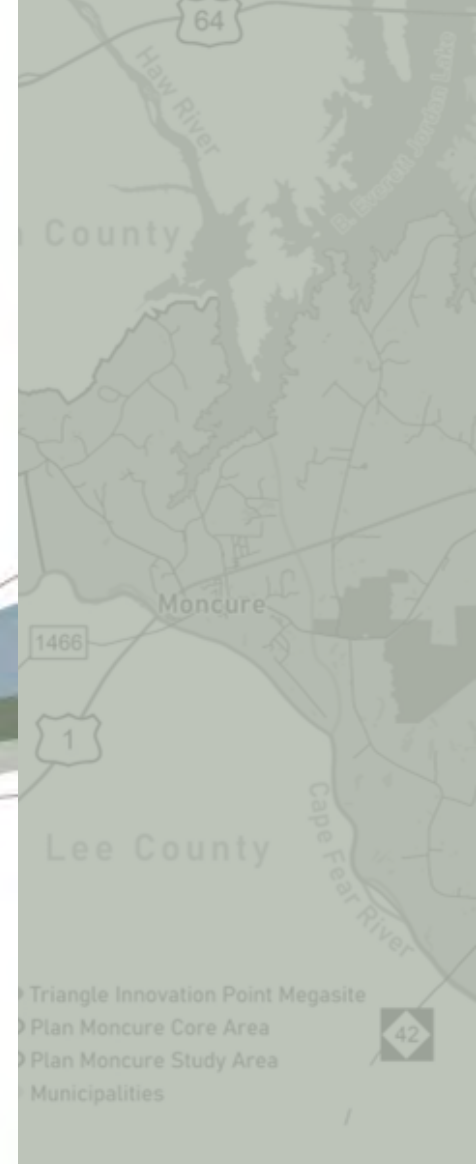


EXISTING CONDITIONS SUMMARY

03.21.2023



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Introduction

The characteristics that define the Moncure area as well as the emerging trends will present both issues and opportunities over the next few decades. An understanding of them will help the community define its vision for the future, determine the appropriate steps forward, and manage change effectively.

A summary of the existing conditions in 2023, this report highlights the major features of the area, including its people, special places, economic conditions, and the natural and built environment. It also notes specific challenges the community is facing in connection with anticipated growth over the next few decades, including the following:

- Retaining the community's identity and sense of place
- Mitigating impacts of industrial development on the environmental and cultural assets
- Addressing traffic congestion and safety on US-1 and connecting roads
- Managing infrastructure as demands for new facilities and services increase with new development
- Maintaining affordability as real estate values (and housing prices) climb
- Ensuring the longevity of local businesses
- Keeping and creating jobs, ensuring employment opportunities and higher wages for residents
- Facilitating connectivity in terms of mobility as well as social, economic, and environmental networks

The sections of the report that follow will help stakeholders, planners, and decision makers explore these issues in more detail and lay a foundation of understanding for the community planning effort.

Study Area

General Area of Study

The study area, depicted in the Study Area Map, is the subject of the Plan Moncure planning effort. It is the unincorporated area in the southeastern portion of Chatham County. It encompasses the historic community of Moncure, hence the name. The area to be studied, however, extends well outside of the geography most county residents associate with Moncure, as County leaders are anticipating the need to address the issues and opportunities of potential growth in this broader area of the county over the next decade or more.

For purposes of Plan Moncure, the study area is defined as the area within which future land use will be depicted in the final plan. It is restricted to Chatham County's planning and zoning jurisdiction and includes related places that are not addressed by other adopted land use plans. As shown in the Study Area Map, it is delineated as follows:

- the County limits form the south and east sides;
- the US-501 corridor defines the western edge; and
- the Town of Pittsboro's extraterritorial jurisdiction (ETJ), Jordan Lake, and the study area of the Chatham Cary Joint Land Use Plan, in combination, demarcate the northern boundary.

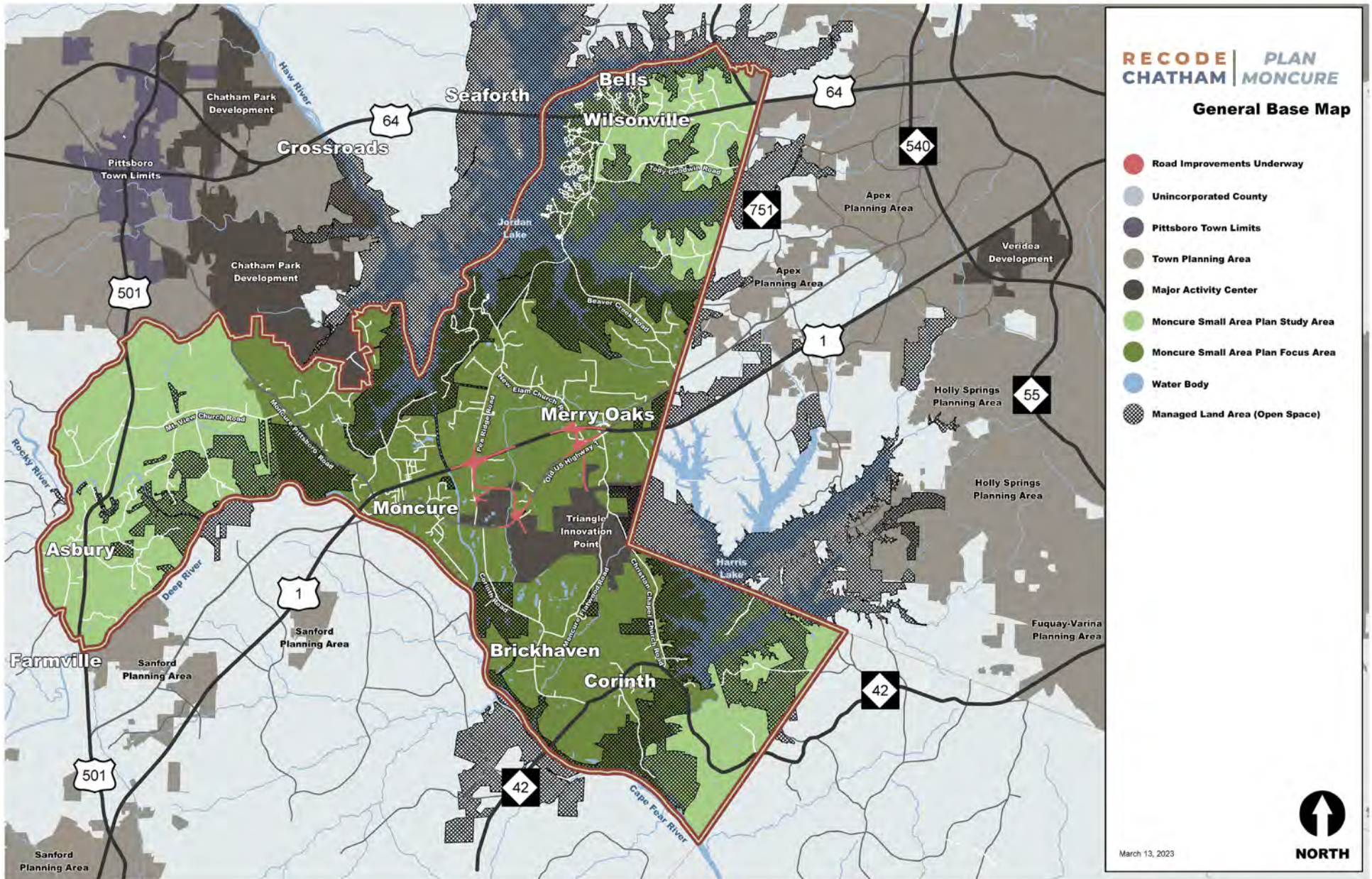
Focus Area

The Focus Area, represented in a brighter shade of green on the map, is the area that is anticipated to be most affected by the changes resulting from public and private investments, including the investment being made by the VinFast electric vehicle manufacturing company and modifications to the road network being made by the North Carolina Department of Transportation (NCDOT). In the area delineated, the County is seeking to understand relationships between existing and potential future development as well as between the built environment and the natural resources.

“Low light pollution, star gazing, migratory birds, rural character, small town feel, Moncure School, lake access with boat launch, rivers, and trails.”

---Residents of Moncure Area
(a list of some of the reasons people come –and stay– in the area)

Study Area Map



Population & Employment

Population

Population in Chatham County, the study area, and Moncure is projected to grow faster than in the Triangle overall.

EXISTING POPULATION

While there are 4,000 residents in the broader study area, there are fewer than 800 people residing in the Moncure area.

DEMOGRAPHICS

Compared to the study area as a whole, the immediate Moncure area has

- a larger percentage of Black (16%) and Hispanic (15%) residents
- moderate incomes with a low poverty rate (3.5%)
- lower education attainment

POPULATION PROJECTIONS

The population of the study area is projected to grow between 2023 and 2040 by approximately 35% (or a rate of 1.75% per year). **This is much higher than the projected growth for the Triangle region, which is approximately 24%.**

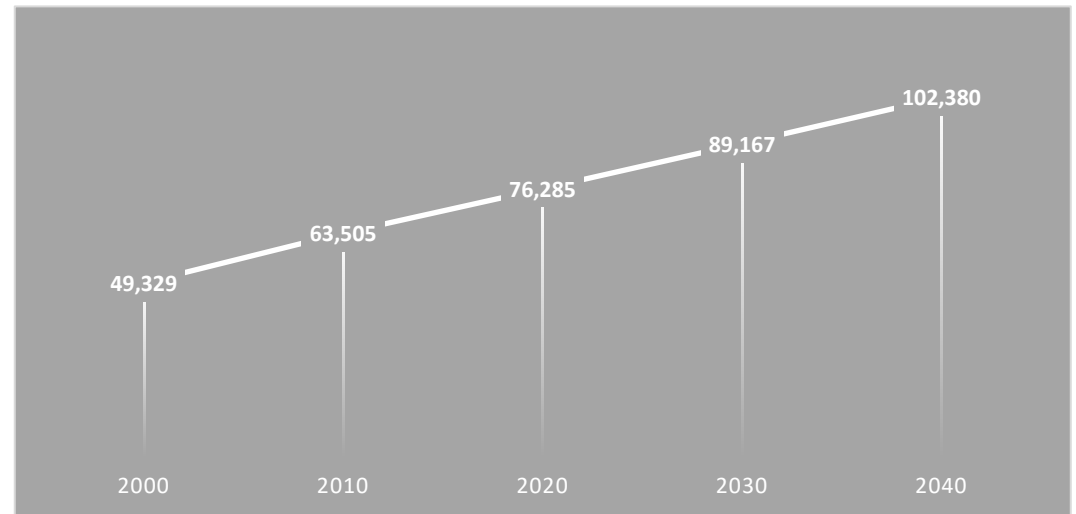


Figure 1. Chatham County Population Historical and Projected, 2000-2040 (Source: NC Office of State Budget & Management)

Table 1. Population Growth Projections, 2023-2040

	Total Percentage Increase	Annual Percentage Increase
Triangle Region	24%	1.26%
Chatham County	34%	1.76%
Southeast Chatham	32%	1.66%
Moncure Area	39%	1.97%

Employment

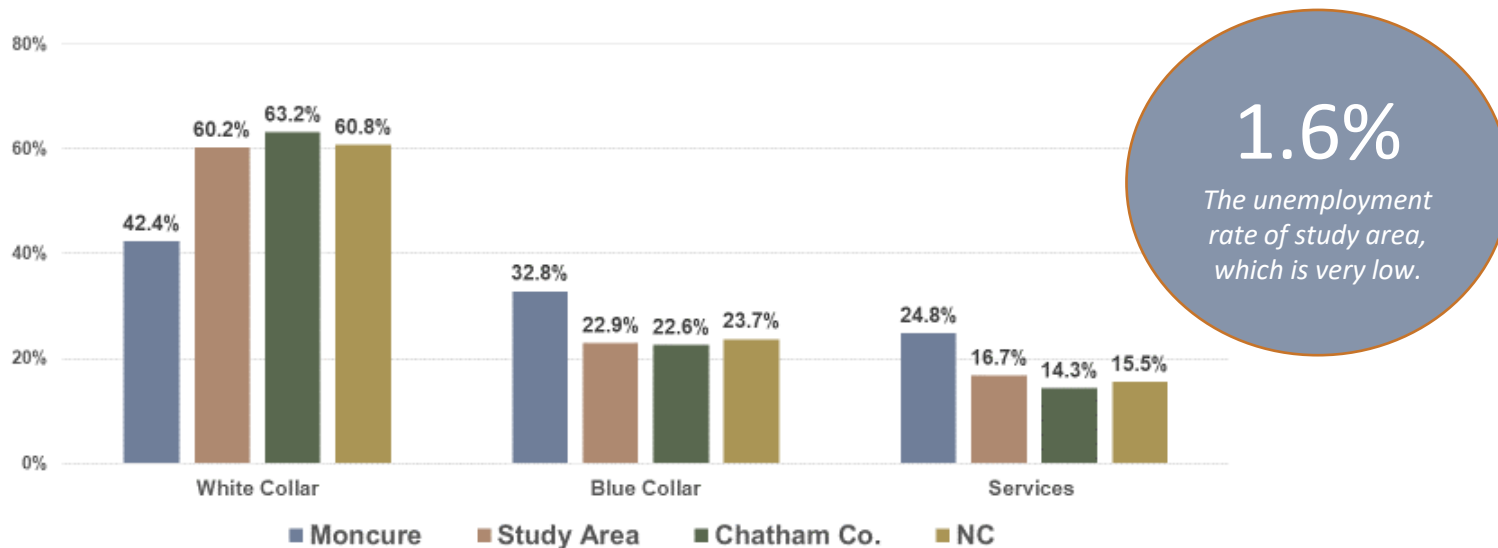
Moncure is a small, unincorporated community along US-1 with an industrial presence nearby. Moncure and the study area have small labor forces with very low unemployment rates.

MAJOR INDUSTRIES IN STUDY AREA

The Moncure area is home to several industrial operations, including the major employers listed to the right. The first two in the list employ more than 100 persons each.

JOB GROWTH

Chatham County is projected to grow jobs by 16% between 2023 and 2040, which is faster than the Triangle or Triad regions. The study area and Moncure are projected to have much slower job growth, but those estimates do not account for major announcements made recently, such as VinFast and FedEx.



Source: ESRI Business Analyst, accessed Dec 2022 – Feb 2023

Figure 2. Employed Population by Occupation Group*, 2022

*Groups are defined as White Collar (doctors, scientists, engineers, lawyers, accountants, educators, managers, salespeople); Blue Collar (construction, manufacturing, transportation, warehouse, and farming jobs); and Services (food and hospitality, personal care, police & fire, and healthcare support jobs).

Top Employers:

- 1 Arauco
- 2 Southern Veneer Specialty Products
- 3 Triangle Brick
- 4 General Shale Brick
- 5 3M

...and FedEx distribution center coming soon.

Large manufacturing employers nearby include Caterpillar, Pfizer, and Bharat Forge.

Historic & Cultural Resources

There are several important historic communities and resources in the Plan Moncure study area. These include structures, districts, communities, and other special places. Some are officially listed on the National Register of Historic Places, while others have been identified in other ways as important to the culture and community in and around Moncure.

