



LOWER NEUSE AREA PLAN

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SECTION 1

Study Overview

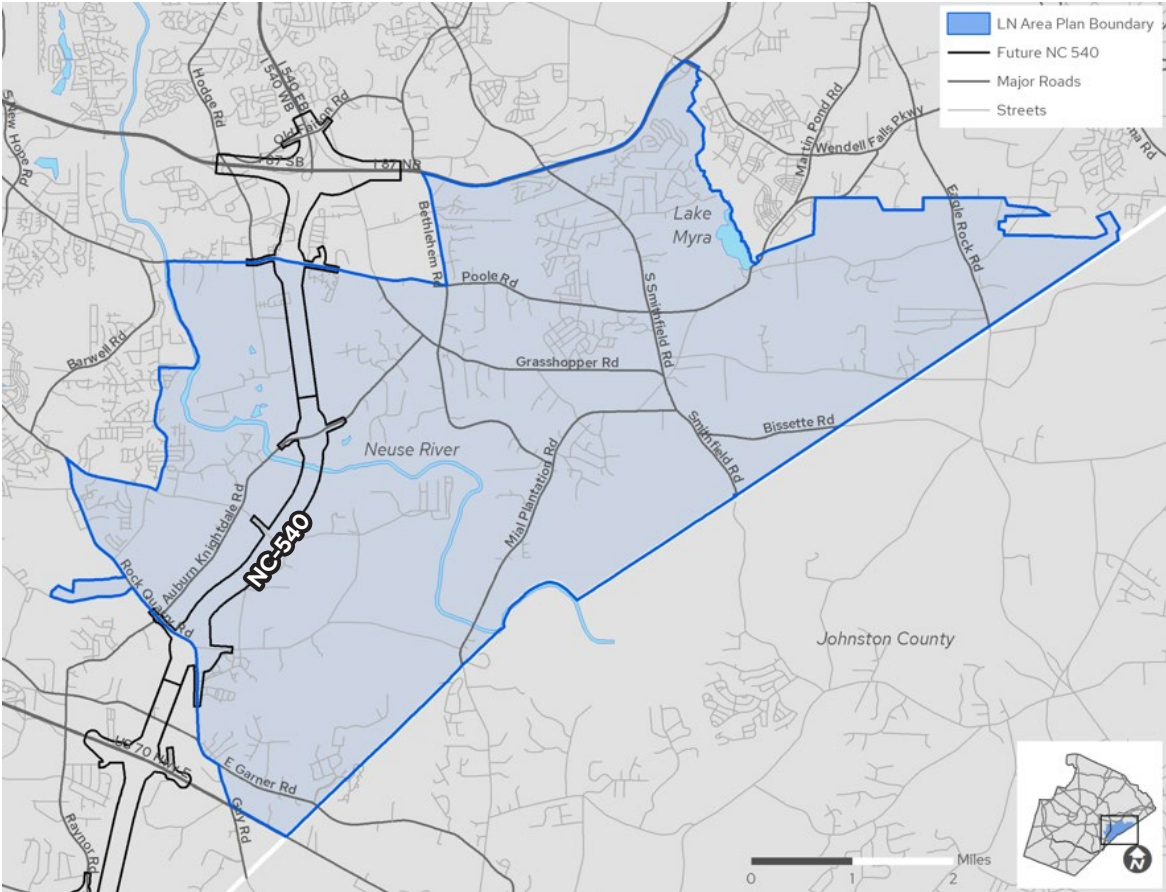
While PLANWake will continue to serve as the overarching vision for Wake County, the Lower Neuse Area Plan will provide more localized land use and development goals. The study process will also specifically create opportunities for localized public input and engagement.

Study Area Boundary (Figure LN1.1)

The Lower Neuse (LN) Area Plan includes about 32 square miles or 20,500 acres in eastern Wake County. The area is bounded by the City of Raleigh on its western edge, the Town of Garner and the Johnston County line on its southern and eastern edges, and the Town of Knightdale and the Town of Wendell on its northern edge.

The final section of NC-540 toll road is expected to be completed in the study area by 2028. The new roadway will have interchanges at Rock Quarry Road, Auburn Knightdale Road and Poole Road.

Figure LN1.1 – 2024 Lower Neuse Area Plan Boundary with Proposed NC-540 Location



Key Trends

- In 2024, there were approximately 108 residential developments, totaling 4,500 acres and 4,700 houses in the Wake County jurisdictional areas of the LN study area. These developments range from four- to eight-lot developments along a state road to large 400+ lot developments on community well and wastewater systems like Rockbridge, Ashley Hills, and Rutledge Landing. Many homes in the LN area get their water from private wells.
- In 2023 the total population in the study area was approximately 17,000 people. Of that number about 13,000 people lived in the area that was Wake County planning jurisdiction.
- Wake County and municipal agreements from the early 2000s assumed that all the land within the study area would one day become part of one of the adjacent municipalities. Clear boundaries were developed to determine which municipality would provide services to each area. Wake County's 2019 comprehensive plan (PLANWake) identified a community desire to see the southeastern part of the LN study area stay rural and non-municipal.
- From 2020 to 2024, the City of Raleigh, Town of Garner and Town of Wendell have all actively expanded their jurisdictions through landowner or developer requested annexations within the study area. These annexations are at the edge of each community and have started conversations on how municipal services, including water and sewer utilities and police and fire services, will be provided. In 2023, the Town of Wendell denied a request for annexation in the Marks Creek area due to concerns about providing municipal services.
- 2023 Wake County parcel records indicated, farming, forestry or horticulture uses encompassed 190 properties (6,300 acres) in the LN area, and 25 (1,500 acres) of these properties are designated as Voluntary Agricultural Districts (VADs). Many of the farm operations in this area, including some operated by Black or African American farmers, have a long history in this area. At public meetings held as part 2024 LN study, many residents voiced support for rural preservation and continued farming in this area.
- Since 2000, the County, State of North Carolina and other partners have purchased more than 1,900 acres in the study area for permanent preservation. The State of North Carolina's purchase expanded the boundaries of the Clemmons Educational State Forest, and the County's purchases have been focused on the Mark's Creek Rural Land Initiative.
- The final section of NC-540 toll road is expected to be completed in the study area by 2028. The new roadway will have interchanges at Rock Quarry Road, Auburn-Knightdale Road and Poole Road within the study area. The new interchanges and the mobility options they provide are expected to attract new development, and PLANWake identified these interchange areas as appropriate places for new dense and connected developments.
- The Neuse River Greenway Trail, completed in 2016, runs parallel to the Neuse River across the entire study area. This trail connects to the City of Raleigh's trail network to the north and the Town of Clayton's to the south. The trail is an important recreational amenity for area residents and the larger community and has spurred support for preservation, natural systems and viewsheds. Further connections to the Neuse River Trail are proposed from Wendell, Knightdale, Raleigh and Garner.

