The Chowan River Basin Plan recommends the following nonpoint source pollution mitigative actions:

- Require stormwater best management practices for existing and new development;
- Develop and enforce buffer ordinances;
- Conduct comprehensive land use planning that assesses and reduces the impact of development on natural resources; and
- Develop and enforce local erosion control ordinances.

Subbasin 03-01-03 at a Glance

Land and Water Area
 Total Area: 123 mi.²
 Land Area: 100 mi.²
 Water Area: 23 mi.²

Land Cover (percent)
 Forest/Wetland: 40%
 Cultivated Crop: 40%
 Surface Water: 19%
 Urban: <1%
 Pasture/Managed Herbaceous: <1%

Counties
 Bertie, Chowan, Hertford, and Gates

Municipalities
 Colerain

Monitored Waterbody Statistics
Aquatic Life
 Total: 14.0 mi.
 Supporting: 14.0 mi.
Recreation
 Total: 14.1 mi.
 Supporting: 14.1 mi.

The plan also includes the following future actions for the Chowan River Basin:

- Conduct additional research to understand possible surface-ground water interactions and possible water quality issues associated with non-discharge wastewater disposal.
- Continue efforts to focus on proper training of facility operators to address non-compliance issues associated with permitted facilities, both non-discharge and discharge, often associated with operator mismanagement.
- Protect human health and maintain water quality by repairing failing septic systems, update older systems, and eliminate straight pipes. Additional monitoring of fecal coliform bacteria throughout tributary watersheds will aid in identifying where straight pipes and failing septic systems are problems. Septic system maintenance outreach is needed in rural areas dependent on on-site wastewater disposal.
- Develop additional outreach opportunities to incorporate smart growth technologies or low-impact development techniques for municipal planners to incorporate into land use plans.
- Establish riparian buffers, as needed throughout the basin, both in residential and agricultural land use areas.
- Reestablish natural drainage and associated wetlands to reduce stormwater runoff, assist with flood control and improve water quality.
- Support the development and implementation of best management practices (BMPs) to help reduce nonpoint source pollution. Monitoring of these BMPs should also be required to improve maintenance, design, and functionality. BMPs applicable in residential areas need to be encouraged through public education campaigns.
- Support the implementation of the Coastal Habitat Protection Plan at all levels of government and amongst citizens.
- Continue collaborative efforts between natural resource agencies within North Carolina and Virginia to improve adaptive management and policies on a watershed ecosystem scale.

The Pasquotank River Basin encompasses 3,635 square miles of low-lying lands and vast open waters, including Albemarle Sound, in the state's northeast outer coastal plan. The basin includes all or portions of Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell, and Washington Counties. The basin also contains numerous small watersheds that drain into Albemarle, Currituck, Croatan, Roanoke, and Pamlico Sounds. A small portion (\pm 577 acres) of the Pasquotank River Basin is located in Virginia. The Pasquotank River Basin is part of the Albemarle-Pamlico Estuarine System, the second largest estuarine system in the United States. Gates County includes portions of two subbasins.

Subbasin 03-01-50

This subbasin contains the headwaters of the Pasquotank River and its headwaters from the great Dismal Swamp. Most streams are of low relief and swampy, and channelized ditches are common. A significant portion of the waters in this subbasin are brackish estuarine, including Albemarle Sound and the Pasquotank River below Elizabeth City. Land cover generally consists of evergreen forests, mixed forests, forested wetlands and marshes, cultivated crops, such as wheat, cotton, and peanuts. Portions of Gates, Pasquotank and Camden Counties are found in this subbasin with the largest population centered around urbanized areas. The population of the subbasin is expected to continue to increase over the next twenty years.

There is one major and five minor National Pollutant Discharge Elimination System (NPDES) dischargers in this subbasin with a total permitted discharge of 5.0 MGD. The major NPDES facility is the Elizabeth City Wastewater Treatment Plant (WWTP) with a permitted flow of 4.5 MGD. The Elizabeth City WWTP is required by permit to monitor whole effluent toxicity (WET). No WET violations were reported during the last two years of the assessment period. There are two non-discharge permits and ten stormwater discharge permits in this subbasin.

| <u>Subbasin 03-01-50 at a Glance</u> | |
|--|-----------------------|
| <u>Land and Water Area</u> | |
| Total Area: | 454 mi. ² |
| Land Area: | 390 mi. ² |
| Water Area: | 64 mi. ² |
| <u>Land Cover (percent)</u> | |
| Forest/Wetland: | 46% |
| Cultivated Crop: | 34% |
| Surface Water: | 18% |
| Urban: | <1% |
| Pasture/Managed Herbaceous: | 1% |
| <u>Counties</u> | |
| Gates, Pasquotank, and Camden | |
| <u>Municipalities</u> | |
| Elizabeth City | |
| <u>Monitored Waterbody Statistics</u> | |
| <u>Aquatic Life</u> | |
| Total: | 44.0 mi./38,523.8 ac. |
| Supporting: | 26.5 mi./29,338.2 ac. |
| Not Rated: | 17.5 mi./9,185.6 ac. |
| <u>Recreation</u> | |
| Total: | 38,523.8 ac. |
| Supporting: | 38,523.8 ac. |

Subbasin 03-01-52

This subbasin consists of the northwestern edge of Albemarle Sound and the rivers that empty to it. The largest of these rivers are the Little River and the Perquimans River. Most streams are low gradient with substrates of silt and sand. Portions of Perquimans, Pasquotank, Chowan, and Gates Counties can be found in this subbasin with the highest concentration of urbanized areas around the Town of Hertford.

The Little River and the Perquimans River both have segments that are Impaired in the aquatic life category, the Albemarle Sound is Impaired for fish consumption because of a dioxin advisory, and all monitored waters are Supporting for recreation.

There are four minor National Pollutant Discharge Elimination System (NPDES) discharges in this subbasin with a total permitted flow of 0.7 MGD. Three of these facilities are water treatment plants (WTP), two of which are required to monitor whole effluent toxicity (WET). Both facilities are failing to meet their 90 percent acute toxicity target for effluent concentration. Both facilities discharge filter backwash, or reverse osmosis reject water. The Winfall WTP is also experiencing significant noncompliance issues with total suspended solids (TSS) and settleable solids. There are three non-discharge permits and six stormwater discharge permits for this subbasin.

Pasquotank River Basin Recommendations

The Pasquotank River Basin Plan identifies the following water quality management strategies for the Pasquotank River Basin:

- Army Corps of Engineers and the State of North Carolina are partnering to conduct a Feasibility Study on the Currituck Sound to identify ways to improve water quality and restore the Sound.
- Coastal Habitat Protection Plan is a plan to manage and restore aquatic habitats critical to North Carolina’s commercial and recreational fisheries resources.
- Oyster Action Plan was developed to restore and protect North Carolina’s native oyster populations.
- Coastal Nonpoint Source Program was developed to coordinate the state’s efforts on managing nonpoint source pollution from agriculture, forestry, urban areas, marinas and recreation boating, and hydrologic modification.
- Community Conservation Assistance Program managed by Soil and Water Conservation districts was developed to focus its efforts on stormwater retrofits to existing land uses that are non-agricultural.
- Albemarle-Pamlico National Estuary Program (APNEP) has supported a number of research, restoration, and demonstration projects. Several demonstration projects are designed to mitigate the effects of stormwater runoff and pollution.
- Albemarle Resource Conservation and Development Council is leading a 10-county regional study to identify regional water quality, water management, and recreational concerns resulting from land use changes associated with unprecedented development in these counties.

Subbasin 03-01-52 at a Glance

Land and Water Area
 Total Area: 541 mi.²
 Land Area: 399 mi.²
 Water Area: 142 mi.²

Land Cover (percent)
 Forest/Wetland: 32%
 Cultivated Crop: 39%
 Surface Water: 28%
 Urban: <1%
 Pasture/Managed Herbaceous: 1%

Counties
 Perquimans, Pasquotank, Chowan, and Gates

Municipalities
 Hertford and Winfall

Monitored Waterbody Statistics

Aquatic Life
 Total: 40.0 mi./74,429.3 ac.
 Supporting: 25 mi./73,736.7 ac.
 Not Rated: 7.9 mi./692.6 ac.

Recreation
 Total: 7.9 mi./74,429.3 ac.
 Supporting: 7.9 mi./74,429.3 ac.

- Require stormwater best management practices for existing and new development;
- Develop and enforce buffer ordinances;
- Conduct comprehensive land use planning that assesses and reduces the impact of development on natural resources; and
- Develop and enforce local erosion control ordinances.

The Pasquotank River Basin Plan includes the following proactive planning recommendations for the basin:

- Conduct additional research to understand possible surface-ground water interactions and possible water quality issues associated with non-discharge wastewater disposal.
- Continue efforts to focus on proper training of facility operators to address non-compliance issues associated with permitted facilities, both non-discharge and discharge, often associated with operator mismanagement.
- Protect human health and maintain water quality by repairing failing septic systems, updating older systems, and eliminating straight pipes. Additional monitoring of fecal coliform bacteria throughout tributary watersheds will aid in identifying where straight pipes and failing septic systems are problems. Septic system maintenance outreach is needed in rural areas dependent on on-site wastewater disposal.
- Develop stormwater management programs for new development and to retrofit existing development.
- Develop additional outreach opportunities to incorporate smart growth technologies or low-impact development techniques for municipal planners to incorporate into land use plans.
- Establish riparian buffers as needed throughout the basin, both in residential and agricultural land use areas.
- Reestablish natural drainage and associated wetlands to reduce stormwater runoff, assist with flood control, and improve water quality.
- Support the development and implementation of best management practices (BMPs) to help reduce nonpoint source pollution. Monitoring of these BMPs should also be required to improve maintenance, design, and functionality. BMPs applicable in residential areas need to be encouraged through public education campaigns.
- Support the implementation of the Coastal Habitat Protection Plan at all levels of government and amongst citizens.
- Continue collaborative efforts between natural resource agencies within North Carolina and Virginia to improve adaptive management and policies on a watershed ecosystem scale.

Changes in Water Quality and Non-Point Source Pollution

There have been no recent surface water quality changes in Gates County. There are also no currently identified non-point source pollution problems in Gates County.

Prime Farmland and Hydric Soils

The preservation of prime farmland is important to Gates County's agricultural interest and the county's economy. Prime farmland is one of several kinds of important farmland defined by the US Department of Agriculture. It is of major importance in meeting the nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the US Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of the nation's prime farmland.

Prime farmland, as defined by the US Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are factors needed for the soil to economically produce sustained high yields of crops when proper management and acceptable farming methods are applied. These soils are also best suited for development.

Generally, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable levels of acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it is either not frequently flooded during the growing season or is protected from flooding. The prime farmland areas within Gates County are delineated on Map 9. There are approximately 70,884 acres of prime farmland in Gates County (see Table 19).

Hydric soils, as defined by the US Department of Agriculture, are soils that are wet frequently enough to periodically produce anaerobic conditions, thereby influencing the species composition or growth, or both, of plants on those soils. Hydric soils may or may not be subject to 404 wetlands regulations (see Wetlands discussion, page 3-3). Map 9 delineates hydric soils in the county's planning jurisdiction. There are approximately 68,834 acres of hydric soils in Gates County (see Table 19).

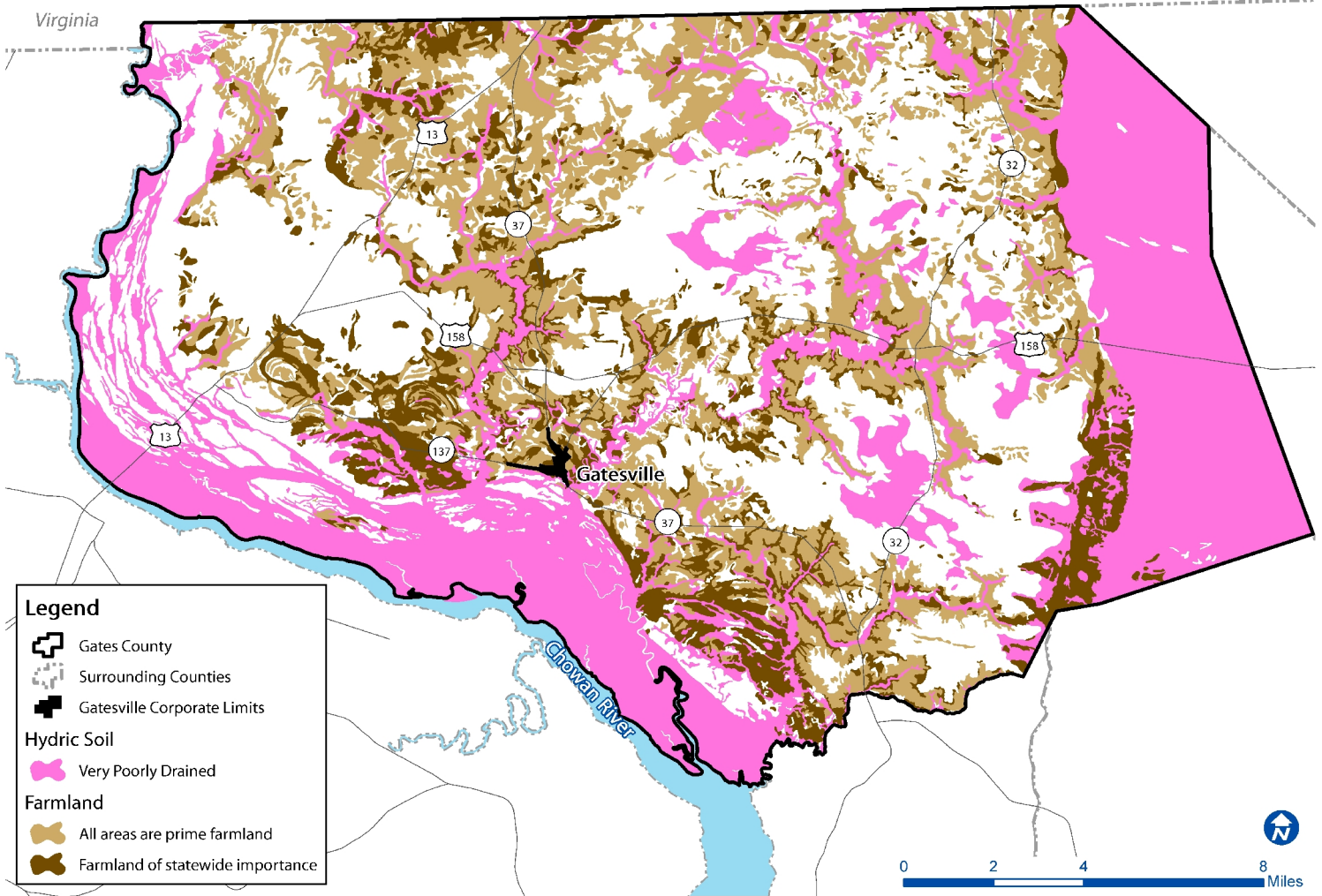
Table 19 provides a summary of the soil types associated with the prime farmland soils and hydric soils.

Table 19. Gates County Soil Types

| Symbol | Name | Slope Gradient | Drainage Class | Septic Tank Absorption | Farmland | Acres | % |
|--------|---|----------------|------------------------------|------------------------|---|-----------|--------|
| AaB | Alaga sand, 0 to 5 percent slopes | 3 | Somewhat excessively drained | Very limited | Not prime farmland | 7,026.86 | 3.22% |
| AtA | Altavista fine sandy loam, 0 to 3 percent slopes | 1 | Moderately well drained | Very limited | All areas are prime farmland | 3,171.75 | 1.45% |
| BaA | Ballahack loam, 0 to 2 percent slopes, occasionally flooded | 1 | Very poorly drained | Very limited | Prime farmland if drained | 3,173.71 | 1.45% |
| BeA | Belhaven muck, 0 to 2 percent slopes | 1 | Very poorly drained | Very limited | Not prime farmland | 6,490.90 | 2.98% |
| BnA | Bladen loam, 0 to 2 percent slopes | 1 | Poorly drained | Very limited | Not prime farmland | 50,053.84 | 22.95% |
| BoB | Bonneau loamy fine sand, 0 to 6 percent slopes | 3 | Well drained | Very limited | Farmland of statewide importance | 3,445.07 | 1.58% |
| CfA | Cape Fear loam, 0 to 2 percent slopes | 1 | Very poorly drained | Very limited | Farmland of statewide importance | 2,108.03 | 0.97% |
| ChA | Chowan loam, 0 to 2 percent slopes, frequently flooded | 1 | Very poorly drained | Very limited | Prime farmland if protected from flooding or not frequently flooded during the growing season | 4,324.34 | 1.98% |
| CoB | Conetoe fine sand, 0 to 5 percent slopes | 3 | Well drained | Very limited | Farmland of statewide importance | 5,532.68 | 2.54% |
| CrA | Craven fine sandy loam, 0 to 1 percent slopes | 1 | Moderately well drained | Very limited | All areas are prime farmland | 9,984.69 | 4.58% |
| CrB | Craven fine sandy loam, 1 to 4 percent slopes | 3 | Moderately well drained | Very limited | All areas are prime farmland | 5,861.33 | 2.69% |
| CrC | Craven fine sandy loam, 4 to 8 percent slopes | 6 | Moderately well drained | Very limited | Farmland of statewide importance | 547.70 | 0.25% |
| DoA | Dorovan mucky peat, 0 to 2 percent slopes, frequently flooded | 1 | Very poorly drained | Very limited | Not prime farmland | 18,669.98 | 8.56% |
| ExA | Exum silt loam, 0 to 2 percent slopes | 1 | Moderately well drained | Very limited | All areas are prime farmland | 1,627.32 | 0.75% |
| GoA | Goldsboro fine sandy loam, 0 to 3 percent slopes | 1 | Moderately well drained | Very limited | All areas are prime farmland | 17,102.22 | 7.84% |
| IcA | Icaria fine sandy loam, 0 to 2 percent slopes | 1 | Very poorly drained | Very limited | Prime farmland if drained | 4,553.49 | 2.09% |
| LeA | Lenoir loam, 0 to 2 percent slopes | 1 | Somewhat poorly drained | Very limited | Farmland of statewide importance | 5,957.46 | 2.73% |
| LoA | Leon sand, 0 to 2 percent slopes | 1 | Poorly drained | Very limited | Farmland of unique importance | 1,592.91 | 0.73% |
| LyA | Lynchburg fine sandy loam, 0 to 2 percent slopes | 1 | Somewhat poorly drained | Very limited | Prime farmland if drained | 2,772.82 | 1.27% |
| NaA | Nawney loam, 0 to 2 percent slopes, frequently flooded | 1 | Very poorly drained | Very limited | Not prime farmland | 9,109.41 | 4.18% |
| NoA | Noboco fine sandy loam, 0 to 2 percent slopes | 1 | Well drained | Very limited | All areas are prime farmland | 3,092.97 | 1.42% |
| NoB | Noboco fine sandy loam, 2 to 6 percent slopes | 4 | Well drained | Very limited | All areas are prime farmland | 2,835.24 | 1.30% |
| PaA | Pactolus sand, 0 to 3 percent slopes | 1 | Moderately well drained | Very limited | Not prime farmland | 4,274.52 | 1.96% |
| PnA | Pantego fine sandy loam, 0 to 2 percent slopes | 1 | Very poorly drained | Very limited | Prime farmland if drained | 6,736.17 | 3.09% |
| PuA | Pungo muck, 0 to 2 percent slopes | 1 | Very poorly drained | Very limited | Not prime farmland | 13,668.24 | 6.27% |
| RaA | Rains fine sandy loam, 0 to 2 percent slopes | 1 | Poorly drained | Very limited | Prime farmland if drained | 12,160.52 | 5.57% |
| RoA | Roanoke loam, 0 to 2 percent slopes | 1 | Poorly drained | Very limited | Farmland of statewide importance | 2,669.20 | 1.22% |
| StA | State fine sandy loam, 0 to 2 percent slopes | 1 | Well drained | Very limited | All areas are prime farmland | 415.16 | 0.19% |
| StB | State fine sandy loam, 2 to 6 percent slopes | 4 | Well drained | Very limited | All areas are prime farmland | 658.35 | 0.30% |
| TaA | Tomahawk fine sand, 0 to 3 percent slopes | 2 | Moderately well drained | Very limited | Farmland of statewide importance | 1,585.35 | 0.73% |
| ToA | Tomotley fine sandy loam, 0 to 2 percent slopes | 1 | Poorly drained | Very limited | Prime farmland if drained | 1,953.81 | 0.90% |
| Ud | Udorthents, loamy | 3 | Well drained | Somewhat limited | Not prime farmland | 273.42 | 0.13% |
| VaB | Valhalla fine sand, 0 to 6 percent slopes | 3 | Well drained | Very limited | Farmland of statewide importance | 1,396.31 | 0.64% |
| W | Water | 0 | | Not rated | Not prime farmland | 249.53 | 0.11% |
| WnD | Winton fine sandy loam, 8 to 15 percent slopes | 12 | Moderately well drained | Very limited | Farmland of statewide importance | 2,092.93 | 0.96% |
| WnE | Winton fine sandy loam, 15 to 30 percent slopes | 30 | Moderately well drained | Very limited | Not prime farmland | 969.90 | 0.44% |

Source: US Soil Conservation Service.

Map 9: Gates County Prime Farmland & Hydric Soil



Flood Hazard Areas

Flooding is a localized hazard that is generally the result of excessive precipitation. It is the most common environmental hazard, due to the widespread geographical distribution of rivers and coastal areas, and the attraction of residents to these areas. However, in coastal regions, storm surge and wind-driven waves are significant components of flooding. Floods can be generally considered in two categories: flash floods, the product of heavy localized precipitation in a short time period over a given location; and general floods, caused by precipitation over a longer time period and over a given river basin. While flash floods occur within hours of a rain event, general flooding is a longer-term event, and may last for several days. The primary types of general flooding are riverine flooding, coastal flooding, and urban flooding.

Floodplains are divisible into areas expected to be inundated by spillovers from stream flow levels associated with specific flood-return frequencies. The National Flood Insurance Program (NFIP) uses flood zone designations to indicate the magnitude of flood hazards in specific areas. The following are flood hazard zones located within Gates County and a definition of what each zone means.

- Zone A. Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations are shown or flood hazard factors determined.
- Zone AE. Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations shown at selected intervals.
- Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without causing any cumulative increase in the water surface elevation more than a designated height. The floodway carries the dangerous and fast-moving water.

The following table delineates the number of acres of flood hazard area in the county.

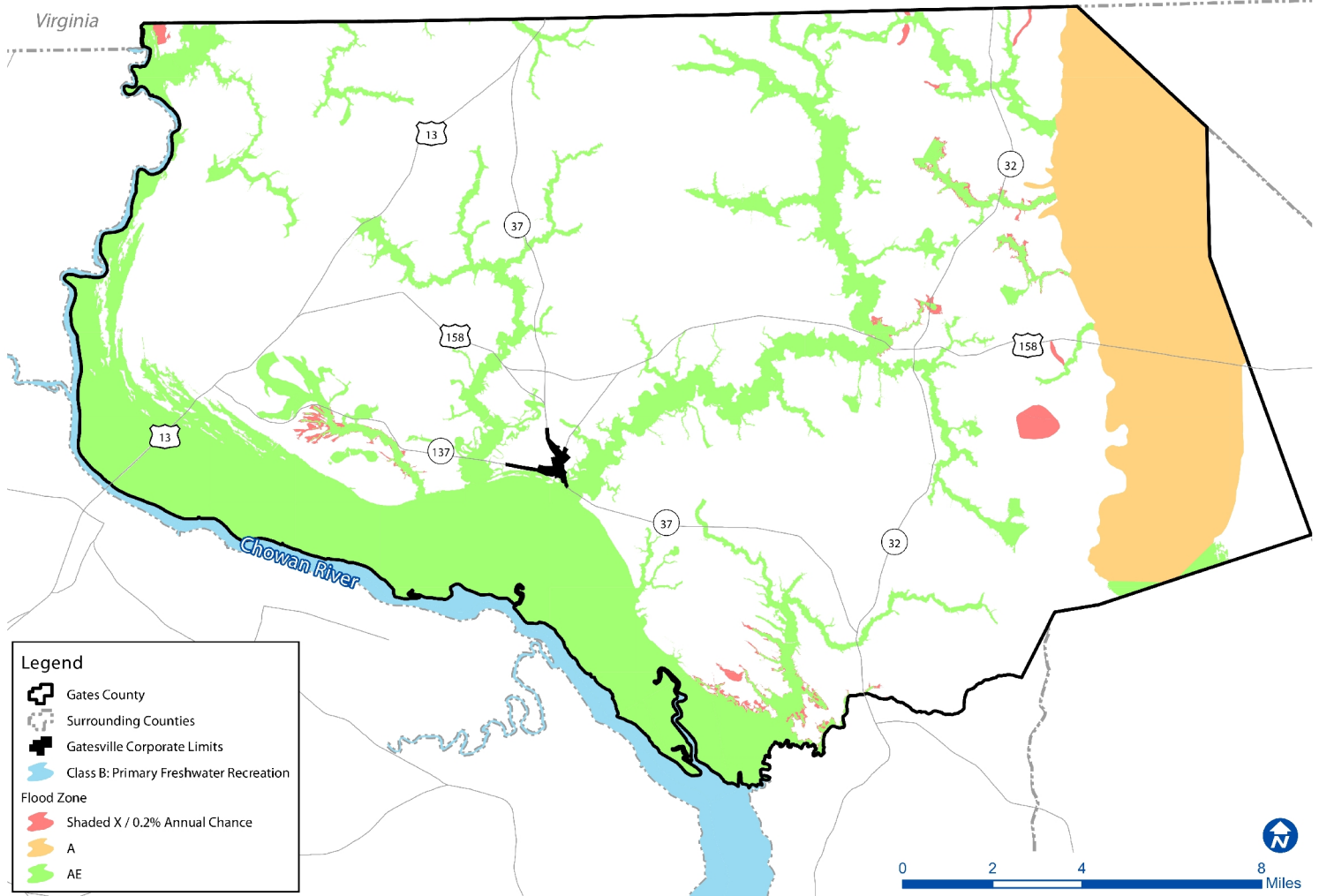
| Table 20. Gates County Flood Hazard Areas | | | |
|--|------------------|------------------------|--------------------|
| Flood Zone | Acres | % of Flood Area | % of County |
| 0.2% Annual Chance | 1,311.09 | 1.8% | 0.6% |
| A | 22,829.63 | 31.4% | 10.5% |
| AE | 48,574.76 | 66.8% | 22.2% |
| | 72,715.48 | 100.0% | 33.3% |

NOTE: The total flood zone acreage figure is inconsistent with the Hazard Mitigation Plan. The total in the table above includes the 0.2% annual chance (500-year) category which was not included in the HMP total. Source: HCP, Inc.

There are approximately 72,715 acres of flood hazard area in the county (see Map 10). This equates to approximately 33% of the total land in the county. Most of the county's flood area is located along the Chowan River. Development throughout defined flood hazard areas in the county is regulated by the Gates County Flood Damage Prevention Ordinance. This Ordinance is enforced by the Gates County Inspections Department.

There is one (1) structure in the Eure community identified by the National Flood Insurance Program (NFIP) as a "Repetitive Loss Structure," meaning that it has had two or more claims paid against the National Flood Insurance Program.

Map 10: Gates County Flood Hazard Areas



Gates County is also at risk of flooding from storm surge inundation. Maps 11 and 12 show the general areas of the county that may be affected by hurricane-generated storm surge based on the SLOSH (Sea, Lake, Overland, Surges from Hurricanes) model. The SLOSH model was developed by the US Army Corps of Engineers and the model is run by the National Hurricane Center. The model plots hurricane-related flooding for slow and fast moving storms that may result from a number of characteristics including wind speed, wind direction, time, and tide. Fast moving hurricanes are hurricanes that have a forward velocity of greater than or equal to 15 miles per hour. Slowing moving hurricanes are hurricanes that have a forward velocity of less than 15 miles per hour.

Hurricane intensity is measured using the Saffir-Simpson Scale, ranging from 1 (minimal) to 5 (catastrophic). The following scale categorizes hurricane intensity linearly based upon maximum sustained winds, minimum barometric pressure and storm surge potential.