Historic Communities

MONCURE

The Moncure community itself is one of several unincorporated areas within the Study Area of cultural significance. Founded in 1881, Moncure once served as the most landward inland port in the state, linked to the Atlantic by steamship.

By census district, Moncure includes lands north and south of U.S. Highway 1 and is bound on the west and east by the Deep and Haw Rivers.

The Spratt Youth Center and a U.S. Post Office are among important locations at its historic center.

Moncure continues to have a vibrant artistic community as well.





HAYWOOD

Haywood is another community of historic significance, located within Moncure, southeast of Moncure's center and west of the Haw River. Haywood was one of the locations considered for the state capital, in 1788, , as well as for the new University of North Carolina in 1792.

Haywood remains a distinct community in this part of Chatham County. Several historic churches remain active in Haywood, providing an ongoing community focal point.

Haywood's location close to the confluence of the Haw and Deep Rivers gave it an important role in state history in the 18th and 19th centuries.

MERRY OAKS

The rural community of Merry Oaks was formerly a railroad town within the Cape Fear Township. The Merry Oaks area parallels the former Seaboard Airline Railroad tracks and Old U.S. Highway 1.

The community still has a number of surveyed and eligible historic properties including Merry Oaks Baptist Church, Merry Oaks Post Office, the Edwards House, and Yates Store.

Note: In addition, other unincorporated communities within the study area include Brickhaven, Corinth, and Griffins Crossroads.

Recent Surveys

VinFast Site

Recent surveys show no known remaining historic or cultural resources on the VinFast site itself (TIP East).

NCDOT Historical Architectural Resources Survey (09/2022)

The North Carolina Department of Transportation conducted a historic architectural resources survey of the properties that could be impacted by the department’s planned improvements, referred to as the Triangle Innovation Point Roadway Network Improvements project. The resulting report was published in September 2022 and identified sixteen (16) resources warranting intensive National Register eligibility evaluation. Others surveyed did not warrant further consideration, the report concluded.

Of the 16 resources identified for further evaluation, the following were recommended as eligible for NHRP Listing:

- Edwards House
- Yates Store
- Jack Womble’s Filling Station

NCDOT must avoid “adverse effects” on these properties as it completes its improvements.



Figure 3. Survey Results Map, Historical Architectural Resources Survey

Historic Resources Maps

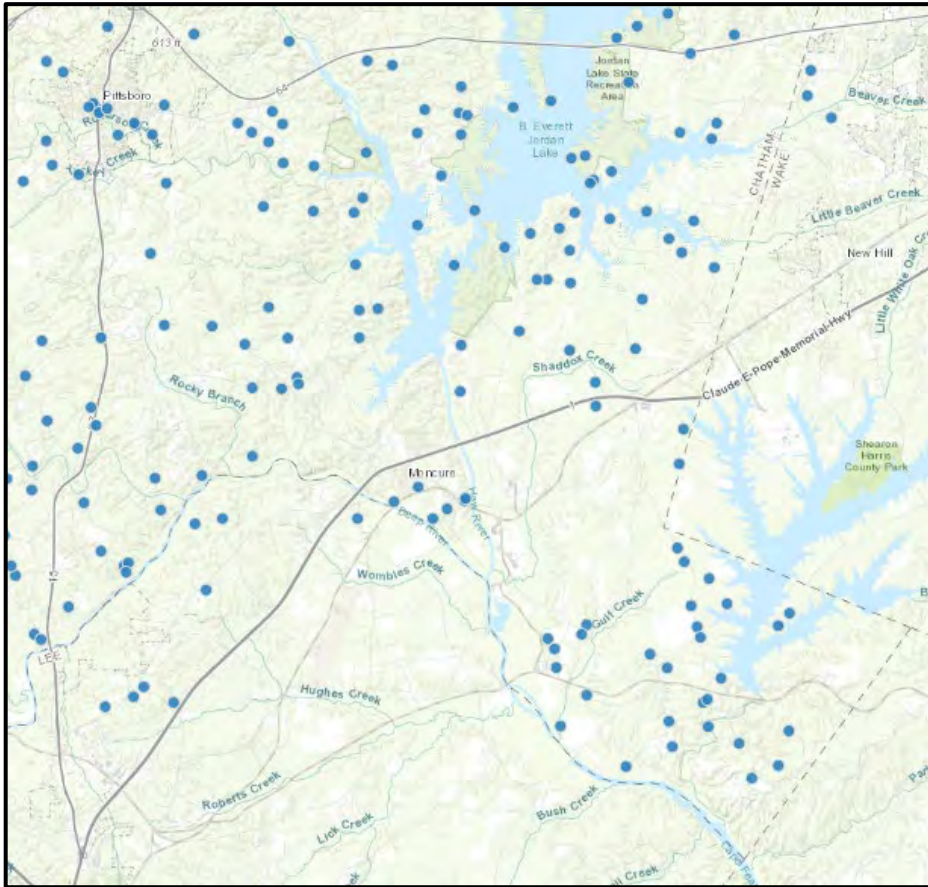


Figure 4. Cemeteries: Chatham County (public, family, private, Dec. 2020)

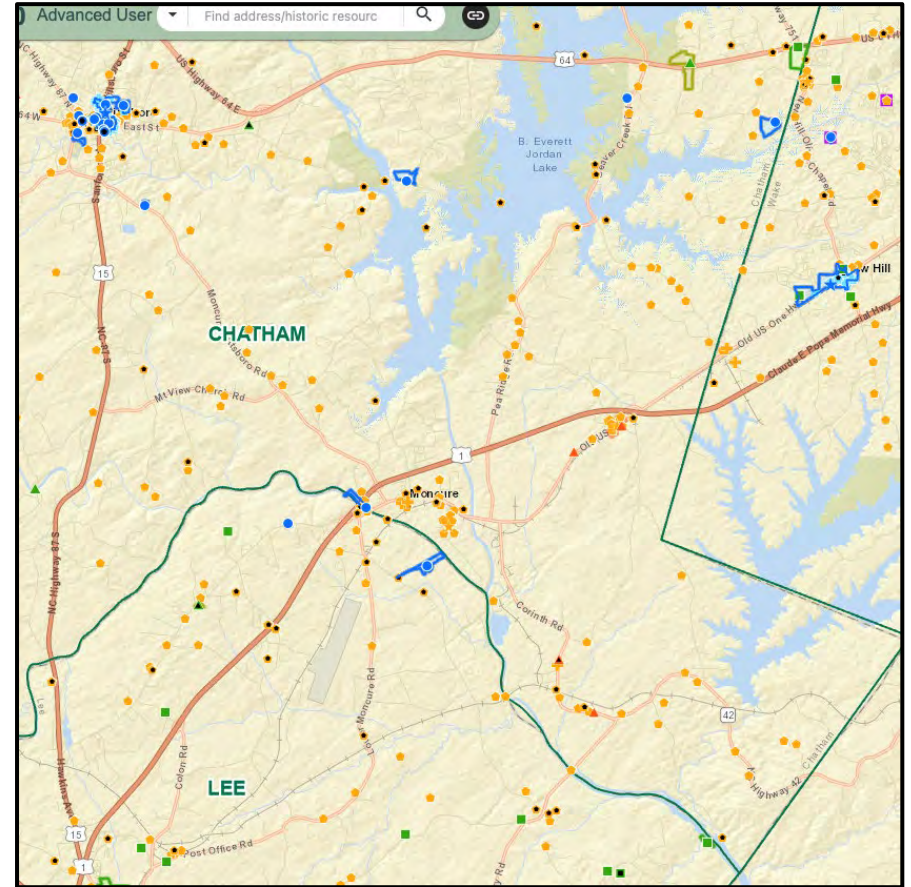


Figure 5. Historic Resources: State Historic Preservation Office

NCDOT Historic Architectural Resources Survey



EDWARDS HOUSE



YATES STORE



NCDOT *Historic Architectural Resources Survey*



JACK WOMBLE'S FILLING STATION on Old US-1

Environment / Natural Resources

The study area is home to numerous environmental resources including important surface water bodies, flora, and fauna. The County is also home to a number of threatened or endangered species and designated Natural Heritage Areas, most of which are located on private lands.

Water Basin & Watersheds Areas

The entire County is located within the Cape Fear River Water Basin. However, the County is divided into a number of different watershed areas for purpose of implementing state and local watershed policies.



WATERSHED PROTECTION

As shown in the map on the following panel, the Study Area includes lands in several different major watersheds.

Chatham County has a Watershed Protection Ordinance that applies countywide, including the entirety of the Study Area.

This ordinance limits impervious surface area on developed property and requires riparian buffers in the watersheds in County's jurisdiction.

In addition, the County's Watershed Protection program and Ordinance delineates several distinct watershed areas, each with different applicable standards.

As is shown on the panel below, the following watershed areas are found within the Study Area as they stand today:

- Critical Area
- Local Watersheds
- RCSA
- River Corridors
- Watershed-IV PA
- Jordan Lake Watershed Areas

SURFACE WATERS

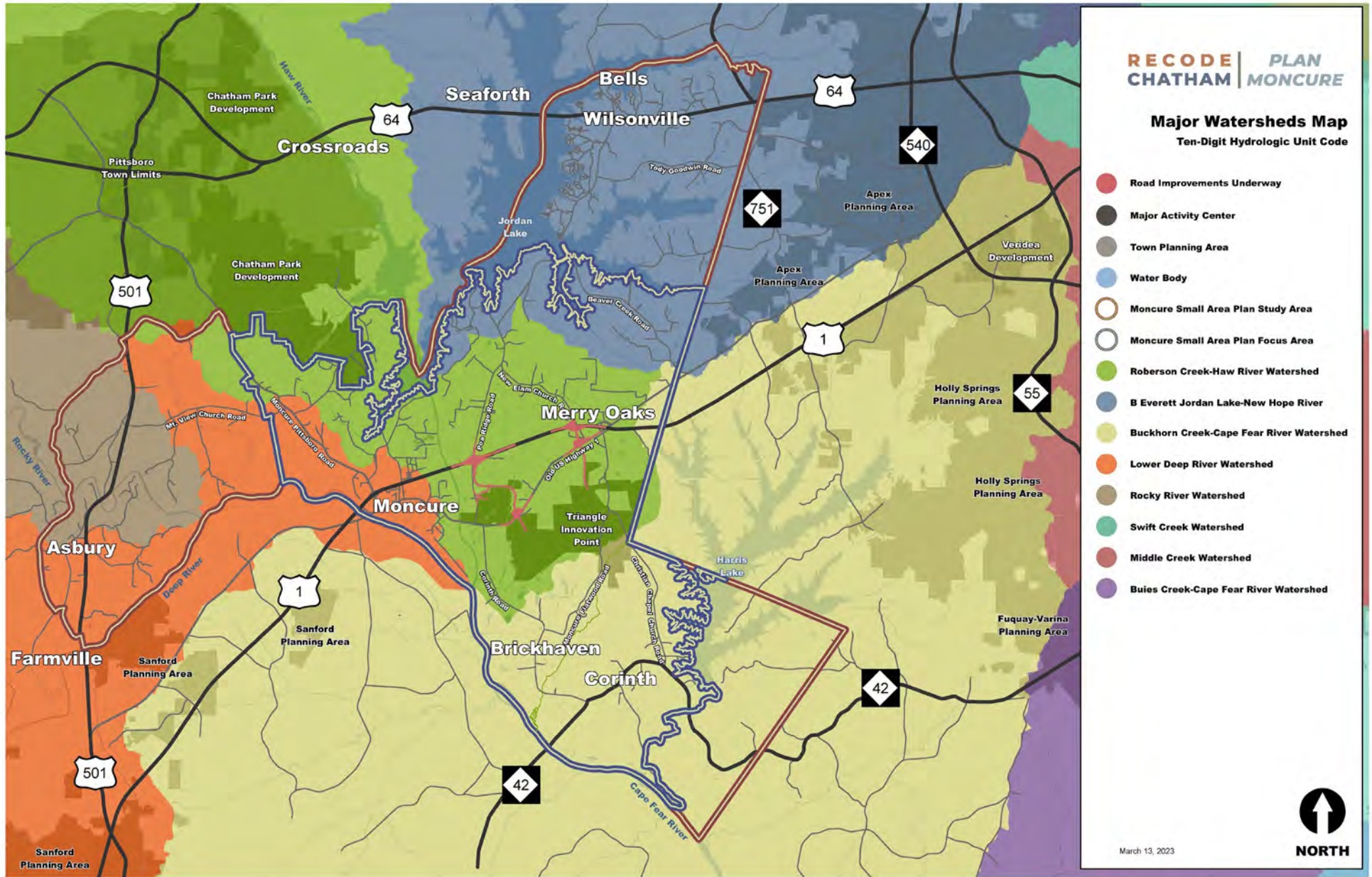
In addition, as the map on the panel below, following the County Watershed Protection Areas, illustrates, the surface water classifications present in the Study Area. These include lakes, streams, rivers, water supply areas, and water supply sources.

In addition, the map illustrates known road improvements underway and major activity centers.

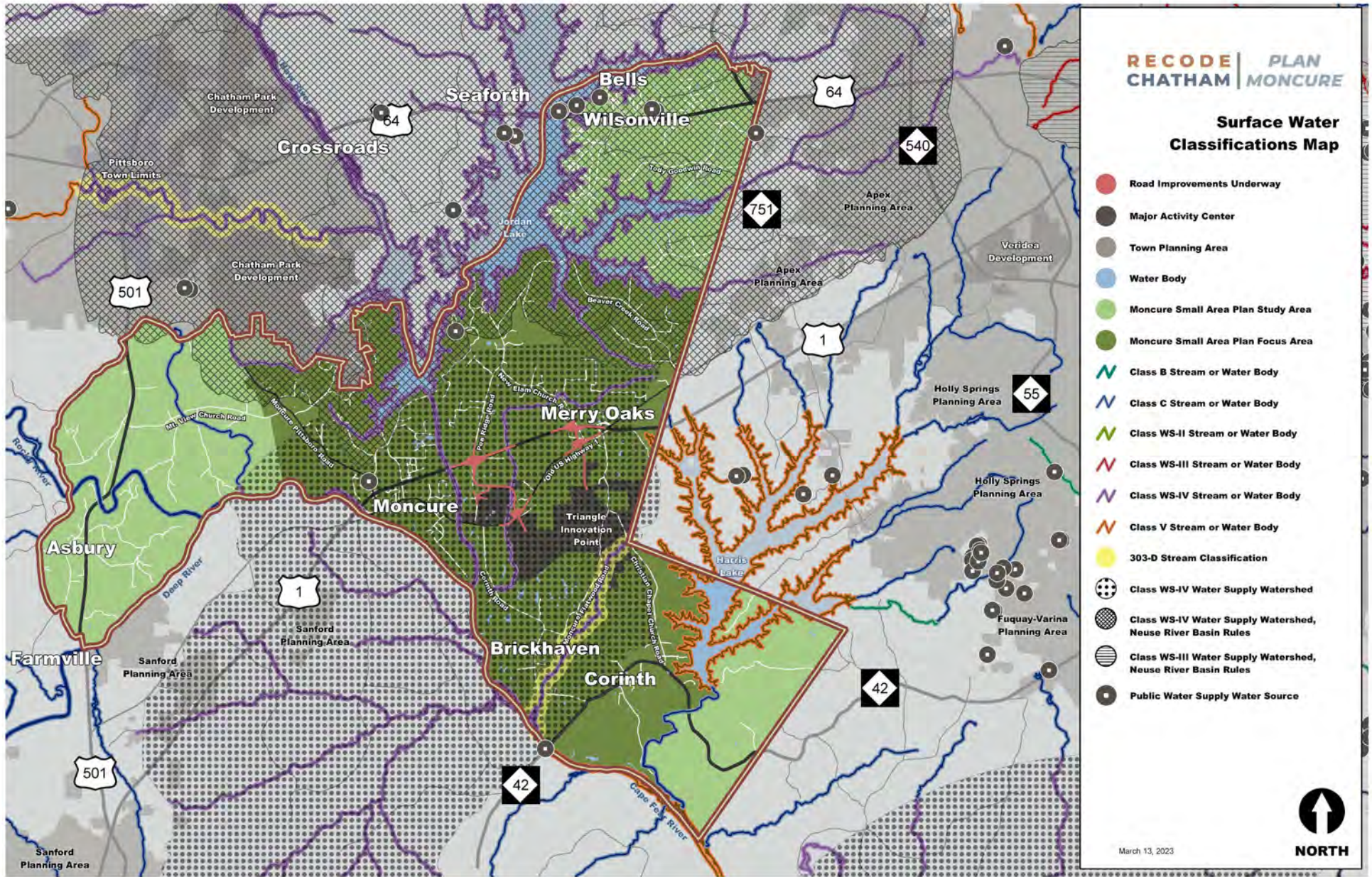
The major watercourses in the Study Area include:

- Haw River
- Deep River
- Cape Fear River
- Shaddox Creek
- Weaver Creek

Major Watersheds Map



Surface Water Classifications Map



Natural Heritage Program

The Program identifies more than 2,400 areas in North Carolina as sites containing special biodiversity significance, due to the presence of rare species, unique natural communities, important animal assemblages, or other ecological features.