Purpose of the Plan Update

The County is working with its partners and the public to update the Lower Neuse Area Plan to:

- **Modernize the plan.**

Previous planning studies were completed as part of the Southeast Area Plan adopted in 2000, the East Raleigh Knightdale Plan adopted in 2003 and

the Fuquay-Garner Plan adopted in 2004. This area plan will replace and supplant the portions of those plans covered by the LN study area.

- **Align with the Wake County Comprehensive Plan, PLANWake.**

Adopted in 2019, PLANWake established notable

new goals for the Lower Neuse study area and county at large.

- **Align with municipal plans.**

The City of Raleigh and the towns of Garner, Knightdale and Wendell have all updated their municipal plans multiple times since 2004.

- **Address resident and stakeholder concerns.**

This study will build off the community-wide engagement efforts conducted as part of

PLANWake and will focus on resident and stakeholder concerns within the LN study area.

- **Set the groundwork for next steps.**

Issues identified by the LN study will be programmed for follow-up activities. For example, recommendations from this plan will be considered for inclusion in county-wide updates to related plans, i.e., transportation, housing affordability and preservation.

Implications of Countywide Trends and PLANWake

Based on current trends and expected projections, every community plan completed in Wake County must have a strategy for allocating continued job and population growth. In 2023, Wake County added around 22,500 residents or about 56 people per day. This is due to a variety of reasons, namely thriving industries, education and live/work/play opportunities around 12 municipalities. Over the next decade, these population growth trends are expected to continue, and another 225,000 new residents will likely call Wake County home.

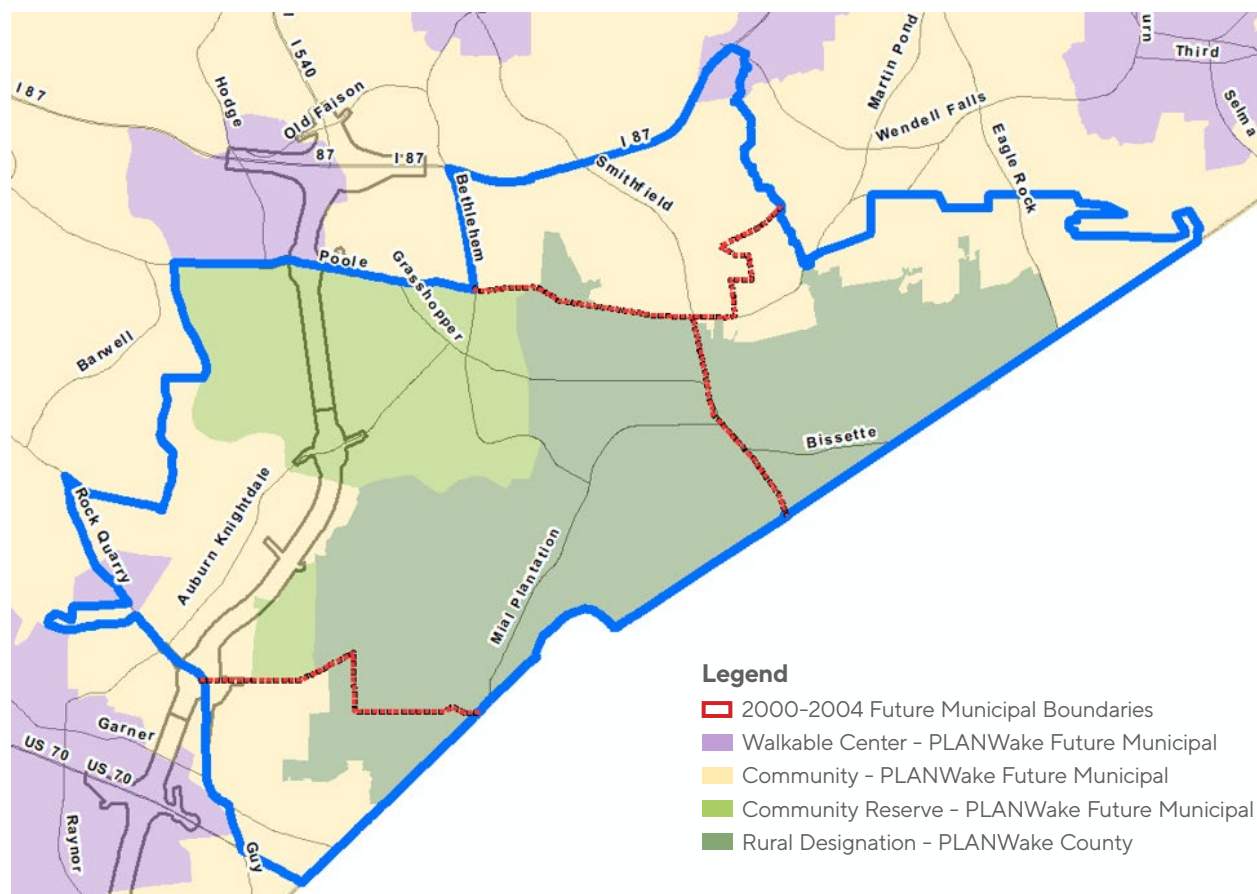
PLANWake articulates the vision for how the greater Wake County community should account for the next wave of growth in a manner that enhances quality of life for all residents. This vision directs new growth to existing towns, supports the development of connected and walkable transit-supportive centers and works with rural landowners to protect important open spaces, farms, forests and historic resources.

PLANWake's Development Framework Map (**Figure LN1.2**) shows how the overarching PLANWake goals are applied in the Lower Neuse study area. PLANWake anticipates that the adjacent municipalities of Raleigh, Garner, Knightdale and Wendell will continue to develop and densify within

their existing municipal boundaries and expand into the areas designated as Community and Walkable Centers on the Development Framework Map. The Community and Walkable Center areas are located on the fringes of each of the municipalities, allowing these areas to become integral parts of each community.

The most intense and connected land uses are expected to be developed in the areas designated as Walkable Centers. These areas were designated in existing downtown locations, around commercial and office centers, and around the proposed interchanges of NC-540. As shown on Figure LN1.2, in the areas around the LN Study area, the Walkable Centers are currently proposed in Wendell's downtown, in the Wendell Falls commercial center, in the Knightdale commercial center on Business 64, and along the US-70 corridor in Garner. In the LN study area, there are Walkable Centers located around the future interchange of NC-540 and Poole Road and around the future interchange of NC-540 and Auburn Knightdale Road. It is expected that new residential and commercial developments will occur in these areas and that these new developments will be well connected and walkable to all surrounding uses.

Figure LN1.2 – 2023 Wake County Development Framework Map* with Future Jurisdictional Goals within LN Area



Agreements from the early 2000's assumed that all the area within the study area would one day become part of one of the adjacent municipalities. Clear boundaries, designated by the red lines on Figure LN1.2, were determined as to which municipality would provide services to each area.