- Category 1: Winds of 74 to 95 miles per hour. Damage primarily to shrubbery, trees, foliage, and unanchored mobile homes. No appreciable wind damage to other structures. Some damage to poorly constructed signs. Storm surge possibly 3 to 5 feet above normal. Low-lying roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.
- Category 2: Winds of 96 to 110 miles per hour. Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roof materials of buildings; some window and door damage. No major wind damage to buildings. Storm surge possibly 6 to 8 feet above normal. Coastal roads and low-lying escape routes inland cut by rising water 2 to 4 hours before arrival of hurricane center. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying island areas required.
- Category 3: Winds of 111 to 130 miles per hour. Foliage torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Some damage to roofing materials of buildings; some window and door damage. Some structural damage to small buildings. Mobile homes destroyed. Storm surge possibly 9 to 12 feet above normal. Serious flooding at coast and many smaller structures near coast destroyed; larger structures near coast damage by battering waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives.
- Category 4: Winds of 131 to 155 miles per hour. Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows, and doors. Complete failure of roofs on many small residences. Complete destruction of mobile homes. Storm surge possibly 13 to 18 feet above normal. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Major erosion of beaches.
- Category 5: Winds greater than 155 miles per hour. Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs on many residences and industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. Storm surge possibly greater than 18 feet above normal. Major damage to lower floors of all structures less than 15 feet above sea level. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives.

The following table provides the inundation acreage in Gates County for varying hurricane categories. The model estimates 10.2% of the county will be inundated by a Category 1 or 2 fast moving hurricane, 11.4% will be inundated by a Category 3 fast moving storm, and 5.6% will be inundated by a Category 4 or 5 fast moving storm. For slow moving hurricanes, 80.2% of Gates County will be inundated by a Category 1 or 2 hurricane, 10.7% will be inundated by a Category 3 storm, and 9% will be inundated by a Category 4 or 5 storm.

| Fast Moving Storm | Acres | % of County |
|--------------------------|--------------|--------------------|
| Categories 1 and 2 | 22,174 | 10.2% |
| Category 3 | 24,783 | 11.4% |
| Categories 4 and 5 | 26,265 | 12.1% |
| Slow Moving Storm | Acres | % of County |
| Categories 1 and 2 | 22,348 | 10.2% |
| Category 3 | 25,334 | 11.6% |
| Categories 4 and 5 | 27,849 | 12.8% |

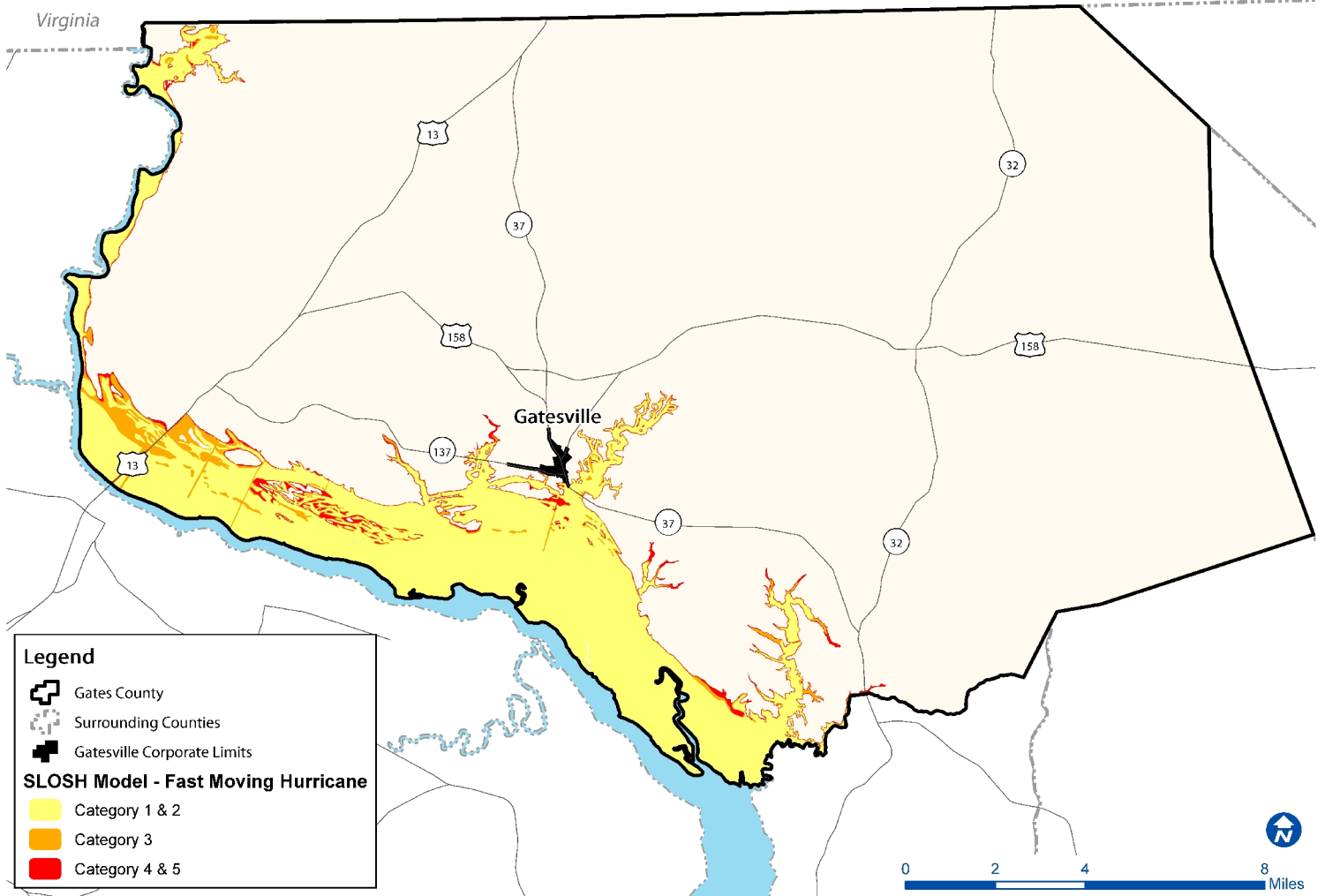
Source: Federal Emergency Management Agency.

Hazard Mitigation and Preparation

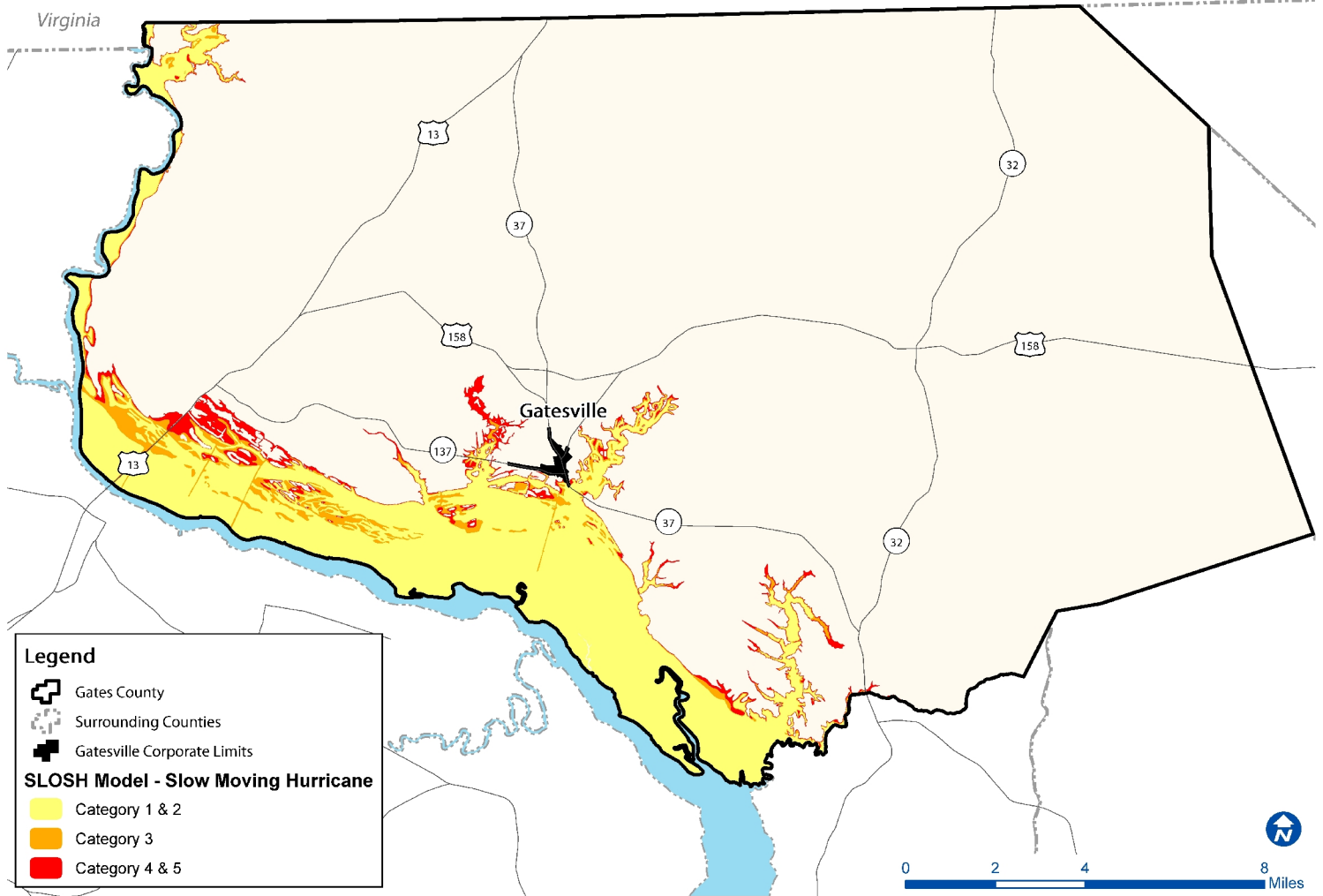
Gates County falls under the jurisdiction of the Albemarle Regional Hazard Mitigation Plan. This plan involves the participation of Gates, Currituck, Dare, Camden, Pasquotank, Perquimans, Chowan, and Hertford Counties. The plan identifies existing land use patterns in relation to the existing built environment, including what measures should be taken to reduce the risk of life and property throughout the County as a result of natural hazard activity. Development and update of this plan is a requirement imposed by both the Federal (Disaster Mitigation Act of 2000) and State (NC Senate Bill 300) governments. The Albemarle Regional Hazard Mitigation Plan received Approval Pending Adoption status by FEMA on May 12, 2015, and was adopted by the Gates County Board of Commissioners on August 5, 2015.

The full plan is available for review at the Gates County Administration Building, or through the following web link: <https://albemarlereghazardmitigationplan.wikispaces.com/home>. Additionally, the mitigation strategies developed by the County through this process have been provided in Appendix D.

Map 11: Gates County
SLOSH - Fast Moving Hurricane



Map 12: Gates County
SLOSH - Slow Moving Hurricane



COMMUNITY FACILITIES

The following provides an overview of community facilities involving day-to-day county operations, as well as public safety. All facilities are delineated on Map 13, Community Facilities.

Health Care Resources

Medical resources available to the citizens of Gates County are fairly limited. According to the 2012 Gates County Community Health Assessment, the County maintains the lowest per capita health professionals of any County located throughout the Albemarle Region. This lack of medical resources requires that many County residents must rely on regional resources located outside of the County.

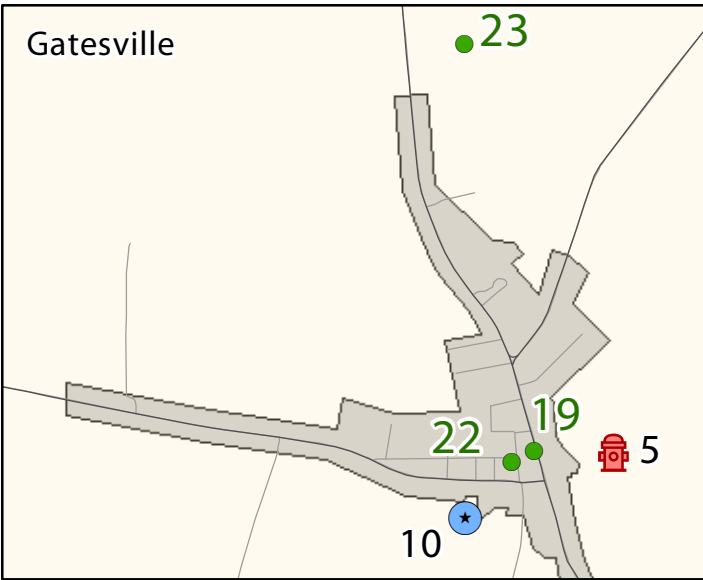
One way to judge the supply of health professionals in a jurisdiction is to calculate the ratio of the number of health care providers to the number of persons in the population of that jurisdiction. In NC, there is data on the ratio of active health professionals per 10,000 population calculated at the county level. The following presents data for Gates County, the Albemarle Region, the state of NC, and the US for five key categories of health care professionals: physicians, primary care physicians, registered nurses, dentists and pharmacists.

| | Physicians | Primary Care Physicians | Dentists | Registered Nurses | Pharmacists |
|------------------|------------|-------------------------|----------|-------------------|-------------|
| Gates County | 0.8 | 0.8 | 0.8 | 15.9 | 0.8 |
| Albemarle Region | 8.6 | 3.9 | 1.7 | 49.4 | 4.0 |
| North Carolina | 22.1 | 7.8 | 4.4 | 98.6 | 9.5 |
| United States | 22.7 | 8.2 | 5.7 | 92.0 | 8.3 |

Source: 2012 Gates County Community Health Assessment.

The medical professionals operate out of several facilities located throughout Gates County. These facilities include physicians, the Gates County Medical Center, and the Gateway Community Health Centers' Adolescent Care Center. Additionally, Albemarle Regional Health Services and the Gates County Health Department provide a range of programs and services to Gates County residents. There is no full service hospital facility located within Gates County; however, the base hospital for EMS Responders within Gates County is the Sentara Albemarle Medical Center located in Elizabeth City.

Map 13: Gates County Community Facilities



Virginia

- Legend**
- Gates County
 - Surrounding Counties
 - Gatesville Corporate Limits
 - Community Facilities**
 - Emergency Medical Services
 - Fire Stations
 - State Agencies
 - Law Enforcement
 - Schools
 - Boat Access
 - Historic Properties
 - Scenic Byway
 - Waste Treatment Plant

- Waterline Types**
- 2" Existing Waterlines
 - 3" Existing Waterlines
 - 4" Existing Waterlines
 - 6" Existing Waterlines
 - 8" Existing Waterlines
 - 10" Existing Waterlines
 - 12" Existing Waterlines

- Emergency Medical Services**
- 1. Gates County Rescue Squad
- Fire Stations**
- 2. Corapeak Fire Station
- 3. Eure Volunteer Fire Department
- 4. Gates Volunteer Fire Department
- 5. Gatesville Volunteer Fire Department
- 6. Hobbsville Volunteer Fire Department
- 7. Sunbury Volunteer Fire Department
- State Agencies**
- 8. US Forest Service
- 9. NC Division of Parks
- Law Enforcement**
- 10. Gates County Sheriff's Department
- Schools**
- 11. Buckland Elementary
- 12. Central Middle
- 13. Gates County Senior High
- 14. TS Cooper Elementary
- Boat Access**
- 15. Gatesville Access
- 16. Shoups Landing
- Historic Properties**
- 17. Buckland
- 18. Elmwood Plantation
- 19. Eure - Roberts House
- 20. Freeman House
- 21. Joseph Freeman Farm
- 22. Gates County Courthouse
- 23. Reid's Grove School
- 24. Roberts - Carter House
- 25. Rountree Family Farm
- 26. Sunbury High School
- Miscellaneous**
- 27. Waste Treatment Plant

County Medical Centers

Gates County Medical Center is one of two health centers available in Gates County. It is part of the Albemarle Hospital Authority Health Centers network, and it operates year round. This facility is located in Gatesville and provides the following services: Chronic Conditions, Community Health, Diagnostic Services, Emergency Services, Family Health, Heart Disease, Primary Health Care, and Radiology.

In addition to the Gates County Medical Center, Gateway Community Health Center operates an adolescent care facility within rural Gates County. This facility focuses on providing affordable health care services to the Counties low to moderate income residents. The Adolescent Care Facility provides services comparable to the Gates County Medical Center.

Albemarle Regional Health Services

Albemarle Regional Health Services (ARHS) is the district health department in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans. ARHS has provided over 70 years of service to the Albemarle Region. The regional Public Health agency provides the following healthcare services: immunizations; diabetes care and management; women's preventive health; maternal health, including high-risk perinatal services; child health; WIC and nutrition counseling; pediatric asthma management; services for people with communicable diseases, including STDs; adult day health care; children's developmental services; Public Health preparedness and response; public information; interpreter assistance; home health care; and hospice.

Gates County Health Department

Services offered at the Gates County Health Department, physically located in Gates, NC, include the following: clinical services, WIC, diabetes, health education and promotion, environmental health, preparedness and response, Albemarle Home Care and Albemarle Hospice, Perquimans-Chowan-Gates (PCG) Landfill and Convenience Sites, Albemarle Regional Solid Waste Management Authority, Children's Developmental Services Agency, and AgriSafe of the Albemarle.

Sentara Albemarle Medical Center

Located in Elizabeth City, Sentara Albemarle Medical Center is a 182-licensed bed, full service facility offering a wide range of services, including the following: inpatient and critical care, a full array of surgical services, sophisticated diagnostic imaging technology, comprehensive women's care, cardiology, cancer treatment, rehabilitation services and more. Sentara Albemarle Medical Center has assembled a medical staff of more than 100 physicians, representing nearly 30 specialties, and a caring staff of almost 1,000 employees.

Vidant Roanoke-Chowan Hospital

Vidant Roanoke-Chowan Hospital is a 114-bed, not-for-profit hospital located in Ahoskie, NC. The facility provides a wide range of health services to about 39,000 residents in the four-county area. Services include the following: Asthma Program (Pediatric), Behavioral & Mental Health, Cancer Care, Children’s Services, Diagnostic Imaging, Emergency Services, Endoscopy, Heart and Vascular Care, Home Health, Hospice Care, Lifeline, Mammography, Orthopedics, Pain Management, Radiology, Rehabilitation, Senior Behavioral Health, Sleep Services, Specialty Services, Stroke Care, Surgical Services, Vidant Wellness Centers, Weight Loss, Wellness & Prevention, Women’s Care, and Wound Healing.

Law Enforcement

There are no local police departments in Gates County. The Gates County Sheriff’s Office services Gates County with nine full-time officers, three auxiliary officers (non-paid), and office support staff. The department covers 337 square miles with approximately 14 miles of water front along the edge of the Chowan River.

The Gates County Sheriff’s Department has the responsibility for handling all major crimes such as murders, kidnappings, fraud and burglaries, sexual assaults, and narcotic drug enforcement. Additionally, the department handles enforcement of traffic offenses such as drunk driving, speeding, drug interdiction, and general North Carolina crimes including trespassing, misdemeanor larcenies, worthless checks, all criminal and civil papers, security for all schools and school-related functions, enforcement of all animal control complaints within the county, enforcement of child custody orders, and domestic violence protective orders. Gates County has mutual aid agreements with all surrounding local, state, and federal agencies to assist each other in respective cases.

Fire Protection & Emergency Medical Services (EMS)

There are six fire departments that serve Gates County, all of them are volunteer departments. Table 23 provides a list of the departments and locations (see Map 13, Community Facilities). The fire departments are all funded through a county-wide fee levied on homes and businesses. This fee does not support EMS. These taxes are collected annually through the Gates County Tax Department.

| Table 23. Gates County Volunteer Fire Departments | |
|--|-----------------|
| Department Name | Location |
| Eure Volunteer Fire Department | Eure |
| Gates Volunteer Fire Department | Gates |
| Gatesville Volunteer Fire Department | Gatesville |

| Department Name | Location |
|--------------------------------------|------------|
| Hobbsville Volunteer Fire Department | Hobbsville |
| Sunbury Volunteer Fire Department | Sunbury |
| Corapeake Volunteer Fire Department | Corapeake |

Source: HCP, Inc..

Emergency Medical Services within Gates County are provided by Gates County Rescue and EMS. On average, Gates County Rescue and EMS responds to approximately 1,000 service calls. These calls are serviced by a staff of 12 full-time and 10 part-time EMT's. Additionally, there is a volunteer staff of 38 members – 29 EMT members and 9 Rescue (only) members. The department operates with five ambulances, one crash truck, one QRV, and one utility truck. As mentioned under the discussion of medical facilities, the base hospital for all EMS calls within Gates County is Sentara Albemarle Medical Center.

Emergency Management

The Gates County Emergency Services Department oversees all Emergency Management functions in the County. This includes oversight of all volunteer fire departments, rescue and EMS operations and maintenance and management of the County's Emergency Operations Plan (EOP). The County EOP is responsible for directing all functions throughout the County during any substantial man-made or natural disaster occurrence.

The County Emergency Operations Center is located on US 158 near Gatesville and houses the County E-911 system and personnel. The County E-911 Department provides all Public Safety Communications for the county. The department dispatches all calls for law enforcement, fire, or medical services. Additionally, E-911 handles all emergency calls after hours for electric, water, Department of Social Services, and the Health Department.

Parks, Recreation and Open Space

Gates County does not maintain a full-time Parks and Recreation Department; however, there are several active and passive recreational resources located in the County. The Gates County Community Center was built in 1978 by a joint effort between the Gates County Board of Education and Gates County Board of Commissioners. Since that time, many changes have taken place. A grant funded through the Golden Leaf Foundation provided the funding necessary to complete a major facility expansion in 2009. Additionally, a grant received from the Roanoke-Chowan Foundation allowed the Center to establish a Wellness Center. The following provides an overview of the services and facilities available at the Gates County Community Center:

- 9-hole Par 3 Disc Golf Course
- One-half mile paved walking trail
- Five lighted tennis courts
- Skateboard Park
- GED Classes
- Pre-School (only on Mondays, Wednesdays and Fridays)
- Meals on Wheels
- Horseshoe Pits
- Outdoor Basketball Courts
- Ping Pong Tables
- Karate Classes
- Bocce Court
- Indoor Gym
- Mobile DMV Facility
- Two Baseball Fields (youth and adult)
- One Softball Field
- Youth Sports Programs
- Meeting Hall Facilities

Merchants Mill Pond State Park is located east of Gatesville in rural Gates County. The park is a regionally significant park. It covers 3,447 acres around a 200-year-old, 700-acre millpond. Canoeing is one of the park's major attractions; however, a range of facilities and activities are available on a seasonal basis. This includes the availability of a campground which provides the following: bath house, comfort stations, educational programs, fire rings, fishing, picnic facilities, bathhouses and hiking trails.



Image Courtesy of Gates County, NC

There are a total of five public water access sites located within Gates County. These access sites are managed by the Wildlife Resources Commission, the Town of Gatesville, and the NC Department of Natural and Cultural Resources. The following provides a summary of these facilities located in Gates County.

Table 24. Gates County CAMA Public Access Sites

| Site Name | Site Address | # of Parking Spaces | # of Handicapped Parking Spaces | Facilities |
|--|-----------------------------|---------------------|---------------------------------|---|
| Shoups Landing | US 13 & Shoups Landing Road | 50 | 4 | Boardwalk, boat ramp and boat trailer parking |
| New Road Street | New Road Street | On-street only | 0 | Unmarked parking, boat launch, pier |
| Bennetts Creek Town Park | Gatesville Main Street | 8 | 1 | Boardwalk, kayak platform, picnic pavilion, walking trail |
| Gates Merchants Millpond Main Entrance | Millpond Road | 40 | 2 | Picnic pavilion, canoe launch, canoe rental, restroom |
| Merchants Millpond State Park | Millpond Road | 40 | 1 | Canoe access, fishing platform, picnic table, restroom |

Source: NC Division of Coastal Management.

Historic Properties

Gates County has a number of historic properties located throughout the County. There are ten (10) properties within Gates County listed on the National Register of Historic Places. The National Register of Historic Places is the official list of the Nation’s historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service’s National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America’s historic and archeological resources.

The following provides a listing of structures recognized by the National Register (the properties are identified on Map 13):

- Buckland (Buckland) 3/6/1986
- Elmwood Plantation (Gatesville vicinity) 2/1/1972
- Eure-Roberts House (Gatesville) 9/20/2006
- Joseph Freeman House (Reynoldson vicinity) 11/12/1999
- Freeman House (The Stateline House) (Gates vicinity) 9/23/1982
- (Former) Gates County Courthouse (Gatesville) 10/22/1976
- Reid’s Grove School (Gatesville) 8/30/2011
- Roberts-Carter House (Gone) (Gatesville vicinity) 3/1/1984
- Rountree Family Farm (Gates vicinity) 8/2/2000
- Sunbury High School (Sunbury) 5/12/2009

In addition to the historic properties discussed above, the NC Scenic Byway traverses through Gates County (see Map 13). The corridor runs east to west from Camden County to Hertford County, respectively.

Educational Resources

There are five public schools in the Gates County school district: three elementary schools, one middle school, and one secondary school. There are no private schools in the county. The following table outlines the type and enrollment of the five public schools located within Gates County. These schools are located on Map 13.

| Table 25. Gates County Public Schools | | | | |
|--|-----------------|-----------------------------|--------------------|-----------------------------|
| School | Location | School Type/Calendar | Grade Range | Enrollment SY2011-12 |
| Buckland Elementary | Gates | Regular/Traditional | PK-5 | 247 |
| Gatesville Elementary | Gatesville | Regular/Traditional | PK-5 | 288 |
| TS Cooper Elementary | Sunbury | Regular/Traditional | K-5 | 250 |

| School | Location | School Type/Calendar | Grade Range | Enrollment SY2011-12 |
|--------------------------|------------|----------------------|-------------|----------------------|
| Central Middle | Gatesville | Regular/Traditional | 6-8 | 424 |
| Gates County Senior High | Gatesville | Regular/Traditional | 9-12 | 569 |

Source: HCP, Inc.

In addition to the public schools noted above, there are several opportunities for higher education within the region. These facilities include the College of the Albemarle, Chowan University, Roanoke-Chowan Community College and Elizabeth City State University.

College of the Albemarle

The College of The Albemarle (COA) is a community college that serves northeastern North Carolina with sites in several locations throughout the region, including a campus in Edenton, one in Elizabeth City, and a third in Manteo. A comprehensive community college, COA offers two-year degrees in college transfer and career programs, basic skills programs, continuing education classes for personal enrichment as well as credit, customized business and industry training, and cultural enrichment opportunities including an annual summer program called College for Kids. The COA is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

Chowan University

Chowan University is a small (~1,300 students) four-year liberal arts university located in Murfreesboro, NC (Hertford County). Chowan University is affiliated with the Southern Baptist Association. The University offers over 63 academic programs and the recently-opened School of Graduate Studies provides students the opportunity to earn Master's degrees. Currently, Chowan offers the Master's of Education (M.Ed.) degree with advanced teacher license.

Roanoke-Chowan Community College

Roanoke-Chowan Community College (RCCC) is a regional community college located in Ahoskie, NC (Hertford County). The College currently has about 20 curricular programs in which students may seek degrees, diplomas, and short term skills-based certificates. RCCC recently added an Associate of Fine Arts Degree in Visual Arts, in addition to diplomas in high demand occupational training in Building Construction, Plumbing, and other construction-related technologies. The College offers a Lateral Entry Teacher Certificate tailored to meet the need of public schools within the region to fully credential educators who have entered the classroom without the advantage of full unrestricted licensure.

Elizabeth City State University

Elizabeth City State University (ECSU) is a four-year state university located in Elizabeth City, NC (Pasquotank County). Originally an institution for African-American students, the University now has an increasingly multi-cultural student body. In the fall of 2012, ECSU had a total enrollment of 2,878. A constituent institution of the University of North Carolina System, ECSU offers 37 baccalaureate degrees and four Master's degrees in four academic schools: Arts and Humanities; Business and Economics; Education and Psychology; and Mathematics, Science, and Technology. The University has academic programs that appeal to various interests and fields of study, including the honors program, military science, study abroad, Viking Fellows for education majors, and "signature" programs in aviation and pharmacy.

Gates County Library

There is one public library that serves the people of Gates County, the Gates County Public Library, located off US 158 near Gatesville. The Gates County Public Library is part of the Albemarle Regional Library System. The library offers a range of materials and programs for both the youth aged and senior populations of the County. The library opens daily and provides internet services to County residents that may not have access.

Water and Sewer Utilities

Gates County owns and operates the County Water System which is available to 100% of the population. However, some citizens continue to rely on wells for water supply. The Gates County Water Department provides water to approximately 3,700 customers plus the Town of Gatesville. The Water Department pumps its water from three deep wells located on Water Plant Road which is monitored twenty-four hours a day. Currently the system has three overhead storage tanks: two contain 250,000 gallons and one contains 400,000 gallons. The system has approximately 400 miles of water main, plus 200 fire hydrants. There are no known plans for private water service areas. The water system is in good condition and there are no population forecast demands which will exceed the water system capacity. The following summarizes 2015 system maintenance and system status:

- Total miles of distribution system lines: 400 miles
- Distribution lines replaced during 2015: 32 feet
- New water mains added during 2015: 0 feet
- Meters replaced in 2015: 149
- Oldest meter(s) in the system: 37 years
- System finished water storage capacity: 1.050 Million Gallons
- No inadequacies in water pressure

According to the 2015 Annual Drinking Water Report, the system had no delinquencies or deficiencies in water quality identified by the state.