Significant lands within the study area have been designated as Natural Heritage Program Areas and part of the NC Department of Natural Resources.

The Plan Moncure study area contains a range of categories of Natural Areas, from Exceptional to General, including the following examples:

- Exceptional (e.g., Lower Deep River Slopes)
- Very High (e.g., Haw River Levees and Bluffs)
- High (e.g., Haw River Dicenetra Slopes)
- General (e.g., Cape Fear River/McKay Island Floodplain)

The Study Area also contains a number of Managed Areas, including the following examples:

- Deep River State Trail (State owned)
- Jordan Dam and Lake (Federal owned)
- Harris Game Land (State owned)
- N.C. Division of Mitigation Services Easement (State owned)
- Chatham Game Land (Private owned)

Managed Areas designated as game lands are depicted on the Managed & Protected Lands Map.



Figure 6. NC Natural Heritage Program (Natural Areas)

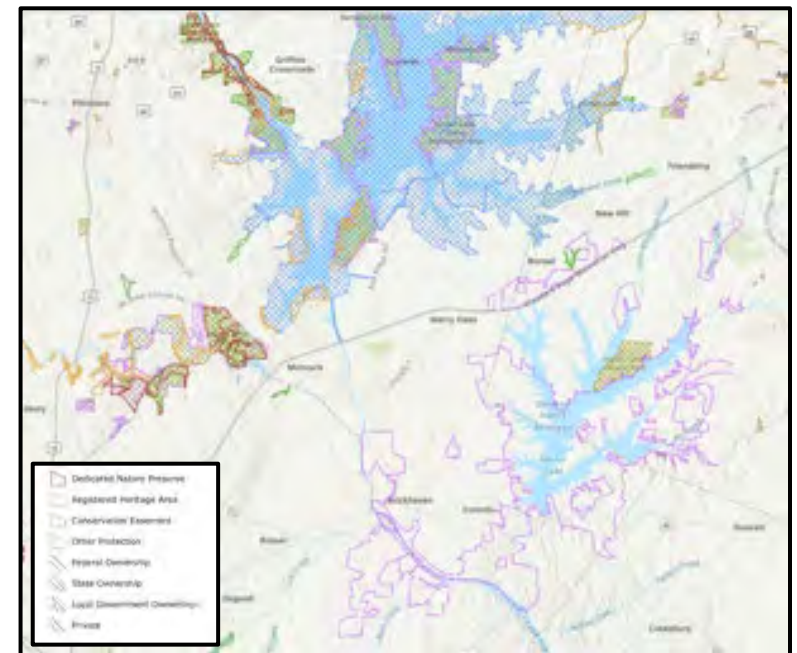
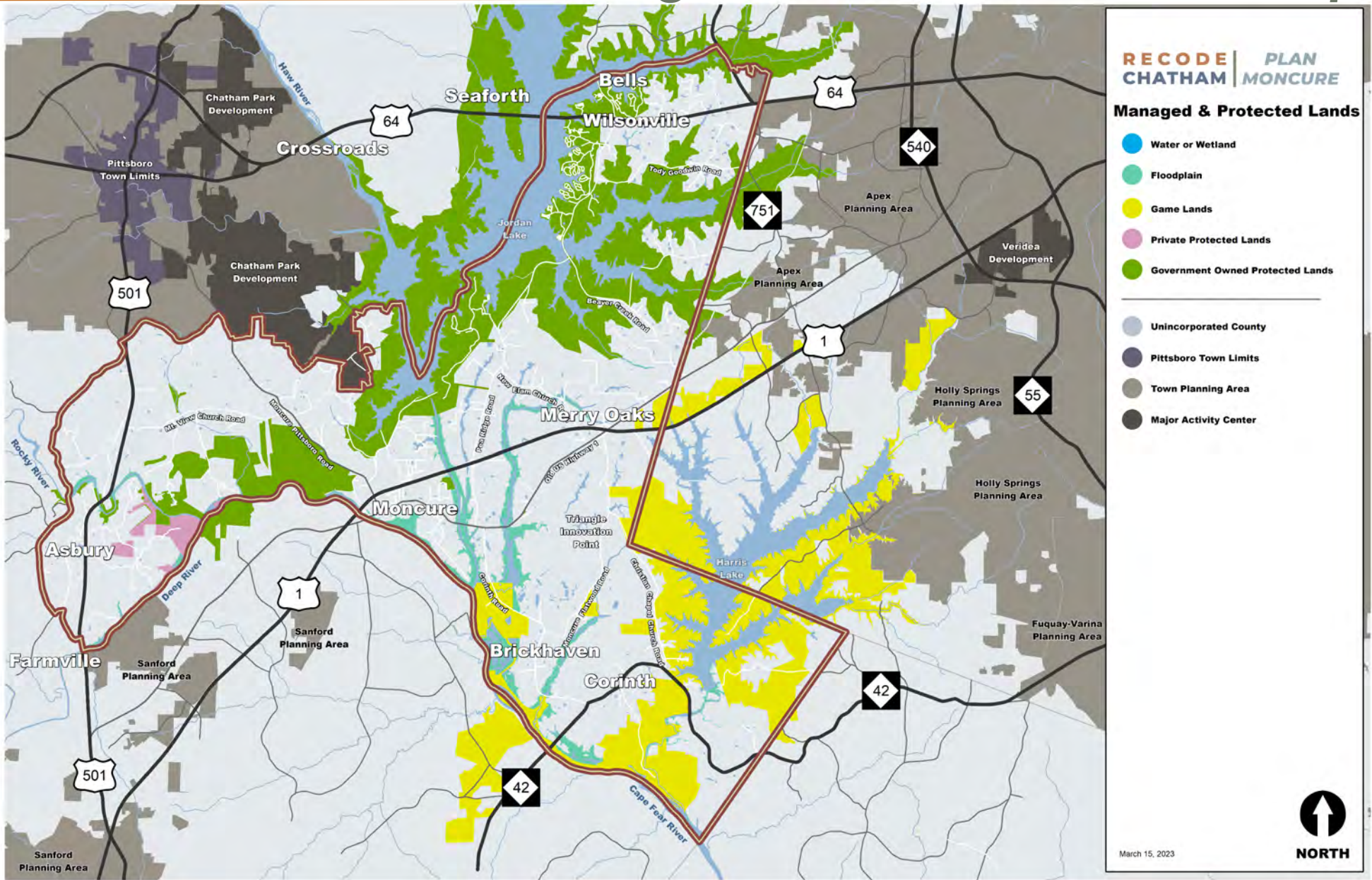


Figure 7. NC Natural Heritage Program (Managed Areas)

Managed & Protected Lands Map



Land Use

Development Pattern

Moncure is presently a “rural crossroads” community along US-1. It is an unincorporated area of Chatham County.

Based on Chatham County tax parcel data, the majority of land in the study area is currently being utilized for agriculture, which includes timber operations and management. Agricultural uses account for approximately 51% of the land area. Protected open space is the next largest land use at 23%, and another 3% is comprised of surface water and rights-of-way. Most of the “conservation” acres are part of the Jordan Lake State Recreation Area as well as large tracts of land in conservation easements held by land trusts. Residential development occupies roughly 13% of the study area. Commercial and industrial areas, account for less than 10% of the land area. Only 3% of the study area is considered “vacant.”

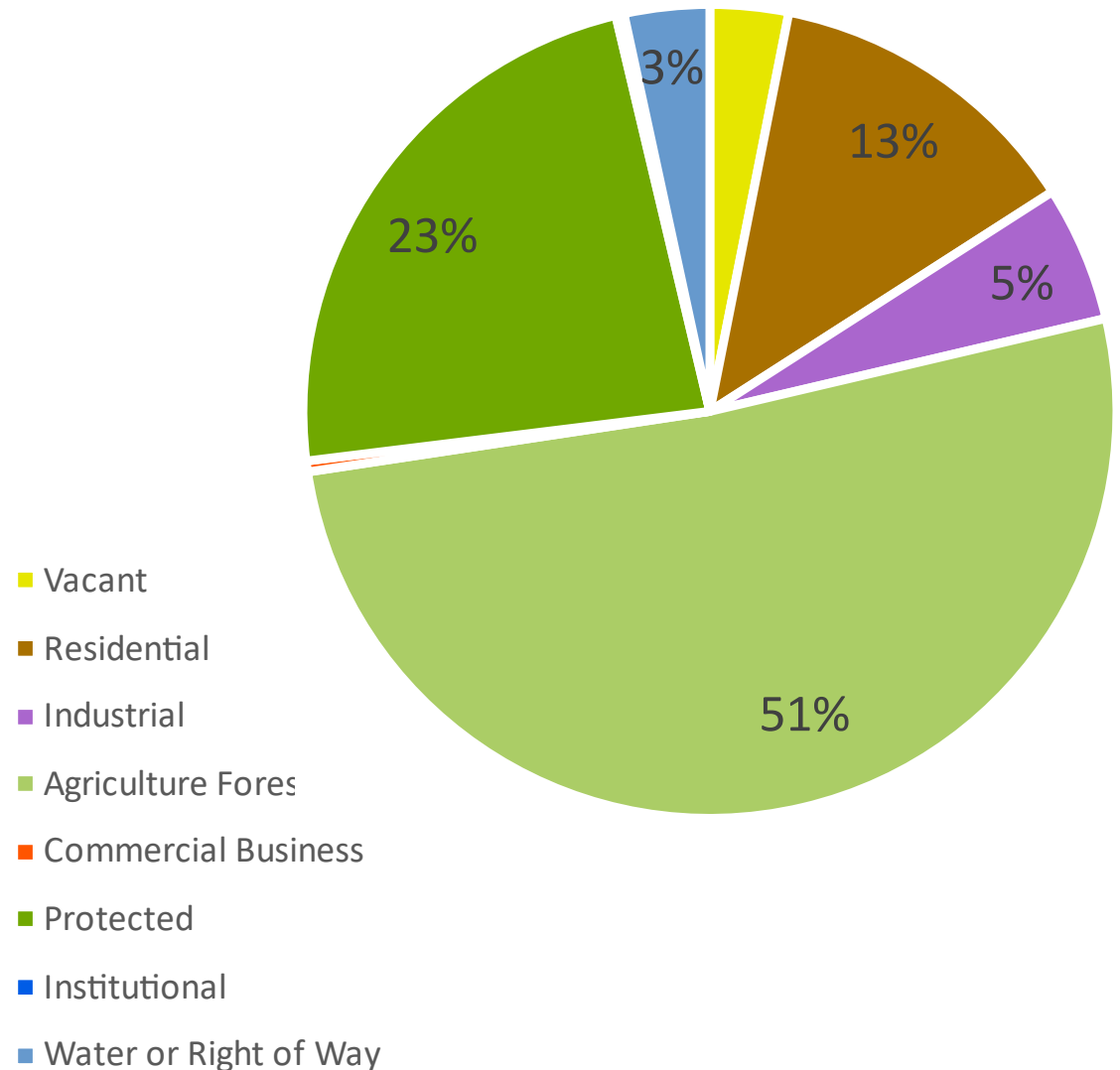
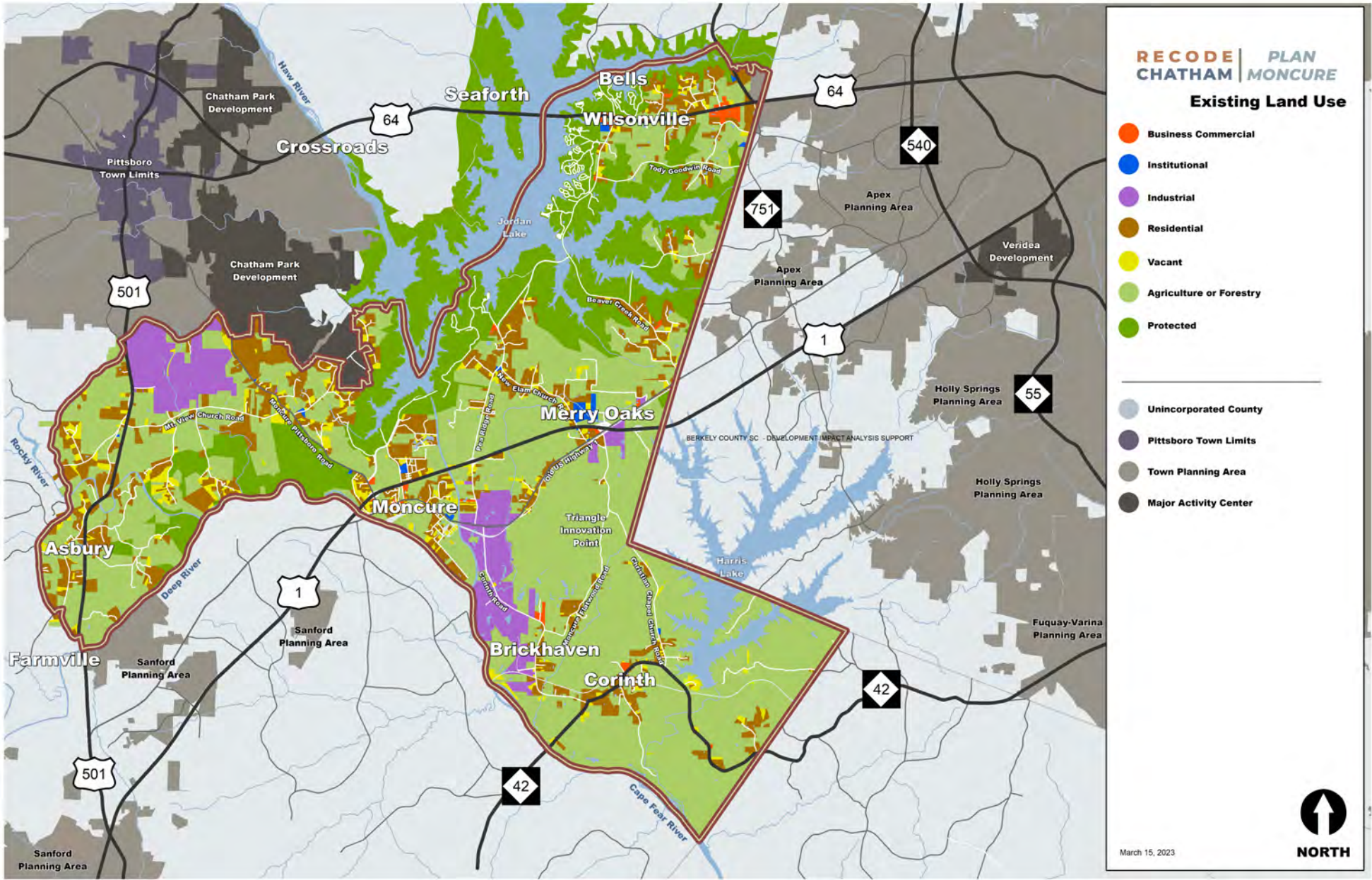


Figure 8. Existing Land Use as a Percentage of Study Area

Existing Land Use Map



Key Places & Uses

Considered to be one of the more rural areas of Chatham County, Moncure has been the location of selected kinds of development dating back to the later 19th century, including homes, small-scale commercial businesses, and large-scale industrial activity. While housing is part of the development pattern, many nonresidential uses occupy sites in the area. The following describes the variety of places within the study area.