PLANWake, adopted in 2019, set a new direction. The areas shaded on Figure LN1.2 as yellow (Community

designation), purple (Walkable Center designation) and light green (Community Reserve designation) are expected to be municipal. The areas shaded as dark green (Rural designation) are expected to remain non-municipal.

***Note:** As detailed in Section 5 of this report, the development framework boundaries shown in the figure will be adjusted.

Key Public Comments (More Details in Section 3)

- Protect the unique area.
- Need closer retail options.
- Protect specific resources in the LN Area (Lake Myra Store, other rural/historic features).
- Work with property owners on preservation.
- Transportation issues on key corridors.
- Build more trails.

Key Changes and Recommendations (Full Details in Sections 4 and 5)

- The 2024 LN Area Plan will modify the Wake County future land use map. The key changes are the addition of an Agriculture land use classification and an Open Space (Ownership) land use classification to modernize the plan and reflect the efforts made as part of the Marks Creek Rural Land Initiative.
- The 2024 LN Area Plan will update three multi-use districts (MUDs) in the LN area and remove three MUDs.
- The 2024 LN Area Plan will modify the PLANWake Development Framework Map. The key changes are: 1) the replacement of Community Reserve areas with Community and Walkable Center areas around a recent City of Raleigh annexation; and 2) replacement of Community areas with Rural areas in the Marks Creek watershed.
- The 2024 LN Area Plan will introduce a vision for inter-area trail connections to the adjacent municipalities and adjacent Walkable Centers.
- The 2024 LN Area Plan will introduce a vision for commercial and retail locations in the LN area. These areas will be located on the edges of the LN area to support the emerging municipal areas and reduce impacts in the rural areas.

Next Steps and Follow-up Actions (Full Details in Section 6)

- Develop strategies for housing affordability in Walkable Centers.
- Work with partners to expand interest in and recognition of the historic rural landscape.
- Coordinate with NCDOT Bonus Allocation program to address the most pressing transportation issues.
- Work with partners to adjust transportation plans to align with the 2024 LN Area Plan, including trail planning and connections.
- Work with the City of Raleigh to develop a strategy for the remaining Community Reserve areas designated on the PLANWake Development Framework Map.
- Work with partners to implement the commercial center location strategy over time.
- Work with partners to implement the well investment strategy over time.
- Track commitments to agricultural preservation and open space and adjust the future land use map and metrics as needed.
- Track changes in the LN area overall and address notable changes.

SECTION 2

Existing Conditions and Plans

Lower Neuse Land Area and Land Uses

The LN study area includes about 32 square miles, or 20,500 acres. Of the total about 1,400 acres of the study area were incorporated as part of one of the four surrounding municipalities. **Figure LN2.1** shows the 2024 existing land uses in the study area based

on Wake County parcel data. **Figure LN2.2** details the major land holdings in the LN study area. **Figure LN2.3** details how much of the LN study area was in each land use in 2024.

Figure LN2.1 – 2024 Lower Neuse Area Existing Land Uses

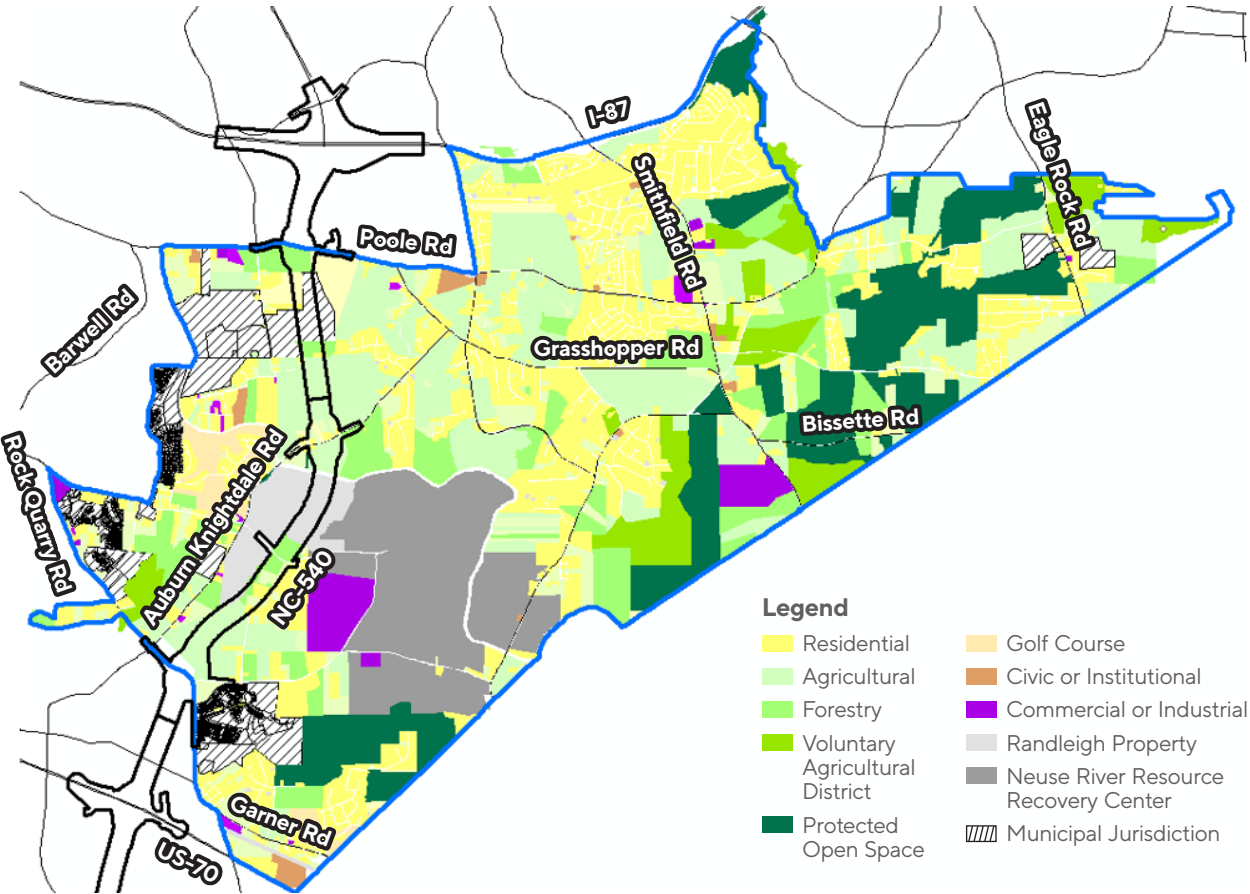


Figure LN2.2 – 2024 Major Land Holdings in Lower Neuse Area

Property Description	Acreage
Neuse River Resource Recovery Center	1,874
Wake County Open Space	1,849
Clemmons Forest (portion in Wake County)	450
Sarah and Bailey Williams Preserve	334
NC 540 (Future ROW)	~180

Figure LN2.3 - Fall 2023 Acreage and Percentage of Land Uses in Lower Neuse Area

Land Use	Acres	%
Residential	4,860	25%
Agricultural	3,505	18%
Forestry	1,592	8%
Voluntary Agricultural District	1,037	5%
Horticulture	146	1%
Protected Open Space	2,317	12%
Golf Course	277	1%
Church / Institutional	619	3%
Commercial / Industrial	451	2%
Neuse River Resource Recovery Center	1,874	10%
Not Developed / Not in Production	1,328	7%
Annexed into Municipal Area	1,316	7%

Current Population and Projections

In fall 2023, the Wake County Planning Division estimated that approximately 17,000 people lived in the LN study area. Of those, approximately 13,000 people lived in Wake County jurisdictional areas and the remainder lived in municipal areas on the edges of the study area.