Nearly all property owners, businesses and institutions rely on private on-site septic systems for wastewater treatment. There are no private wastewater service areas. There is one small wastewater system permitted for 15,000 gpd that was established in conjunction with the NC Correctional Facility which is now owned and operated by the County. The plant serves Gates County High School and the Merchants Commerce Park. There are no known system overflows, bypasses, or other problems that may degrade water quality or constitute a threat to public health as documented by the NC Division of Water Resources. Currently, the system is not under any state mandates or operational orders. The County intends to expand the system to a 50,000 gpd system for economic development, but the County does not currently have any specific plans for further expansion of the wastewater system. The Gates County Health Department monitors existing septic systems, as well as permitting the establishment of new systems. There are no future wastewater system needs based on population projections.

Natural Gas

Natural gas service is provided to the County by Piedmont Natural Gas.

Stormwater Systems

There are no existing significant public stormwater systems in Gates County.

Administration

Gates County operates under a Council/Manager form of government. Under this form of government, the County Manager and staff are responsible for the following:
delinquencies

- Carry out the policies established by the Board of Commissioners.
- Prepare and administer the operating budget.
- Oversee most County Departments.
- Provide the Board with recommendations and various policy options for consideration.
- Serve as a liaison between the Board of Commissioners and the public and other boards and commissions.
- Prepares the agenda and agenda packet for all Board of Commissioners' meetings.
- Serves as County Clerk for the keeping of all records concerning Commissioners' meetings.

These duties are carried out through fifteen departments, each operating under the supervision of the County Manager.

EXISTING LAND USE

Methodology

All land has an inherent utilization that can be classified to better understand the existing conditions and makeup of a given jurisdiction. Because Gates County is predominantly undeveloped and rural, much of the existing lands are classified as unimproved, rural residential, or agricultural lands. Unimproved lands refer to properties with no significant structures. These lands may be working agricultural lands or simply fully vegetated, dormant acreage.

Existing land use should not be confused with zoning. Existing land use classifies the current land condition, which differs from zoning that is used to specify what is allowed to be constructed on a particular piece of property.

Seven land use categories were used to create the existing land use surface. They are as follows:

- Commercial - retail, service, and shopping establishments
- Office and Institutional - government and public service, church, offices, and schools
- Industrial - wastewater treatment and sanitary sewer facilities
- Residential - all residential properties five (5) acres or less
- Rural Residential - all residential properties greater than five (5) acres, may include some agricultural use accessory to the residence
- Conservation - lands managed for conservation purposes
- Agriculture/Forest/Vacant - land utilized for agriculture purposes, unimproved land (cleared or forested)

The Gates County tax parcel file, in coordination with aerial photos, was used to determine the existing land use classification for properties in the County. Field surveys and Google's street view were used to confirm the accuracy of the aerial photos and tax data. Further, property value was used to ensure whether parcels were unimproved.

Existing Land Use Patterns

The vast majority of lands in the unincorporated areas of the county are undeveloped or used for agricultural purposes (68%). Rural Residential is the second largest land use category in unincorporated Gates County, occupying approximately 17% of the acreage. This pattern is consistent with other rural counties in eastern North Carolina.

Table 26. Unincorporated Gates County Existing Land Use

| Land Use Category | Acres | % of Total |
|---------------------------|-------------------|-------------------|
| Commercial | 165.57 | 0.08% |
| Office and Institutional | 654.94 | 0.30% |
| Industrial | 231.54 | 0.11% |
| Residential | 4,819.53 | 2.21% |
| Rural Residential | 37,789.47 | 17.32% |
| Conservation | 23,458.04 | 10.75% |
| Agriculture/Forest/Vacant | 148,243.60 | 67.96% |
| Right-of-Way | 2,775.44 | 1.27% |
| Total | 218,138.13 | 100.00% |

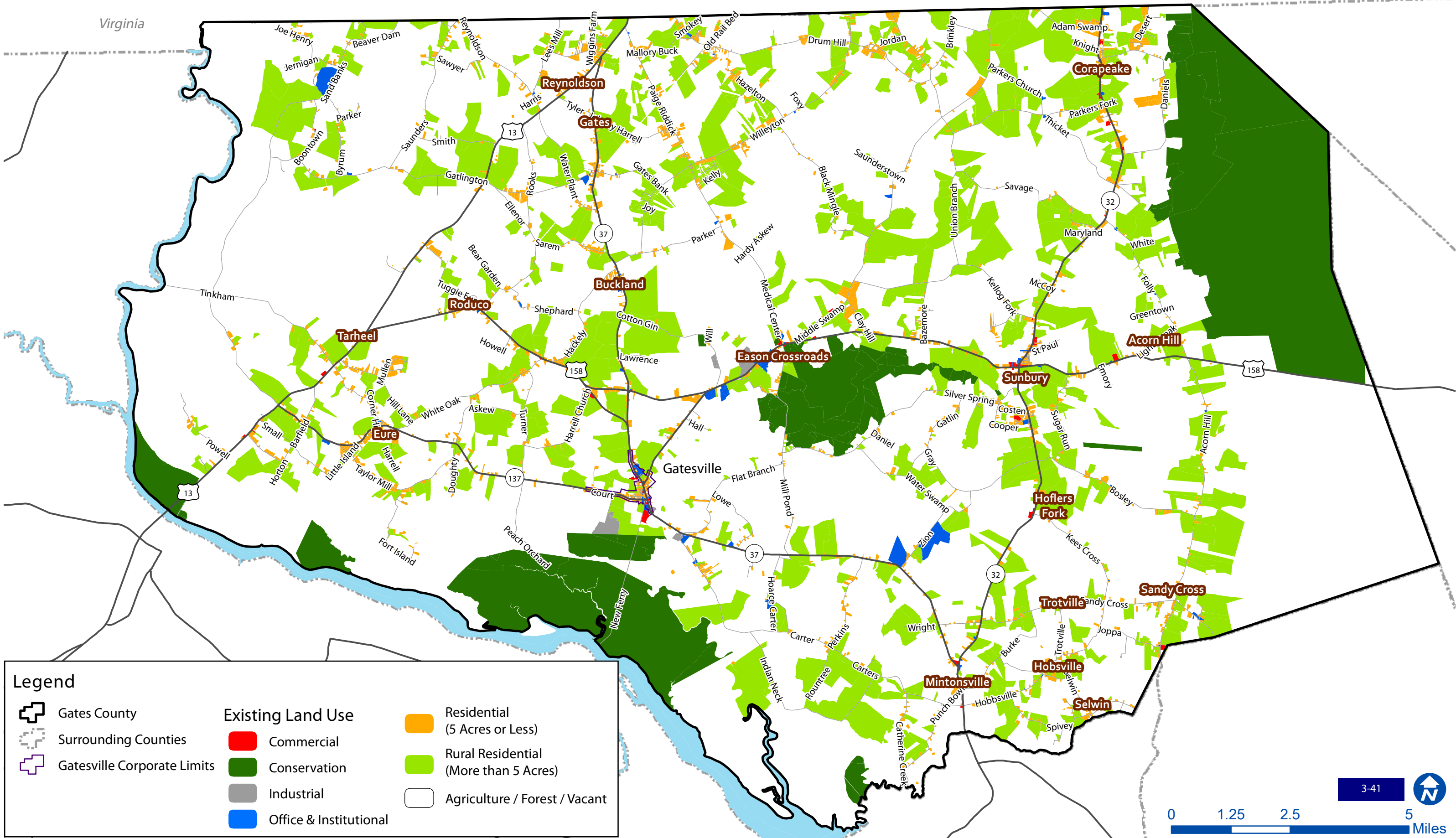
Source: HCP, Inc.

Table 27. Town of Gatesville Existing Land Use

| Land Use Category | Acres | % of Total |
|---------------------------|-----------------|-------------------|
| Commercial | 17.11 | 1.51% |
| Office and Institutional | 43.29 | 3.83% |
| Industrial | 6.70 | 0.59% |
| Residential | 117.40 | 10.39% |
| Rural Residential | 427.27 | 37.82% |
| Conservation | 0.58 | 0.05% |
| Agriculture/Forest/Vacant | 517.43 | 45.80% |
| Total | 1,129.78 | 100.00% |

Source: HCP, Inc.

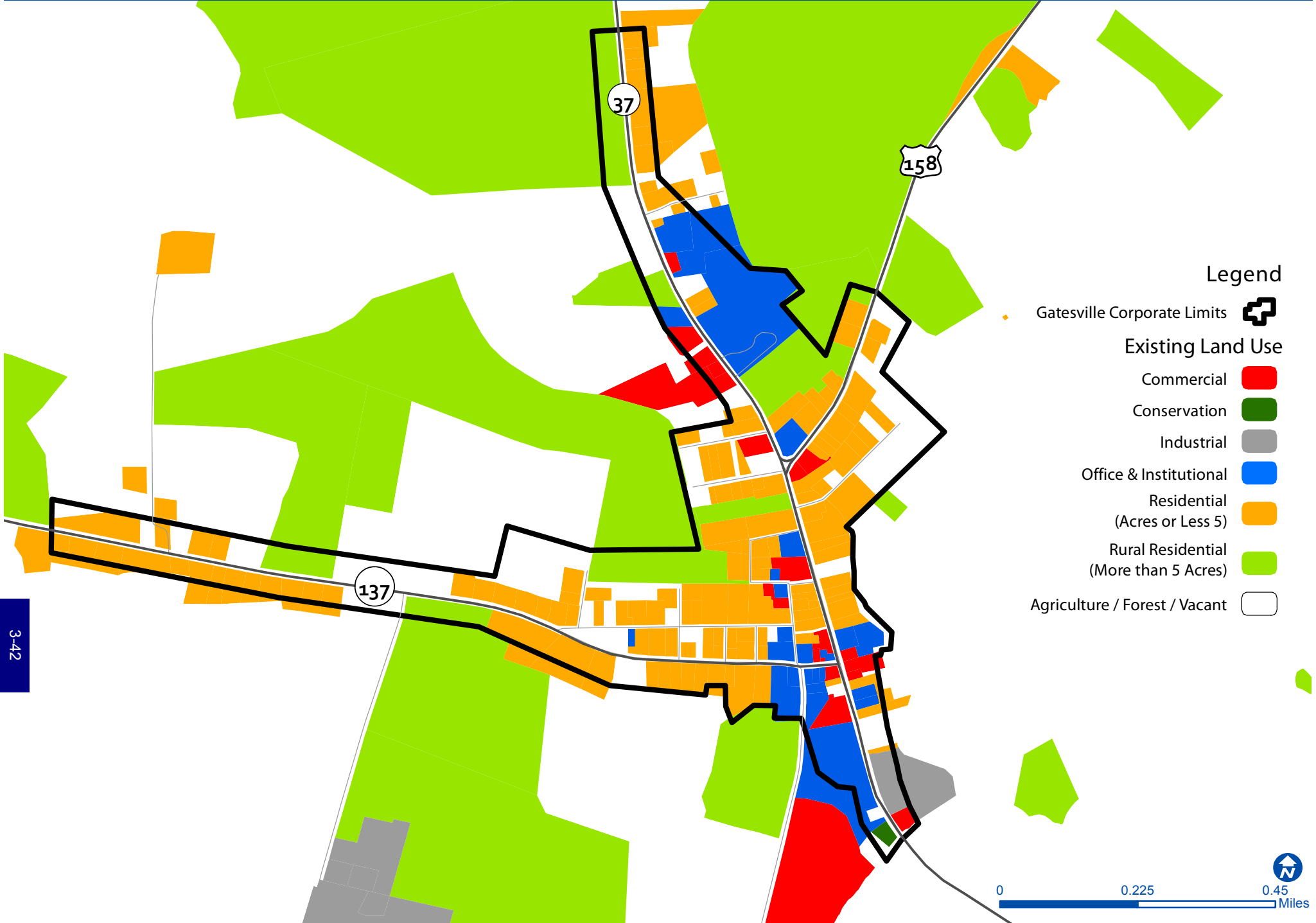
Map 14: Gates County Existing Land Use



Legend

- | | | | | | |
|--|-----------------------------|--|------------------------|--|--|
| | Gates County | | Existing Land Use | | Residential (5 Acres or Less) |
| | Surrounding Counties | | Commercial | | Rural Residential (More than 5 Acres) |
| | Gatesville Corporate Limits | | Conservation | | Agriculture / Forest / Vacant |
| | | | Industrial | | |
| | | | Office & Institutional | | |

Map 15: Town of Gatesville Existing Land Use



Legend

- Gatesville Corporate Limits
- Existing Land Use
 - Commercial
 - Conservation
 - Industrial
 - Office & Institutional
 - Residential (Acres or Less 5)
 - Rural Residential (More than 5 Acres)
 - Agriculture / Forest / Vacant

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Transportation

Gates County has a road system maintained by NCDOT that provides access to most portions of the County. Traffic flow along a majority of these roadways is fairly limited; however, there are a few corridors that experience heavy travel on a daily basis. The NCDOT develops data in the form of Average Annual Daily Traffic Counts (AADT). This data provides insight into the daily use and impact of right-of-way use throughout the County. According to the most recent AADT counts, developed in 2014, the most heavily traveled corridor is NC Highway 13, with an AADT of 6,900 entering or exiting the County at the County's southern extent and 4,700 entering or exiting the County to Virginia. A majority of the remaining corridors experienced, on average, 2,500 AADT counts. The second heaviest traveled corridor as of 2014 was NC Highway 58 running east to west through the County. Transportation improvements for both automobile and multi-use transportation systems are provided in the Future Demands portion of the plan. There are currently no highway segments having unacceptable levels of service.

Public transportation is provided through Gates County by the Gates County Inter-Regional Transportation System (GITS). The following provides a summary of availability and schedule regarding the existing system:

- Ahoskie trips are conducted daily: 8:00 a.m., 10:00 a.m., 2:00 p.m., and 3:45 is the final pick-up.
- Elizabeth City trips are conducted daily: 8:00 a.m., 10:00 a.m., 2:00 p.m., and 4:00 is the final pick-up.
- Edenton trips will be provided Monday, and Wednesday mornings from 10:00 a.m. to 12:00 noon to various medical centers.
- Tyner trip to Community Care Clinic will be provided on Thursday mornings 9:00-12:00 noon.
- Suffolk, VA trips are conducted daily: 6:00 a.m., 10:00 a.m., 2:00 p.m., and 5:00 is the final pick-up.
- Smithfield, VA trips are daily: 6:55 a.m. and 4:00 p.m.
- Greenville, NC trips are made on Tuesday and Thursday mornings 9:00 a.m. to 1:00 p.m.
- Norfolk, VA trips are made Monday, Tuesdays & 2nd and 4th Thursdays from 10:00 a.m. to 1:00 p.m.
- Hampton VA trips are made on 3rd Wednesdays from 10:00 a.m. to 1:00 p.m.
- Duke University Hospital trips on occasion as needed.

LAND SUITABILITY ANALYSIS METHODOLOGY AND DATA SUMMARY

Analysis Description

The Land Suitability Analysis (LSA) is a Geographic Information Systems (GIS) based tool for evaluating the relative suitability of land for development in Gates County, North Carolina. The end product is a generalized map showing areas of the county that are categorized as having either least, low, moderate, or high suitability for development. The analysis does not provide site-specific results, nor does it make recommendations about how individual landowners may or may not use their land.

Suitability, for the purpose of this analysis, can be primarily defined in terms of physical limitations and/or regulatory restrictions. Physical limitations such as poorly drained soils make land less suitable for development. Features subject to regulatory restrictions, such as water supply watersheds, also pose challenges to development.

Objectives and Limitations

The results of the LSA will be used to support planning efforts throughout the unincorporated areas of Gates County. Objectives of the LSA and appropriate uses of the final analysis include the following:

- Identify areas that are more or less suitable for development on a coarse scale;
- Inventory existing spatial information available for Gates County;
- Identify data gaps that may be filled during later planning stages;
- Develop a tool that will assist the county in the implementation of new policies;
- Provide a base for GIS analysis to be used in other long range planning projects.

Limitations of the LSA include the following:

- The LSA results are not a zoning map, but will be used to support planning processes in Gates County;
- Results and analyses do not support site-specific planning;
- The LSA does not make recommendations about how an individual landowner may or may not use their land;
- The LSA does not result in recommendations about where particular land uses (i.e., commercial vs. residential) should be concentrated;
- Results do not factor in projected population, carrying capacity, or commercial/housing demand.

Data Preparation

Spatial data sets were gathered from Gates County, local, state, and federal agencies, and private organizations. Data from the following sources were used in the analysis:

- Gates County GIS
- North Carolina Center for Geographic Information and Analysis (NCGIA)
- North Carolina Natural Heritage Program (NCNHP)
- North Carolina Clean Water Management Trust Fund (NCCWMTF)
- North Carolina Department of Environmental Quality (NCDEQ)
 - Division of Water Resources (DWR)
 - Wildlife Resources Commission (WRC)
 - Division of Parks and Recreation (DPR)
- U.S. Department of Agriculture (USDA)
 - Natural Resources Conservation Service (NRCS)
- U.S. Fish and Wildlife Service (USFWS)
 - National Wetlands Inventory (NWI)

The spatial data sets were prepared for each suitability class using the following techniques:

- Each data set was clipped to only include data within Gates County's geographic boundary. For example, some of the data sets included information for the entire State of North Carolina. The Gates County boundary was used to remove any data outside the county.
- Some data sets were queried to select subsets of the data. Some data sets included information not relevant to the criteria developed for each suitability class. For example, distribution of data within watershed areas was queried and divided among the proper suitability classes.
- Some non-spatial data sets were joined to spatial data as a way to add information to spatial data. For example, tabular data for hydric soils and important farmland soil classifications were joined to soil polygons using unique soil map unit codes.

Technical Approach

The LSA map considers regulatory, legal, and environmental constraints to development, which are defined as follows:

- Regulatory Constraints – These constraints are created by a regulatory body to mitigate impact in designated areas. Often, these constraints are temporary and are not legally binding in nature.

- Legal Constraints – Any legally binding or permanent agreement to preserve or conserve land areas in perpetuity.
- Environmental Constraints – Any natural or physical resources that limit an area's potential for development. The two main types of environmental constraints in Gates County arise as a result of (1) the presence of valued natural resources (i.e., high quality waters) that are likely to be adversely affected by development and as such should be preserved or protected where possible; and (2) a hazard issue (i.e., flooding). These areas are delineated due to the potential for adverse effects on human life or property.

Suitability Classes

Suitability areas are ranked in hierarchical order from 1 to 4, with Area 1 (Least Suitability) posing the greatest constraints to development. Areas of least suitable land take precedence over the remaining three suitability classes as they pose the most significant challenges to development. For example, wetland areas (included in the least suitable category) may also include prime farmland soils or floodplain, but will be shown as least suitable because they hold a greater significance than the latter.

The following layers were used in the formation of the draft Land Suitability Analysis Map.

Least Suitable

Areas of Least Suitable land are more restrictive to development than other land in the county as they are either protected or environmentally sensitive areas.

- Surface Waters
 - All above ground water bodies in Gates County.
- Significant Natural Heritage Areas
 - The North Carolina Department of Environmental Quality, Division of Parks and Recreation, Natural Heritage Program in cooperation with the NC Center for Geographic Information and Analysis, developed the Significant Natural Heritage Areas digital data to determine the areas containing ecologically significant natural communities or rare species. A Significant Natural Heritage Area is an area of land or water identified by the NHP as being important for conservation of the State's biodiversity. SNHAs contain one or more Natural Heritage elements - high-quality or rare natural communities, rare species, and special animal habitats. The inventory consists of information compiled from a broad range of sources including

herbarium and museum collections, published and unpublished literature, and field surveys by volunteers, contracted workers, and staff.

Source: The NC Natural Heritage Program

- National Wetlands Inventory (NWI)
 - NWI digital data files are records of wetlands locations and classifications as defined by the U.S. Fish & Wildlife Service. When completed, the series will provide coverage for all of the contiguous United States, Hawaii, Alaska, and U.S. protectorates in the Pacific and Caribbean. The digital data as well as the hardcopy maps that were used as the source for the digital data are produced and distributed by the U.S. Fish & Wildlife Service's National Wetlands Inventory project. Base map dates range from Oct. 1981 to present.
- Source: The U.S. Fish & Wildlife Service, National Wetlands Inventory

Low Suitability

Areas of Low Suitability contain development limitations and are more restrictive to development than areas of moderate or high suitability.

- 100-Year Floodplain
 - Areas subject to a one percent or greater annual chance of flooding in any given year. Digital flood data was compiled by the North Carolina Flood Mapping program.
- Prime Farmland Soils
 - Prime farmland soils, as defined by the U.S. Department of Agriculture (USDA), are soils that are best suited to food, feed, forage, fiber, and oilseed crops. Such soils have properties that favor the economic production of sustained high yields of crops. Spatial and tabular soil data was compiled by the USDA's Natural Resources Conservation Service.
- Hydric Soils
 - Hydric soils, as defined by the U.S. Department of Agriculture, are soils that are wet frequently enough to periodically produce anaerobic conditions, thereby influencing the species composition or growth, or both, of plants on those soils. Spatial and tabular soil data was compiled by the USDA's Natural Resources Conservation Service.
- Hurricane Storm Surge Areas
 - The National Hurricane Center, in cooperation with the North Carolina Center for Geographic Information and Analysis, developed the GIS data set, Hurricane Storm

Surge Inundation Areas (1993), to reevaluate the extent of the areas affected by hurricane inundation along the North Carolina coast. The data depicts the extent of hurricane storm surge inundation areas based on SLOSH (Sea, Lake, and Overland Surges from Hurricanes) models, for the North Carolina coast.

Moderate Suitability

Areas of Moderate Suitability are more restrictive to development than areas of High Suitability.

- Land mass not covered by an existing layer
 - Due to the hierarchical nature of the Land Suitability Analysis, areas of land not occupied by another layer are by default classified as moderately suitable for development.

High Suitability

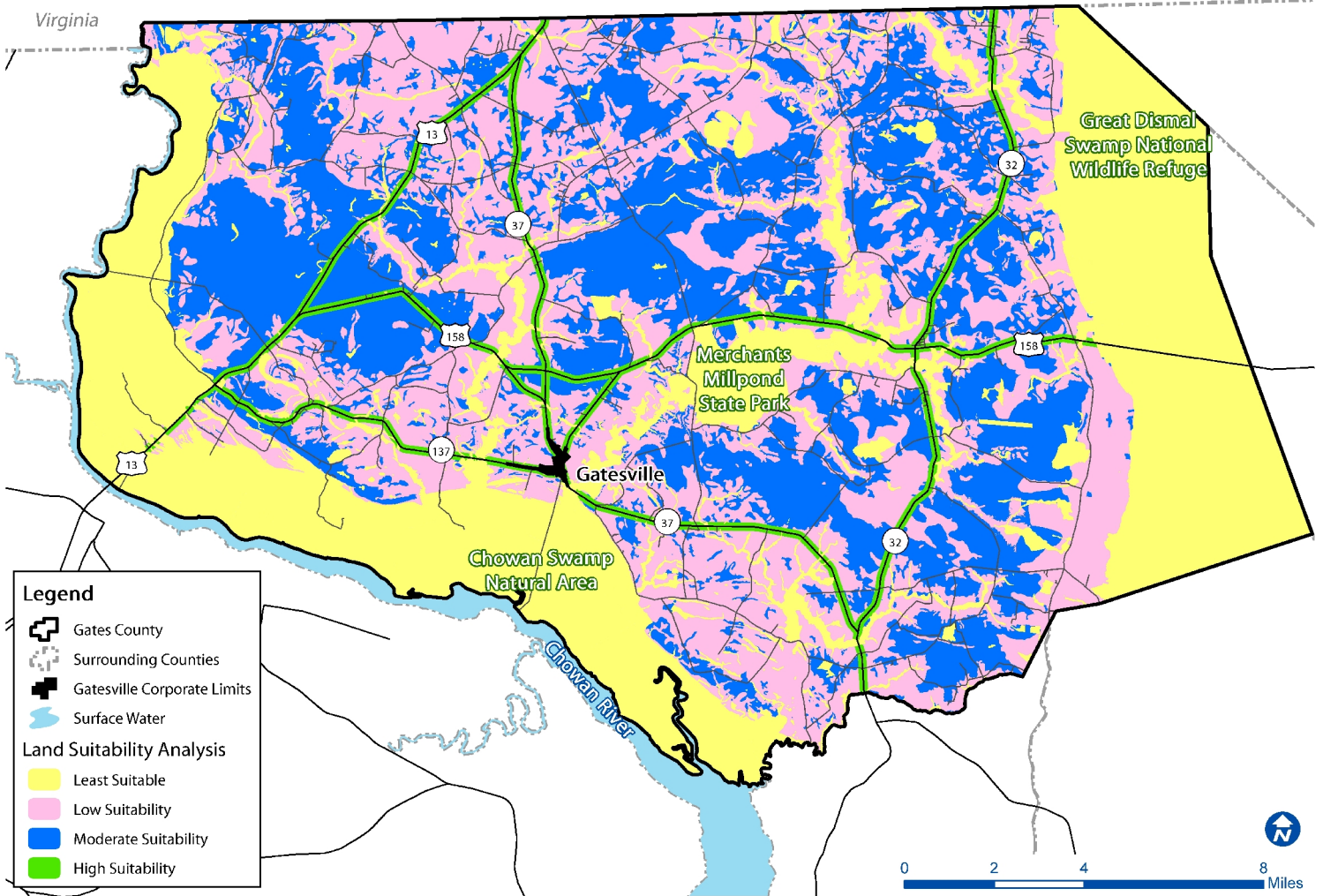
Areas of High Suitability take precedence over land classified as low or moderately suitable due to the availability of water and sewer infrastructure.

- Proximity to major roadways
 - Proximity to major roadways has been included as a high priority land suitability category. Lands located within 500 feet of a major roadway are considered highly suitable for development, considering they do not contain any constraints included in the “least suitable” category.

| Table 28. Land Suitability Analysis Acreage | | |
|--|-------------------|-------------------|
| Class | Acres | % of Total |
| High Suitability | 8,746.50 | 4.00% |
| Moderate Suitability | 61,103.97 | 27.98% |
| Low Suitability | 76,182.10 | 34.88% |
| Least Suitable | 72,373.58 | 33.14% |
| Total | 218,406.15 | 100.00% |

Source: HCP, Inc.

Map 16: Gates County
Land Suitability Analysis



Section 4. Projections/Future Demand

INTRODUCTION

Because of continuing regional, national, and international economic uncertainties, forecasting demographic/economic change and associated service demand is, at best, difficult. The reader should consider the forecasts as a “moving target” which must be carefully and continuously monitored. More importantly, this plan outlines the future path which Gates County may follow. The forecast data provides general parameters within which the County's path will be charted.

POPULATION

Table 29 provides population forecasts for Gates County, the State, and the Northeast Region through 2035. Both Gates County and the Northeast Region as a whole are far below the State's growth rate of 20.54% through 2035. North Carolina is projected to grow by 20.54% to a total population of 12,119,680. The Northeast Region will grow by only 1.85% to a total population of 549,308, or 5% of the State's total population. Only six of the Region's 17 counties will experience any population growth, with only three counties expected to have growth near or over 10%. None of the counties come near the State's forecast growth rate.

Gates County is forecast to have a 0.02% population increase to a 2035 population of 11,948. Suffolk, Virginia, adjacent to Gates County's northern border, is not expected to experience any significant growth in its southern third through 2031. The City's total population is expected to increase by 13% (2011 to 2031) or 110,643 people by 2031. One of the major issues facing Gates County and the entire Northeast Region is the population decline, or in most counties, extremely low rates of growth.

HOUSING

Based on the NC Office of Budget and Management, no population growth is forecast through 2035 for Gates County. Thus, the housing issues facing Gates County will be replacing an aging housing inventory and providing housing affordable to the existing Gates County populace. From 2000 to 2010, Gates County's population increased by 1,681 people, or 15.99%. The total housing inventory increased by 799 dwelling units, an 18.8% increase. At an average household size of 2.65 (average of 2000 and 2010 household sizes), the additional dwelling units would have accommodated a 2,117 population increase. Since the population increased by 1,681, it is assumed that 165 of the dwelling unit increase between 2000 and 2010 was to replace aging housing. Only 10% (165) of the county's 2000 inventory of 1,659 dwelling units 30 years old or older would have been replaced. Unless the rate of replacement is increased, the County's housing inventory will continue to increase in age. This may affect the County's ability to attract new/additional population and reverse the trend of out-migration.