AGRICULTURE

Parcels devoted to agriculture comprise almost half of the study area. In addition to cropland and pastureland, working lands include forests that are managed for timber production. From small-scale growers focused on flowers and fresh produce to larger establishments that produce soybeans and hay, farmers in this part of Chatham County contribute to the local economy while maintaining a thriving ecosystem.

COMMERCIAL DESTINATIONS

Commercial development in the study area is nearly indiscernible on the Existing Land Use Map. The businesses in this category are generally small convenience retail stores and gas stations situated in the US-1 corridor where road access and visibility ensure a steady stream of patrons. Other commercial uses include artists' studios, small-scale production shops (e.g., cabinet makers), veterinary clinics, small engine repair businesses, and wedding venues. Lodging is available in the form of inns, bed-and-breakfasts, vacation rentals, and campgrounds for recreational vehicles.

INDUSTRIAL CONCENTRATIONS

Major industrial development is concentrated in two parts of the study area. In the north near Pittsboro is a quarry operated by Luck Stone Corporation and one of 3M's plants. Drawn to the US-1 corridor for the highway and rail access, several industrial operations have located in the southern half of the study area. Among them are Triangle Brick and General Shale Brick. Triangle Brick opened its Merry Oaks facility (near Exit 84 along US-1) in 1991 and, with one of the largest kilns ever built in the US as well as an automated manufacturing process, the plant produces 240 million bricks annually.





ABOVE: Churches in the community are central to civic life. While some residents in the area come together through faith, many are united in their appreciation for the natural environment. Both are key components of the study area. (Image source: Nealon Planning)

OPPOSITE PAGE: Brick manufacturing has been a local industry for decades; flowers are among the products of local agriculture; convenience stores are located along Old US-1 and close to US-1. (Image source: Adobe Stock)

BELOW: A home in Moncure; a paddler observing an eagle at the edge of Jordan Lake. (Image sources: Zillow,)



NEIGHBORHOODS

Most of the residential units in the study area are situated on large parcels that are not part of neighborhood. However, over the last 50+ years, subdivisions with lots ranging in size from one acre to more than 10 acres have been developed on the north side of US-1. Many of these lots accommodate large homes that differ from the houses in the neighborhood in Moncure's historic center, where the typical lot size is half an acre. The campgrounds have satisfied some demand for temporary housing for workers at the Shearon Harris Nuclear Plant.

COMMUNITY FACILITIES & AMENITIES

Parks managed by the State are located at the edges of the study area and along the waterways. They provide a range of recreational opportunities for residents but are also destinations for tourists seeking places to boat, fish, swim, and camp. Civic and institutional uses complement the many uses in the study area. Many are part of Moncure's historic center while others are dispersed throughout the study area. Some of the key facilities in the study area include the following:

- Moncure School – This school has served the Moncure community with public education for generations. Today, the school has an enrollment of almost 250 students and offers instruction for pre-kindergarten through eighth grades.
- Jordan Lake State Recreation Area – A popular destination for camping, boating, fishing, hiking, swimming, and bird watching, this NC-maintained land provides visitors access to the 14,000-acre lake. The dam and surrounding lands are managed in partnership with the U.S. Army Corps of Engineers.
- Sprott Youth Center – The gymnasium, built in 1936 on the Old Moncure School property, was renovated to support the development of the youth in the community through academics, health education, athletics, and fellowship activities.
- Moncure Fire Department – Two stations (8 and 14) employ full-time firefighters. In addition to providing emergency response services, the station hosts events and educational activities.

Development Status

The study area is comprised of 67,356 acres. Some of that land (12%) is already developed and not likely to redevelop. Another 29% is protected through conservation easements and other protection mechanisms. The remaining land is either undeveloped or underdeveloped. These two areas combined encompass 35,907 acres. Figure 9 shows the distribution of these categories of development status, and the same categories are mapped in the Development Status Map. The status of parcels in the study area can be described as follows:

- UNDEVELOPED – With few or no structures, parcels of land remain vacant or relatively undeveloped. (Note: These parcels include agricultural lands that are managed for timber, cultivated fields, and pastureland.)
- UNDERDEVELOPED – The level of investment is low and the property is therefore ripe for redevelopment.
- DEVELOPED – The level of investment is high and such parcels are not likely to redevelop over the next 20 years.
- PROTECTED – Parcels of land are protected as public parkland, privately-owned conservation easements, etc. (Refer to the Managed Land on the Study Area Map.)

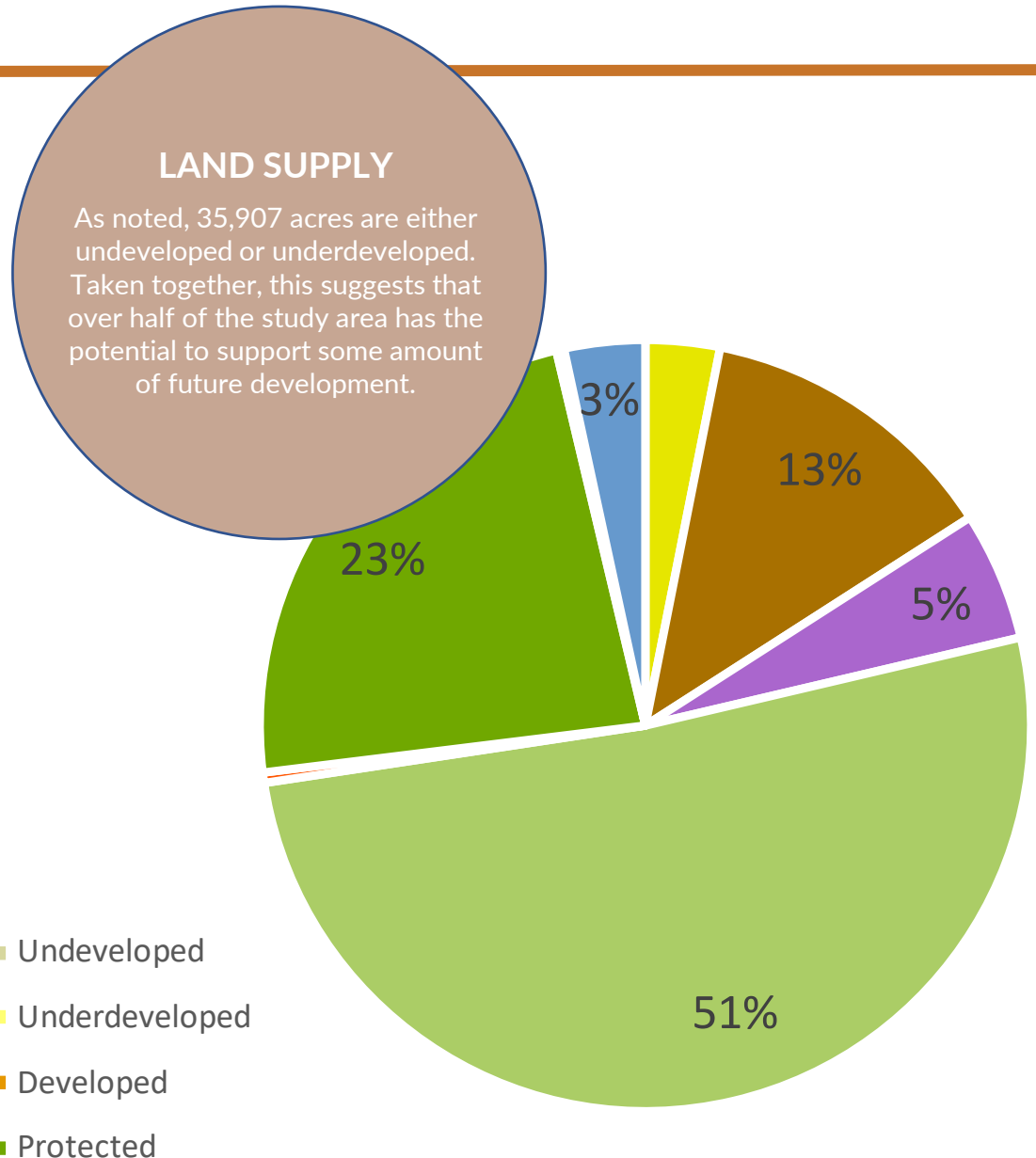
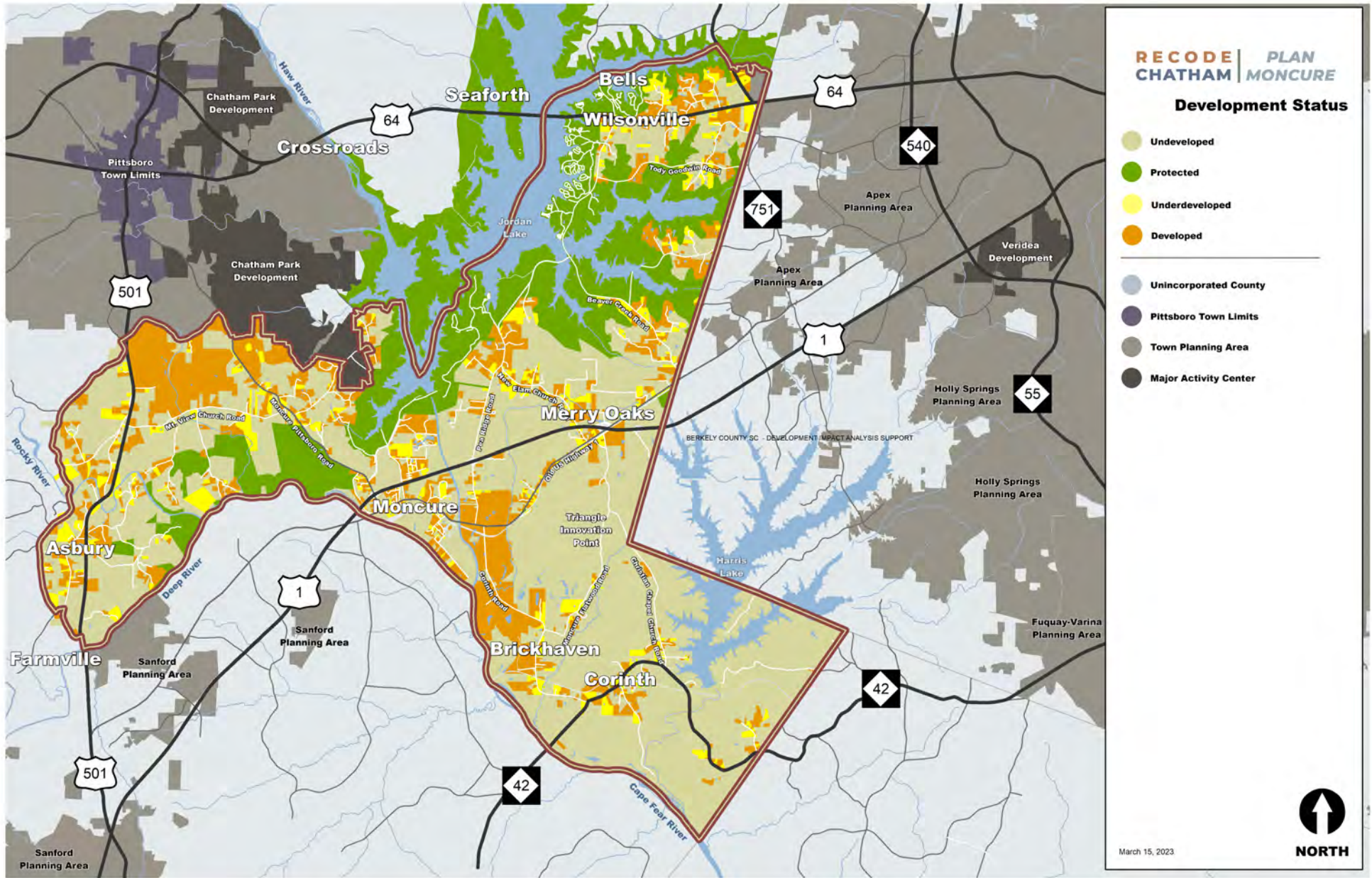


Figure 9. Development Status as a Percentage of Study Area

Development Status Map



Land Suitability

Some of the land that comprises the Land Supply is better suited to some uses than others. For example, parcels near the heart of Moncure are desirable for residential development. The topography and distance from the highway network are two factors that make those sites less suitable for industrial development that seeks large areas of flat land close to truck routes. Some parcels are not highly suited for any future development. To identify the areas to which future growth will be drawn, a suitability analysis was conducted. From this analysis, a realistic delineation of potential development areas can be determined.