The United States Census, which reported data for an area slightly larger than the LN area, counted a 2020 population of 24,317 and a 2010 population of 18,401 resulting in a population increase of 5,916 or 32%. These numbers note an increase of about 2,900 people or 16% every 5 years.

Wake County and regional partners maintain future development models that predict where future residents will live across the County. These models currently suggest that the population in LN study

area will be approximately 46,800 in 2045. This would suggest an increase of 22,483 people or 92% from 2020 or an increase of around 4,400 people or 18% every five years.

Race and Ethnicity

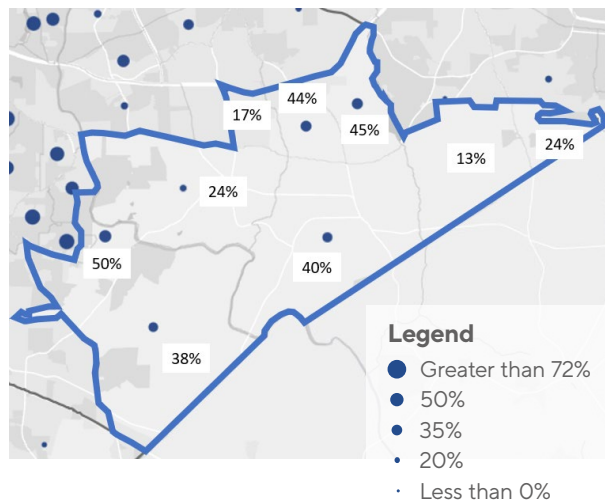
The 2020 US Census reported that the LN study area has a considerably higher population of Black and Hispanic residents than the rest of the county.

The 2020 US Census counted 18.5% of Wake County residents who identified as Black racially, whereas 32% of residents in the LN study area did so (some areas within the LN area reported percentages as high as 50%). See **Figure LN2.4**. The higher Black population in the LN study area is likely a result of three related factors: 1) policies that resulted in many Black residents living east of downtown Raleigh; 2) long-standing and historic ties of Black residents to the rural communities in the LN Area; and 3) and the development of new

and relatively affordable housing in and near the LN area from 1970 to 2020.

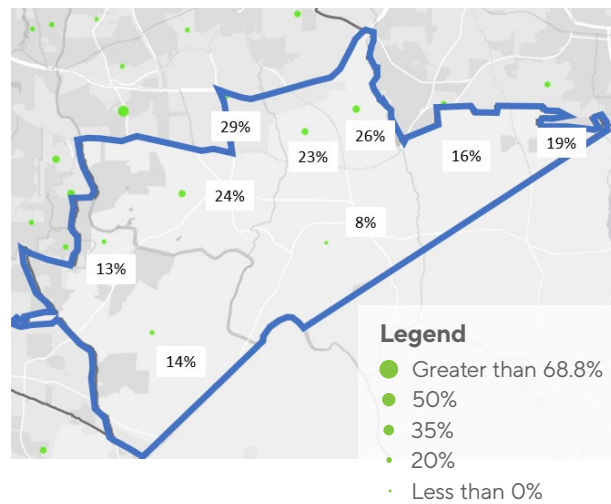
The US Census counted 11.4% of Wake County residents who identified as Hispanic ethnically, whereas 19% of residents in the LN study area did so (some areas within the LN area reported percentages as high as 29%). See **Figure LN2.5**. The higher Hispanic population in the LN study area is likely a result of the overall increase in Hispanic residents in Wake County from 1980 until 2024 and the availability of new and relatively affordable housing in and near the LN area during this same time frame.

Figure LN2.4 – 2020 Census Percent Black in LN Area



Wake County average 18.5% - 1.5 times higher = 28%

Figure LN2.5 – 2020 Census Percent Hispanic in LN Area



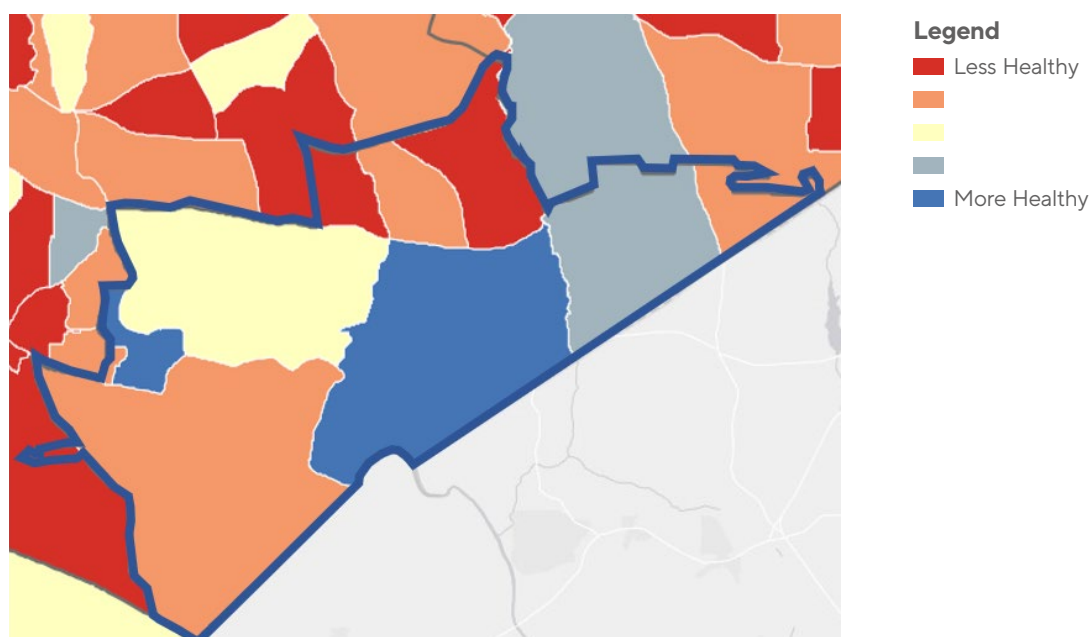
Wake County average 11.4% - 1.5 times higher = 18%

Wake County Economic Health Index

To gauge the relative health of its residents, Wake County has developed an economic index that aggregates various variables to develop a score to identify potential local area needs. The resulting scores, shown in **Figure LN2.6**, in each area are sorted from high, less healthy, to low, more healthy, across the County.