Table 29. Northeast Region Population Projections 2015-2045

| | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | % Change '15-'20 | % Change '20-'25 | % Change '25-'30 | % Change '30-'35 | % Change '35-'40 | % Change '40-'45 | % Change '15-'45 |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Beaufort County | 47,712 | 47,712 | 47,712 | 47,712 | 47,713 | 47,713 | 47,713 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Bertie County | 20,367 | 19,077 | 17,791 | 16,502 | 15,216 | 14,031 | 12,938 | -6.33% | -6.74% | -7.25% | -7.79% | -7.79% | -7.79% | -36.48% |
| Camden County | 10,329 | 10,597 | 10,707 | 10,751 | 10,770 | 10,789 | 10,809 | 2.59% | 1.04% | 0.41% | 0.18% | 0.18% | 0.19% | 4.65% |
| Chowan County | 14,670 | 14,670 | 14,670 | 14,671 | 14,670 | 14,669 | 14,667 | 0.00% | 0.00% | 0.01% | -0.01% | -0.01% | -0.01% | -0.02% |
| Currituck County | 25,386 | 27,533 | 29,678 | 31,822 | 33,968 | 36,257 | 38,701 | 8.46% | 7.79% | 7.22% | 6.74% | 6.74% | 6.74% | 52.45% |
| Dare County | 35,495 | 35,975 | 36,296 | 36,509 | 36,651 | 36,794 | 36,937 | 1.35% | 0.89% | 0.59% | 0.39% | 0.39% | 0.39% | 4.06% |
| Gates County | 11,946 | 11,948 | 11,949 | 11,946 | 11,948 | 11,950 | 11,953 | 0.02% | 0.01% | -0.03% | 0.02% | 0.02% | 0.03% | 0.06% |
| Halifax County | 52,878 | 51,332 | 49,782 | 48,234 | 46,683 | 45,136 | 43,683 | -2.92% | -3.02% | -3.11% | -3.22% | -3.31% | -3.22% | -17.39% |
| Hertford County | 24,524 | 24,180 | 23,831 | 23,486 | 23,141 | 22,801 | 22,466 | -1.40% | -1.44% | -1.45% | -1.47% | -1.47% | -1.47% | -8.39% |
| Hyde County | 5,736 | 5,671 | 5,611 | 5,548 | 5,488 | 5,429 | 5,370 | -1.13% | -1.06% | -1.12% | -1.08% | -1.08% | -1.09% | -6.38% |
| Martin County | 23,603 | 23,059 | 22,514 | 21,967 | 21,420 | 20,711 | 20,195 | -2.30% | -2.36% | -2.43% | -2.49% | -3.31% | -2.49% | -14.44% |
| Northampton County | 21,065 | 20,311 | 19,557 | 18,800 | 18,046 | 17,322 | 16,628 | -3.58% | -3.71% | -3.87% | -4.01% | -4.01% | -4.01% | -21.06% |
| Pasquotank County | 39,890 | 40,240 | 40,273 | 40,275 | 40,276 | 40,276 | 40,276 | 0.88% | 0.08% | 0.00% | 0.00% | 0.00% | 0.00% | 0.97% |
| Perquimans County | 13,544 | 13,645 | 14,068 | 14,567 | 15,082 | 15,616 | 16,169 | 0.75% | 3.10% | 3.55% | 3.54% | 3.54% | 3.54% | 19.38% |
| Pitt County | 175,377 | 179,731 | 184,086 | 188,442 | 192,795 | 197,249 | 201,805 | 2.48% | 2.42% | 2.37% | 2.31% | 2.31% | 2.31% | 15.07% |
| Tyrrell County | 4,135 | 4,136 | 4,137 | 4,135 | 4,132 | 4,129 | 4,126 | 0.02% | 0.02% | -0.05% | -0.07% | -0.07% | -0.07% | -0.22% |
| Washington County | 12,648 | 12,312 | 11,980 | 11,645 | 11,309 | 10,982 | 10,665 | -2.66% | -2.70% | -2.80% | -2.89% | -2.89% | -2.89% | -15.68% |
| Northeast Region | 539,305 | 542,129 | 544,642 | 547,012 | 549,308 | 553,894 | 557,146 | 0.52% | 0.46% | 0.44% | 0.42% | 0.83% | 0.59% | 3.31% |
| North Carolina | 10,054,498 | 10,573,611 | 11,093,530 | 11,607,489 | 12,119,680 | 12,654,158 | 13,212,206 | 5.16% | 4.92% | 4.63% | 4.41% | 4.41% | 4.41% | 31.41% |

NOTE: Seasonal population projections are not included because seasonal population is not a factor in Gates County. In fact, the 2015 NC Division of Water Resources water supply plan indicates no seasonal population growth for the County through 2060.

Source: NC Office of State Budget and Management

The issue of affordable housing will adversely affect Gates County's long-term economic development/viability. The County's economic base cannot grow without an increase in population. Based on 2013 Census data, 736 owner-occupied households and 417 renter-occupied households had housing costs exceeding 30% of their income. Combined, these units comprised 26% of the County's occupied housing units. Based on 2.65 average household size, approximately 3,055, or 25.5%, of the County's 2013 population did not reside in affordable housing.

In 2013, the Gates County mean household income was \$54,917. This represents an annual housing affordability figure of \$16,475 (30% of income), which would yield a monthly average of \$1,373. With a 20% down payment, an affordable home would be \$225,000 (\$225,000 - \$45,000 = \$180,000 with a 30-year mortgage at 5% interest rate, \$225 monthly utilities, \$60.00 monthly insurance = \$1,371 monthly payment). In 2013, there were 788 owner-occupied dwellings in Gates County, or only 22% of the owner-occupied housing inventory, which were valued at or below \$200,000. Without the construction of additional affordable housing, the options for affordable housing in Gates County are extremely limited.

ECONOMY

One of the greatest challenges facing Gates County will be the development of a vibrant and integrated economy. There are many economic challenges which must be addressed including:

- Transportation access to the interstate highway system.
- Protection of the County's highway transportation system.
- Development of an expanded County sewer system.
- The identity/recognition of Gates County.
- Protection of natural resources as a basis for eco-tourism.
- Provision of job training to develop a skilled labor force.
- Protection of prime agricultural lands.
- Support of entrepreneurialship in Gates County.

Gates County is situated approximately 35 air miles east of I-95 (the closest interstate) via state roads. A key factor in business locational decisions is interstate access. While unlikely that Gates County will be located on an interstate highway in the foreseeable future, the County should

support any highway improvements which would shorten Gates County's access to an interstate highway. For example, there are ongoing discussions concerning the upgrading of US 17 to interstate status. Such an upgrade would reduce the County's interstate access to approximately 13 air miles.

As discussed on page 3-37, Gates County has a limited sewer system. Expansion of the system's capacity may be needed. At the time of plan preparation, the County was considering acquiring additional land to expand the system's spray irrigation field. A specific feasibility study and plan should be prepared for expansion of the sewer system. This plan should include a cost-benefit analysis.

Gates County suffers from a lack of identity. The County must "advertise itself" and aggressively set forth its assets. Such advertising should target southeast Virginia and the urban areas of North Carolina. A specific brand effort should be accomplished. Gates County has many environmental and rural assets to other urbanites. Advertising efforts should also extend to the northeast United States region. The rapidly improving northeast housing market is enabling many northeast residents to sell homes, enabling them to move to warmer, less congested environments.

Eco-tourism may be the most valuable return on investment industry available to Gates County. Merchants Mill Pond State Park is unique among North Carolina State Parks offering canoe rentals, dark or "black" skies, and magnificent cypress swamps. However, the natural assets which are afforded by the park are not widely known. Other natural assets include the Chowan River, the Great Dismal Swamp National Wildlife Refuge wetland areas, and other Natural Heritage Program areas (see page 3-6). In addition, US 158 through Gates County and adjacent counties has the potential to be designated a North Carolina Scenic Highway. The County's creeks, rivers, and streams offer multiple opportunities for state designated canoe trails.

Because of out-migration and limited or no population growth, Gates County has a small labor force. In addition, in-county job training options are limited. The County must engage job training regionally and "market" the regional labor base.

Historically, agriculture and forestry has been a mainstay of Gates County's economy. However, from 2007 to 2012, the acreage in farmland declined from 75,819 acres to 63,291 acres. The rural/agricultural environment is an asset which extends beyond the direct value of agricultural commodities. The agricultural segment of the economy presents a lifestyle which can be marketed. In addition, of all land use categories, farmland produces the greatest return on investment for local governments. More specifically, for property taxes received, farmland and forestry demands fewer local government services than any other economically productive land use category.

Development of the County’s entrepreneurial community will be vital to the County’s economy. Such local efforts will be tied to agriculture, eco-tourism, and local support services. Gates County should target opportunities to support local small businesses.

A general factor in economic development is the local property tax rate. Table 30 provides the property tax rates for Gates County, the adjacent North Carolina counties, and the City of Suffolk.

| | |
|---------------------|--------|
| Camden County | \$0.69 |
| Gates County | \$0.64 |
| Hertford County | \$0.84 |
| Pasquotank County | \$0.76 |
| Perquimans County | \$0.44 |
| City of Suffolk, VA | \$1.03 |

Source: County Tax Offices

Of the adjacent counties, only Perquimans County offers a lower property tax rate than Gates County. Regardless of the potential economic activity, Gates County’s tax rate is a marketable advantage. The Merchants Commerce Park will continue to offer the option of commercial property with access to central sewer service. The 147-acre park remains undeveloped except for the Gates County Library, the Gates House Meridian Assisted Living Facility, and a State Employees Credit Union. The park should be protected from conflicting land uses.

COMMUNITY FACILITIES

Because of no forecast population growth, the existing County/community facilities are sufficient to satisfy continuing community needs including: law enforcement, emergency services, public health services, and firefighting services. However, there will be a continuing demand to maintain existing facilities and services in good operation/service order. Solid waste will continue to be collected and disposed of by the Albemarle Regional Solid Waste Management Authority. The collected waste is disposed of in the regional solid waste (landfill) facility in Bertie County. A feasibility/cost benefit study should be performed for the expansion of central sewer service in the County. This study must consider the cost of service to a low density population and low population growth forecasts.

The Gates County School System is faced with continuing maintenance needs. However, only one school, Central Middle School, is considered obsolete and in need of replacement. The facility was constructed in the 1950s. It is expected that a new school would be constructed on the same site as the existing school. The following compares enrollment in all schools for 2003 and 2015:

Table 31. School Enrollment

| School | 2003 | 2015 |
|------------------------|-------|-------|
| Buckland Elementary | 310 | 224 |
| Gatesville Elementary | 281 | 257 |
| T.S. Cooper Elementary | 297 | 241 |
| Central Middle | 533 | 380 |
| Gates County High | 622 | 524 |
| Total Enrollment | 2,043 | 1,626 |

Source: Gates County School System.

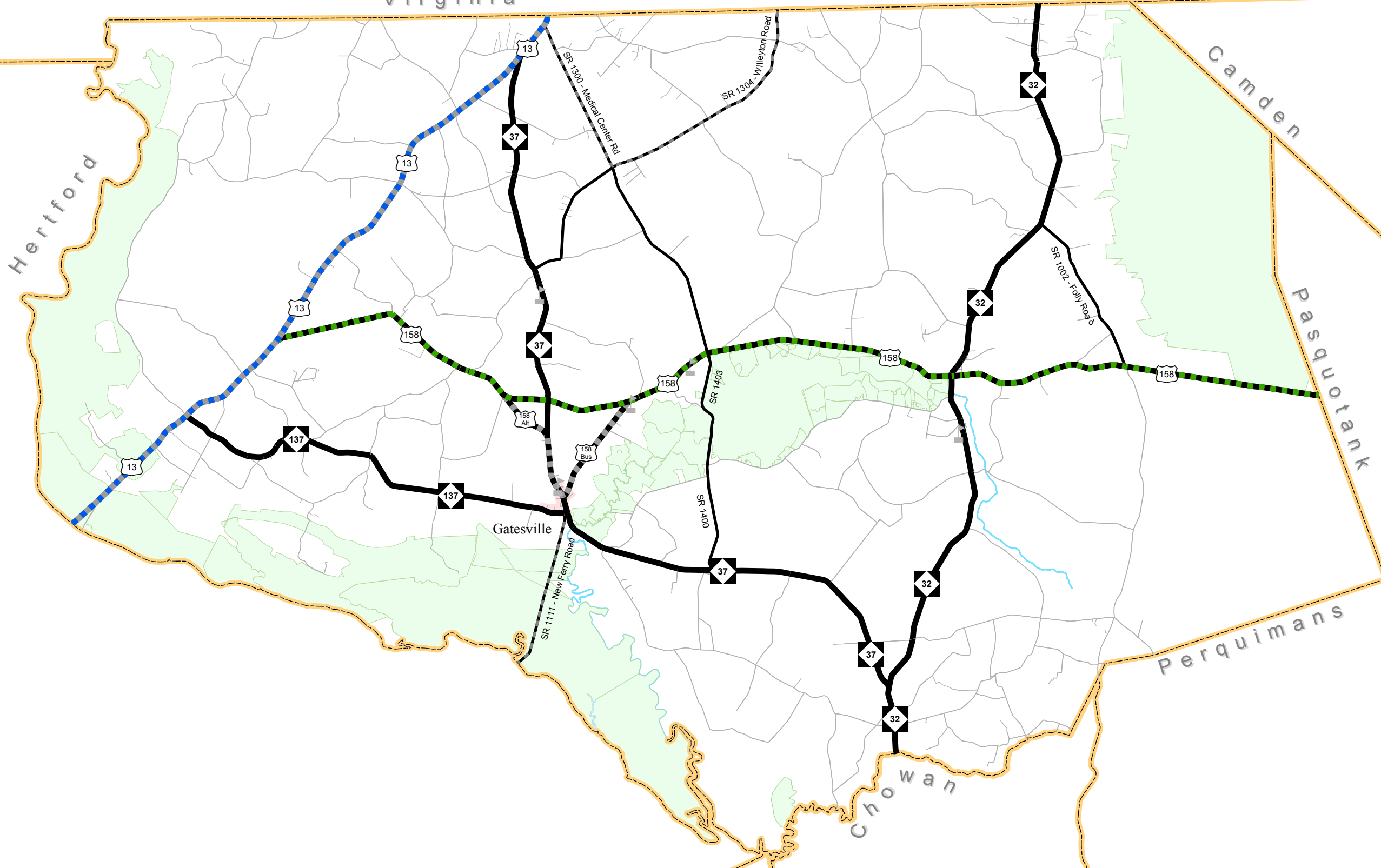
From 2003 to 2015, school system enrollment dropped by 25.6%. During the same period, new construction included: a new high school/gymnasium and three high school classrooms. System-wide temporary classrooms decreased from 23 to 9.

TRANSPORTATION

Understanding the relationship between transportation systems and land use planning is vital to fostering successful urban environments. Planning for where we live, work, and play should coincide with the design of transportation networks. Land use patterns are largely the result of the dominant transportation systems in a given county. In addition, planning that considers not just the automobile, but also the pedestrian and cyclist, will result in better urban form and more attractive places to live.

The existing highway system primarily consists of North Carolina secondary roads. This fact has resulted in a widely dispersed population with some “crossroads” communities. The major routes are US 13 and 158 and North Carolina primary roads 131, 37, and 32. It is expected that any significant future economic development will be located along one of the US routes or along one of the North Carolina primary roads. The major highway deficiency is nearby access to an interstate highway. Interstate highway access could have a major positive impact on Gates County’s economic growth.

The Gates County Comprehensive Transportation Plan (CTP) identifies improvements to the roadway network that should take place in the future. See Map 17 for the location of existing roadways. Roadways proposed for improvement are also displayed on Map 17. With the exception of the US 13 and US 158 multi-lane widening, the proposed improvements will result in maintenance and improvement to alternate routes to US 13 and US 158. The following provides the proposed transportation improvements as described by the Gates County Transportation Plan. The most significant impact of the current transportation system on land use is the lack of regional accessibility and access to an interstate highway.



Freeways

- Existing
- Needs Improvement
- Recommended

Expressways

- Existing
- Needs Improvement
- Recommended

Boulevards

- Existing
- Needs Improvement
- Recommended

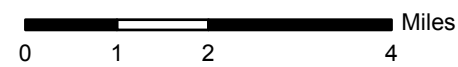
Other Major Thoroughfares

- Existing
- Needs Improvement
- Recommended

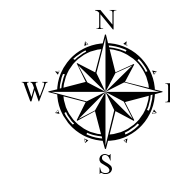
Minor Thoroughfares

- Existing
- Needs Improvement
- Recommended

- Existing Interchange
- Proposed Interchange
- Interchange Needs Improvement
- Existing Grade Separation
- Proposed Grade Separation



Sheet 2 of 5



Base map date: March 5, 2014

Refer to CTP document for more details

Recommended Highway Map

Map 17

Gates County

**Comprehensive
Transportation Plan**

Plan date: May 14, 2015

Highway

US 13 Multi-Lane Widening

US 13 is a two-lane road crossing Gates County from the southwest near Winton (Hertford County) to the northeast at the border of Virginia. Currently, a portion of US 13/US 158 from NC 45 near Winton in Hertford County to the US 158 Bypass in Tarheel in Gates County is being widened to a four-lane section under project R-2507A of the Gates County CTP. Total length of the R-2507A project is 7.1 miles.

US 13 from US 158 Bypass in Tarheel to SR 1202 (Gatlington/Gates School Road) is proposed to be widened from a two-lane section to a four-lane section under project R2507B in Gates County. Total length of the R-2507B (H090099-B) project is 4.16 miles. US 13 from SR 1202 (Gatlington Road/Gates School Road) to the Virginia State Line is proposed to be widened from a two-lane section to a four-lane section under project R2507C in Gates County. Total length of the R-2507C project is 4.71 miles. R-2507C (H090099-C) is funded for right-of-way in 2023 and construction in 2025 in the draft 2016-2025 State Transportation Improvement Program (STIP).

The project's primary purpose is to reduce traffic congestion and improve travel time and safety within the project limits. US 13 is designated as a freeway on the North Carolina Strategic Transportation Corridor Vision Plan. Typical characteristics of freeways are 55 mph or higher speed limit, high mobility and low access, traffic signals not allowed, and a minimum of four-lane median divided cross-section. Current roadway characteristics for US 13 are at the minimum speed, higher access than most freeways, and it is a two-lane undivided cross-section. While US 13 is listed as a freeway, the classification for current roadway characteristics for US 13 is that of boulevards, and not freeway. The intention is to bring US 13 up to freeway standards.

US 13 passes into Virginia through NC in Gates County. It is a major connector for the two states. US 13 starts at Interstate 95 north of Fayetteville, NC, and ends in the suburbs of Philadelphia, PA. This road is a major connector for 4 states up the east coast. It is recommended to be brought up to freeway standards because it is such a major connector. Currently, the speed limit for US 13 in Gates County is 55 mph and it is recommended the speed limit be increased to 60 mph. To continue fulfilling the requirements for mobility, safety and connectivity, US 13 must meet design criteria for a freeway, which would be a four-lane, median-divided highway with full control of access and speeds of 55 mph or higher. In order to meet this criteria, US 13 needs to become a multi-lane highway.

US 158 Multi-Lane Widening

US 158 is a two-lane road crossing Gates County from US 13 Winton to NC 32 in Sunbury. US 158 is an principal arterial that crosses from west to east starting at US 13 and continuing into Pasquotank County. The speed limit on this route is currently 55 mph; lane width is 12 feet.

R-2578 (SPOT ID H090145) is unfunded, and cost to NCDOT is expected to be \$110,400,000. The project is proposed to be widened from an undivided two-lane road to a four-lane road. Total length of the R-2578 project is 15 miles.

The project's primary purpose is to provide more alternative routes to those traveling to the Outer Banks by upgrading US 158 to expressway standards. Traffic on US 17 would be reduced if US 158 were to be brought up to expressway standards. Another reason to bring US 158 up to expressway standards in Gates County is to attract more businesses into the communities along this route.

US 158 is designated as an expressway on the North Carolina Strategic Transportation Corridor Vision Plan. Typical characteristics of expressways are 45 mph to 60 mph, high mobility and low to moderate access, traffic signals not allowed, and a minimum of four-lane with a median cross-section. Currently, this is a two-lane road with no median. The classification for current roadway characteristics for US 158 is a combination of expressways (low or moderate access) and thoroughfares (no median and two-lane minimum). The intention is to upgrade US 158 to expressway standards.

US 158 passes through North Carolina from western North Carolina to eastern North Carolina. US 158 starts in Mocksville, NC and ends in Nags Head, NC. This highway's entirety is in North Carolina. No change in speed limit (55 mph) is being proposed. To continue fulfilling the requirements for mobility, safety, and connectivity, US 158 must meet design criteria for an expressway, which would be four-lane, with a median and low to moderate access and speeds from 45 mph to 60 mph. In order to meet this criteria, US 158 needs to become a multi-lane highway.

US 158 Alternate Proposed Improvements from US 158 to NC 137

The proposed improvements are to widen US 158 Alternate from the US 158 to NC 137. This will help the road meet the standards for a major thoroughfare, thus enhancing mobility and connectivity. Currently, US 158 Alternate is a 23 foot lane width, two-lane road with a speed limit of 55 mph. Right-of-way on this road is 60 feet. Recommendations are being made that this road be widened from 23 feet to 24 feet.

US 158 Business Proposed Improvements from NC 137 to US 158

The proposed improvements are to widen US 158 Business from NC 137 to US 158. This will help the road to meet the standards for a major thoroughfare, thus enhancing mobility and connectivity. Currently, US 158 Business is a 23 foot lane width, two-lane road with a speed limit that varies from 35 mph to 55 mph. Right-of-way on this road is 60 feet. Recommendations are being made that this road be widened from 23 feet to 24 feet.

New Ferry Road (SR 1111) Proposed Improvements from NC 137 to County Line

The proposed improvements are to pave New Ferry Road (SR 1111) from NC 137 to County Line/Chowan River. Currently, SR 1111 is an unpaved two-lane road with a width of 18 feet, and a speed limit of 55 mph. Right-of-way on this road is 50 feet. Recommendations are being made to pave this road. Both locals and visitors use this road to travel down to the Chowan River for recreational purposes. Shoulder widening on this road is being recommended in order to bring the road to paved condition. There are canals on both sides of this route that will be impacted. Due to environmental constraints regarding the canal and other features, preliminary investigations of environmental impacts must be pursued prior to requesting this project.

Willeyton Road (SR 1304) Proposed Improvements from County Line to SR 1300

The proposed improvements are to widen Willeyton Road (SR 1304) and Parker Road from US 13 to NC 37. Although there is not much traffic on most minor thoroughfares in Gates County, this road has an AADT of 1,200, almost double that of other minor thoroughfares in the county. This road is also an important route for locals to commute to Virginia. Currently, this road is an 18 feet land width, two-lane road with a speed limit of 55 mph. Recommendations are to widen this road from 18 feet to 22 feet. Currently, there is no recorded right-of-way on this road, but locals are hopeful right-of-way will be acquired before 2040.

Medical Center Road (SR 1300) Proposed Improvements from US 13 to SR 1304

The proposed improvements are to widen Medical Center Road (SR 1300) from the County/State line to US 158. This road is an important road for locals to commute up to US-13 which connects into Virginia. Currently this road is two lanes, varies from 18 to 20 feet, and has a speed limit of 55 mph. Recommendations are to widen this road from 18/20 feet to 22 feet. There is 60 feet of right-of-way on this road.

Public Transportation & Rail

A public transportation and rail assessment was completed during the development of the CTP. There are no recommended improvements associated with the public transportation mode. The rail corridor that previously traversed the County from the Virginia border down to Hertford County has been permanently closed.

Air Facilities

There are no airport facilities located in the County.

Bicycle

During the development of the CTP, the following facilities were identified as recommended bicycle routes and will need improvement. These improvements are delineated on Map 18. In accordance with American Association of State Highway and Transportation Officials (AASHTO), roadways identified as bicycle routes should incorporate the following standards as roadway improvements are made and funding is available:

- Curb & gutter sections require at minimum 5-foot bike lanes or 14-foot wide shoulder lanes.
- Shoulder sections require a minimum of a 4-foot paved shoulder.
- All bridges along the roadways where bike facilities are recommended shall be equipped with 54-inch railings.

NC 32

The CTP recommends upgrading NC 32 from South of Cooper Road (SR 1406) to Zion Road (SR 1410) to accommodate bicycle travel along the NC 32 corridor.

Sugar Run Road (SR 1429)

The CTP recommends upgrading Sugar Run Road (SR 1429) from NC 32 to US 158 to accommodate bicycle travel along Sugar Run Road.

Sandbanks Road (SR 1200)

The CTP recommends upgrading SR 1200 from US 13 to the Virginia state line to accommodate bicycle travel along the SR 1200 corridor.

Daniels Road (SR 1332)

The CTP recommends upgrading SR 1332 from NC 32 to NC 32 to accommodate bicycle travel along Daniels Road.

Tinkham Road (SR 1201)

The CTP recommends upgrading SR 1201 from SR 1200 to NC 137 to accommodate bicycle travel along Tinkham Road. This road needs safety improvements to accommodate cyclists.

Taylor Mill Road (SR 1118)

The CTP recommends upgrading SR 1118 from NC 137 to SR 1117 to accommodate bicycle travel along Taylor Mill Road. This road needs safety improvements to accommodate cyclists.

Virginia

Herford

Camden

Pasquotank

Chowan

Gatesville

Inset A

Inset A

0 0.25 0.5 1 Miles

0 1.25 2.5 5 Miles

Sheet 4 of 5

Base map date: March 5, 2014

Refer to CTP document for more details

Recommended Bicycle Map




Map 18



Gates County

Comprehensive Transportation Plan




Plan date: May 14, 2015

On Road




-  Existing
-  Needs Improvement
-  Recommended

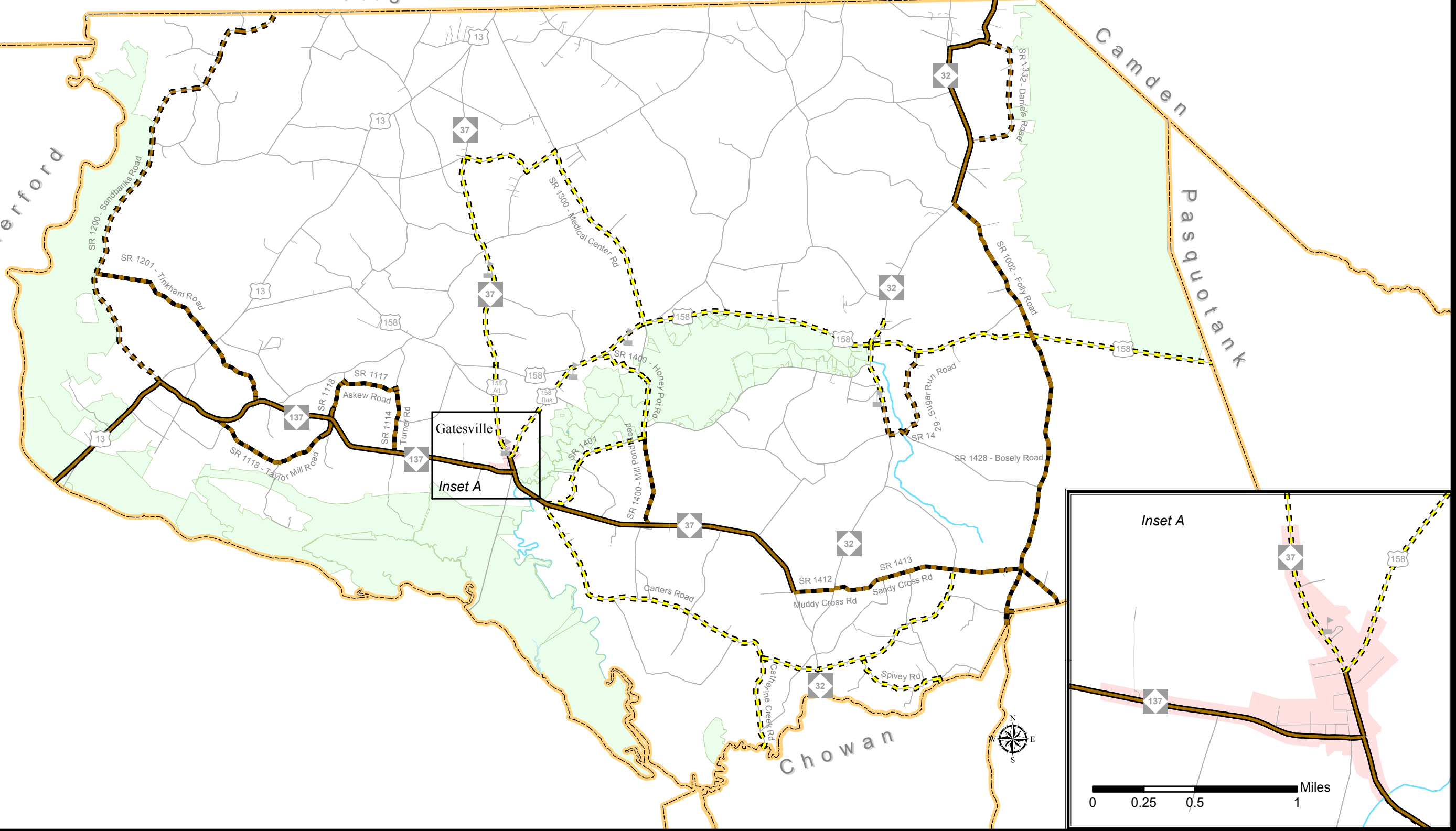
-  Existing Grade Separation
-  Proposed Grade Separation

Off Road

-  Existing
-  Needs Improvement
-  Recommended

Multi-Use Paths

-  Existing
-  Needs Improvement
-  Recommended



Askew Road (SR 1117)

The CTP recommends upgrading SR 1117 from SR 1118 to SR 1114 to accommodate bicycle travel along Askew Road. This road needs safety improvements to accommodate cyclists.