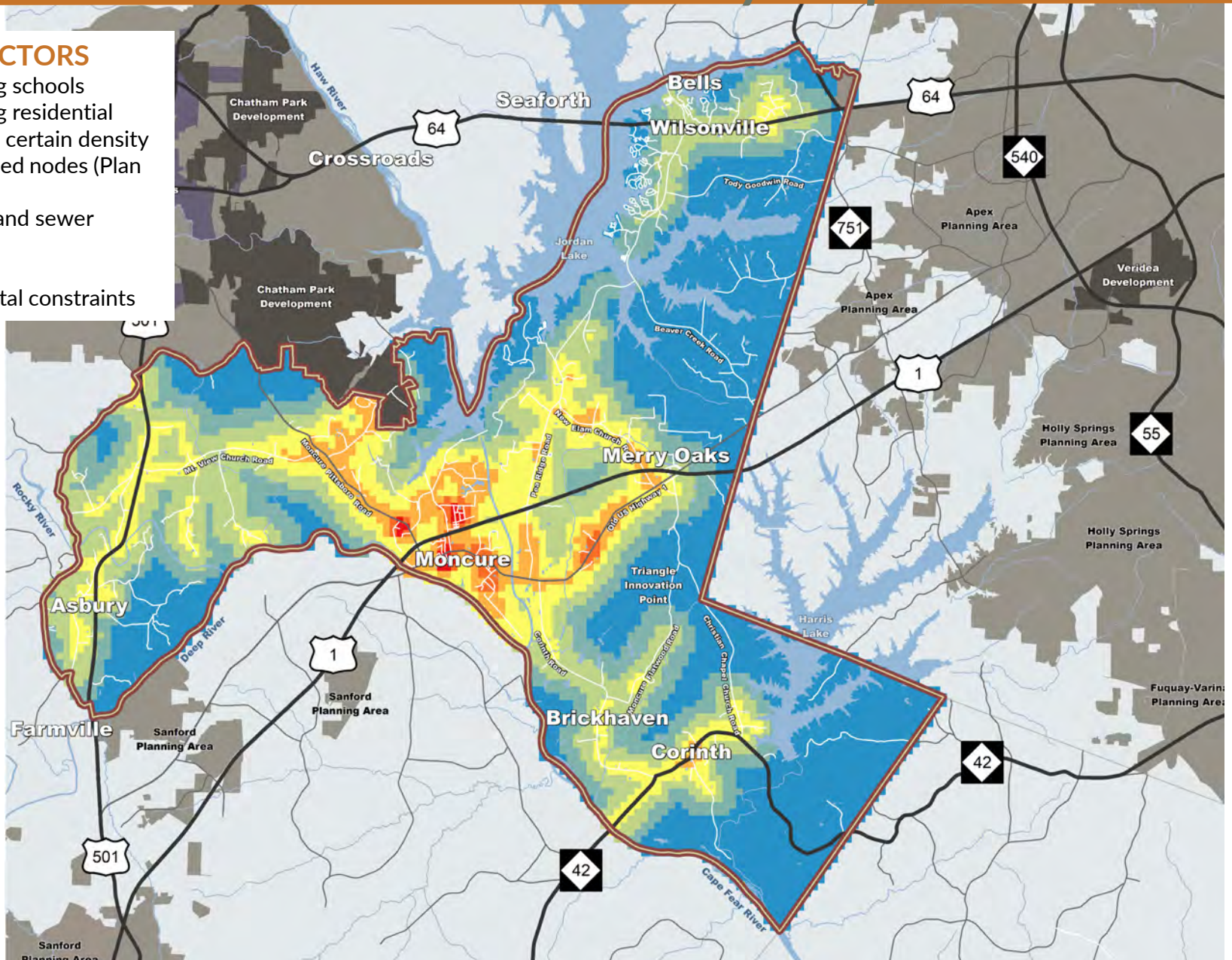
The suitability of land refers to the capacity of land to support a type of land use. This is based on various attributes, such as availability of infrastructure, access, parcel size, topography, environmental conditions, and proximity to other uses. Regulatory constraints can also have an impact on suitability. (Note: Only State and Federal regulations are considered in the analyses. Current zoning is not a factor.) All such factors make a parcel more or less attractive for future growth. In the three maps shown, green areas are more suitable and red areas are less suitable.



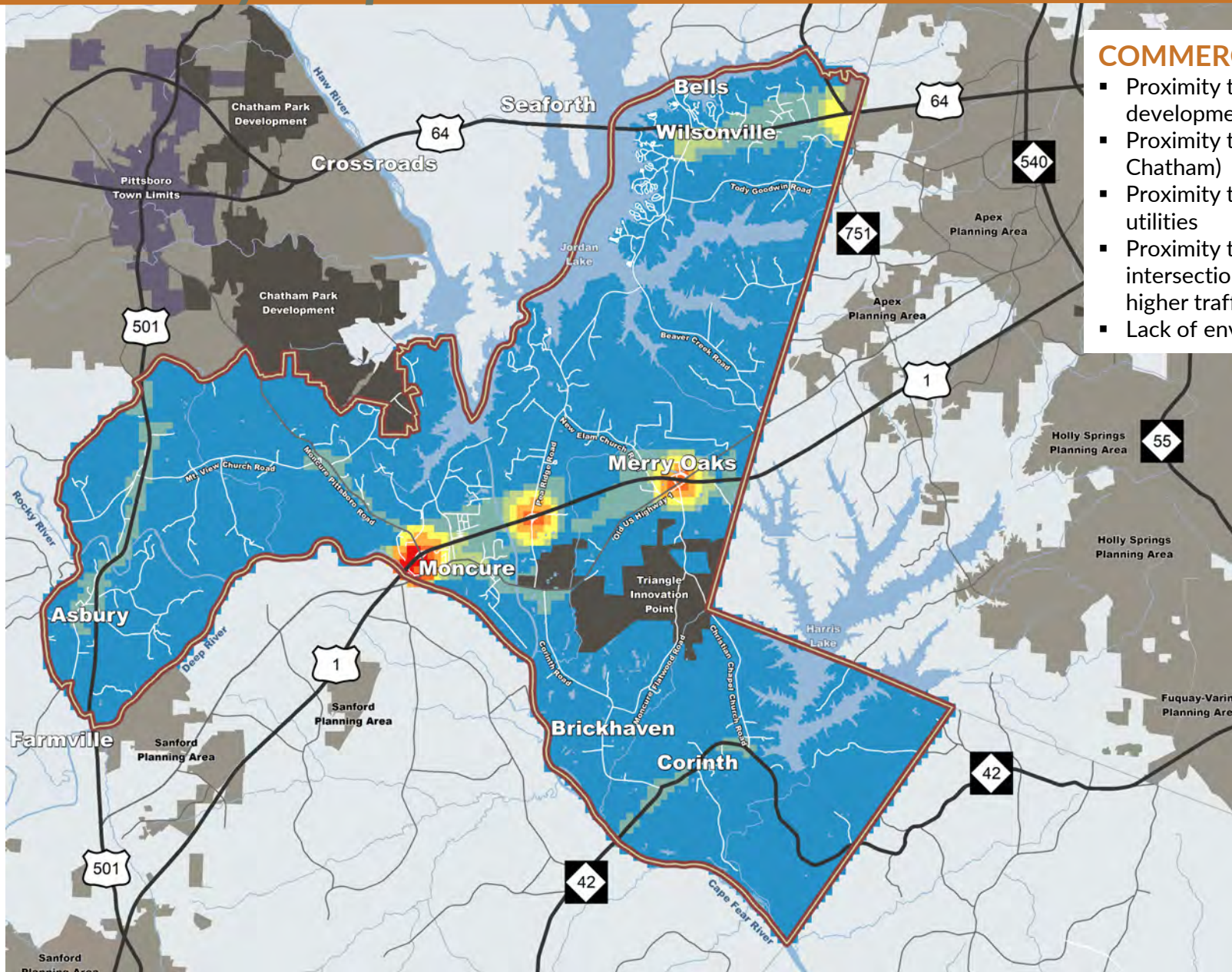
Suitability Map - Residential

RESIDENTIAL FACTORS

- Proximity to existing schools
- Proximity to existing residential development over a certain density
- Proximity to identified nodes (Plan Chatham)
- Proximity to water and sewer utilities
- Proximity to roads
- Lack of environmental constraints



Suitability Map - Commercial



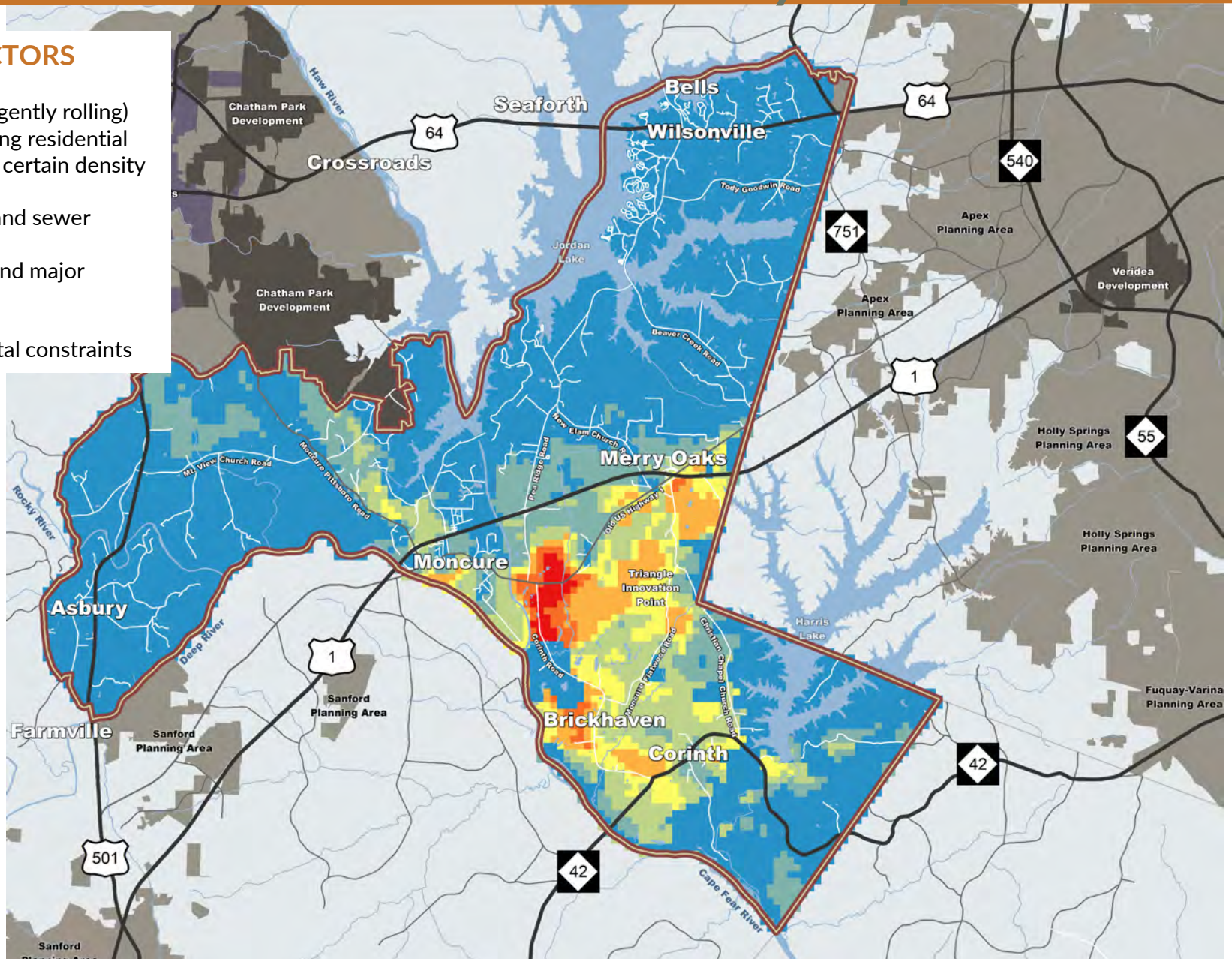
COMMERCIAL FACTORS

- Proximity to existing residential development over a certain density
- Proximity to identified nodes (Plan Chatham)
- Proximity to water and sewer utilities
- Proximity to roads and major intersections, especially those with higher traffic volumes
- Lack of environmental constraints

Suitability Map - Industrial

INDUSTRIAL FACTORS

- Parcel size (larger)
- Topography (flat to gently rolling)
- Distance from existing residential development over a certain density
- Proximity to power
- Proximity to water and sewer utilities
- Proximity to roads and major intersections
- Proximity to rail
- Lack of environmental constraints



Development Trends / Market

Trends

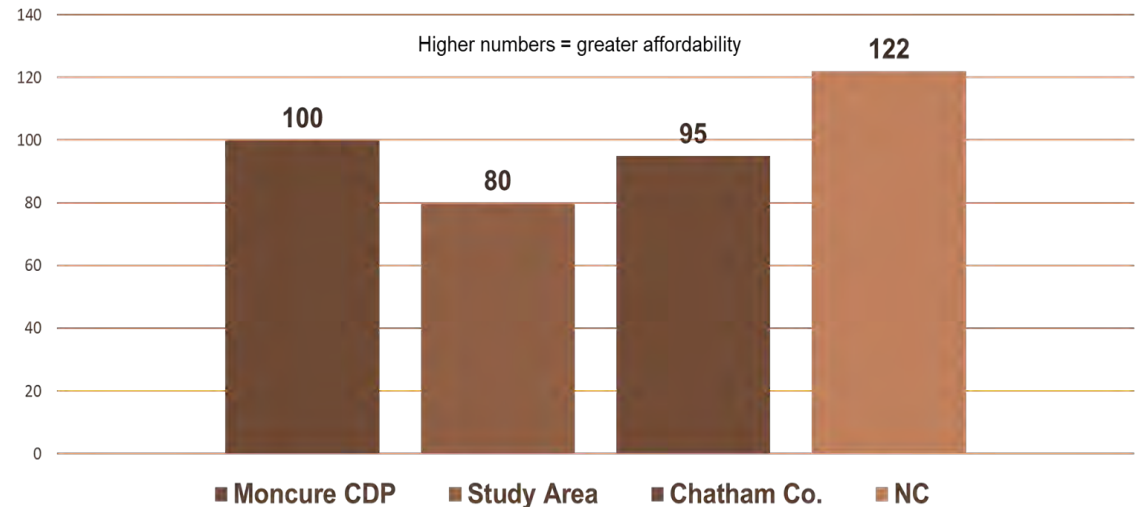
For 2023, the Triangle region is ranked among the nation's top 10 markets for real estate investment and development. The Moncure area is largely rural, but strategically located along the US-1 corridor convenient to Raleigh, RDU Airport, RTP, etc.

HOUSING

US housing affordability has been impacted by supply not meeting the demand since the Financial Crisis of 2007-09. Rising interest rates and apartment rents have also reduced affordability.

Built on a large lot with well and septic, the typical new home in the study area is expensive. The median home value in Moncure (\$300,000) is higher than for the Triangle and North Carolina but well below the values for the study area and Chatham County. Newer developments, such as Chatham Park, are now offering a wider range of housing choices.

A moderate share (11%-12%) of housing units in Moncure and the study area are vacant. A high percentage of housing units (80%) in Moncure are mobile homes. Moncure, the study area, and the county have significantly lower shares of rental units than the Triangle or North Carolina, and 82% of all homes are owner occupied.



Source: ESRI Business Analyst, accessed Dec 2022 – Feb 2023

Note: The Housing Affordability Index measures the ability of a household with the median area income to afford a median value home. Higher numbers mean greater affordability.

Figure 10. Housing Affordability Index

The median home value in Moncure (\$300,000) is higher than for the Triangle and North Carolina but well below the values for the study area and Chatham County.



RETAIL

Online retail purchases, which made up less than 10% of all US sales in 2018, briefly surged to 20% during the pandemic. E-commerce is likely to account for 15% of retail sales in 2023. Still, physical retail stores haven't declined as much as predicted. Due to small amounts of new retail construction, US retail vacancy is low. Developers of retail space in the US will likely remain cautious.