The economic health index in the LN area suggests that areas on the north and west sides of the are less healthy than others. A detailed look at the data in these areas notes a higher percentage of the households paying more than 30% in rent, a higher percentage of residents living just above the poverty level and a higher percentage of the households on food stamp assistance.

Figure LN2.6 – 2021 Economic Health Index in LN Area

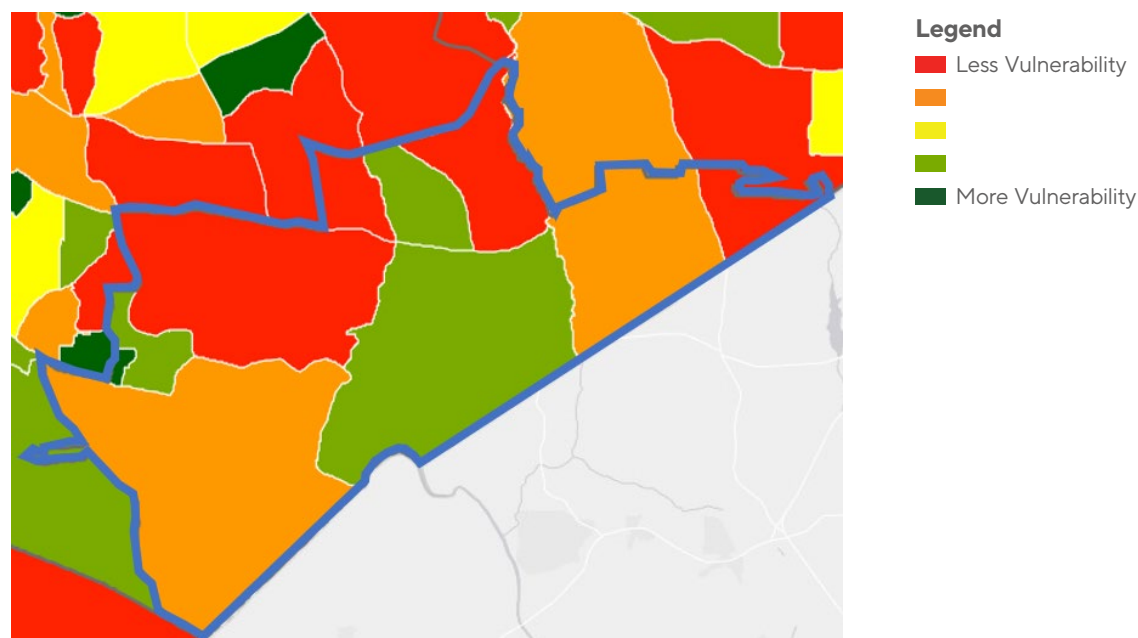


Wake County Community Vulnerability Index

To gauge the relative resilience or the ability to weather changes of residents across the county, Wake County has developed a vulnerability index that aggregates various variables to develop a score to identify potential local area concerns. The resulting scores, shown in **Figure LN2.7**, in each area are sorted from high, more vulnerable to changes, to low, less vulnerable to changes, across the county.

The community vulnerability index in the LN area suggests that areas on the north, west and east sides of the study area are more vulnerable than others.

A detailed look at the data in these areas notes a higher percentage of the population younger than 18 and older than 65, a higher percentage of residents without a high school diploma or equivalent and a higher percentage of residents living below the poverty level in the same areas as identified in the economic health index.

Figure LN2.7 – Community Vulnerability Index in LN Area

Housing

According to the fall 2023 Wake County Parcel data, there are 6,067 houses in the study area. Of these, 1,548 (26%) are in a municipal jurisdiction, 2,919 (48%) are in areas expected to be municipal in the future and 1,600 (26%) are in areas expected to remain rural. County data note that the average assessed housing value in the LN study area is about \$299,300. This is about \$49,000 (14%) less than the countywide average of \$348,400 during the same timeframe.

In 2024, there were about 108 residential developments, totaling about 4,500 acres and containing about 4,700 houses, in the Wake County jurisdictional areas of the LN study area. These developments range from four- to eight-lot developments along a state road to large 400+ lot developments on community well and wastewater systems like Rockbridge, Ashley Hills and Rutledge Landing. Many homes in the LN area get their water from private wells.

The adjacent municipalities have recently annexed into the LN area for residential developments. Notable developments are the 823-unit Edge of Auburn development in Garner, the Hodge Road Assemblage

in Raleigh and the 116-unit Wendell Ridge and 127-unit Eagle Trace developments in Wendell. All these developments are in areas designated as Community or Community Reserve on the PLANWake development Framework Map.

According to the 2024 Wake County Parcel data, there are eight mobile home communities holding around 374 total houses located in the LN study area. Five of these communities are in areas expected to be municipal in the future: Cross Creek at 7650 Poole Road; Hops at 8400 Poole Road; Valley Woods at 2800 Hodge Road; MeadOView at 1400 Bethlehem Road; Underhill at 4300 block of Whitfield Road. Three of these communities, Mobile Seclusion at 2400 Auburn Knightdale Road, Rhodes at 6200 Mial Plantation and Seley's at 10000 Poole Road, are in areas expected to remain rural. Although mobile home communities fill an important role in the county's housing supply, home conditions, ownership structure and the underlying value of the land can put residents at unique risk of displacement. Mobile homes are often occupied by some of the community's most vulnerable populations and are

usually on land not owned by the residents. The cost to change land uses is relatively low for the property owner, and the redevelopment potential of mobile home parks may incentivize owners to sell. During the last few years in other parts of Wake County, several established mobile home communities have been

or are in the process of being sold and redeveloped by the new landowners. As an LN area example, the land that holds the Seley's mobile home community was recently considered for redevelopment (this was denied by the Town of Wendell).

Retail and Commercial Locations

According to the 2024 Wake County Parcel data, there is only one major retail center, specifically one with a grocery store, located on the far west side of the study area at Rock Quarry Road and Battle Bridge Road, within the LN study area. The next closest retail centers with grocery stores are at Wendell Falls, located one mile from the LN northern boundary, Clayton Flowers at 1.8 miles from the LN southern boundary, Garner White Oak at 2.8 miles from the LN western boundary and Knightdale at Business 64 at three miles from the LN northern boundary.

There are six small convenience stores located in the LN study area, and they are located along the main roads of Poole, Smithfield, Auburn Knightdale and Rock Quarry. Two solid waste disposal locations are within the LN area: the Shotwell C&D Landfill at 4724 Smithfield Road and the GFL Wake Reclamation Landfill at 2600 Brown Field Road.