Turner Road (SR 1114)

The CTP recommends upgrading SR 1114 from SR 1117 to NC 137 to accommodate bicycle travel along Turner Road. This road needs safety improvements to accommodate cyclists.

Mill Pond Road (SR 1400)

The CTP recommends upgrading SR 1400 from NC 37 to SR 1401 to accommodate bicycle travel along Mill Pond Road. This road needs safety improvements to accommodate cyclists.

Muddy Cross Road (SR 1412)

The CTP recommends upgrading SR 1412 from NC 37 to SR 1413 to accommodate bicycle travel along Muddy Cross Road. This road needs safety improvements to accommodate cyclists.

Sandy Cross Road (SR 1413)

The CTP recommends upgrading SR 1413 from SR 1412 to the Gates County line to accommodate bicycle travel along Sandy Cross Road. This road needs safety improvements to accommodate cyclists.

Folly Road (SR 1002)

The CTP recommends upgrading SR 1002 from SR 1413 to NC 32 to accommodate bicycle travel along Folly Road. This road needs safety improvements to accommodate cyclists.

Pedestrian

The CTP recommendations call for new sidewalks in order to provide adequate connectivity for pedestrians in the area. The proposed improvements are delineated on Map 19. The following identifies the pedestrian improvements:

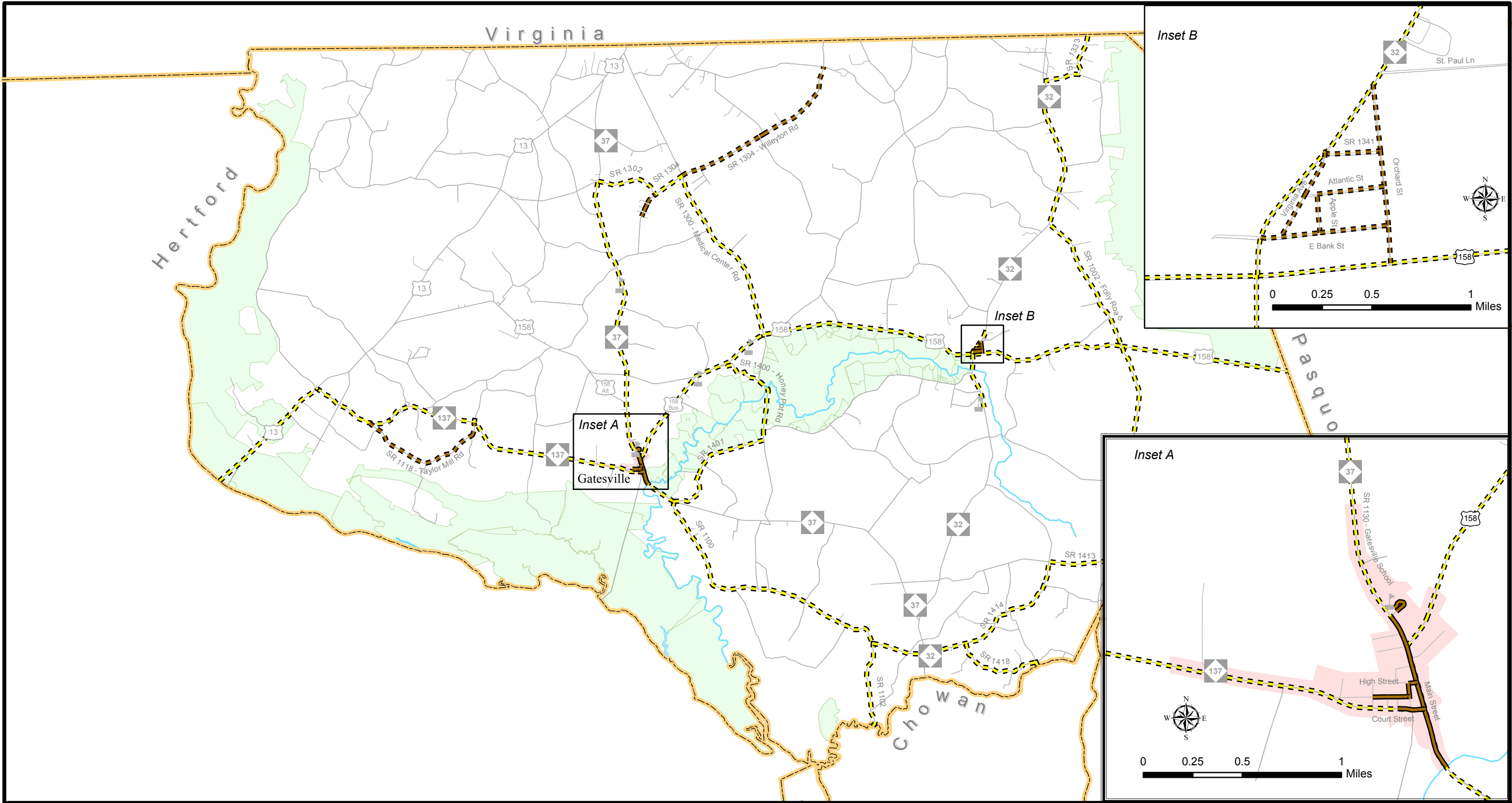
- GATE001-P: Orchard Street from NC 32 to US 158
- GATE002-P: Willeyton Road (SR 1341) from NC 32 to US 158
- GATE003-P: Atlantic Street from Virginia Avenue to Orchard Street
- GATE004-P: Virginia Street from Willeyton Road (SR 1341) to East Bank Street

- GATE005-P: East Bank Street from NC 32 to Orchard Street
- GATE006-P: Apple Street from Atlantic Avenue to East Bank Street
- GATE007-P: Taylor Mill Road (SR 1118) from NC 137 to NC 137
- GATE008-P: Willeyton Road (SR 1304) from Drum Hill Road (SR 1308) to Deep Swamp Road

Multi-Use

A multi-use path is an off-road, hard-surfaced path that is separated from motorized vehicular traffic and is designed for public use for human-powered travel or movement. Human-powered means movement accomplished or propelled by human power, such as walking, running, or by any vehicle or device which is designed and equipped to be propelled by human power, without any assistance by a motor or power unit (e.g., bicycle, roller skates, skateboard, and wheelchair).

- GATE0001-M: US 13 from County line to NC 137
- GATE0002-M: NC 137 from US 13 to NC 37
- GATE0003-M: Gates Bank Road (SR 1302) from NC 37 to Willeyton Road (SR 1304)
- GATE0004-M: Willeyton Road (SR 1304) from Gates Bank Road (SR 1302) to Page Riddick Road (SR 1300).
- GATE0005-M: Page Riddick Road (SR 1300) from Willeyton Road (SR 1304) to US 158.
- GATE0006-M: US 158 Business from NC 37 to US 158
- GATE0007-M: US 158 from US 158 Business to County line
- GATE0008-M: NC 32 from Mobile Home Parkway Lane to Goodmans Folly Lane
- GATE0009-M: Carters Road (SR 1100) from NC 37 to Hobbsville Road (SR 1414)
- GATE0010-M: Hobbsville Road (SR 1414) from Carters Road (SR 1100) to Sandy Cross Road (SR 1413)
- GATE0011-M: Catherine Creek Rd (SR 1102) from Carters Road (SR 1100) to County line
- GATE0012-M: Spivey Road (SR 1418) from Hobbsville Road (SR 1414) to County line
- GATE0013-M: Untitled Greenway from US 158 to Mill Pond Road
- GATE0014-M: Folly Road (SR 1002) from NC 32 to Hardy Askew Lane (SR 1314)
- GATE0015-M: Saunderstown Road (SR 1333) from Virginia state line to NC 32
- GATE0016-M: Sandy Cross Road (SR 1413) from Hobbsville Road (SR 1414) to Folly Road (SR 1002)
- GATE0017-M: NC 37 from Gates Bank Road (SR 1302) to US 158 Business
- GATE0018-M: NC 32 from Saunderstown Road (SR 1333) to Folly Road (SR 1002)
- GATE0019-M: Honey Pot Road (SR 1400) from US 158 to Flat Branch Road (SR 1401)



Sidewalks

- Existing
- Needs Improvement
- Recommended

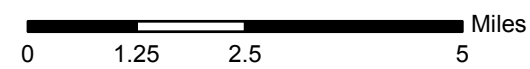
Off Road

- Existing
- Needs Improvement
- Recommended

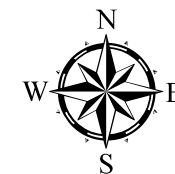
Multi-Use Paths

- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation



Sheet 5 of 5



Base map date: March 5, 2014

Refer to CTP document for more details

Recommended Pedestrian Map

Map 19

Gates County

**Comprehensive
Transportation Plan**

Plan date: May 14, 2015

4-15

STORMWATER SYSTEMS

The 2003-2004 CAMA Core Land Use Plan update provided an analysis of stormwater system needs. Those needs still remain. The County relies on structures, swales and ditches (associated with the transportation system), ponds, and natural areas to handle stormwater run-off. The County should develop a comprehensive stormwater management study and plan to alleviate or mitigate its stormwater problems. The County should seek assistance to minimize public and private losses due to flood conditions in specific areas. This would be accomplished by provisions designed to:

- Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Minimize the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- Minimize filling, grading, dredging, and other development which may increase erosion of flood damage; and
- Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

Notable drainage problem areas identified by NCDOT in Gates County include areas on NC 37 at the intersection with Gates School Road.

Pollutants that enter waters fall into two general categories: point sources and non-point sources. Point sources are typically piped discharges and are controlled through regulatory programs administered by the State. All regulated point source discharges in North Carolina must apply for and obtain a National Pollutant Discharge Elimination System (NPDES) permit from the State. (Non-point sources are from a broad range of land use activities and are typically carried to waters by rainfall, runoff, or snowmelt.)

In the Gates County, there are four (4) discharge permits and one (1) non-discharge permit in the Chowan River Basin and one (1) non-discharge permit in the Pasquotank River Basin. No issues have been raised or cited by permitting agencies with regard to water quality related to these point source dischargers of wastewater. There are no point-source discharges of stormwater in Gates County.

The Environmental Protection Agency's (EPA) Stormwater Phase II Final Rule covers two classes of stormwater dischargers: operators of small municipal separate storm sewer systems (called MS4s) in urbanized areas as defined by the Bureau of the Census and operators of small construction activities that disturb equal to or greater than one (1) and less than five (5) acres of land. Gates County does not operate a municipal separate storm sewer system, nor does the County conduct construction projects.

Section 5. Future Land Use

INTRODUCTION

This section provides the delineation of future land use for Gates County. Establishing a future land use map is critical toward laying out a preferred pattern of growth for the County. The County has been classified into one of the following land use sectors (based on the development criteria and land use types outlined for each sector): Developed/Infill Areas, Community Service Areas, Industrial, Rural Transition, Agricultural/Mixed Use, Rural Protection, and Conservation. In addition to establishing stated guidelines for development throughout the County, the resulting policies and implementing actions (Section 6) for future land use will serve as a guide for staff, elected officials, citizens, and developers. The future land use map and supporting policies/implementing actions should be used on a daily basis to make judgments regarding growth and development of the County.

In drafting the future land use map, multiple factors were taken into consideration, including 15A NCAC 7B CAMA land use plan guidelines, existing uses, density, land suitability, etc., (see Sections 3 and 4). The Land Suitability Analysis Map (Map 16) provides a snapshot of which portions of the County may be more appropriate for intensive development; however, this map alone should not dictate how the various sectors are laid out.

FUTURE LAND USE CATEGORIES

Rural Developed/Infill Areas

Developed/infill (DI) areas are development or redevelopment of land that has been bypassed, remained vacant, and/or is underused as a result of the development process. Generally, the areas and/or sites are usually served by or are readily accessible to the infrastructure (services and facilities) provided by the applicable local governmental entity. Basic public services should be available throughout these areas. These areas are expected to experience infill development which includes:

- A mix of uses associated with the traditional town or “village” areas. A village area is a small, compact center of predominantly residential character but with a core of mixed-use commercial, residential, and community services. It often incorporates local-scale economic and social functions. A village typically has a recognizable center, discrete physical boundaries, and a pedestrian scale and orientation. This term does not necessarily refer to the form of incorporation of a municipality and is often smaller than a municipality.
- Both residential and non-residential uses are supported in the land use sector. The ability for residents to live, work, and play within this land use sector should be a primary goal.

- DI's are intended to be intensive, efficient, defined concentrations of mixed services that serve County-wide needs.
- DI's exhibit a mixture and intensity of land uses which are intended to be dictated by the service demand of the surrounding community.
- DI's should be priority targets of investments for sewer and water, public transportation, greenways, other general road improvements, and other appropriate infrastructure improvements.
- Optimal Dwelling Units Per Area: 1 - 5 residential units per acre.

Community Service Nodes

Community Service Nodes (CSN) are mixed use areas which primarily serve local or limited areas of the County. These areas generally include medium density residential as well as non-residential development of commercial and service-based facilities. CSN's area normally located at the intersection of primary and secondary roads. These areas should include/be:

- CSN's may include a mix of uses associated with town development.
- These areas support low to medium residential uses, as well as limited non-residential development of commercial, some light industrial, and service based facilities.
- The CSN land use sector areas should be monitored for growth and detailed planning efforts should be initiated as the need arises by the applicable municipality.
- When possible, CSN's should be targeted for both central water and sewer services.
- Optimal Dwelling Units Per Acre: 1 - 2 residential units per acre.

Rural Transition

Rural Transition (RT) areas are areas which have been primarily rural in character but are experiencing limited areas of residential development. Eventually these areas may become concentrated neighborhoods surrounded by ongoing agricultural activity. These areas are routinely centered on one or more secondary roads. These areas should include/be:

- Developed as clusters with conservation of natural assets protected as development occurs.
- Economic development activities may take place within the Rural Transition land use sector in limited form. Most non-residential land uses should be discouraged.

- Population and residential densities should be in keeping with infrastructure limitations and transportation capacities.
- Optimal Dwelling Units Per Acre: 1 - 1.5 residential units per acre.

Agricultural/Rural Residential

The Agricultural/Rural Residential (AR) sector is a very low density primarily agricultural land use sector. Except for low density residential land use, most non-agricultural land uses should be discouraged. The AR district should include/be:

- The AR sector will be an area which has historically been predominantly rural/agricultural in nature and this characteristic should be preserved, where feasible, through farmland protection measures.
- In the AR sector, economic development activities may take place in limited form. Most industrial and regional commercial land uses should be discouraged.
- Expansion of central infrastructure services should be provided on an incremental and as needed basis.
- Land use planning should acknowledge the presence of sensitive natural areas such as floodplains, wetlands, and other natural and cultural assets, and should strive to protect these areas from development which would damage such resources or diminish their integrity.
- The AR sector should include uses which will maintain the County's rural character. This effort will result in development of non-residential uses on a limited basis aimed at providing goods and services necessary to support the local population base.
- Optimal Dwelling Units Per Acre: Less than 1 residential unit per acre.

Industrial

The Industrial (I) land use sector is intended to blend with the County's rural landscape. The preferred industries are industries which will blend with the County's agricultural and forestry production. Light industrial activities are preferred for other industrial land uses. The I district should include/be:

- Located in a strategic fashion on a very limited basis, where sites have ready access to regional transportation and adequate infrastructure services.

- Segregated from other uses, where feasible.
- Industrial park development should be the County's desired pattern of industrial development.
- Industries should not include noxious materials or produce hazardous materials.
- Optimal Dwelling Units Per Acre: Not Applicable.

Rural Protection Area

The Rural Protection (RP) district includes the areas of the County which contain the County's most productive farmland. The RP district should include/be:

- Lands containing Prime Farmland soils. These areas consist of contiguous land acreages in excess of 200 acres that may be identified for potential Voluntary Agricultural Districts and Farms.
- Economic development activities through the use of agricultural tourism or eco-tourism should be pursued within the Rural Protection area land use sector.
- Farmland protection measures should be aggressively pursued within the Rural Protection land use sector.
- All non-agricultural and forestry activities, except for very low density residential use, are discouraged.
- Optimal Dwelling Units Per Acre: Less than 1 residential unit for every 5 acres.

Conservation

The Conservation (C) sector includes land areas that are intended to remain largely in their natural state, with only limited development. Such areas should be targeted for protection through regulations and incentives. These lands provide significant ecosystem services in the form of stormwater inundation, aquifer recharge, air purification, and habitat for wildlife. Conservation areas are lands that generally exhibit any of the following characteristics:

- Sensitive natural areas such as floodplains, major wetlands, forest reserves, and wildlife conservation refuge areas, key watersheds, natural heritage areas, and state park lands.
- Areas of historic and archeological significance.

- Local, state, or federally-mandated natural areas and areas managed for agricultural or forestry land uses.
- Optimal Dwelling Units Per Acre: Less than 1 dwelling unit or less per each 5 acres.

FUTURE LAND USE MAP

The Future Land Use Map (Map 20) is not intended to provide precise, parcel-level detail concerning future land use. Rather, it is intended to serve as a general guide for important County land use/County growth decisions. The Future Land Use Map is intended to be dynamic and continually evolving with changing conditions. Also, it should be periodically revised to reflect important changes affecting schools, recreation, transportation, sewer/water infrastructure, and economic development planning. Table 32 provides a summary of the land use category acreages.

| Table 32. Gates County Future Land Use Acreages | | |
|--|-------------------|-------------------|
| Land Use | Acres | % of Total |
| Developed/Infill Areas | 426.23 | 0.2% |
| Community Service Areas | 616.70 | 0.3% |
| Industrial | 3,385.81 | 1.6% |
| Rural Transition | 1,497.59 | 0.7% |
| Agricultural/Rural Residential | 3,258.93 | 1.5% |
| Rural Protection | 116,627.61 | 53.4% |
| Conservation | 92,570.60 | 42.4% |
| Total | 218,383.47 | 100.0% |

Source: Holland Consulting Planners, Inc.

Map 20: Gates County Future Land Use Map



Legend

- Primary Roads
- Secondary Roads
- Gates County
- Surrounding Counties

Future Land Use

- Developed / In-Fill Area
- Community Service Area
- Industrial
- Rural Transition
- Agricultural / Rural Residential
- Rural Protection
- Conservation

Note: This map should be referred to when considering rezoning applications.



Section 6. Goals & Implementing Strategies

INTRODUCTION

This section of the plan sets Gates County's course of action to achieve its vision. This element has three components: land use and development goals, policies, and implementing strategies. As a whole, this comprehensive plan sets out the strategies, actions, and programs the County will implement to achieve its goals, and it provides a roadmap for future land use and development in the County (see Section 5, Future Land Use). The goals, policies, and strategies address the Coastal Resources Commission's (CRC) five management topics. These management topics are intended to ensure that local land use plans support the overall goals of the CAMA and provide a basis for land use plan review and certification. The plan's goals, the types of policies and their content, and the spatial policies of the future land use map address the CRC management topics for land use plans.

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.

POLICIES REGARDING LAND USE AND DEVELOPMENT IN AEC'S

Gates County accepts state and federal law regarding land uses and development in AEC's. By reference, all applicable state and federal regulations are incorporated into this document. No policies exceed the use standards and permitting requirements found in Subchapter 7H, State Guidelines for Areas of Environmental Concern. However, Gates County and the Town of Gatesville do not consider the following issues to be relevant at this time within their planning jurisdictions:

- Outstanding Resource Waters
- Maritime Forests
- Peat or Phosphate Mining's Impact on any Resource
- Beach Nourishment
- Development of Sound and Estuarine System Islands

The Areas of Environmental Concern and Fragile Areas within Gates County's planning jurisdiction include the following:

- Public trust areas as defined in 15A NCAC 7H.0207 public trust areas.
- 404 jurisdiction determinations can only be made by Corps of Engineers personnel through individual on-site analysis.
- Fragile Areas include the Great Dismal Swamp and Merchants Mill Pond.
- Estuarine waters as defined in 15A NCAC 7H.0206.
- Coastal shorelines as defined in 15A NCAC 7H.0209.

For the issuance of CAMA permits within areas of environmental concern, the state's minimum acceptable use standards are defined by 15A NCAC 7H. A local unit of government must adopt policies which are, at a minimum, equal to and consistent with the state's minimum use standards.

The second area of land use plan application is that of establishing policies to guide the jurisdiction's local planning. This may apply both within areas of environmental concern where CAMA regulations apply and in non-CAMA regulated areas of the County. Under North Carolina legislation, land use plans are not regulatory controls. Non-CAMA related recommendations must be implemented with local land use ordinances such as zoning or subdivision ordinances. If this plan recommends that the average residential density should be three dwelling units per acre within a particular area, then that density must be achieved through local zoning ordinance or other regulatory control. (This should not be confused with the interaction of the land use plan with the CAMA regulations and 15A NCAC 7H use standards).

The final area of application is that of "Consistency Review." Proposals and applications for state and federal assistance or requests for agency approval or projects are normally reviewed against a jurisdiction's land use plan to determine if the project is consistent with local policies. Inconsistencies of a project with local policies could serve as grounds for denial or revision of a project. For example, an individual or agency may request state or federal funding to construct a 30-unit low-to-moderate income housing project. If the proposed location of the project is within an area in which this land use plan states that the residential density should not exceed two dwelling units per acre, the project may be judged to be inconsistent with the local land use plan.

Note the following policy clarifications:

- No policy is subordinate to another.
- All management topics have equal status.
- The future land use map may show some areas in a developed category which may also include sensitive habitats or natural areas. The intent is that development should be designed/permitted to protect these areas through utilization of concepts such as cluster development. Development/project approval will be based on project design which avoids substantial loss of important habitat/environmentally sensitive areas.
- The US Army Corps of Engineers maintain jurisdiction over freshwater wetlands.

LAND USE PLAN MANAGEMENT TOPICS

A key objective of any comprehensive plan is the creation of a robust and achievable set of goals, policies, and implementing actions. Implementation of these strategies is the responsibility of Gates County community leaders, staff, and citizens. Decisions made as a result of this plan should serve to enhance the quality of life for residents, support long-term economic growth, and promote viable land use and development patterns. This plan serves as the county's overall comprehensive plan and provides for compliance with the CAMA Land Use Plan requirements.

CAMA Land Use Plans must support the goals of CAMA, define the CRC's expectations for the land use policies, and provide a basis for land use plan review and certification. Goals, policies, and implementing actions are provided for each of the following CAMA management topics: Public Access, Land Use Compatibility, Infrastructure Carrying Capacity, Natural Hazard Areas, and Water Quality, in addition to other areas of concern including Transportation and Economy. These policies apply to the entire county and the Town of Gatesville. The policies and implementing actions frequently utilize the following words: should, continue, encourage, enhance, identify, implement, maintain, prevent, promote, protect, provide, strengthen, support, work. The intent of these words is defined in Appendix E. Please note: Policies and Implementing Actions are numbered consecutively throughout this document with the letter "P" denoting a policy and the letter "I" denoting an implementing action.

This plan is intended to support Gates County's vision statement (page 1-3). No negative impacts are anticipated by the implementation of the goals, policies, and implementing actions which are included in this plan. All implementing actions are prioritized/ scheduled by: high; medium; low; or continuing. The scheduling for these priorities following plan adoption is: high - within 2 fiscal years (FY2016-2017 to FY2017-2018); medium - 3 to 5 fiscal years (FY2019-2023); low - 6 to 8 fiscal years (FY2024-2026); continuing - a daily implementing action.

Note: It is intended that all policies are consistent with applicable State and Federal requirements when State and Federal requirements apply. No policies exceed State or Federal requirements, including Subchapter 7H.

GOALS, POLICIES, AND IMPLEMENTING ACTIONS

Public Access

Public access is important to the County for the provision of recreational access and as a contributor to the Gates County tourism industry. The County is strongly tied to its natural assets which is reflected on the future land use map.

Management Goal 1: To ensure that Gates County and the Town of Gatesville will maximize public access to their shorelines and public trust waters. Specifically, this goal includes developing facilities for additional public trust water access. Strong consideration should be given to developing access facilities that allow for progressive and continual ingress and egress of users for environmental protection and eco-tourism development.

Policies – Public Access:

- P.1 Gates County and the Town of Gatesville support the establishment of shoreline access and the protection of water quality during any development.
- P.2 Gates County and the Town of Gatesville support providing shoreline access for all segments of the County, including persons with disabilities.
- P.3 Gates County will continue to seek opportunities to improve public trust water access facilities, especially those accommodating small, motorized boats, canoes, kayaks, and other recreational vehicles and uses. Where existing facilities do not exist, the County will aim to establish new facilities.

Implementing Actions – Public Access:

- I.1 Develop a shoreline access plan, consider proposals to provide public access opportunities to public trust waters for all segments of the County, including persons with disabilities, and support continued funding and enhancement of State-maintained public access facilities along the Chowan River and in Merchants Millpond State Park. Schedule: High.
- I.2 Seek opportunities, including memoranda of understanding, easements, and deeded property, for public access(es). Schedule: Continuing.
- I.3 Assess shoreline access needs and opportunities on an ongoing basis. Schedule: Continuing.
- I.4 Pursue private and public sources of funding for the development of shoreline access facilities, including donation of land. Schedule: Continuing.

- I.5 Cooperate with state and federal agencies to secure estuarine access areas to ensure adequate shoreline access within all areas of the county. Schedule: Continuing.
- I.6 Work closely with and coordinate efforts to establish improved and/or new public access facilities with the NC Wildlife Resources Commission, NC Division of Parks and Recreation, and the Town of Gatesville. Schedule: Continuing.

Land Use Compatibility

Land use compatibility has not historically been an issue in Gates County. However, the County desires to accomplish an increase in its higher density areas. As higher density development occurs, the County desires to protect its forest, agricultural, and extensive sensitive natural and open space areas. The future land use map reflects the concentration of future development.

Management Goal 2: Gates County will ensure that development and use of resources or preservation of land minimizes direct and secondary environmental impacts, avoids risks to public health, safety, and welfare, and is consistent with the capability of the land based on considerations of interactions of natural and manmade features.

Policies – General:

- P.4 Gates County will strive to enforce ordinances and procedures to enhance land use compatibility by regulating land use, development, and redevelopment.
- P.5 Gates County supports applicable State and Federal laws and regulations regarding land uses and development in areas of environmental concern.
- P.6 Gates County will review and analyze development and redevelopment proposals for consistency with the future land use map included in this Comprehensive Plan.
- P.7 Gates County will maintain the pattern of current development, specifically low density residential (approximately 1 dwelling unit per acre), small scale commercial development (1-acre lots or previously approved and recorded lots), forestry, agriculture, and open space consistent with the Gates County zoning and subdivision ordinances. These densities may be exceeded when central water and sewer services which comply with state and local requirements are met, including consistency with the future land use map categories/descriptions.
- P.8 Gates County will promote environmentally friendly development that is sustainable, aesthetically pleasing, and consistent with the County's rural image and character.

- P.9 Gates County will consider the development of an Unified Development Ordinance to update/consolidate all zoning and subdivision regulations and address density in developed/infill areas, community service areas, and areas of cluster development.

Implementing Actions – General:

- I.7 Adopt regulations and procedures that provide clear direction to assist local decision making and consistency findings for divisions of land and public and private projects. Schedule: High.
- I.8 Evaluate development and redevelopment proposals according to County goals, objectives, and policies, and the land suitability analysis and the future land use map. Schedule: Continuing.
- I.9 Apply local development regulations and procedures to ensure protection of natural resources and fragile areas experiencing development. Schedule: Continuing.