The Triangle region has one of the nation's lowest vacancy rates and should continue to attract retail uses.

New retail stores that serve local needs (grocery stores, drug stores, restaurants) require concentrations of residents nearby. For this reason, mixed-use neighborhoods are popular locations for investments in new retail development.

EMPLOYMENT SITUATION

Job growth in the US has roared back since COVID-related shutdowns. The U.S unemployment hit a 50-year low of 3.4% in early 2023.

Future job growth in the Triangle and Triad are projected to be led by high-tech and professional "knowledge" jobs. However, the regions have recently seen several major manufacturing announcements along the "Carolina Core," including VinFast, Wolfspeed, Toyota, and Boom Supersonic. These manufacturers could create more than 18,000 jobs in 10 years.

Chatham County is expected to grow employment faster than the Triangle or Triad (>16% through 2040).

The Triangle has one of the nation's lowest vacancy rates in retail space:

3%



Projections

The projections that follow attempt to incorporate existing population and development trends as well as the major job creation announcement from VinFast.

HOUSING DEMAND

As part of the growing Triangle region, Chatham County is estimated to need 685 new housing units per year based on population trends. The sparsely-populated study area is projected to see only modest demand, or approximately 34 new units per year. However, VinFast job creation numbers could dramatically change that, even if a small percentage of workers live in Chatham. Over the first seven years of hiring, VinFast could create demand for another 428 housing units per year in southeastern Chatham. Pittsboro, particularly Chatham Park, could accommodate some of that. A wider range of housing types than currently exists would be needed to fit the budgets of mid-wage earners.

Table 2. Potential Housing Demand by Type, Southeastern Chatham County

Type	% of Total Demand	Annual Demand (# of units)
Single-Family Detached	50%	173
Townhomes	20-25%	69 to 87
Apartments	25-30%	87 to 104



Several housing types that are not common or not present in the study area today can be supported by the market in the upcoming decades. They are single-family detached homes (including some on smaller lots), townhomes, and apartments.

RETAIL DEMAND

Physical retail spaces in the US weathered the storm of rising online shopping, but future construction will likely be cautious.

Since retail “follows the rooftops,” meaning it goes to where homes and residents are already locating, little new retail would be expected in the mostly rural Moncure area. The addition of more small, stand-alone stores (i.e., a gas/convenience mart) is likely. However, new housing developed as part of larger residential communities could generate demand for a greater amount of new retail space.

OFFICE DEMAND

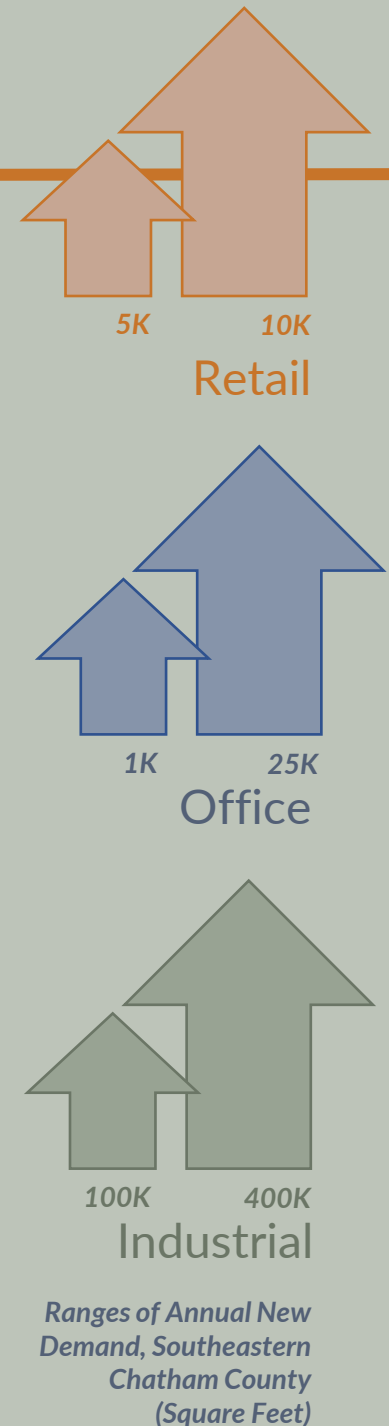
A slow return to the office due to the surge in remote working and hybrid work arrangements has led to record-high office vacancy in the US. New construction is slowing and will likely be limited to the more proven locations in the region.

Industrial projects, like VinFast, could spur a small amount of office demand. If new mixed-use neighborhoods are developed nearby, more office uses could locate there.

INDUSTRIAL DEMAND

America’s industrial and warehouse markets have been booming for years, with record levels of demand and new construction. The pace of development is expected to slow significantly throughout 2023 due to concerns about a weakening economy and the rising cost of borrowing money.

Nearby industrial markets in southern Wake County & Lee County are small, and past trends would not suggest a great deal of demand in southeastern Chatham. However, the new facilities for FedEx and VinFast as well as successful leasing of large new buildings in Sanford indicate that the US-1 corridor is gaining ground as a recognized location for manufacturing and distribution.



Peer Communities

Four small communities in the Southeastern US where an auto plant opened between 1988 and 2011 were studied. The communities are located in Georgia, Kentucky, and Mississippi. The impacts on each community varied, but similar experiences included:

FINDINGS

- In all cases, the projected levels of auto manufacturing jobs and investment were met, and there have been no plant closures or large layoffs.
- Local government revenues grew, though were muted due to incentive agreements.
- For the most part, anticipated spin-off development (housing, retail, restaurants, etc.) did not happen in the community, at least not in initial years after the plant opening.
- Local leaders in those communities suggest a strong focus on infrastructure needs and capital improvements planning.



Georgetown, Kentucky

Toyota began operations there in 1988, when the city had a population of 11,000. Demand for industrial space by Toyota, its suppliers, and other industries has been strong over the years. The biggest surprise was that almost everyone locally expected an “immediate boom” that “didn’t happen.” Retail growth in particular has been limited. Georgetown has grown to a population of 37,000 over 35 years, but most new residents commute out of town to jobs elsewhere, including nearby Lexington, KY.



Canton, Mississippi

Nissan was Mississippi's first auto plant when it opened there in 2003. Canton's population has declined over 20 years, from 13,000 to 11,000. Meanwhile the surrounding (more affluent) county has grown by 45 percent. New residential and retail development in the county has occurred away from Canton, closer to the state capital of Jackson. Increased tax revenues have helped the county build several new schools.



West Point, Georgia

Home to a Kia plant since 2009, West Point (and the adjacent counties) has seen little population growth since the plant opened. Over 10 years, unemployment dropped from 15% to 3%. There was great interest in residential and other development when the plant was under construction, but the Great Recession came and "nothing happened."



Blue Springs, Mississippi

This village had 230 residents when Toyota opened in 2011. It now has 440 people. The county population has increased from 27,000 to 28,000 since 2011. Most development has gone to the larger nearby city of Tupelo. Toyota built an endowment for schools in three counties, now worth about \$60 million.

Infrastructure

Utilities

Chatham County provides potable water service to approximately half of the unincorporated portion of the County. The County does not provide wastewater services with the exception of a small package plant in Bynum. The following describes the services provided by others.

PUBLIC WATER

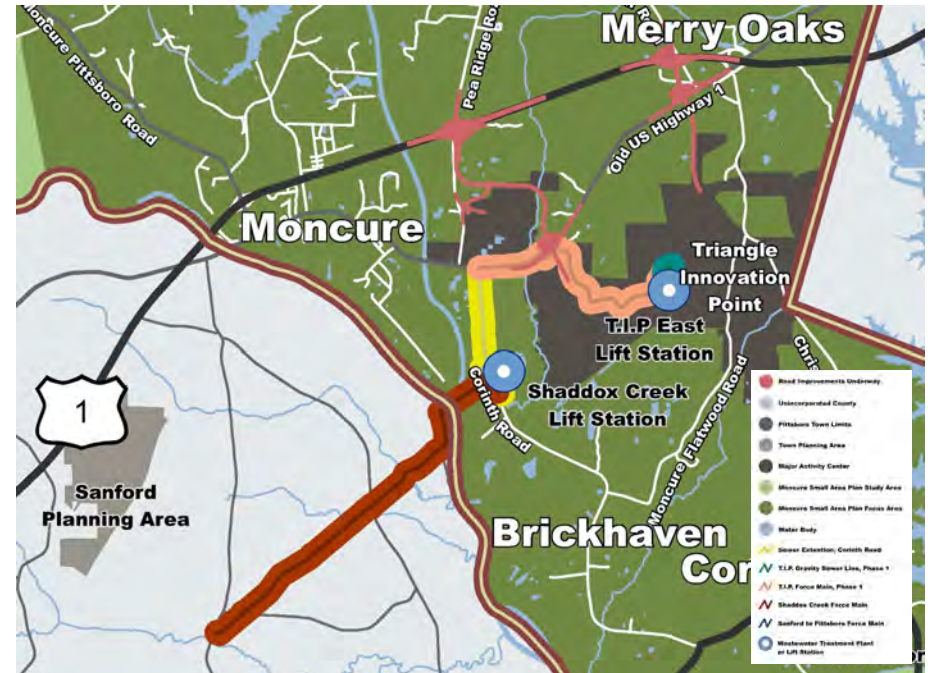
Presently, Chatham County provides potable water service to the entire Study Area. The area east of the Haw River up to US 64 is in the “North Chatham” system and is served via the Beaver Creek Water Treatment Plant. The study area west of the Haw River is in the “Asbury” system and is served via an interconnection with the City of Sanford’s water system. The capacity in these systems and their existing demands are as indicated in Table 3.

In addition to public systems, water service can be provided via private companies, such as Aqua or Old North State.

PUBLIC & PRIVATE SEWER

Wastewater treatment in the study area, with the exception of industry, is provided via septic systems permitted by Chatham County or wastewater irrigation systems permitted by NC Department of Environmental Quality. Public sewer is potentially available from the City of Sanford and/or the Town of Cary.

In addition to public systems, sewer service can be provided via Private companies, such as Aqua or Old North State.

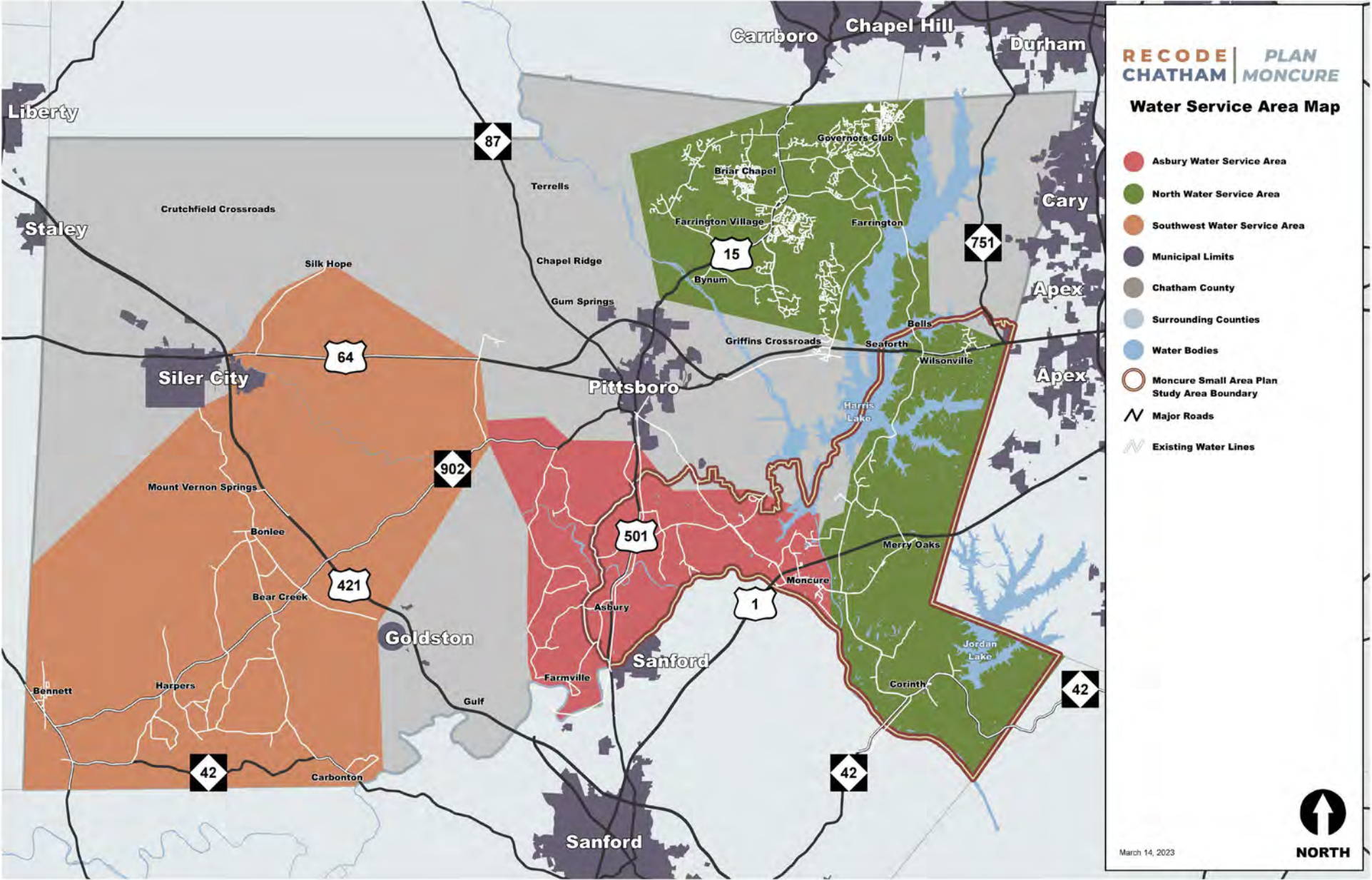


Wastewater service for Triangle Innovation Point will be provided by the City of Sanford.