Institutional and Civic Uses

The 1,800-acre Neuse River Resource Recovery Center (NRRRC) operated by the City of Raleigh, the Wake County Law Enforcement Training Center and the City of Raleigh Police Firearms Range are located along Battle Bridge Road. The Raleigh Police Club is located at the southern end of Hodge Road. The City of Raleigh and Wake County own the 414-acre Randleigh Farm property on Auburn Knightdale Road. The Randleigh site is expected to hold city facilities, a park and school. Wake County owns a 224-acre property along Smithfield Road north of Poole Road that is planned for Lake Myra County Park. The Lake Myra County Park site is expected to hold a park center, day-use shelters, a playground, nature overlooks, boardwalks and trails. The Town of Knightdale's Fire Station #3 is located just adjacent

to the LN area on the northside of Poole Road at Grasshopper Road. The City of Raleigh's Barwell Road Community Center and Fire Station #26 are located just adjacent to the LN area at Rock Quarry Road and Barwell Road.

There are nine religious institutions in the LN area: Bethlehem Baptist Church, Clydes Chapel Baptist Church, Faith in the Word Christian Church, Garden Church, Good Hope Baptist Church, Passage Church, Philippian Community Church, Spirit Junction Unity Church, and Tippets Chapel Free Will Baptist Church. Many of these religious institutions are located at the center of historic communities in the LN area and are closely tied to the local rural communities with diverse congregations.

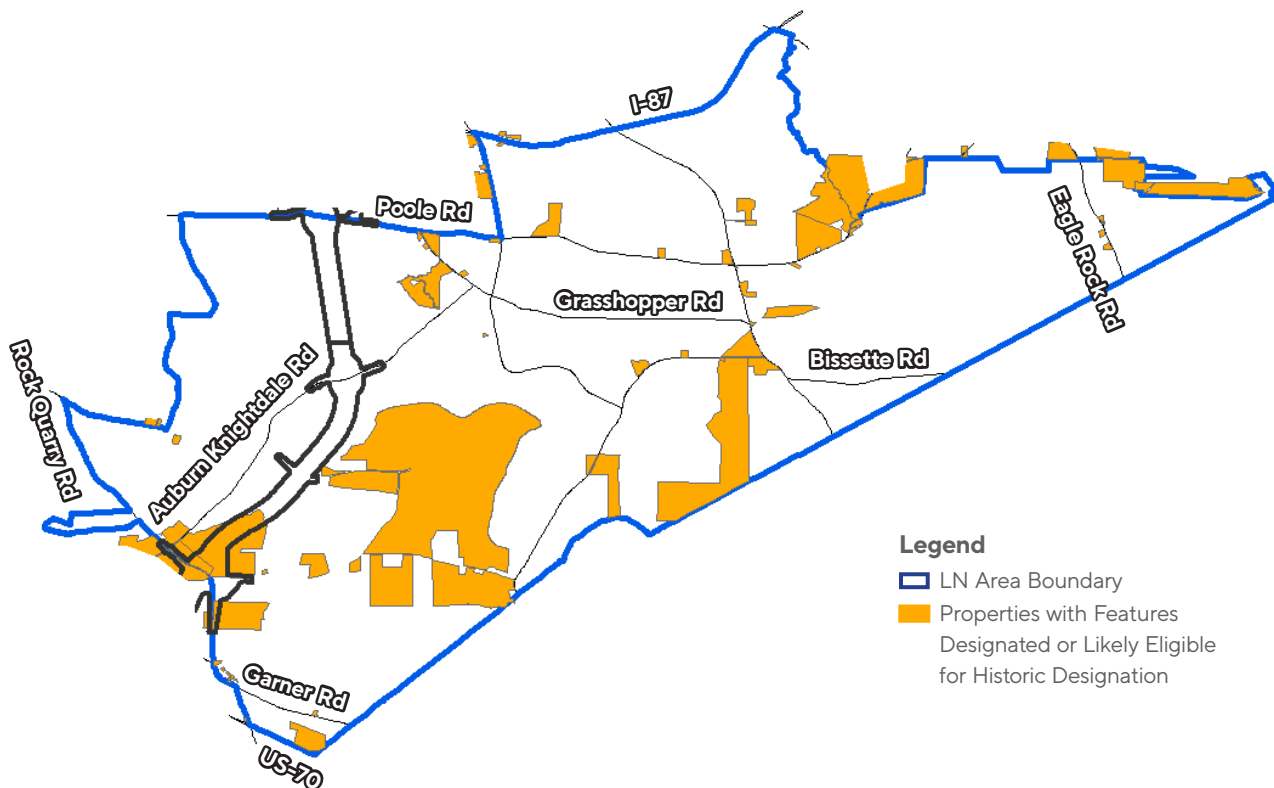
Marks Creek Rural Land Initiative and Historic Properties

Figure LN2.8 details the known historic resources in the LN area. Many of the existing uses in the LN area highlight the areas complex history, including the role of slavery and the changes in land ownership, labor and community connections after emancipation and onward. For over 200 years, the area has been a farming community with homes and farms, barns, pastures, country stores, rural churches and family cemeteries. Although other areas in Wake County have a similar history, this area is unique because so many of the important lands and features remain intact. To address this opportunity, in the early 2000s Wake County and partners developed the Marks Creek Rural Land Initiative with the goal of permanently protecting as much of the rural landscape possible. Many of the properties identified

in this initiative are now protected. The County and its partners will continue to work with other property owners in this area.

Two key areas within the larger Marks Creek Rural Land area are Lake Myra and Walnut Hill. Lake Myra, located at Poole Road and Lake Myra Road, served various roles over the years, including a gristmill, a general store, a bathhouse, a covered dancehall and boating facilities. The Walnut Hill Historic District, located along Mial Plantation Road, is a collection of 40 family dwellings, agricultural outbuildings and other structures and sites associated with the Walnut Hill Plantation, the Mial-Williamson and Joseph Blake farms and the community of Shotwell.