Policies – Residential:

- P.10 Gates County shall encourage development to occur at densities consistent with this plan.
- P.11 Gates County will discourage residential development which will expose residents to the harmful effects of incompatible development or to environmental hazards.
- P.12 Residential developments should be consistent with Gates County's ability to provide potable water services, school facilities, law enforcement protection, recreation facilities, and administrative services.
- P.13 Gates County shall discourage residential and commercial strip development along the County's state maintained roads.
- P.14 Gates County will support the preservation and expansion of its housing stock essential to future economic development efforts.
- P.15 Gates County supports expansion of housing which meets the special needs of the elderly.
- P.16 Gates County will support redevelopment/revitalization in areas that have substandard housing conditions.

- P.17 Gates County supports greater residential densities in areas that are accessible to water and/or sewer service(s). Agricultural and low-density residential land uses should be located in areas that do not have central water or sewer service as described under P.7.
- P.18 Gates County will support attached residential structures, accessory dwelling structures, multi-family structures, and mixed use provided water and sewer services as prescribed in P.7 are available.

Implementing Actions – Residential:

- I.10 Enforce ordinances and procedures which support detached residential structures as the preferred type of residential land use. Schedule: Continuing.
- I.11 Promote the development of traditional, platted subdivisions served by interior roads and adequate infrastructure (as opposed to State road frontage lot development); and, ensure future development is in character with existing development with regard to size, lot coverage, and construction materials and methods. Schedule: Continuing.
- I.12 Support residential development in response to market needs provided that the following criteria are met:
- Consideration is given to all aspects of the environment.
 - If deficient community facilities and services are identified, the County should attempt to improve such to the point of adequately meeting demands.
 - Additional residential development should concurrently involve planning for improvements to community facilities and services if excess capacity does not exist within those facilities and services.
 - Residential development is consistent with other County policies and the land use map contained in this plan update. Schedule: Continuing.
- I.13 Pursue options to provide housing choice that will support its aging population and retirement community through innovative residential design and development. Schedule: Continuing.

Policies – Office/Commercial/Industrial:

- P.19 Gates County encourages local support and patronage of County businesses.
- P.20 Gates County supports sustainable commercial and industrial development in areas where such activities already occur or can be reasonably accommodated by public facilities and the County's natural systems.

- P.21 Gates County supports planned commercial and industrial developments that are clustered so as to minimize potential impacts on the County's environment and in keeping with the County's rural character.
- P.22 Gates County supports commercial and industrial building and development and design guidelines and standards which will promote commercial cluster type development.
- P.23 The desirability of industries which are noxious by reason of the emission of smoke, dust, glare, noise, odor, and vibrations, and those which deal primarily in hazardous products such as explosives, should be assessed by Gates County on a case-by-case basis, weighing the anticipated positive economic impact against any identified adverse environmental impact.
- P.24 Industry should be located in conformance with this plan. This policy includes placing emphasis on light industrial development.
- P.25 Gates County will consider the impact of all development proposals on existing businesses to ensure that any negative impacts are minimized or mitigated.

Implementing Actions – Office/Commercial/Industrial:

- I.14 Implement the following industrial locational strategies:
- Industrial development should have easy access to major transportation facilities and infrastructure but be compatible with nearby residential, agricultural, and conservation areas.
 - Industrial development should not be located in areas that would diminish the desirability of existing and planned non-industrial areas, nor shall incompatible non-industrial uses be allowed to encroach upon existing or planned industrial sites.
 - Industrial development should be located on land that is physically suitable and has unique locational advantages for industry. Advanced planning for the identification of such land should be encouraged. The Industrial and Developed/Infill Areas future land use categories may be used for this purpose.
 - Industrial uses should be located in or near existing built-up areas to take advantage of available services. Careful design and/or buffering shall be required to ensure compatibility with surrounding areas.

- Warehousing, storage, and distribution facilities should have access to appropriate thoroughfares.
 - New industrial development should be encouraged to locate in existing and/or planned industrial/commercial parks consistent with the future land use map. Schedule: Continuing.
- I.15 The County will implement the following commercial design and locational considerations in review and approval of office/commercial proposals:
- Commercial and office development should be located in mixed-use shopping centers and office parks to minimize the proliferation of strip development.
 - Mixed-use developments, planned from the outset, which allow for a compatible mixture of uses with a pedestrian scale and design, are encouraged. Similarly, businesses may be located adjoining (and therefore convenient to) an existing residential area, when such businesses can be shown to satisfy design considerations similar to a newly planned, pedestrian-scaled, mixed-use development.
 - Neighborhood and convenience commercial centers should be encouraged to locate at the intersection of primary neighborhood or subdivision streets.
 - Highway oriented commercial uses should be clustered along segments of highways and contain land uses which are mutually compatible and reinforcing in use and design; they should be designed in such a way as to minimize signage, access points, and uncontrolled strip development.
 - Support developing system(s) of paralleling access roads.
 - Commercial uses shall be encouraged to develop by consolidation and expansion of existing property, when such consolidation and expansion does not encroach upon a viable residential area, conservation area, or agricultural area.
 - Strip development along the county's major streets and highways shall be discouraged. Existing strip development shall be reduced and/or development standards should be made more restrictive when redevelopment opportunities permit.

- Attractive, environmentally beneficial landscaping shall be provided by new commercial or office developments, and in the rehabilitation and upgrading of existing developments. Effective buffering should be provided when commercial or office development adjoins existing or planned residential uses.
 - New or redeveloped commercial development along major county roadways shall be encouraged to retain or create a buffer of trees adjoining the road right-of-way. The intent is to retain or create the look of “corridors of trees” along the County’s major travel ways.
 - Office and institutional development shall be encouraged to locate as a transitional land use between residential areas and commercial and industrial activities of higher intensity, where appropriate. “Activities of higher intensity” are typically automobile oriented commercial development but may also include heavily traveled thoroughfares.
 - Highway oriented commercial uses should be clustered along segments of highways and contain land uses which are mutually compatible and reinforcing in use and design; they should be designed in such a way as to minimize signage, access points and uncontrolled strip development.
 - Strip development along the County’s major streets and highways should be discouraged.
 - Industrial development shall be located on land that is physically suitable and has unique locational advantages for industry. Advanced planning for the identification of such land should be encouraged. Schedule: Continuing.
- I.16 Undertake a study to determine the feasibility of establishing an industrial park (separate from the Commerce Park). The study should consider, at a minimum, location criteria, park/parcel size, and target industries. Site considerations should include: topography, utilities, slope, hydrology, soils, zoning, surrounding land use, and buildable area. A preliminary master plan for the park should be prepared. Schedule: Continuing.
- I.17 Prepare a Unified Development Ordinance which will consolidate all land use regulatory ordinances into one ordinance. The UDO will consider the land use concerns/issues indicated in Appendix F. Schedule: High.

Policies – Conservation

- P.26 Gates County will preserve, protect, and enhance the Chowan River shoreline and attendant wetlands and shores, and ensure future generations are able to enjoy its beauty and bounty and can continue to use it for passive and active recreation and leisure activities.
- P.27 Gates County supports continued management of the Chowan River shoreline and its attendant wetlands and shores to protect and preserve the natural resources of the water and shoreline and freshwater wetlands, relying primarily on the CAMA permit program and the Areas of Environmental Concern designated under the CAMA program and regulations enforced by the US Army Corps of Engineers.
- P.28 Gates County supports preservation of its rural atmosphere.
- P.29 Gates County considers the protection of its natural assets to be crucial to the preservation of the County's overall quality of life.
- P.30 Gates County shall discourage action(s) which would irreparably harm the long-term viability to valuable natural heritage areas. If action must be taken to achieve public health, safety, and welfare objectives, project designs shall seek to incorporate features which preserve and protect natural features as an integral part of the project design.
- P.31 Gates County will preserve/protect wetlands and swamps from development pressures.
- P.32 Gates County supports increasing usable open space in major subdivisions.
- P.33 Gates County supports forest management to maintain key wildlife areas.
- P.34 Gates County opposes the disposal of any toxic wastes, as defined in the US Environmental Protection Agency's Listing of Hazardous Substances and Priority Pollutants (developed pursuant to the Clean Water Act of 1977), within its planning jurisdiction.

Implementing Actions – Conservation:

- I.18 Utilize the future land use map as a development management tool to protect valuable resources. The map is coordinated with the land suitability map (Map 16). Schedule: Continuing.

- I.19 New development and redevelopment activities which would significantly degrade the quality of natural scenic resources in Gates County, prematurely diminish the predominantly rural character of the area, or create incompatibilities of scale, design or land use, shall not be permitted. Schedule: Continuing.
- I.20 Monitor development proposals for compliance with Section 404 of the Clean Water act and continue to enforce local land use ordinances to regulate development of freshwater swamps and 404 wetlands. Schedule: Continuing.
- I.21 Support the protection of natural heritage and other natural resource areas through easements and outright acquisition by private entities and state/federal agencies. Schedule: Continuing.
- I.22 Support the development of a management plan for utilization of the Chowan River within Gates County. These efforts should specifically address the issue of Hydrilla eradication. Schedule: Medium.
- I.23 Consider the development of an open space/natural resource plan. Schedule: Medium.

Policies – Redevelopment:

- P.35 Gates County supports and encourages the restoration and/or appropriate adaptive reuse of significant and architecturally important historic and cultural structures and sites.
- P.36 Redevelopment and/or rehabilitation of substandard structures within the County shall be supported through public and private sector initiatives for the economic betterment of area residents.
- P.37 Gates County supports repair and reconstruction of privately-owned dwelling units through private funds and/or grants.
- P.38 Gates County supports redevelopment which is consistent with County land use plan goals and policies.

Implementing Actions – Redevelopment:

- I.24 Allow the reconstruction of any structures demolished by natural disaster which will comply with all applicable local and state regulations. Schedule: Continuing.
- I.25 Seek state and federal financial aid and technical assistance for community improvements and redevelopment. Schedule: Continuing.

- I.26 Consider adopting a minimum housing code. Schedule: Low.
- I.27 Review all redevelopment proposals to ensure consistency with the comprehensive plan. Schedule: Continuing.
- I.28 Consider development of a historic preservation plan. Schedule: Low.
- I.29 Consider development of an Economic Development Plan as a means to boost the local and regional economy. Schedule: Medium.

Policies – Agriculture/Silviculture:

- P.39 Gates County considers the preservation of existing farmland and agricultural efforts essential to maintaining a strong local and regional economy.
- P.40 Gates County supports development/expansion of the agri-tourism industry.
- P.41 Farms and woodlands shall be recognized as an integral part of the County's open space system.
- P.42 Gates County will strive to protect existing agricultural and forestry activities from incompatible land uses.
- P.43 Gates County supports the preservation of prime farmlands and farmlands of statewide importance (see Map 9, page 3-22) as both natural and economic assets.
- P.44 Gates County will support land use decisions which will protect agricultural lands and encourage new developments to locate near towns and existing subdivisions.
- P.45 Farms (including equestrian farms) and woodlands shall be recognized as an integral part of the county's open space system.

Implementing Actions – Agriculture/Silviculture:

- I.30 Support commercial forestry activities, provided significant adverse impacts on natural resource systems are fully mitigated. Such activities should be considered in accordance with the standards and recommendations of the NC Forest Service. The County also advocates the voluntary participation of commercial forestry interests in the State of North Carolina's best management practice program for forestry management. Schedule: Continuing.

- I.31 Support the use of best management practices recommendations of the US Soil Conservation Service for agricultural areas. Schedule: Continuing.
- I.32 Pursue grant funds which may assist with the preservation of agricultural lands. Schedule: Continuing.
- I.33 Support establishment of voluntary agricultural district areas and consider the preparation of a Farmland Protection Plan (see Appendix G). Schedule: Continuing.
- I.34 Ensure that all zoning decisions and revisions to the future land use map (Map 20) are consistent with policies P.39 through P.45. Schedule: Continuing.

Infrastructure Carrying Capacity and Services

Diversification of the County's economy is dependent upon maintaining and improving the County's infrastructure systems, in particular, its sewer system. Major concentrations of development and economic activity cannot occur without a central sewer system. In addition, future county capital improvements plans will strongly influence the location of future land uses.

Management Goal 3: To ensure that public systems and services are sized, located, and managed to protect or restore the quality of areas of environmental concern or other fragile areas while providing adequate levels of service to meet the needs of citizens.

Policies – Infrastructure Carrying Capacity and Services:

- P.46 Gates County supports directing more intensive land uses to areas that have existing or planned infrastructure.
- P.47 Gates County supports efforts and measures to efficiently and economically collect and dispose of solid waste, and supports recycling and the maintenance of recycling centers in locations compatible with adjacent land uses.
- P.48 Gates County supports the provision of public recreational facilities and will pursue grant funds for recreation facilities.
- P.49 Gates County supports programs and efforts to provide an affordable, adequate, and dependable supply of electric power with reserve capacity and looping designs.
- P.50 Gates County supports programs and efforts to provide affordable, adequate, and dependable cable television services.

- P.51 Gates County supports the expansion of natural gas service within the county.
- P.52 Gates County supports the development of strategies and regulations which will mitigate the adverse effects of the development of alternative energy facilities.
- P.53 Gates County supports providing sufficient water and sewer service to promote economic development and to alleviate public health problems created by the absence of public water and sewer services in the county.
- P.54 Gates County will ensure that water and sewer improvements minimize impacts to AECs and other fragile areas.

Implementing Actions – Infrastructure Carrying Capacity and Services:

- I.35 Support the use of individual, on-site sewage disposal systems as the primary method of wastewater treatment in Gates County. Non-traditional methods of wastewater treatment should be used only when natural soil conditions dictate their use and not solely to accommodate larger structures or a greater dwelling density. Package treatment plants should be considered only when natural conditions prohibit the use of septic systems, as remedial efforts to correct existing failing septic improvements, or if required by ordinance and should be constructed to serve a specific development without excess capacity for off-site wastewater treatment connections. If the NC Department of Environmental Quality approves any package treatment plants, the County requests preparation of a specific contingency plan, specifying ongoing private operation and maintenance of the plant detailing provisions for assumption of the plant into a public system or other approved system should private operation fail. Schedule: Continuing.
- I.36 Review of all development proposals will be coordinated with the Gates County School System to determine and mitigate impact(s) on the school system. Schedule: Continuing.
- I.37 Require that water systems be constructed with lines designed and sized for adequate fire protection and sufficient water pressure. Schedule: Continuing.
- I.38 Provide sufficient emergency management facilities to adequately serve the county. Schedule: Continuing.
- I.39 Vigorously pursue grants to expand the water and sewer systems. Schedule: Continuing.
- I.40 Continue to investigate affordable options for expansion of its sewer system. Schedule: Continuing.

- I.41 Rely on the Gates County Health Department to ensure that the performance of existing septic tank systems is monitored; that existing systems are properly maintained; and, that proposed systems are installed according to approved plans under the supervision. Schedule: Continuing.
- I.42 Evaluate the potential impacts of development proposals according to the future land use map categories of this land use plan update with existing and planned infrastructure capabilities. Schedule: Continuing.
- I.43 Develop ways to improve interaction and communication between the Gates County Board of Commissioners, Planning Board, and School Board with respect to school facilities' capacities and needs as related to the impacts of development(s). Schedule: High.
- I.44 Work to ensure the efficient and cost-effective collection and disposal of solid waste, continued participation in a regional solid waste authority, and continued operation of voluntary recycling efforts. The County will strive to expand/enhance its recycling program. Schedule: Continuing.
- I.45 Continually monitor the demands placed on the solid waste management system to determine if and when changes are needed. Schedule: Continuing.
- I.46 Continue to rely on the existing system for solid waste collection and disposal services. Schedule: Continuing.
- I.47 Develop a County website and a quarterly newsletter to disseminate information to residents and visitors concerning solid waste management system related issues. Schedule: Medium.
- I.48 Consider the development of a Capital Improvements Plan as a means to address infrastructure and carrying capacity issues on an annual basis. Schedule: Medium.

Natural Hazard Areas

The preservation of natural hazards area is important to the County's quality of life and the economy. Nature based tourism is important to the County. The future land use map delineates 42% of the County as conservation (including flood hazard areas).

Management Goal 4: To preserve and maintain natural hazard areas and other coastal features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.

Policies – Natural Hazard Areas:

- P.55 Gates County supports state and federal policies that regulate the location and intensity of development in state designated areas of environmental concern.
- P.56 Gates County allows development and redevelopment within special flood hazard areas subject to the provisions and requirements of the National Flood Insurance Program, CAMA regulations, the County's floodplain ordinance.
- P.57 Minimize flooding and resulting damage to life and property during normal and significant rainfall events in order to restore and preserve water quality so residents and visitors can enjoy water-related activities.
- P.58 Gates County will conserve protective functions of wetlands, floodplains, and other shoreline features for their natural storm protection functions and their natural resources giving recognition to public health, safety, and welfare issues.
- P.59 Gates County will adopt and enforce ordinances and procedures to regulate land use, development, and redevelopment and supports applicable state and federal laws and regulations regarding land uses and development in natural hazard areas and areas of environmental concern.
- P.60 Gates County supports the US Army Corps of Engineers' regulations, the applicable guidelines of the Coastal Area Management Act, and the use of local land use ordinances to regulate development of fresh water swamps, marshes, and 404 wetlands.
- P.61 Gates County supports hazard mitigation planning. The Land Use Plan (LUP) and the Hazard Mitigation Plan (HMP) should be consistent with one another. When either are revised, the other should be reviewed for consistency. Should there ever be conflicting policies, the LUP shall take precedence. Should a LUP policy be found in conflict with the HMP, an amendment to the HMP should be made and presented to the State Hazard Mitigation Officer, NC Emergency Management, for incorporation into the HMP.
- P.62 Gates County opposes the location of floating structures within its planning jurisdiction. Note: A floating home or structure is any structure, not a boat, supported by means of flotation and designed to be used without a permanent foundation for human habitation or commerce. A structure is considered a floating home or structure if it is inhabited or used for commercial purposes for more than 30 days in any one location. A boat may be deemed a floating structure if its means of propulsion have been removed or rendered inoperative and it contains at least 200 square feet of living area.

- P.63 Gates County is supportive of resource protection, in particular preservation of conservation areas as defined by this plan. All 15A NCAC 7H minimum use standards will be supported by the policies contained in this plan.

Implementing Actions – Natural Hazard Areas:

- I.49 Support applicable Federal laws and regulations regarding land uses and development in areas of environmental concern. Additional Federal regulatory programs or expansion of existing programs will be reviewed on a case by case basis. The County reserves the right to support, oppose, review, or comment on additional regulations that may impact Gates County, its image and character, and its economy. Local public hearings by Federal agencies should be extensively advertised and conducted in Gates County, before any new regulations are adopted or existing programs are expanded. Schedule: Continuing.
- I.50 Lobby for the opportunity to purchase all or part of Federal properties within its borders if such properties are proposed for sale and will work to ensure that any changes to land use on Federal properties is consistent with County goals, objectives, and policies. Schedule: Low.
- I.51 Monitor development proposals for compliance with Section 404 of the Clean Water Act and continue to enforce local land use ordinances to regulate development of freshwater swamps, marshes, and 404 wetlands. Schedule: Continuing.
- I.52 Continue to enforce its floodplain ordinance and participate in the National Flood Insurance Program. Subdivision regulations will be enforced – requiring elevation monuments to be set so that floodplain elevations can be more easily determined. Schedule: Continuing.
- I.53 Take steps locally and in conjunction with NCDOT and adjacent jurisdictions to improve traffic safety and drainage to mitigate the impact of localized flooding and seek alternative methods of hazard avoidance. Schedule: Continuing.
- I.54 Continue to participate in and support the Albemarle Regional Hazard Mitigation Plan. The Gates County strategies are included in Appendix D of this plan. Schedule: Continuing.
- I.55 Evaluate (during the development review process) the potential impacts of existing and planned development on existing and planned evacuation infrastructure. Schedule: Continuing.

Water Quality

Water quality is important to the County's quality of life and economic development. Water quality impacts the County's natural assets and the activities of the County's population. Preservation of the County's water quality demands a reduction of stormwater runoff.

Management Goal 5: To maintain, protect, and, where possible, enhance water quality of public trust waters.

Policies – Water Quality:

- P.64 Gates County supports federal, state, and local efforts to protect the quantity and quality of water in the Chowan River, whether such protection involves controls over point source discharges, surface runoff, or other appropriate means, including upstream activities.
- P.65 Gates County recognizes the value of water quality maintenance to the protection of fragile areas and supports the control of stormwater runoff to aid in the preservation of water quality. The County will support existing state regulations relating to stormwater runoff resulting from development.
- P.66 Gates County supports the policy that all State of North Carolina projects should be designed to limit stormwater runoff into public waters to the extent practicable.
- P.67 Gates County supports the maintenance of vegetative buffers along its streams and rivers with the intent of reducing the flow of nutrients and other contaminants into the county's surface waters.
- P.68 Gates County supports a long-term sustainable groundwater supply.
- P.69 Gates County supports all aquaculture activities that meet applicable federal, state, and local policies and permit requirements. However, the county reserves the right to comment on all aquaculture activities that require Division of Water Resources permitting.

Implementing Actions – Water Quality:

- I.56 Rely on the technical requirements and state program approval for underground storage tanks (40 CFR, Parts 280 and 281), and any subsequent state regulation concerning underground storage tanks adopted during the planning period. Schedule: Continuing.

- I.57 Consider developing a stormwater management plan and implementing (infrastructure) system improvements. Schedule: Low.
- I.58 Support, in approval of development, reducing soil erosion runoff, and sedimentation to minimize the adverse effects on surface and subsurface water quality. Schedule: Continuing.
- I.59 Encourage the use of pervious materials and new technologies that provide for safe and efficient driveway and parking areas and that appropriately address stormwater runoff areas. Schedule: Continuing.
- I.60 Continuously ensure that land use and development regulations are consistent with the proper management of water resources and applicable state and federal development regulations. Schedule: Continuing.
- I.61 Continue to assist the State as appropriate to develop programs and regulations: for public trust waters to help ensure that water quality is maintained if not impaired, and improved if impaired; that help prevent or control non-point source discharges (sewage and stormwater) such as, but not limited to impervious surface limits, vegetated riparian buffers, natural areas, natural area buffers, and wetland protection; and, to protect open shellfishing waters and restore closed or conditionally closed shellfishing waters. Schedule: Continuing.
- I.62 Support the development of a management plan for utilization of the Chowan River within Gates County. Schedule: Medium.

Transportation

Obstacles to diversified economic development include improved regional access and maintenance of the existing road system. It is important that existing and proposed roads be provided and maintained in coordination with the future land use map and the other non-transportation policies and strategies which are included in this plan.

Management Goal 6: To provide a safe, efficient transportation system given State and local finances, topography, geography, and natural systems and surrounding land uses and development.

Policies - Transportation:

- P.70 Gates County supports efforts and programs to provide a safe, efficient, and well planned transportation system in the County and in the Region.

- P.71 Gates County encourages intergovernmental cooperation with other jurisdictions to study the transportation needs of the Region and supports the provision of a safe, efficient transportation system given state and local finances, topography, geography, and natural systems and surrounding land uses and development.
- P.72 Gates County supports limited access from development along all roads and highways to provide safe ingress and egress.
- P.73 Gates County supports the provision of a system of safe, coordinated bike and pedestrian trails throughout the County.
- P.74 Gates County supports regional intergovernmental planning and cooperation for transportation improvements to and within northeastern North Carolina and southeastern Virginia.
- P.75 Gates County will support maintaining an adequate transportation network, including:
- Maintaining adequate road capacity and minimizing delays due to traffic congestion;
 - Maintaining road safety, so that roads are safe for drivers, pedestrians, and bicyclists, as well as the residents and business located along the roads;
 - Protecting primary road corridors from inappropriate development patterns;
 - Protecting road corridors from clearing and encroachment of development.
- P.76 Gates County supports road improvements and expansions that will minimize adverse impacts on AECs.

Implementing Actions - Transportation:

- I.63 Support the transportation improvements included in the Gates County Comprehensive Transportation Plan (see Section 4, page 4-6). Schedule: Continuing.
- I.64 Support/pursue designation of US 158 as a state scenic highway. Schedule: Low.
- I.65 Work closely with NCDOT and NCDEQ to plan and design transportation improvements that will minimize adverse impacts on AECs. Schedule: Continuing.

Economy

The economy depends upon effective land use patterns in the County. The economic policies and strategies focus on diversifying the County's economy, further development of tourism, attracting "clean" businesses, improving county appearance, and expanding the County's sewer system.

Management Goal 7: To develop a diversified economy which sustains local business, agriculture, and forestry as the County's economic foundation.

Policies - Economy:

- P.77 Gates County supports the development of the County's education system to produce a skilled workforce appropriate for County needs.
- P.78 Gates County supports a comprehensive environment for agriculture and silviculture activities to maintain the rural atmosphere of the County.
- P.79 Gates County supports development of new businesses which will create new products, new processes, and new business models.
- P.80 Gates County will support a diversified local economy, while at the same time protecting the natural and manmade environment and improving the area as a more attractive community in which to work, live, and play.
- P.81 Gates County encourages the development of clean industry in locations where appropriate services can be provided, where transportation facilities are adequate, where environmental impacts can be fully mitigated, and where surrounding land uses are compatible in nature.
- P.82 Gates County will encourage the development of tourism trades as an element of the County's economic future.
- P.83 Gates County considers local entrepreneurship to be crucial to a stable local economy.
- P.84 Gates County will give preference to "clean" industries/businesses including eco- and agri-tourism.
- P.85 Gates County supports efforts to improve overall community appearance as an aid to industrial/business recruitment.

P.86 Gates County supports development of an education system to produce a skilled workforce appropriate for County needs.

Implementing Actions - Economy:

I.66 Implement the following activities to support eco-tourism:

- Promote eco-tourism to enhance traditional tourism:
 - Develop brochures to publicize existing eco-tourism/tourism attractions.
 - Publicize through multimedia to make eco-tourism data available to the general public.
 - Identify and publicize eco-tourism/agri-tourism attractions that could be successful in Gates County.
 - Work with NC Cooperative Extension to set up a task force to support the training of individuals in eco/agri-tourism. Schedule: Medium.
- Promote new farm crops to develop alternative farming methods and make effective use of farmlands. Schedule: Continuing.
- Promote coordination with both the Wildlife Resources Commission and NC Division of Parks and Recreation. Schedule: Continuing.

I.67 Continue to investigate/support expansion of the County's sewer system. Schedule: Continuing.

I.68 Implement the following activities to support economic development:

- Formulate local incentives to attract business/industry.
- Support County water systems and other infrastructure.
- Support incubator programs for startup businesses.
- Identify and recruit industries that are compatible with and complement Gates County's geography, culture, and climate.
- Promote awareness of service industry catering to tourists' opportunities.
- Support energy generation and transmission as economic development initiatives, as feasible.
- Expand opportunities (both public and private) for employment and procurement by using local vendors, when feasible.
- Encourage agriculturally-based industries including research and development.
- Develop a comprehensive county-wide farmland preservation management plan that includes utilizing farm-based support industries suitable for future recruitment such as farm equipment manufacturing, farmland research management and testing equipment manufacturing, and natural resource management testing equipment manufacturing. Schedule: High.

Section 7. Tools for Managing Development

GUIDE FOR LAND USE DECISION MAKING

It is intended that this document be an integral part of the Gates County decision making process concerning future land use. This document should be consulted prior to any decision being made by the Gates County staff, Planning Board, and/or Board of Commissioners concerning land use and development.

EXISTING DEVELOPMENT PROGRAM

The existing management program includes the following plans/ordinances: CAMA Core Land Use Plan Update 2003-2004, Flood Damage Prevention Ordinance 2009, Manufactured Home and Manufactured Home Park Ordinance, Ordinance to Protect Gates County Residents from Wildfire Hazards, Subdivision Ordinance, Zoning Ordinance, and the Albemarle Regional Hazard Mitigation Plan. The ordinances are administratively enforced/managed by the Gates County Planning Department which has a full-time planner. The County has a Planning Board and Board of Adjustment which provide legislative and quasi-judicial oversight of the ordinances. The County Board of Commissioners have final adoption and approval authority for all ordinances.

CONTINUING PLANNING PROCESS

This plan provides the framework upon which zoning and subdivision regulations (or UDO, see I.17, page 6-10) and the capital improvements programs should be based. In fact, the preparation of a land use plan and map is mandated by North Carolina legislation as a prerequisite for zoning for both cities and counties.