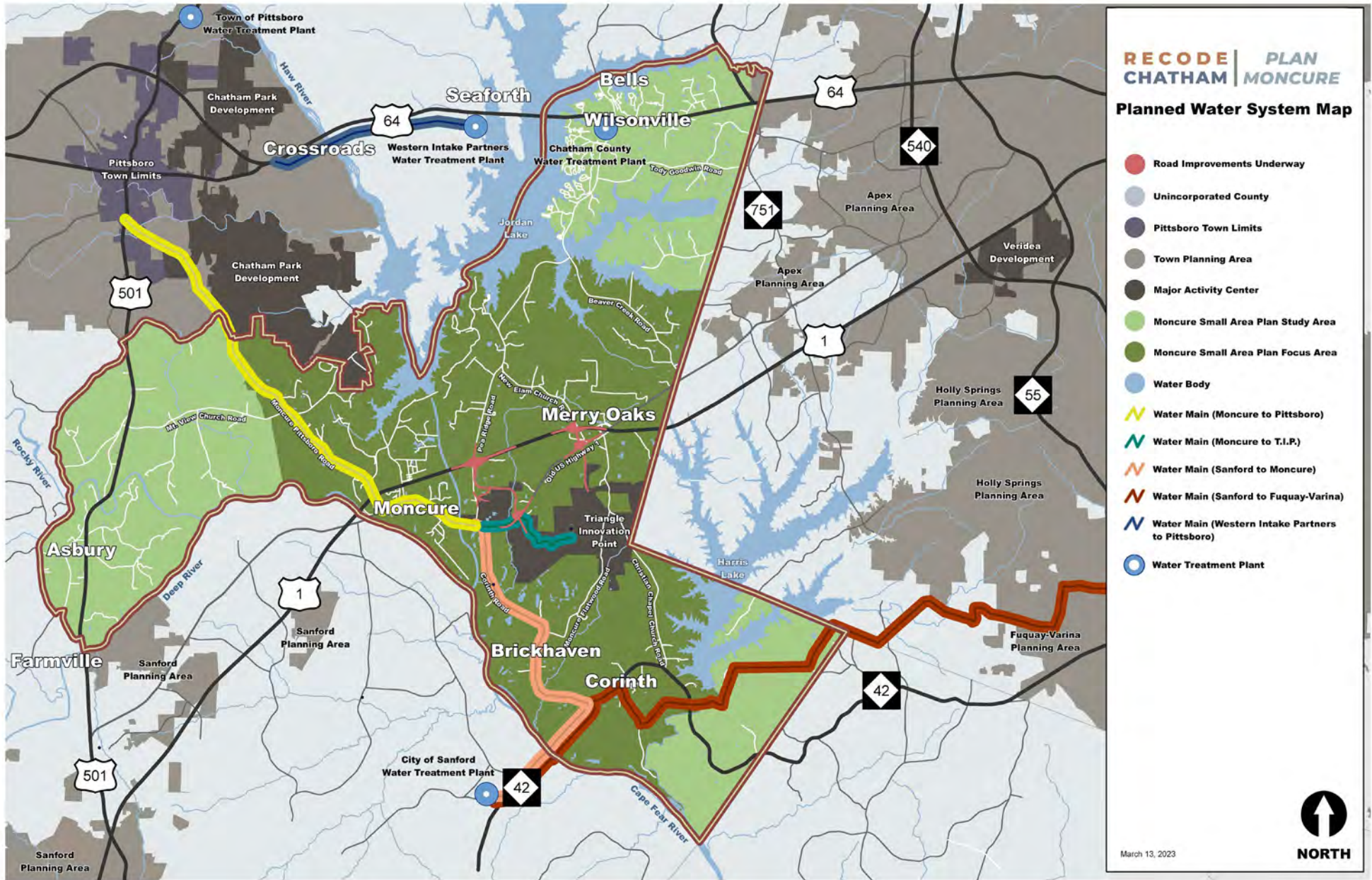
Table 3. Public Water System Capacity and Demand

System	Capacity (MGD)	Current Avg. Day Demand (MGD)	Study Area Avg. Day Demand (MGD)
North Chatham	3	2.3	0.17
Asbury	0.5	0.12	0.08

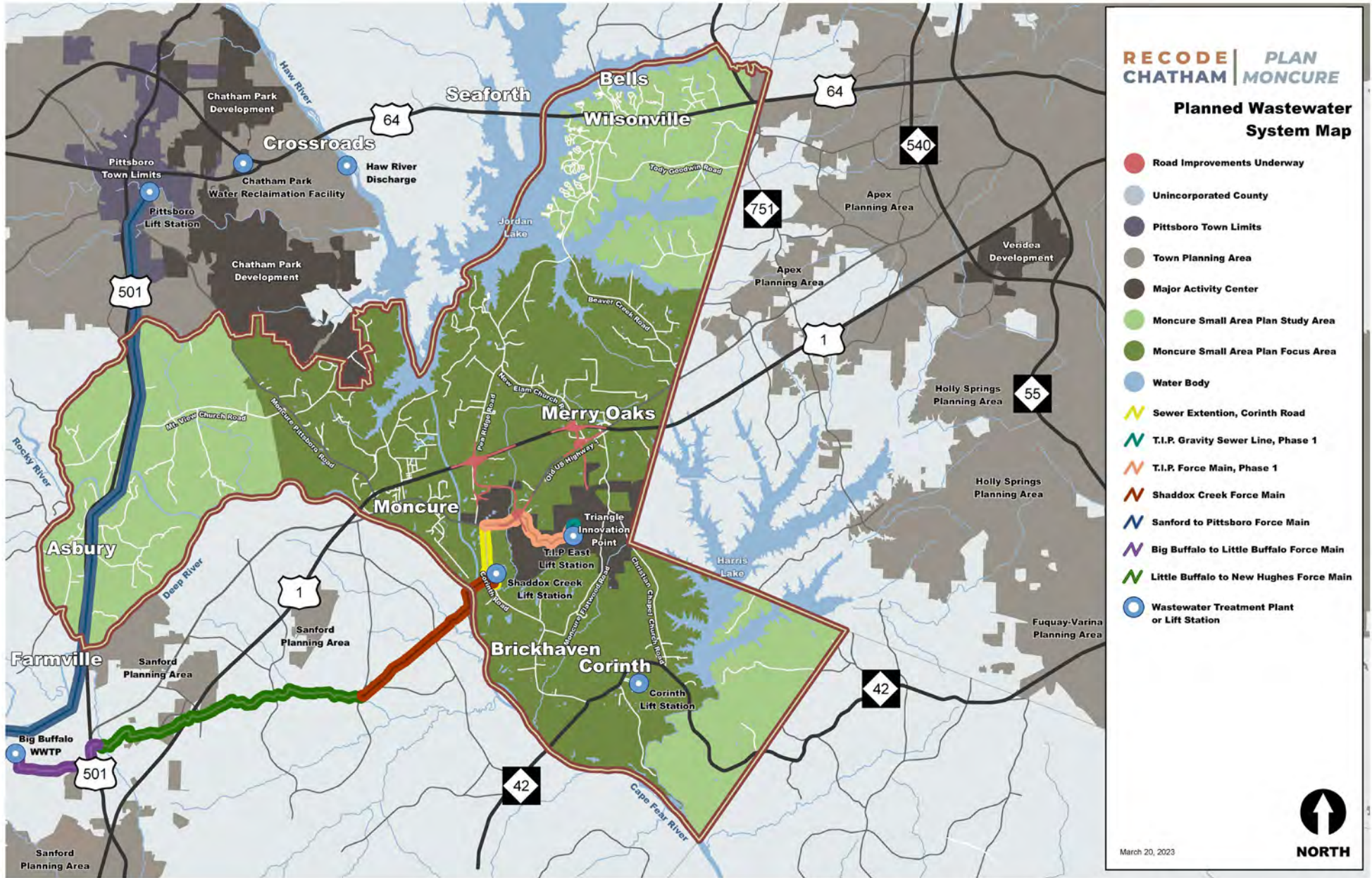
Water Service Area Map



Planned Water System Map



Planned Wastewater System Map



Transportation

EXISTING NETWORK

▪ Roads

The road network in the Plan Moncure study area is centered on US-1, which runs east-west and connects the community to the Triangle and other major state corridors. US-1 is also an important freight corridor in the region and serves as a designated truck route. US-64 is the only other freeway in the study area and also runs east-west. Major collectors include Corinth Road, Pea Ridge Road, and New Elam Church, which all provide north-south connectivity.

Hydrology, the railroad, and poor historic road connectivity have created a fragmented road network in the study area. As new industrial development brings increased traffic through the area on US-1, improvements may be needed on secondary routes to maintain conditions for local traffic.

▪ Rail

A Class I CSX rail line runs east-west through the study area. There is currently little rail traffic, with an average of four trains a day, though freight traffic is expected to increase once VinFast begins production. This section of rail is also part of Amtrak's Silver Star passenger line, though the train does not stop in Chatham County.

▪ Air

The Raleigh Executive Jetport, just outside the study area in Sanford, serves corporate and general aviation aircraft. It has a 6,500-foot primary runway and serves 170 operations (take-offs and landings) per day. The airport has a new terminal and seven undeveloped corporate hangar sites.

▪ Bicycle and Pedestrian Facilities and Greenways

Currently, there are no existing off-road bicycle or pedestrian facilities, though Old US-1 through the study area is designated as a section of US Bike Route 1. Also, the Chatham Bicycle Plan (2011) identifies construction of a shared use path along the abandoned rail alignment east of Moncure-Pittsboro Road as a long-term improvement.

State Transportation Improvement Program

The State Transportation Improvement Program (STIP) is a 10-year state and federally-mandated plan that identifies the funding for and scheduling of transportation projects throughout the state. A combination of roadway, bridge, and rail projects within the study area are included for funding in the 2020-2029 STIP. NCDOT conducts its prioritization process to update the STIP every two years.

NCDOT STIP Projects to serve VinFast Site:

- 1 HE-0006- Triangle Innovation Point site improvements. Construction begins 2023.
- 2 RX-2008A- Install active warning devices at the CSX railroad crossing on Corinth Road near Haywood. Construction in 2023.
- 3 B-4461- Replace Corinth Road bridge at Shadow Creek. Under Construction
- 4 R-5887- Convert US-64/NC-751 intersection to interchange. Construction post 2029.

TRAFFIC VOLUMES

The disconnected nature of the road network in the study area places most vehicle traffic on US-1, which carries up to 31,500 vehicles per day. Other major corridors on the periphery, such as US-64 in the north and US-15 in the west carry between 7,500 and 25,000 vehicles per day. However, the majority of secondary routes in the area carry less than 5,000 vehicles per day.

SAFETY

In looking at existing safety conditions, two primary types of data were considered— NCDOT safety section scores and total crash frequency by intersection. The safety map shows sections of road with high crash density and risk in red.

High frequency crash intersections include:

- US-64 and NC 751
- US-64 and SR 1008 (Beaver Creek Rd)
- US-1 and SR 1012 (Moncure Pittsboro Road)
- US-1 and Old US-1

These intersections and sections of US-1, Old US-1, Moncure-Pittsboro Road, Pea Ridge Road, and Corinth Road with high safety section scores will be reviewed for potential safety improvements.

NEAR TERM ISSUES

Roads and intersections expected to experience significant traffic growth are shown on the near-term issues map. This map excludes US-1 and NCDOT access projects, which are expected to be addressed by the HE-006 improvements.

The corridors and intersections identified on the map will require additional study to determine the appropriate road cross-sections and intersection treatments.

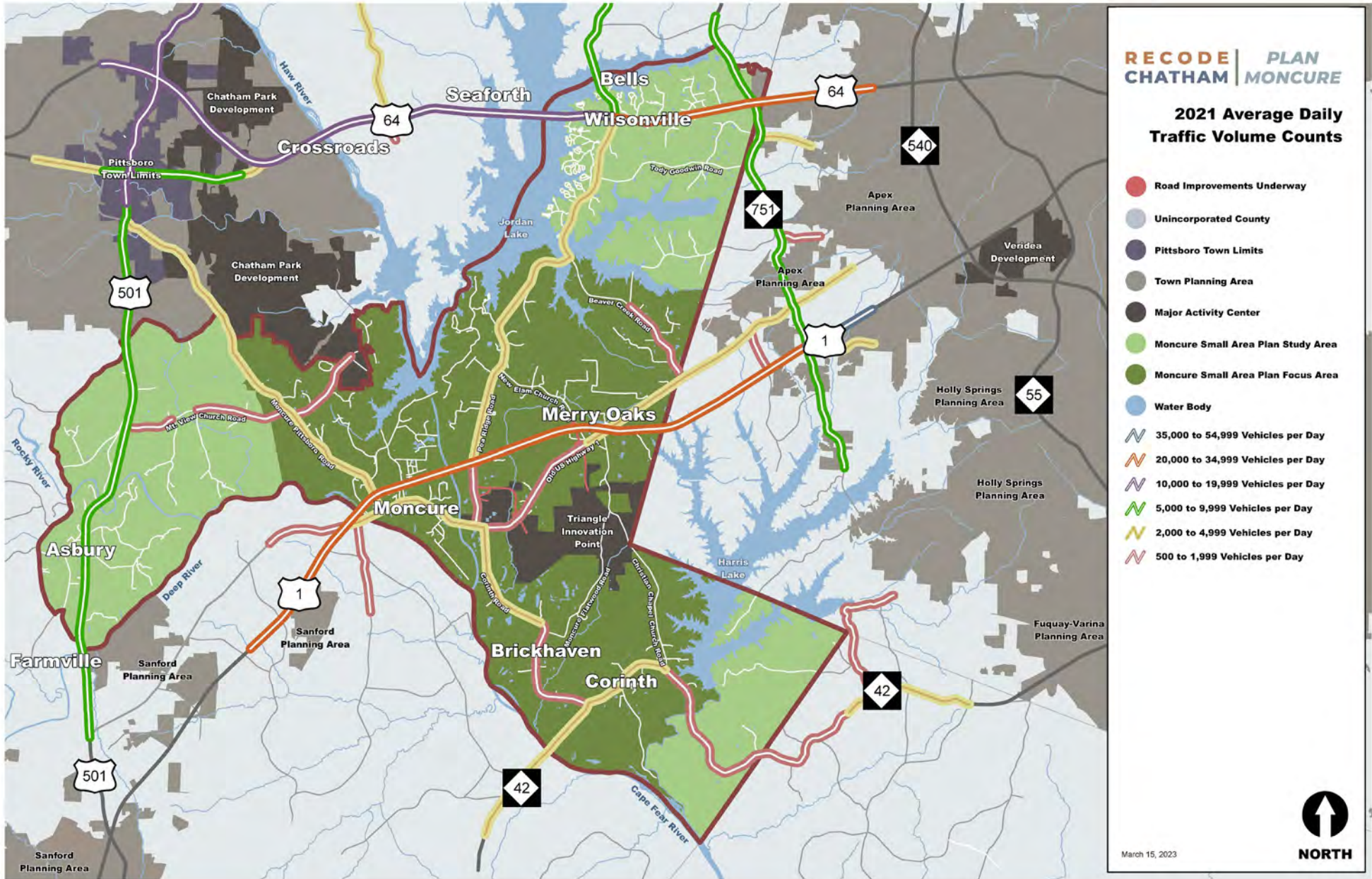
PLANNED NETWORK IMPROVEMENTS

New developments, including a VinFast plant and FedEx Distribution Center, could cause rapid growth in the study area, though the timing of the growth is uncertain.