Figure LN2.8 – Historic Resources in LN Area



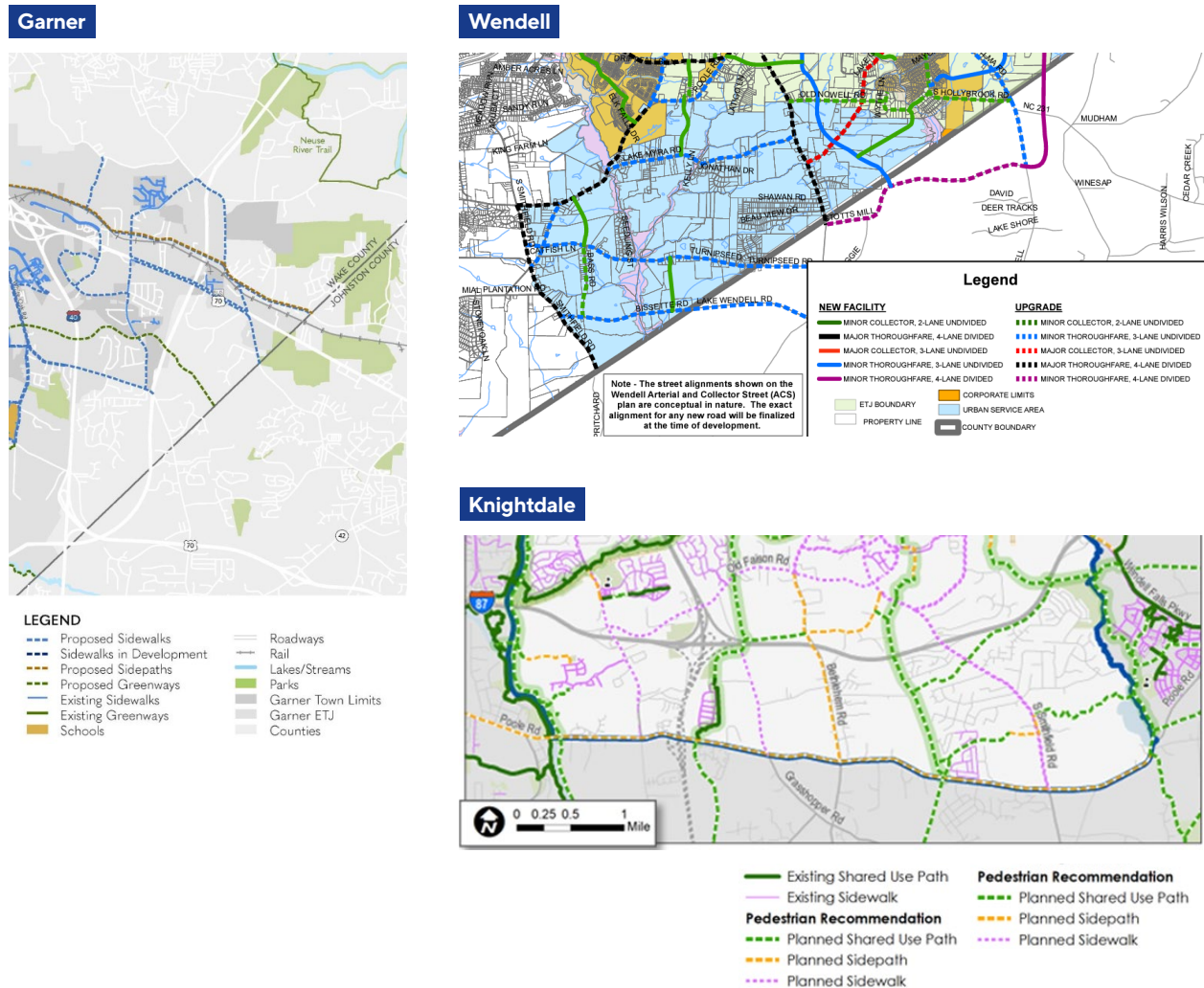
Neuse River Trail and Future Greenways and Trails

The Neuse River Greenway Trail, completed in 2016, runs parallel to the Neuse River across the entire study area. This trail connects to the City of Raleigh trail network to the north and the Town of Clayton trail network to the south. The trail is an important recreational amenity for area residents and the larger community and has spurred support for preservation, natural systems and viewsheds. Trail usage and the differences in speed of the users, i.e., bikes versus pedestrians, suggest that more infrastructure, i.e., a separated path for different uses or a parallel path, may be needed in the future.

Building on the success of Neuse River Trail, the County and all the adjacent municipalities have plans for future trails along connecting stream corridors as

well as wide paths that resemble greenways adjacent to area roads. Importantly, the latest versions of these trail plans have included the concept of creating lower stress routes for cyclists, runners, pedestrians, and other non-motorized users to get around and access services and amenities. These plans note that the stress of many non-motorized trips is caused by the presence of automobiles and trucks and roads that are designed mostly for automobiles and trucks. These plans note that building specific paths for non-motorized trips and carefully designing places where non-motorized and motorized trips interact is essential to the bettering the community's quality of life. Examples of the 2024 versions of the various municipal trail plans are shown in **Figure LN2.10**.

Figure LN2.10 – 2024 Examples of Municipal Trail Maps – Existing and Proposed Trails

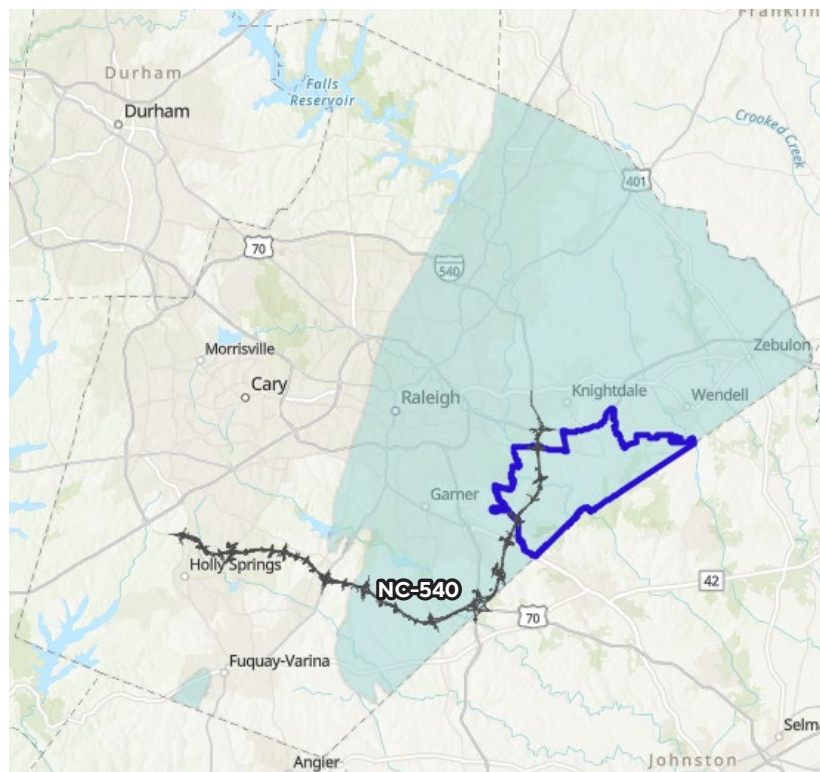


Ground Water / Naturally Occurring Contamination / Community Wells

Wake County private well samples from 2015 to 2020 show that, on average, one in five private wells in eastern Wake County has unsafe levels of contamination. This high percentage of contamination comes from the uranium and radium present in the rock underneath this area. **Figure LN2.11** notes the areas in Wake County affected by this natural contamination. In the short-term, drinking water with

too much uranium can cause kidney toxicity. In the long-term, drinking water with too much uranium or radium – and drinking or bathing in water with too much radon – can increase the risk of certain cancers. These contaminants can be mitigated through installation of individual treatment systems to reduce contaminants to safe levels or by connection to municipal water supply, when and where that is available.