Specifically, in implementing this plan, the following should serve as guiding land use/planning principles:

- Consider the future land use map as part of the policies included in this plan.
- Consult this plan, including the future land use map, during the deliberation of all rezoning requests and proposed text amendments.
- Consider the following in deliberation of all zoning petitions:
 - All deliberations should consider this plan's goals, implementing strategies, and future land use map.

- All uses that are allowed in a zoning district must be considered. A decision to re-zone or not to re-zone a parcel or parcels of property cannot be based on consideration of only one use or a partial list of the uses allowed within a zoning district.
- Requests for zoning changes should not be approved if the requested change will result in spot zoning. Spot zoning is a form of discriminatory zoning whose sole purpose is to serve the private interests of one or more landowners instead of furthering the welfare of the entire community as part of an overall zoning plan. Spot zoning is based on the arbitrary and inappropriate nature of a rezoning change rather than, as is commonly believed, on the size of the area being rezoned.
- Zoning which will result in strip development should be discouraged. Strip development is a melange of development, usually commercial, extending along both sides of a major street. Strip development is often a mixture of auto-oriented enterprises (e.g., gas stations, motels, and food stands), and truck-dependent wholesale and light industrial enterprises. Strip development may severely reduce traffic-carrying capacity of abutting streets by allowing for excessive and conflicting curb cuts.
- Access management should be considered in all land use/zoning decisions.
- The concept of uniformity should be supported in all zoning deliberations. Uniformity is a basic premise of zoning which holds that all land in similar circumstances should be zoned alike; any different circumstances should be carefully balanced with a demonstrated need for such different treatment.
- Specifically, the Planning Board and Board of Commissioners should ask the following questions:
 - Is the request in accordance with this plan? Zoning regulations shall be made in accordance with the county's Comprehensive Plan (NCGS 160A-383). When adopting or rejecting any zoning amendment, the Board of Commissioners shall also approve a statement describing whether its action is consistent with the county's Comprehensive Plan and any other officially adopted plan that is applicable, and briefly explaining why the Board of Commissioners considers the action taken to be responsible and in the public interest.

- Will the request have a serious adverse impact on traffic circulation and other infrastructure?
- Will the request have an adverse impact on other County services, including police protection, fire protection, or public works?
- Will the request have an adverse impact on the Gates County Schools?
- Is there a good possibility that the request, as proposed, will result in lessening the enjoyment or use of adjacent properties?
- Will the request, as proposed, cause serious noise, odors, light, activity, or unusual disturbances?
- Does the request raise legal questions such as spot zoning, hardship, or violation of precedents?
- Does the request adversely impact water quality or other natural resources?

Following adoption of this plan, the County may implement the following to ensure effective citizen participation:

- Encourage diverse public participation in all land use decisions and procedure development processes and encourage citizen input.
- Publicize all meetings of the Planning Board and Board of Adjustment through newspaper advertisements and public service announcements.
- Utilize broad-based advisory committees to assess and advise the County on special planning issues/needs.
- All Planning Department activities will be available on the County's website.
- At a minimum, update this plan every five to seven years.

LAND USE PLAN AMENDMENTS

At which time the Gates County Comprehensive Plan needs to be amended, the County will apply the guidelines for Land Use Plan Amendments under Subchapter 7B, Section .0800 of the North Carolina Administrative Code. A brief summary of those guidelines is provided below.

- The Land Use Plan may be amended as a whole by a single resolution or in parts by successive resolutions. The successive resolutions may address geographical sections, county divisions, or functional units of subject matter.
- The County must hold a public hearing of which the public has been properly notified.
- Copies of the proposed amendment(s) must be available for review at the County Administration Building during designated hours.
- The executive secretary or a designated agent of the Coastal Resources Commission shall be given notice of the public hearing, a copy of the proposed amendment(s), and a reason for the amendment(s).
- Amendments must be consistent with the Coastal Resources Commission's Land Use Planning Guidelines (15A NCAC 7B) and, if possible, with the Land Use Plans of adjacent jurisdictions.
- If possible, the County will adopt the plan amendments expeditiously following the close of the public hearing.
- The County will provide the executive secretary of the Coastal Resources Commission with a copy of the amended text or maps certification of adoption.

CITIZEN PARTICIPATION

For the preparation of this plan, the Gates County Board of Commissioners adopted a citizen participation plan. A copy of that plan is included as Appendix A. Following adoption of this plan, Gates County will implement the following to ensure adequate citizen participation:

- The County will encourage public participation in all land use decisions and procedure development processes and encourage citizen input via its boards and commissions.

- Gates County will advertise all meetings of the County's Planning Board and Board of Adjustment through newspaper advertisements and public service announcements.
- The County will, at least annually, conduct a joint meeting of the Board of Commissioners and the County's Planning Board to identify planning issues/needs.
- Ensure that the membership of all planning related and ad hoc advisory committees has a cross section of Gates County's citizenry.

REQUIRED PERIODIC IMPLEMENTATION STATUS REPORTS

Gates County shall submit an Implementation Status Report to the Division of Coastal Management every two years from the date of initial certification by the CRC. This report will be based on implementation actions that meet the CRC's Management Topic goals and objectives, as indicated in the action plan pursuant to Subchapter 07B .0702(e)(3). The Implementation Status Report will also identify:

- All local, state, federal, and joint actions that have been undertaken successfully to implement its certified land use plan;
- Any actions that have been delayed and the reasons for the delays;
- Any unforeseen land use issues that have arisen since certification of the land use plan; and
- Consistency of existing land use and development ordinances with current land use plan policies.

Appendix A

**GATES COUNTY
CITIZEN PARTICIPATION PLAN
FOR PREPARATION OF A COMPREHENSIVE LAND USE PLAN**

INTRODUCTION

Gates County has initiated the preparation of a Comprehensive Land Use Plan. The final document will provide a creative and dynamic plan to guide future long-term growth and development throughout the next fifteen to twenty years. The intent of this project is to draft a plan that will establish a solid foundation for the ongoing planning program and to serve as the primary policy guide for short and long-range planning and development related decision-making within the Gates County planning area.

The initial step in the planning process is the adoption of this Citizen Participation Plan (CPP) which defines a collaborative effort with the public. Approval of the CPP was accomplished on June 3, 2015.

COMPREHENSIVE LAND USE PLAN DRAFTING COMMITTEE

A Gates County Advisory Committee will supervise the preparation of the draft Comprehensive Land Use Plan. The County's staff will serve in an advisory capacity to the Committee. The plan will be drafted by Holland Consulting Planners, Inc., the county's consultant.

MEETINGS

The Committee will conduct three (3) work sessions to prepare the draft Comprehensive Land Use Plan. All meetings will be advertised and open to the public. At a minimum, the following meetings will be conducted:

- Three (3) work sessions will be conducted. At each Committee meeting, the location, date, and time of the succeeding meeting will be determined.
- Special meetings, as may be called at the discretion of the Committee Chairperson.
- Meetings to present the draft plan to the Planning Board and Board of Commissioners.
- A public hearing for consideration of the draft Comprehensive Land Use Plan.

PUBLIC NOTIFICATION

To ensure that the public is informed of meeting times and has access to the draft Comprehensive Land Use Plan throughout this process, the following steps will be taken:

- Notices of all Committee meetings will be advertised in the Gates County Index.
- A sign-up sheet will be placed in the County Administration Building. Individuals who place their names and addresses on this list will be mailed/e-mailed notices announcing meeting times for review of the Comprehensive Land Use Plan.
- Notification of all meetings will be posted on the County's website:

http://www.gatescounty.govoffice2.com/index.asp?SEC=020708D4-8ADB-4ED6-9AE3-7398A60F2C45&Type=B_BASIC

DISSEMINATION OF INFORMATION

The following procedures will be utilized to ensure the availability of information:

- Copies of the draft plan will be placed at the County Administration Building and the Gates County Planning Department, as well as being available at all meetings to ensure that the citizens in attendance can review items being discussed.
- Sections of the proposed plan will be provided to the Committee prior to any meetings at which the draft plan section(s) will be discussed.
- Sections of the plan will be posted on the County website as they are developed:

http://www.gatescounty.govoffice2.com/index.asp?SEC=020708D4-8ADB-4ED6-9AE3-7398A60F2C45&Type=B_BASIC

PUBLIC COMMENT

Throughout the process, the public will have the following opportunities for input:

- At each Committee, Planning Board, and Board of Commissioners meeting at which the plan is discussed as an agenda item, time will be allocated for public comments and/or questions.

- At any time during the preparation of the draft Plan, the public may obtain information and/or offer comments via e-mail to the Gates County Planner, Jennifer Baptiste, jbaptiste@gatescountync.gov or (252) 357-0122.
- The public hearing will provide additional opportunities for public input and questions.

SCHEDULE

The Comprehensive Land Use Plan planning process will utilize the following schedule:

| Project Task | Schedule |
|--|--------------------------|
| Issue Notice to Proceed | May 2015 |
| Project Initiation | May - July 2015 |
| Research and Analysis/ Plan Development | July 2015 - October 2016 |
| Public Hearing | December 2016 |

Appendix B

Appendix B

Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species Gates County, North Carolina

Note: Marine Threatened and Endangered Species information can be found at the National Marine Fisheries Service (NMFS) Endangered and Threatened Species website

Updated: 01-7-2016

| Common Name | Scientific name | Federal Status | Record Status |
|--------------------------------|---|-----------------------|----------------------|
| Vertebrate: | | | |
| <u>American alligator</u> | <i>Alligator mississippiensis</i> | T (S/A) | Current |
| American eel | <i>Anguilla rostrata</i> | FSC | Current |
| Black-throated green warbler | <i>Dendroica virens waynei</i> | FSC | Current |
| Eastern Henslow's sparrow | <i>Ammodramus henslowii susurrans</i> | FSC | Current |
| <u>Northern long-eared bat</u> | <i>Myotis septentrionalis</i> | T | Current |
| Rafinesque's big-eared bat | <i>Corynorhinus rafinesquii</i> | FSC | Current |
| <u>Red-cockaded woodpecker</u> | <i>Picoides borealis</i> | E | Current |
| Southeastern myotis | <i>Myotis austroriparius</i> | FSC | Current |
| <u>West Indian manatee</u> | <i>Trichechus manatus</i> | E | Current |
| Invertebrate: | | | |
| Vascular Plant: | | | |
| Grassleaf arrowhead | <i>Sagittaria weatherbiana</i> | FSC | Historic |
| Pondspice | <i>Litsea aestivalis</i> | FSC | Current |
| Raven's boxseed | <i>Ludwigia ravenii</i> | FSC | Historic |
| Virginia least trillium | <i>Trillium pusillum var. virginianum</i> | FSC | Current |
| Nonvascular Plant: | | | |
| Lichen: | | | |

Definitions of Federal Status Codes:

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

C = candidate. A taxon under consideration for official listing for which there is sufficient information to support listing. (Formerly "C1" candidate species.)

BGPA = Bald and Golden Eagle Protection Act. See below.

FSC = Federal Species of Concern. FSC is an informal term. It is not defined in the federal Endangered Species Act. In North Carolina, the Asheville and Raleigh Field Offices of the US Fish and Wildlife Service (Service) define Federal Species of Concern as those species that appear to be in decline or otherwise in need of conservation and are under consideration for listing or for which there is insufficient information to support listing at this time. Subsumed under the term "FSC" are all species petitioned by outside parties and other selected focal species identified in Service strategic plans, State Wildlife Action Plans, or Natural Heritage Program Lists.

T(S/A) = threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation. See below.

EXP = experimental population. A taxon listed as experimental (either essential or nonessential).

Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

P = proposed. Taxa proposed for official listing as endangered or threatened will be noted as "PE" or "PT", respectively.

Bald and Golden Eagle Protection Act (BGPA):

In the July 9, 2007 Federal Register(72:37346-37372), the bald eagle was declared recovered, and removed (de-listed) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8,2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) becomes the primary law protecting bald eagles. The Eagle Act prohibits take of bald and golden eagles and provides a statutory definition of "take" that includes "disturb". The USFWS has developed National Bald Eagle Management Guidelines to provide guidance to land managers, landowners, and others as to how to avoid disturbing bald eagles. For mor information, visit <http://www.fws.gov/migratorybirds/baldeagle.htm>

Threatened due to similarity of appearance(T(S/A)):

In the November 4, 1997 Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.

Definitions of Record Status:

Current - the species has been observed in the county within the last 50 years.

Historic - the species was last observed in the county more than 50 years ago.

Obscure - the date and/or location of observation is uncertain.

Incidental/migrant - the species was observed outside of its normal range or habitat.

Probable/potential - the species is considered likely to occur in this county based on the proximity of known records (in adjacent counties), the presence of potentially suitable habitat, or both.

Source: US Fish & Wildlife Service.

Appendix C

Appendix C
 NC DEQ Natural Heritage Program
 Heritage Data by County

| TAXONOMIC_GROUP | SCIENTIFIC_NAME | COMMON_NAME | STATE_STATUS | FEDERAL_STATUS | STATE_RANK | GLOBAL_RANK | HABITAT_COMMENT | COUNTY | COUNTY_STATUS |
|-------------------------------------|---|---------------------------|--------------|----------------|------------|-------------|---|--------|---------------|
| Freshwater Fish | Acipenser oxyrinchus | Atlantic Sturgeon | SC | E | S2 | G3 | coastal waters, estuaries, large rivers | Gates | Current |
| Freshwater Bivalve | Alasmidonta undulata | Triangle Floater | T | | S3 | G4 | Roanoke, Chowan, Tar, Neuse, Cape Fear drainages | Gates | Current |
| Reptile | Alligator mississippiensis | American Alligator | T | T(S/A) | S3 | G5 | fresh to slightly brackish lakes, ponds, rivers, and marshes | Gates | Historical |
| Butterfly | Amblyscirtes carolina | Carolina Roadside-Skipper | W2 | | S3S4 | G3G4 | moist woods (mainly hardwoods) near cane; host plant -- cane (<i>Arundinaria</i>) | Gates | Current |
| Bird | Ammodramus henslowii susurrans | Eastern Henslow's Sparrow | SC | FSC | S1B,S1N | G4T4 | clearcut pocosins and other damp weedy fields [breeding season only] | Gates | Current |
| Amphibian | Anaxyrus quercicus | Oak Toad | SR | | S3 | G5 | pine flatwoods and savannas, pine sandhills where near water (many records not yet entered) | Gates | Current |
| Vascular Plant | Andropogon tracyi | Tracy's Bluestem | W7 | | S2 | G4? | sandhills, other dry soils | Gates | Historical |
| Freshwater Bivalve | Anodonta implicata | Alewife Floater | T | | S2 | G5 | Chowan, Roanoke, Cape Fear, and Pee Dee drainages | Gates | Current |
| Dragonfly or Damselfly | Arigomphus villosipes | Unicorn Clubtail | W3 | | S3 | G5 | ponds, lakes, slow-flowing streams | Gates | Current |
| Vascular Plant | Bartonia paniculata ssp. paniculata | Twining Screwstem | W1 | | S2S3 | G5T5 | bogs, wet savannas, sandhill seeps, other open wet areas | Gates | Historical |
| Butterfly | Callophrys hesseli | Hessel's Hairstreak | SR | | S3 | G3G4 | Atlantic white cedar swamps; host plant -- white cedar (<i>Chamaecyparis thuyoides</i>) | Gates | Current |
| Butterfly | Callophrys irus | Frosted Elfin | SR | | S2 | G3 | open woods and borders, usually in dry situations; host plants -- lupines (<i>Lupinus</i>) and wild indigos (<i>Baptisia</i>) | Gates | Current |
| Moth | Callosamia securifera | Sweetbay Silkmoth | W3 | | SU | G4 | pocosins and other wetlands with sweetbay | Gates | Current |
| Vascular Plant | Carex chapmanii | Chapman's Sedge | W1 | | S3 | G3 | moist bottomlands and slopes, perhaps associated with marl | Gates | Current |
| Vascular Plant | Carex decomposita | Cypress Knee Sedge | SC-V | | S2 | G3G4 | beaver ponds, old millponds; often on Taxodium ascendens trunks and knees | Gates | Current |
| Freshwater or Terrestrial Gastropod | Carychium exiguum | Obese Thorn | W3 | | S3? | G5 | mesic forests | Gates | Historical |
| Vascular Plant | Chasmanthium sessiliflorum | Longleaf Spikegrass | W1 | | S2S3 | G5 | hardwood forests | Gates | Historical |
| Vascular Plant | Chelone obliqua | Red Turtlehead | SR-T | | S2 | G4 | swamp forests, bogs, wet places | Gates | Current |
| Natural Community | Coastal Plain Depression Swamp (Mixed Subtype) | | | | S3? | G3 | | Gates | Current |
| Natural Community | Coastal Plain Semipermanent Impoundment (Cypress-Gum Subtype) | | | | S4 | G4G5 | | Gates | Current |
| Natural Community | Coastal Plain Semipermanent Impoundment (Open Water Subtype) | | | | S4 | G5 | | Gates | Current |
| Natural Community | Coastal Plain Small Stream Swamp | | | | S4 | G4? | | Gates | Current |
| Animal Assemblage | Colonial Wading Bird Colony | | | | S3 | G5 | | Gates | Current |

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| TAXONOMIC_GROUP | SCIENTIFIC_NAME | COMMON_NAME | STATE_STATUS | FEDERAL_STATUS | STATE_RANK | GLOBAL_RANK | HABITAT_COMMENT | COUNTY | COUNTY_STATUS |
|--|---|---|--------------|----------------|-------------|-------------|---|----------------|--------------------|
| Mammal | <i>Corynorhinus rafinesquii macrotis</i> | Rafinesque's Big-eared Bat - Coastal Plain subspecies | SC | FSC | S3 | G3G4T3 | roosts in hollow trees, old buildings, and beneath bridges, usually near water | Gates | Current |
| Dragonfly or Damselfly Natural Community | <i>Coryphaeschna ingens</i> Cypress--Gum Swamp (Intermediate Subtype) | Regal Darner | SR | | S2? S3S4 | G5 G4 | lakes and ponds | Gates Gates | Current Current |
| Vascular Plant | <i>Desmodium fernaldii</i> | Fernald's Tick-trefoil | SR-P | | S1 | G4 | dry to mesic hardwood-pine woodlands | Gates | Historical |
| Vascular Plant | <i>Dichanthelium fusiforme</i> (syn. <i>Dichanthelium</i> sp. 8, <i>Dichanthelium aciculare</i> var. 2) | Spindle-fruited Witch Grass | SR-P | | S1 | G5? | dry sandy pinelands and dry montane woodlands | Gates | Current |
| Vascular Plant | <i>Dichanthelium ovale</i> var. <i>ovale</i> | Elliott's Witch Grass | W1 | | S2S3 | G5T5 | dry to damp, sandy pinelands | Gates | Historical |
| Vascular Plant | <i>Dryopteris carthusiana</i> | Spinulose Woodfern | W7 | | S2 | G5 | swampy woods | Gates | Current |
| Vascular Plant | <i>Dryopteris cristata</i> | Crested Woodfern | W1 | | S3 | G5 | bogs, wet woods | Gates | Historical |
| Freshwater Bivalve | <i>Elliptio cistellaeformis</i> | Box Spike | W3,W5 | | SU | G4 | Neuse, Lumber, Pee Dee drainages; Lake Waccamaw | Gates | Current |
| Freshwater Bivalve | <i>Elliptio producta</i> | Atlantic Spike | W3,W5 | | SU | G3Q | many Atlantic drainages; very difficult to identify | Gates | Current |
| Vascular Plant | <i>Elodea canadensis</i> | Canada Waterweed | W7 | | S1? | G5 | lakes, ponds, and stagnant waters of streams | Gates | Current |
| Freshwater Fish | <i>Enneacanthus chaetodon</i> | Blackbanded Sunfish | SR | | S3 | G3G4 | many drainages, particularly Lumber and Waccamaw | Gates | Current |
| Freshwater Fish | <i>Enneacanthus obesus</i> | Banded Sunfish | SR | | S3 | G5 | most Atlantic drainages | Gates | Current |
| Dragonfly or Damselfly | <i>Epitheca spinosa</i> | Robust Baskettail | W3 | | S3? | G4 | ponds and lakes | Gates | Current |
| Freshwater or Terrestrial Gastropod | <i>Euglandina rosea</i> | Rosy Wolfsnail | W3 | | S3? | G5 | habitats poorly known | Gates | Current |
| Butterfly | <i>Euphyes bimacula</i> | Two-spotted Skipper | SR | | S2 | G4 | wet savannas, bogs, sedgy areas near wet woods; host plants -- sedges (<i>Carex</i>) | Gates | Current |
| Vascular Plant | <i>Eurybia spectabilis</i> | Showy Aster | SR-O | | S2? | G5 | pine barrens and woodland borders | Gates | Historical |
| Reptile | <i>Farancia erytrogramma</i> | Rainbow Snake | SR | | S3 | G4 | swamps, lakes, rivers, and other sluggish water | Gates | Current |
| Moss | <i>Fissidens fontanus</i> | Water Pocket Moss | W7 | | S2? | G5 | attached to various substrata in stagnant and flowing water, and in coastal estuaries | Gates | Historical |
| Moss | <i>Fontinalis sullivantii</i> | A Water Moss | W7 | | S2? | G3G5 | rocks or trees in pools or streams | Gates | Historical |
| Vascular Plant | <i>Gratiola aurea</i> | Golden Hedge-hyssop | SC-V | | S1 | G5 | drawdown zones of blackwater rivers | Gates | Historical |
| Bird | <i>Haliaeetus leucocephalus</i> | Bald Eagle | T | BGPA | S3B,S3N | G5 | mature forests near large bodies of water (for nesting); lakes and sounds (for foraging) [nesting sites only] | Gates | Current |
| Moth | <i>Heliomata infulata</i> | Rare Spring Moth | W3 | | S2S3 | G3G4 | forests or woodlands with shrubby locusts | Gates | Current |
| Bird | <i>Helmitheros vermivorum</i> pop. 1 | Worm-eating Warbler - Coastal Plain Population | W5 | | S3B | G5TNR | nonriverine wet hardwoods, pocosins [breeding season only] | Gates | Current |
| Moss | <i>Helodium paludosum</i> | Pond Fern Moss | W7 | | S2? | G3G5 | on soil, humus, trees, or logs in swamps, marshes, or meadows | Gates | Historical |
| Amphibian | <i>Hemidactylum scutatum</i> | Four-toed Salamander | SC | | S3 | G5 | pools, bogs, and other wetlands in hardwood forests | Gates | Current |
| Vascular Plant | <i>Heteranthera reniformis</i> | Kidneyleaf Mud-plantain | W7 | | S2? | G5 | muddy shores, bars, pools | Gates | Historical |
| Vascular Plant | <i>Hottonia inflata</i> | Featherfoil | SR-O | | S1? | G4 | pools in blackwater or brownwater swamps, interdune ponds | Gates | Current |

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|-------------------------------------|---|-----------------------------|--------------|----------------|------------|-------------|--|--------|---------------|
| Grasshopper or Katydid | <i>Inscudderia walkeri</i> | Eastern Cypress Katydid | W3 | | SU | GNR | cypress swamps and savannas | Gates | Current |
| Vascular Plant | <i>Iris prismatica</i> | Slender Blue Iris | SR-T | | S1S2 | G4G5 | bogs, marshes, and wet powerline clearings | Gates | Historical |
| Vascular Plant | <i>Isotria verticillata</i> | Large Whorled Pogonia | W1 | | S2S3 | G5 | forests | Gates | Historical |
| Vascular Plant | <i>Kalmia angustifolia</i> | Sheep-laurel | T | | S1 | G5 | sandy, xeric to mesic hillsides | Gates | Current |
| Reptile | <i>Kinosternon baurii</i> | Striped Mud Turtle | W3 | | S3S4 | G5 | various shallow wet places; ponds, pools, ditches | Gates | Current |
| Freshwater Bivalve | <i>Lampsilis cariosa</i> | Yellow Lampmussel | E | FSC | S3 | G3G4 | Chowan, Roanoke, Neuse, Tar, Cape Fear, Lumber, Yadkin--Pee Dee drainages | Gates | Current |
| Freshwater Bivalve | <i>Lampsilis radiata</i> | Eastern Lampmussel | T | | S3 | G5 | Chowan, Roanoke, Tar, Neuse, Cape Fear, Yadkin--Pee Dee drainages | Gates | Current |
| Mammal | <i>Lasiurus seminolus</i> | Seminole Bat | W2 | | S3 | G5 | forages over open areas, often over water (summer); ½ mainly in southern half of the state | Gates | Current |
| Vascular Plant | <i>Lathyrus palustris</i> | Marsh Peavine | W7 | | S2? | G5 | bottomlands, streambanks and marshes | Gates | Current |
| Freshwater Bivalve | <i>Leptodea ochracea</i> | Tidewater Mucket | T | | S2 | G3G4 | Chowan, Roanoke, and Tar drainages, and abundant in Lake Waccamaw | Gates | Current |
| Freshwater Bivalve | <i>Ligumia nasuta</i> | Eastern Pondmussel | T | | S2 | G4 | Chowan, Roanoke, Neuse, Tar, Cape Fear, and Yadkin--Pee Dee drainages | Gates | Current |
| Vascular Plant | <i>Lilium sp. 1</i> | Blackwater Turk's Cap Lily | W2 | | S1 | G1G3Q | blackwater swamps | Gates | Current |
| Freshwater or Terrestrial Gastropod | <i>Lioplax subcarinata</i> | Ridged Lioplax | W3 | | S3 | G4G5 | streams and rivers, well documented in Lake Waccamaw, possibly in decline there | Gates | Current |
| Vascular Plant | <i>Listera australis</i> | Southern Twayblade | W1 | | S3 | G4 | moist hardwood forest, swamps, wet woods with acidic soils | Gates | Current |
| Amphibian | <i>Lithobates kauffeldi</i> | Atlantic Coast Leopard Frog | W3 | | SU | GNR | freshwater wetlands, such as marshes and pond edges, in the northeastern portion of the province; recently described and range is poorly known | Gates | Current |
| Vascular Plant | <i>Litsea aestivalis</i> | Pondspice | SC-V | FSC | S2S3 | G3? | limesink ponds, other pools | Gates | Current |
| Natural Community | Low Elevation Seep (Typic Subtype) | | | | S3 | G3? | | Gates | Current |
| Vascular Plant | <i>Ludwigia brevipes</i> | Long Beach Seedbox | SR-T | FSC | S1S2 | G2G3 | natural lake shores, blackwater stream shores and impoundments, and freshwater interdune ponds | Gates | Historical |
| Vascular Plant | <i>Ludwigia ravenii</i> | Raven's Seedbox | T | FSC | S1 | G1G2 | savannas, swamps, marshes, wet open places | Gates | Historical |
| Natural Community | Mesic Mixed Hardwood Forest (Coastal Plain Subtype) | | | | S3 | G3 | | Gates | Current |
| Liverwort | <i>Metzgeria uncigera</i> | A Liverwort | W7 | | S1 | G3 | on bark in maritime forests or on rhododendron in mountain forests | Gates | Historical |
| Mammal | <i>Mustela frenata</i> | Long-tailed Weasel | W3 | | S3S4 | G5 | forests, brushy areas | Gates | Current |
| Mammal | <i>Myotis austroriparius</i> | Southeastern Bat | SC | FSC | S2 | G3G4 | roosts in buildings, hollow trees; forages near water; mainly in the Coastal Plain | Gates | Current |