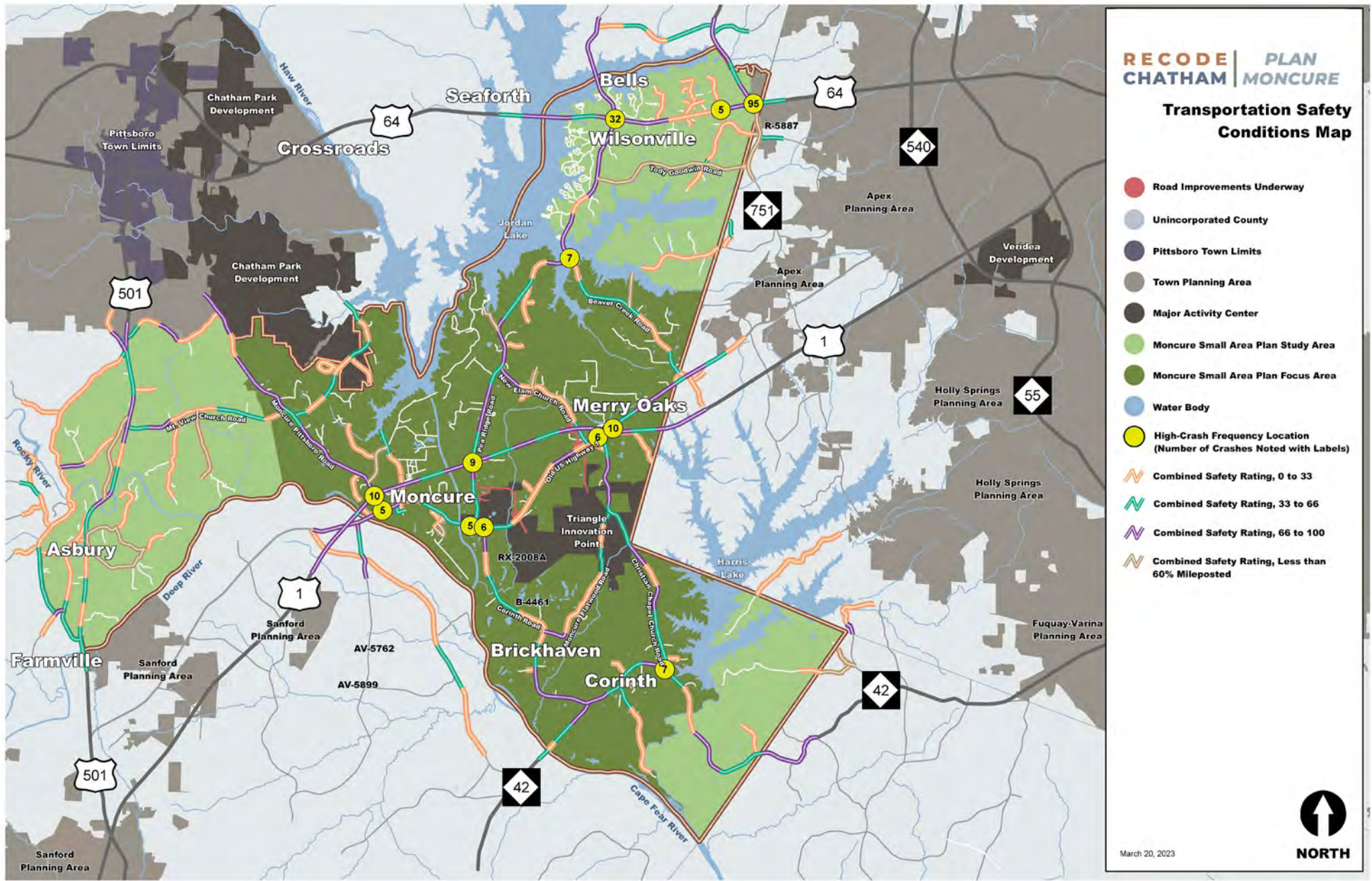
Based on NCDOT's growth projections, Project HE-0006 Phase 1 is anticipated to address vehicle capacity needs on US-1 due to development through 2050. Phase 1 focuses on improving the interchanges at US-1 at Elam Church Road and Old US-1 at Elam Church Road and Pea Ridge Road, to facilitate freight movement as well as local and regional traffic. Phases 2a and 2b will focus on improving Pea Ridge Road at US-1 and Old US-1. Phase 2 construction will be dependent on growth and corresponding increases in traffic volumes.

This plan and other long-range planning efforts will identify improvements needed to address potential secondary impacts of development on local roads.

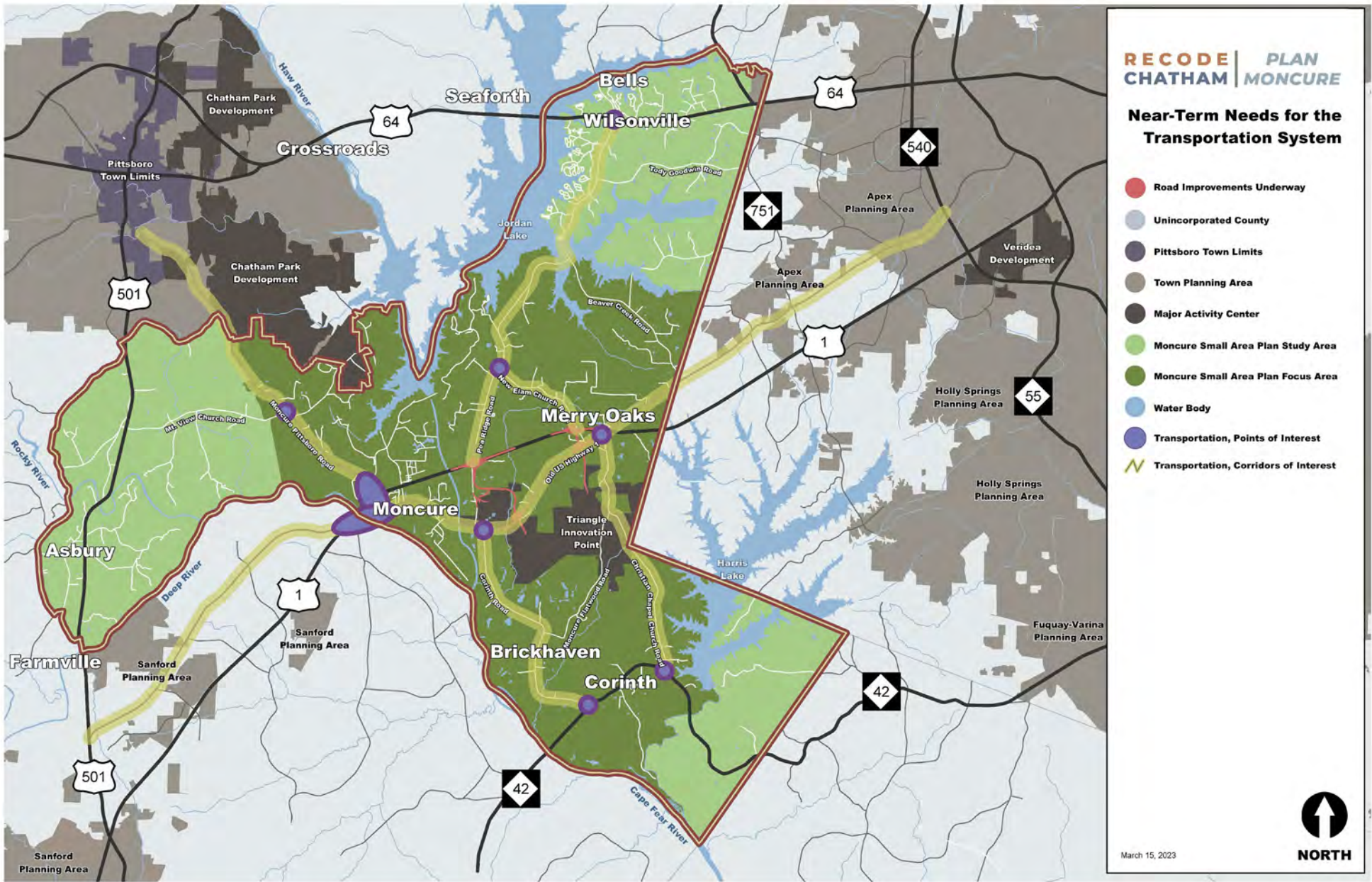
Traffic Volumes Map



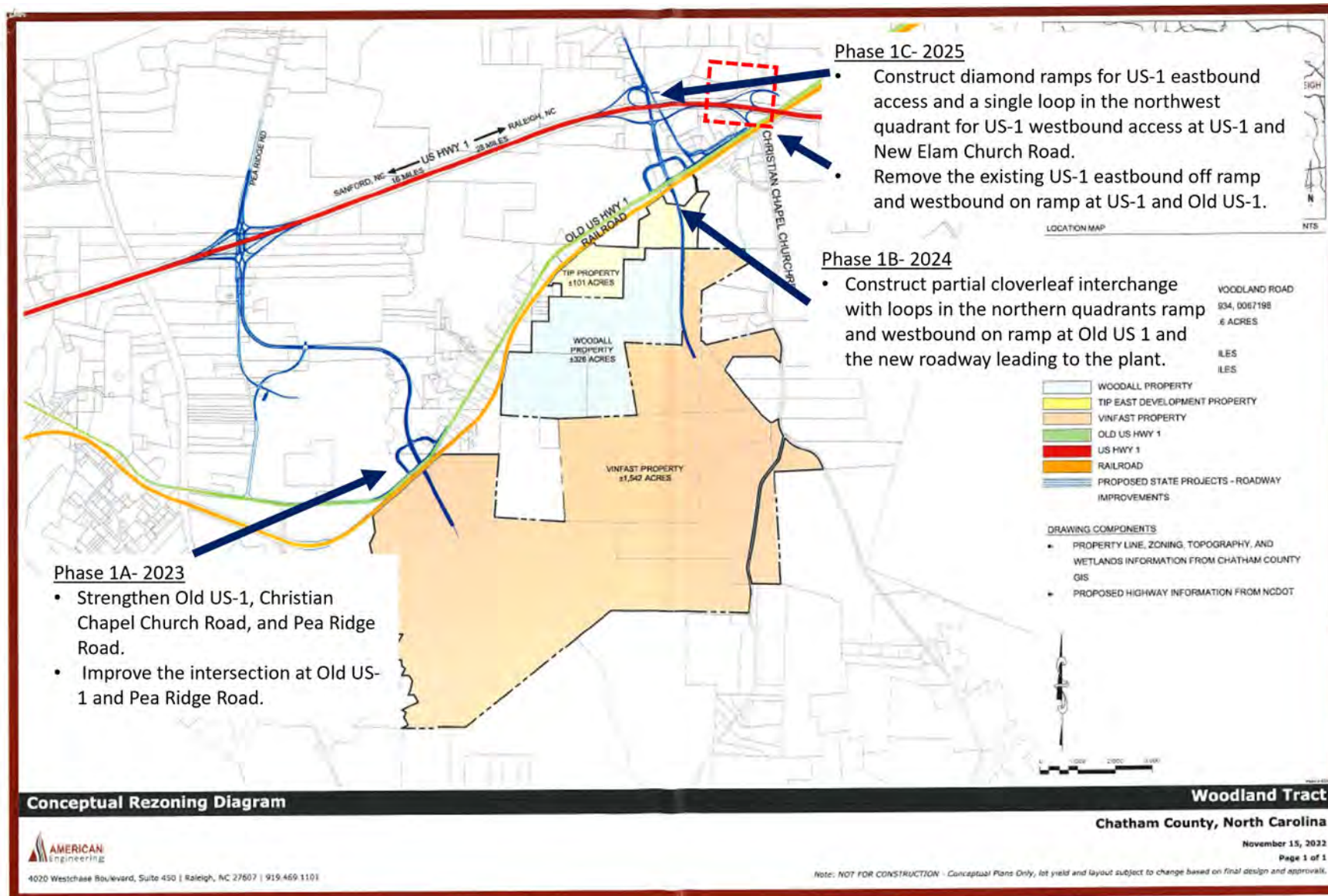
Safety Map



Near-Term Network Issues Map

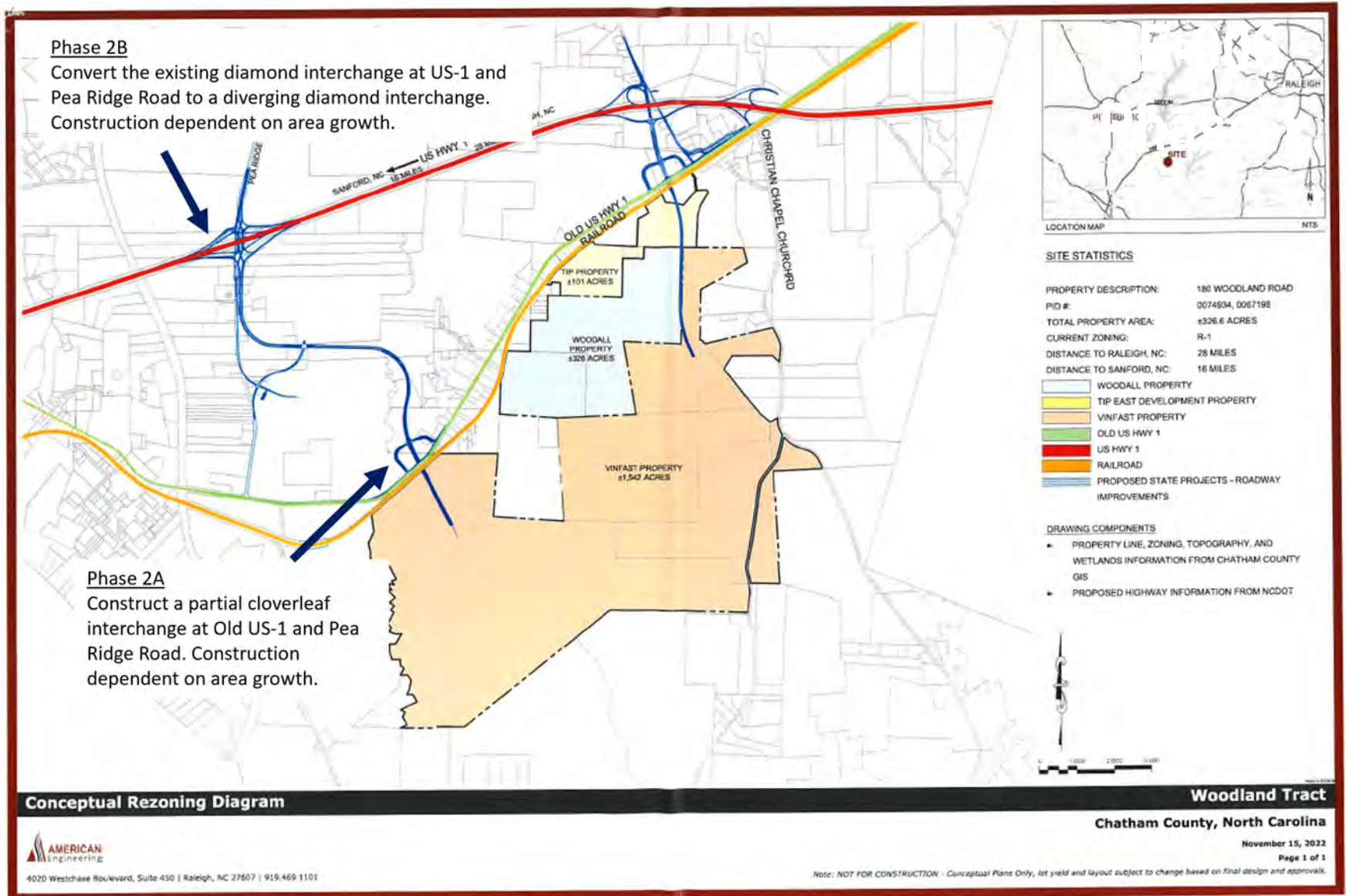


HE-0006 – Triangle Innovation Point Phase 1



Sources:
NCDOT, VHB

HE-0006 - Triangle Innovation Point Phase 2



Sources:
NCDOT, VHB

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