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|-------------------------------------|--|-------------------------------|--------------|----------------|------------|-------------|---|--------|---------------|
| Butterfly | <i>Neonympha helicta</i> | Helicta Satyr | SR | | S1? | G3G4 | sedge wetlands, including sandhill seeps, pocosin ecotones, and drained beaver ponds in the Sandhills, low pocosins in the northeast Coastal Plain, and wet open swales in the Piedmont; host plants -- sedges (Alamance*, Anson, Beaufort, Bertie*, Chatham*, Cumberland, Dare, Durham*, Gaston*, Gates*, Granville, Halifax, Harnett, Hoke, Hyde, Martin*, Moore, Pitt, Richmond, Scotland, Washington) | Gates | Historical |
| Natural Community | Nonriverine Swamp Forest (Cypress-Gum Subtype) | | | | S2 | G2G3 | | Gates | Current |
| Natural Community | Nonriverine Swamp Forest (Mixed Subtype) | | | | S3 | G3 | | Gates | Current |
| Natural Community | Nonriverine Swamp Forest (Sweetgum Subtype) | | | | S2 | G2? | | Gates | Current |
| Natural Community | Nonriverine Wet Hardwood Forest (Oak Flat Subtype) | | | | S1 | G2 | | Gates | Current |
| Freshwater Fish | <i>Notropis chalybaeus</i> | Ironcolor Shiner | W1 | | S2S3 | G4 | coastal plain rivers and creeks (Beaufort*, Bertie*, Bladen, Brunswick, Carteret, Chowan*, Columbus, Craven*, Cumberland*, Duplin, Edgecombe*, Gates*, Greene*, Halifax*, Harnett, Hertford, Hoke, Johnston, Jones, Lenoir*, Martin, Moore*, Nash*, New Hanover*, Northampton, Onslow, Pender*, Richmond, Robeson, Sampson*, Scotland, Wake, Wayne*, Wilson*) | Gates | Current |
| Reptile | <i>Ophisaurus attenuatus</i> | Slender Glass Lizard | SR | | S2 | G5 | old fields, wooded edges, open woods (Beaufort, Bertie, Bladen, Brunswick, Chatham, Cherokee, Chowan, Clay, Columbus, Durham, Edgecombe, Franklin, Gates, Halifax, Harnett, Iredell, Johnston, Lenoir, Orange, Pitt, Stanly, Vance, Wake, Warren, Wilson)½ | Gates | Current |
| Crustacean | <i>Orconectes carolinensis</i> | North Carolina Spiny Crayfish | SC | | S3 | G3 | rivers and streams in the Chowan, Roanoke, Neuse, and Tar drainages | Gates | Current |
| Crustacean | <i>Orconectes virginianensis</i> | Chowanoke Crayfish | SC | FSC | S3 | G3 | streams and rivers in the Chowan and Roanoke drainages | Gates | Current |
| Freshwater or Terrestrial Gastropod | <i>Oxyloma effusum</i> | Coastal-plain Ambersnail | W3 | | SU | G3 | wetlands with <i>Sagittaria</i> ; very little locality information | Gates | Historical |

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|-------------------------------------|---|---|--------------|----------------|------------|-------------|---|--------|---------------|
| Mammal | Perimyotis subflavus | Tricolored Bat | SR | | S3 | G3 | roosts in clumps of leaves (mainly in summer), caves, rock crevices, and other dark and sheltered places (Avery, Bertie, Bladen, Brunswick, Buncombe, Burke, Camden, Carteret, Cherokee, Clay, Columbus, Davidson, Durham, Forsyth, Gaston, Gates, Graham, Guilford, Halifax, Harnett, Henderson, Hoke, Jackson, Johnston, Macon, Madison, McDowell, Mecklenburg, New Hanover, Onslow, Rutherford, Stokes, Swain, Transylvania, Union, Wake, Watauga, Wilkes, Yancey) | Gates | Current |
| Bird | Picoides borealis | Red-cockaded Woodpecker | E | E | S2 | G3 | mature open pine forests, mainly in longleaf pine [breeding evidence only] | Gates | Current |
| Natural Community | Pine/Scrub Oak Sandhill (Northern Subtype) | | | | S1 | G1 | | Gates | Current |
| Vascular Plant | Platanthera blephariglottis | White-fringed Orchid | W1 | | S3? | G4G5 | bogs or depressions | Gates | Historical |
| Vascular Plant | Polygonella articulata | Coast Jointweed | SC-H | | SH | G5 | sandhills | Gates | Historical |
| Butterfly | Pontia protodice | Checkered White | SR | | S1S2 | G4 | fields, pastures; host plants -- mustard species (Family <i>Brassicaceae</i>) | Gates | Current |
| Vascular Plant | Potamogeton confervoides | Conferva Pondweed | SR-D | | S2 | G4 | beaverponds and old millponds on blackwater creeks | Gates | Obscure |
| Vascular Plant | Potamogeton foliosus | Leafy Pondweed | W1 | | S2 | G5 | lakes, streams, and ponds | Gates | Historical |
| Freshwater or Terrestrial Gastropod | Promenetus exacuous | Sharp Sprite | W3 | | S2S3 | G5 | ponds and streams | Gates | Current |
| Vascular Plant | Pycnanthemum setosum | Awned Mountain-mint | SR-T | | S2 | G4 | blackwater swamps | Gates | Current |
| Vascular Plant | Ranunculus flabellaris | Yellow Water-crowfoot | SC-H | | S1 | G5 | pools in blackwater swamps | Gates | Historical |
| Vascular Plant | Sagittaria weatherbiana | Grassleaf Arrowhead | E | FSC | S2 | G3G4 | fresh to slightly brackish marshes, streams, swamps, and pond margins | Gates | Historical |
| Moth | Scopula cacuminaria | Frosted Tan Wave Moth | W3 | | S2S3 | G4 | sandhills and other dry forests | Gates | Current |
| Bird | Setophaga virens waynei | Black-throated Green Warbler - Coastal Plain population | SR | FSC | S2S3B | G5T3 | nonriverine wetland forests, especially where white cedar or cypress are mixed with hardwoods [breeding season only] | Gates | Current |
| Natural Community | Small Depression Drawdown Meadow (Boggy Pool Subtype) | | | | S1 | G2 | | Gates | Current |
| Natural Community | Small Depression Shrub Border | | | | S3 | G3? | | Gates | Current |
| Vascular Plant | Smilax pseudochina | Long-stalk Greenbrier | W1 | | S3? | G4G5 | streamheads, ecotones, borders of blackwater creek floodplains | Gates | Historical |
| Mammal | Sorex hoyi | American Pygmy Shrew | W2 | | S3 | G5 | montane deciduous forests; old fields and forests in northeastern Coastal Plain | Gates | Current |
| Moss | Sphagnum henryense | Peatmoss | W1 | | S2S3 | G4? | bogs | Gates | Historical |
| Vascular Plant | Spirodela polyrrhiza | Common Water-flaxseed | W7 | | S2? | G5 | pools, stagnant waters | Gates | Current |
| Mammal | Synaptomys cooperi helaletes | Dismal Swamp Southern Bog Lemming | SR | | S2S3 | G5T3 | low pocosins, early succession wetlands | Gates | Current |
| Vascular Plant | Thalictrum macrostylum | Small-leaved Meadowrue | SR-T | FSC | S2 | G3G4 | bogs and wet woods | Gates | Current |

Appendix C
 NC DEQ Natural Heritage Program
 Heritage Data by County

| TAXONOMIC_GROUP | SCIENTIFIC_NAME | COMMON_NAME | STATE_STATUS | FEDERAL_STATUS | STATE_RANK | GLOBAL_RANK | HABITAT_COMMENT | COUNTY | COUNTY_STATUS |
|-------------------------------------|---|-------------------------|--------------|----------------|------------|-------------|---|--------|---------------|
| Moss | Thuidium allenii | Fernmoss | W7 | | S2? | G3G5 | on soil, logs, exposed roots, and tree bases in swamps, often just above water line | Gates | Historical |
| Natural Community | Tidal Freshwater Marsh (Mixed Freshwater Subtype) | | | | S1 | G2? | | Gates | Current |
| Natural Community | Tidal Swamp (Cypress--Gum Subtype) | | | | S4 | G3G4 | | Gates | Current |
| Vascular Plant | Torreyochloa pallida var. pallida | Pale Mannagrass | SR-P | | S1 | G5 | blackwater pools, old millponds, and small stream swamps | Gates | Current |
| Vascular Plant | Trillium pusillum var. virginianum | Virginia Least Trillium | E | FSC | S1 | G3T2 | mesic to swampy hardwood forests | Gates | Current |
| Freshwater or Terrestrial Gastropod | Vertigo teskeyae | Swamp Vertigo | W3 | | S3 | G5 | margins of swamps and ponds | Gates | Current |
| Vascular Plant | Viola brittoniana | Northern Coastal Violet | W7 | | S2? | G4G5 | moist slopes and low wet places | Gates | Current |
| Reptile | Virginia valeriae | Smooth Earthsnake | W2 | | S3 | G5 | deciduous or mixed woods, usually in mesic soils | Gates | Current |
| Vascular Plant | Zizania aquatica var. aquatica | Indian Wild Rice | W7 | | S2 | G5T5 | freshwater marshes | Gates | Current |

Source: North Carolina Natural Heritage Program Online Data Search. April 12, 2016. Department of Environmental Quality, Office of Land and Water Stewardship, Raleigh, NC. Available at: www.ncnhp.org.

Appendix D

Appendix D

Albemarle Regional Hazard Mitigation Plan

Mitigation Strategies - Gates County and Town of Gatesville

Table 7.2.12 Gates County & Gatesville Mitigation Strategies

| Action # | Description/Strategy | Hazard(s) Addressed | Relative Priority | Lead Agency/Department | Potential Funding Source | Implementation Status |
|----------|--|---|-------------------|--|--------------------------|--|
| *GAT1 | Open waterways by clearing debris in ditches throughout county to minimize localized flooding. | Hurricanes, Nor'easters, Floods, Severe Thunderstorms | High | NCDOT | NCDOT | Working with NCDOT to get debris removed from ditches; Millpond Bridge Project- NCDOT completed this project correcting a flooding issue at the Dam/spillway and traffic concerns by separating pedestrian and automobile traffic. |
| *GAT2 | Expansion of US Highway 13/158 for greater evacuation capacity. | All Hazards | Medium | Gates County Emergency Management, NCDOT | NCDOT | Continue to discuss widening project with NCDOT. Working with NCDOT on creating a delivery schedule for the project. |

| Action # | Description/Strategy | Hazard(s) Addressed | Relative Priority | Lead Agency/Department | Potential Funding Source | Implementation Status |
|----------|---|--|-------------------|--|---------------------------|---|
| *GAT3 | Increase public awareness of local hazard mitigation plan and emergency response plan. | All Hazards | High | Gates County Emergency Management | General Fund | County Emergency Management Officials visit and work closely on an annual basis with local schools to prepare for natural disasters, especially tornadoes and hurricanes. Mass Notification Implementation- Gates County investigated and purchased Code RED as mass notification for emergencies. |
| *GAT4 | Continue to enforce existing building code and fire code, and investigate appropriate ways to advance these codes for greater future effectiveness with regard to natural hazards. | All Hazards | Medium | Gates County Planning and Zoning | General Fund | Enforcement is accomplished through the issuance of building permits and inspections through the County's permitting office. |
| *GAT5 | Annually review the Flood damage prevention ordinance and ensure regulations are in place to mitigate potential losses from events. | Hurricanes, Nor'easters, Floods. Severe Thunderstorms, Erosion | High | Gates County Planning and Zoning | General Fund | Review of Flood Damage Prevention Ordinance and other codes conducted annually. |
| *GAT6 | Annually review HMP strategies and actions as they effect the Land Use Plan and Gates County Zoning Ordinance | All Hazards | Medium | Gates County Planning and Zoning | General Fund | Continue to conduct annual review of HMP strategies as well as making the necessary changes to Land Use and Zoning codes as recommended in updated plans. |
| *GAT7 | Ensure floodplain mapping and management are considered in planning documents such as Land Use, Zoning Ordinance | All Hazards | Medium | Gates County Planning and Zoning | General Fund | Reference to flood maps and floodplain regulations are made in Zoning and Land Use codes are currently being enforced. |
| *GAT8 | Increase emergency management training opportunities for town personnel. | All Hazards | Medium | Gates County Emergency Management, Gatesville Administration | General Fund, Grant Funds | Town staff attends regular training activities sponsored through FEMA, NCEM and County Emergency Management. Gates County continues to add additional EMS and Local Law Enforcement and as a result frees other staff to attend training. |
| *GAT9 | Increase community awareness of wildlife-related issues and wildland fire safety by utilizing the Fire wise program and its resources (www.firewise.org). | Wildfire | High | NCDFR | Not required. | Continue to work closely with the Gates County Fireman's Association to educate residents on wildfire issues and safety. Fire Wise as a program has not been adopted due to the lack of defined "communities". Actions have been taken to adopt a portion of NFPA 1144 which addresses access and addressing to ensure firefighting operations can go on without delay. |

| Action # | Description/Strategy | Hazard(s) Addressed | Relative Priority | Lead Agency/Department | Potential Funding Source | Implementation Status |
|----------|--|--|-------------------|-----------------------------------|--|---|
| *GAT10 | Further educate the public through ongoing public meetings. | All Hazards | High | Gates County Emergency Management | Not required. | The County is continually seeking alternative forms of communication with the public, however turnout for hazard mitigation remains low. |
| *GAT11 | Increase EMS and law enforcement personnel resources. | All Hazards | High | Gates County Manager | General Fund | Incomplete. Reviewed annually at budget retreat with Board of Commissioners. |
| *GAT12 | Keep power/utility right-of-way clear by routinely pruning trees and clearing tree limbs. | Hurricanes and Tropical Storms, Severe Thunderstorms, Tornadoes, Winter Storms | Medium | NC Power and Roanoke Electric | Utility companies provide this service countywide. | Power/Utility right of way clearance is done on a routine basis with little input from this committee. The utility companies however ensure that vital infrastructure lists are maintained and the utilities serving them remain in proper order. |
| *GAT13 | Investigate the potential advantages and disadvantages, if any, of joining the NFIP's Community Rating System (CRS). | Flood | Medium | Gates County Emergency Management | Not required. | There is a halt on the project due to time constraints; however, the Planning Department has begun collecting data to be presented to key decision makers of the County. |

**Gates County will be responsible for all mitigation actions shown herein, for the Town of Gatesville, See Appendix B.*

Appendix E

Should

An officially adopted course or method of action intended to be followed to implement 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. Elected, appointed, and administrative officials may be involved at all levels from planning to implementation.

Create

Bring about the desired goal, usually with elected and appointed officials and staff involved and actions, which may involve financial support, as appropriate at all levels from planning to implementation.

Continue

Follow past and present procedures and funding, if appropriate, to maintain desired goal, usually with elected and appointed officials and staff involvement and actions at all levels from planning to implementation.

Encourage

Foster the desired goal through County policies and actions, including financial support, if appropriate.

Enhance

Improve current goal to a desired state through the use of policies and actions at all levels of planning using external resources and County financial support as appropriate.

Identify

Catalog and confirm issues, resource(s), and potential or desired actions.

Implement

Act to accomplish land use plan objectives.

Maintain

Keep in good condition the desired state of affairs through the use of County policies and with elected and appointed officials and staff involvement, funding, and actions as appropriate.

Prevent

Stop described event through the use of appropriate County policies and regulations, as well as coordination with other local, State, and Federal planning and regulatory agencies and programs. Actions may involve County financial support, if appropriate.

Promote

Advance the desired state through the use of County policies and elected and appointed officials and staff involvement, and take action as appropriate.

Protect

Guard against a deterioration of the desired state through the use of County policies, regulations, and funding, as appropriate, in concert with other local, State, and Federal programs and regulations. Enlist the cooperative efforts of elected and appointed officials, staff, and external resources including other local, State and Federal agency personnel.

Provide

Take the lead role in supplying the appropriate support to achieve the desired goal. The County is typically involved in all aspects from planning to implementation to maintenance. Actions may involve County financial support, if appropriate.

Strengthen

Improve and reinforce the desired goal through the use of County policies and regulations in concert with other local, regional, statewide, or Federal programs and regulations. Elected and appointed officials and staff, as well as external resources may be involved and take action, including financial support, if appropriate.

Support

Adopt and pursue policies and take action to coordinate activities and supply necessary resources, as appropriate, to achieve desired goal.

Sustain

Uphold the desired state through County policies and regulations, appropriate financial assistance, and elected and appointed official and staff involvement and actions to achieve the desired goal.

Work

Cooperate and act through the use of staff, County officials, outside resources and volunteers to create the desired goal.

Appendix F

The following policy recommendations are intended to guide decision-makers if and when Gates County opts to develop a Unified Development Ordinance:

- Develop a residential zoning district that supports housing clustering options while striving to minimize developmental impacts in environmentally sensitive areas.
- Investigate the creation of an Environmental Protection Overlay District that permits floating overlay zones and identifies specific areas in need of special protection including, but not limited to; flood hazard areas, watershed protection areas, federal and state freshwater wetlands.
- Create regulations that protect existing forested areas especially in areas buffering and maintaining the integrity of seasonal, intermittent and perennial waterways located throughout the County.
- Incorporate landscaping regulations into the ordinance to preserve existing native trees on undeveloped parcels and encourage the usage of drought-tolerant, wildfire-resistant, and native species for usage.
- Update the zoning district and permitted uses section of the zoning ordinance to identify appropriate districts and uses and restrict inappropriate districts and uses in environmentally sensitive areas.
- Explore the option of working with the State Historical Preservation Office to develop a viable Historical Preservation Ordinance and Historic Overlay District.
- Support retention of viable agricultural areas by encouraging traditional and non-traditional farm uses, including agri-tourism, organic farming, etc., by providing technical assistance in conjunction with Cooperative Extension, state and federal programs and conservation organizations.
- Promote internal connections between adjacent commercial land uses to encourage maximum circulation and parking plans.
- Review and update off-street parking requirements and standards.
- Require sight distance easements along driveways for commercial, major residential and industrial developments.
- Investigate the feasibility of developing landscape and buffering standards that will reduce noise, air pollution, and promote safe, aesthetically pleasing roadway design.

- Incorporate and utilize the federal roadway classification system into the zoning ordinance and use the roadway classification when allowing uses to locate in the county.
- Develop minimum roadway standards for subdivision and private roadways.
- Require major subdivisions to be designed with internalized access (reverse frontage).
- Establish minimum standards for individual private lots utilizing access easements for ingress/egress.
- Thoroughly review and revise the existing residential zoning districts standards and necessary service level requirements.
 - Update the standards for the single family zoning districts currently in existence to offer more consistency, greater flexibility in design, and use.
 - Develop multi family zoning districts by establishing minimum standards for development.
- Establish buffering requirements for new subdivisions and manufactured home parks locating adjacent to established working farms.
- Establish ingress/egress standards into the zoning, subdivision, and manufactured home ordinances that promote safe circulation patterns in major and minor subdivisions, manufactured home parks, and for land locked parcels.
- Incorporate the North Carolina Department of Transportation design standards for roadways into the subdivision and zoning ordinances.
 - Adopt easement standards which allow easy access to landlocked parcels by owners and emergency service professionals.
 - Establish minimum roadway standards for manufactured home parks that encourage safety and circulation.
- Collaborate with Environmental Health and other county agencies to improve the minimum major subdivision and manufactured home park standards to promote development of the county in a safe and efficient manner.

- Explore the develop regulations based on guidelines established by the Department of Environmental Quality Division of Water Resources for usage of special purpose lots and community well systems in major subdivisions.
- Establish standards that will prevent the encroachment of incompatible land uses and require buffering between residential uses and commercial developments.
- Further identify and adopt developmental standards for land uses allowed in residential zoning districts including group home projects.
- Require the review of home owner association document prior to the registration of documents in the Register of Deeds office.
- Encourage the location of more amenities in manufactured home parks such as recreational areas and laundry facilities.
- Develop measures designed to minimize the adverse impacts of solar farms, commercial, and industrial development on residential and other less intense land uses.
- Develop a minimum standard for the number of ingress and egress points for major residential subdivisions.
- Improve the minimum design standards for mobile home parks.
- Establish and enforce minimum lot size standards for zoned areas.
- Set criteria for the location, size, and types of accessory structures allowed in zoned areas of the county based on use.
- Update all existing ordinance - the zoning ordinance, subdivision, ordinance, manufactured home ordinance, etc - to reflect changes in state statutes and to support items identified in this document.
- Establish a schedule that requires the updating of the comprehensive land use plan and all area plans on a regular schedule.
- Update the current zoning districts to be more consistent with the county goals.
- Promote the buffering and screening of commercial development from adjoining residential uses.

- Develop clustering provisions to promote the preservation of lands with natural resource values by encouraging conservation clustering to preserve the most environmentally sensitive lands as open space.
- Consider revision to the County ordinances to include specific guidance relative to the following:
 - Developable area calculations should not include natural hazard areas or areas of environmental concern wherein development should not occur.
 - A variety of residential zoning districts should be considered with varying density and intensity standards and development requirements.
 - Cluster development should be promoted in various residential zoning districts.
 - Various land uses such as commercial and industrial uses should be buffered when proposed in or near residential areas or adjacent thereto.
 - Certain zones will be considered for allowing the use of package sewage treatment plants as a special or conditional use when deemed to be in the best interests of the citizens of Gates County.
- Require the following to be delineated on all preliminary subdivision plats for lands within and adjacent to the proposed subdivision: AECs, prime farmlands, 404 wetlands, natural heritage natural areas, hazard areas within Gates County identified in the Albemarle Sound Regional Hazard Mitigation Plan, and protected areas.
- Require that all necessary infrastructure firefighting capability/capacity be provided in new subdivisions and non-residential developments.
- Consider regulating uses and activities in and on public waters through adoption of zoning overlay districts to address the impacts of development and redevelopment and uses on natural features to avoid introduction of hazards to these sensitive environmental resources.
- Require, where reasonably possible, the utilization of frontage roads in non-residential developments along federal and state major highways.
- Establish a requirement for reverse frontage lots within subdivisions to orient lots towards internal subdivision streets, not secondary roads and highways.
- Require the construction of acceleration/deceleration lanes for the entrances to major commercial and residential developments.

Appendix G

Preparation of a Farmland Protection Plan needs to address the statutory requirements provided in subsection (e) and (f) below.

Part 4. Agricultural Conservation Easements.

§ 106-744. Purchase of agricultural conservation easements; establishment of North Carolina Agricultural Development and Farmland Preservation Trust Fund and Advisory Committee.

(a) A county may, with the voluntary consent of landowners, acquire by purchase agricultural conservation easements over qualifying farmland as defined by G.S. 106-737.

(b) For purposes of this section, "agricultural conservation easement" means a negative easement in gross restricting residential, commercial, and industrial development of land for the purpose of maintaining its agricultural production capability. Such easement:

- (1) May permit the creation of not more than three lots that meet applicable county zoning and subdivision regulations;
- (1a) May permit agricultural uses as necessary to promote agricultural development associated with the family farm; and
- (2) Shall be perpetual in duration, provided that, at least 20 years after the purchase of an easement, a county may agree to reconvey the easement to the owner of the land for consideration, if the landowner can demonstrate to the satisfaction of the county that commercial agriculture is no longer practicable on the land in question.

(c) There is established a "North Carolina Agricultural Development and Farmland Preservation Trust Fund" to be administered by the Commissioner of Agriculture. The Trust Fund shall consist of all monies received for the purpose of purchasing agricultural conservation easements or funding programs that promote the development and sustainability of farming and assist in the transition of existing farms to new farm families, or monies transferred from counties or private sources. The Trust Fund shall be invested as provided in G.S. 147-69.2 and G.S. 147-69.3. The Commissioner shall use Trust Fund monies for any of the following purposes:

- (1) For the purchase of agricultural conservation easements, including transaction costs.
- (2) For the costs of public and private enterprise programs that will promote profitable and sustainable family farms through assistance to farmers in developing and implementing plans for the production of food, fiber, and value-added products, agritourism activities, marketing and sales of agricultural products produced on the farm, and other agriculturally related business activities.
- (3) To fund conservation agreements to bring into or maintain farmland in active production of food, fiber, and other agricultural products.
- (4) For the costs of administering the program under this Article, including the cost of staff and staff support.

(c1) The Commissioner shall distribute Trust Fund monies for only the purposes under subsection (c) of this section, including transaction costs, as follows:

- (1) To a private nonprofit conservation organization that matches thirty percent (30%) of the Trust Fund monies it receives with funds from sources other than the Trust Fund.
- (2) To counties according to the match requirements under subsection (c2) of this section.
- (3) To the Department of Agriculture and Consumer Services for the purchase of agricultural conservation easements or agreements to be held by the Department.

(c2) A county that is a development tier two or three county, as these tiers are defined in G.S. 143B-437.08, and that has prepared a countywide farmland protection plan shall match fifteen percent (15%) of the Trust Fund monies it receives with county funds. A county that has not prepared a countywide farmland protection plan shall match thirty percent (30%) of the Trust Fund monies it receives with county funds. A county that is a development tier one county, as defined in G.S. 143B-437.08, and that has prepared a countywide farmland protection plan shall not be required to match any of the Trust Fund monies it receives with county funds.

(c3) The Commissioner of Agriculture shall adopt rules governing the use, distribution, investment, and management of Trust Fund monies.

(d) This section shall apply to agricultural conservation easements falling within its terms. This section shall not be construed to make unenforceable any restriction, easement, covenant, or condition that does not comply with the requirements of this section.

This section shall not be construed to invalidate any farmland preservation program.

This section shall not be construed to diminish the powers of any public entity, agency, or instrumentality to acquire by purchase, gift, devise, inheritance, eminent domain, or otherwise and to use property of any kind for public purposes.

This section shall not be construed to authorize any public entity, agency, or instrumentality to acquire by eminent domain an agricultural conservation easement.

(e) As used in subsection (c2) of this section, a countywide farmland protection plan means a plan that satisfies all of the following requirements:

- (1) The countywide farmland protection plan shall contain a list and description of existing agricultural activity in the county.
- (2) The countywide farmland protection plan shall contain a list of existing challenges to continued family farming in the county.
- (3) The countywide farmland protection plan shall contain a list of opportunities for maintaining or enhancing small, family-owned farms and the local agricultural economy.
- (4) The countywide farmland protection plan shall describe how the county plans to maintain a viable agricultural community and shall address farmland preservation tools, such as agricultural economic development, including farm diversification and marketing assistance; other kinds of agricultural technical assistance, such as farm infrastructure financing, farmland purchasing, linking with younger farmers, and estate planning; the desirability and feasibility of donating agricultural conservation easements, and entering into voluntary agricultural districts.
- (5) The countywide farmland protection plan shall contain a schedule for implementing the plan and an identification of possible funding sources for the long-term support of the plan.

(f) A countywide farmland protection plan that meets the requirements of subsection (e) of this section may be formulated with the assistance of an agricultural advisory board designated pursuant to G.S. 106-739.

(g) There is established the Agricultural Development and Farmland Preservation Trust Fund Advisory Committee. The Advisory Committee shall be administratively located within the Department of Agriculture and Consumer Services and shall advise the Commissioner on the prioritization and allocation of funds, the development of criteria for awarding funds, program planning, and other areas where monies from the Trust Fund can be used to promote the growth and development of family farms in North Carolina. The Advisory Committee shall be composed of 19 members as follows:

- (1) The Commissioner of Agriculture or the Commissioner's designee, who shall serve as the Chair of the Advisory Committee.
- (2) The Secretary of Commerce or the Secretary's designee.
- (3) The Secretary of Environmental Quality or the Secretary's designee.
- (4) Three practicing farmers, one appointed by the Governor, one appointed by the President Pro Tempore of the Senate, and one appointed by the Speaker of the House of Representatives.
- (5) The Dean of the College of Agriculture and Life Sciences at North Carolina State University or the Dean's designee.
- (6) The Dean of the School of Agriculture and Environmental Sciences at North Carolina Agricultural and Technical State University or the Dean's designee.
- (7) The chair of the Rural Infrastructure Authority within the Department of Commerce or the chair's designee.
- (8) The Executive Director of the Conservation Trust for North Carolina or the Executive Director's designee.
- (9) The Executive Director of the North Carolina Farm Transition Network or the Executive Director's designee.
- (10) The President of the North Carolina Association of Soil and Water Conservation Districts or the President's designee.
- (11) The Executive Director of the Rural Advancement Foundation International – USA or the Executive Director's designee.
- (12) The Executive Director of the North Carolina Agribusiness Council or the Executive Director's designee.
- (13) The President of the North Carolina State Grange or the President's designee.
- (14) The President of the North Carolina Farm Bureau Federation, Inc., or the President's designee.
- (15) The President of the North Carolina Black Farmers and Agriculturalists Association or the President's designee.
- (16) The President of the North Carolina Forestry Association or the President's designee.
- (17) The Executive Director of the North Carolina Association of County Commissioners or the Executive Director's designee.

(h) The Advisory Committee shall meet at least quarterly. The Department of Agriculture and Consumer Services shall provide the Advisory Committee with administrative and secretarial staff. Members of the Advisory Committee shall be entitled to per diem pursuant to G.S. 138-5 or G.S. 138-6, as appropriate. The Advisory Committee shall make recommendations to the Commissioner on the distribution of monies from the Trust Fund at least annually. The Commissioner shall take the recommendations of the Advisory Committee into consideration in making decisions on the distribution of monies from the Trust Fund.

(i) The Advisory Committee shall report no later than October 1 of each year to the Joint Legislative Commission on Governmental Operations, the Environmental Review Commission, and the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources regarding the activities of the Advisory Committee, the agriculture easements purchased, and agricultural projects funded during the previous year. (1991, c. 734, s. 1; 2000-171, ss. 1, 2; 2005-390, ss. 4, 17; 2006-252, s. 2.12; 2007-495, s. 23; 2009-303, ss. 1, 2, 3; 2009-484, s. 12; 2013-360, s. 15.26(a); 2015-241, s. 14.30(v); 2015-263, s. 13(b).)