Figure LN2.11 – Wake County Areas with Potential for Naturally Occurring Contamination



Wake County has found wells in this area with unsafe levels of uranium, radon and radium in the water. This notice is to inform you about these naturally occurring groundwater contaminants, so you can decide what actions to take to determine whether your well is impacted. If you currently pay a water bill, you may disregard this notice, because your water system is already being tested.

Legend

- LN Area Boundary
- Areas with the Potential of Naturally-Occurring Groundwater Contaminants

Transportation Plans and Investment Schedules

There are various municipal and regional transportation plans that could impact the LN area in different situations. The municipal transportation plans will direct the modifications to the area roadways in any locations that are annexed and then developed. For the most part the municipal plans call for the existing two-lane roadways to be widened to four

lanes as development occurs. The municipal plans will also require the construction of sidewalks, street-side paths and creek-side greenways. Developments in the County's jurisdiction will be required to dedicate right-of-way for future road widening, street-side paths and creek-side greenways.

Major roadway modifications in the LN area will be constructed by the North Carolina Department of Transportation (NCDOT). The timing of these investments is determined by the regional 2050 Metropolitan Transportation Plan (MTP). The 2050 MTP schedules projects based on the impact modifications would have on existing transportation concerns, i.e., safety, congestion and available funding. The projects scheduled for the LN area are shown on Figure LN2.12.

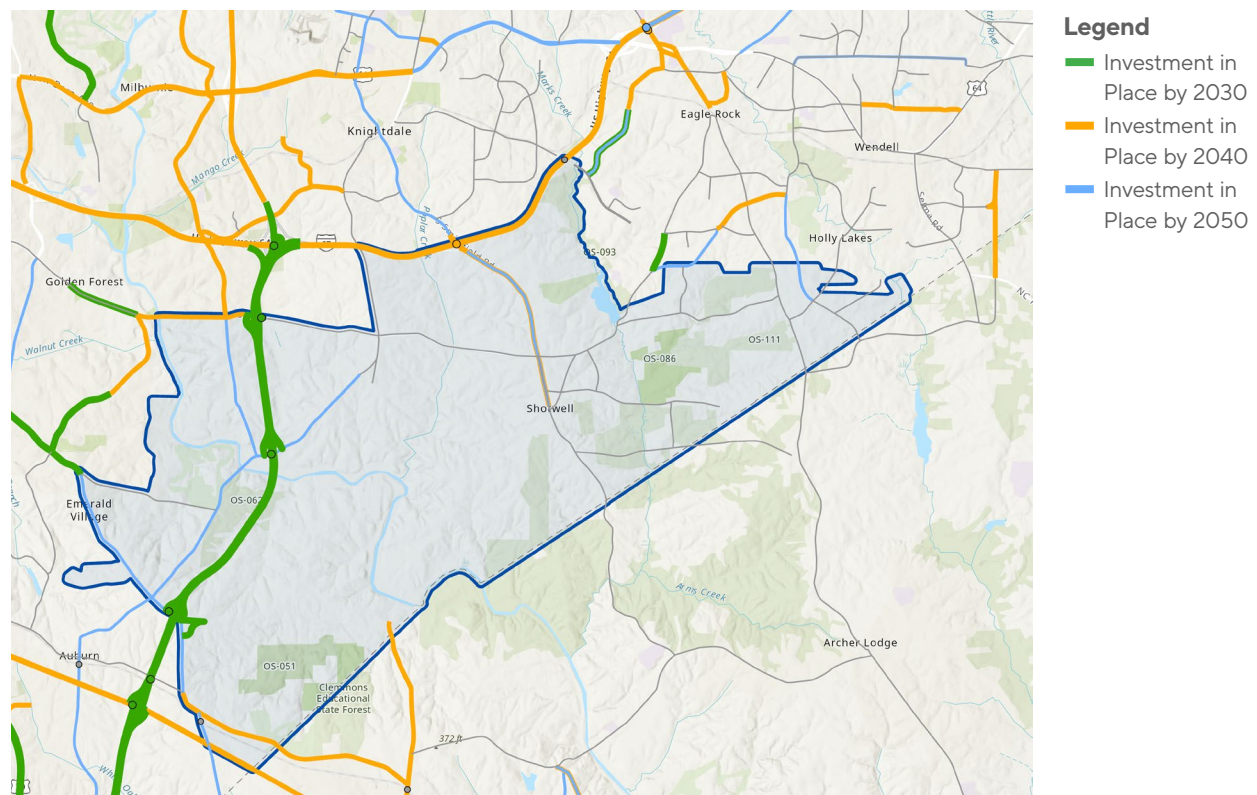
NC-540, proposed to be complete in 2028, is the only project in the LN area currently proposed to be completed by 2030. This project will have a significant impact of the LN area particularly around the proposed interchanges at Poole Road, Auburn Knightdale Road, and Rock Quarry Road. To address some of the transportation concerns in the area that result from the new section of NC-540, it is expected that few smaller road and intersection improvements will be added in 2024 through a NCDOT toll road program called Bonus Allocation.

A few roads in the LN study area are scheduled for work by 2040. These include a widening of Garner

Road from Rock Quarry Road to Shotwell Road, a widening of Shotwell Road to Old Baucom Road, a widening of Poole Road from Barwell Road to NC-540, a widening of I-87 from six lanes to eight lanes and a new roadway on the east side of Wendell from NC 231 to Morphus Bridge Road. The projects scheduled for work by 2050 are Rock Quarry Road from US 70 to Battle Bridge Road, a widening of Auburn Knightdale Road from Garner Road to Grasshopper Road, a widening of Smithfield Road from I-87 to Grasshopper Road, and new roadway on the westside of Wendell from Poole Road to Lake Glad Road.

Since many projects in the area are still decades away there is time to determine the best solutions to balance the needs of vehicle traffic and the larger community. In 2019 NCDOT changed its policies to allow full funding for pedestrian and bicycle side paths if they are included as part of the project request and a non-NCDOT agency agrees to long term maintenance.

Figure LN2.12 – 2050 Adopted Metropolitan Transportation Plan – Proposed Roadway Changes



Water and Sewer Infrastructure and Expansion

Municipal water and wastewater lines allow properties to develop more densely. The goal of municipal water and sewer investment is to have the right capacity in the right place to meet community goals. In a fast-growing area like Wake County this can be extremely challenging, especially with developer-financed expansion, the high cost of major investment and evolving community goals.

In 2005, the area municipalities of Raleigh, Garner, Knightdale, Wendell and Zebulon merged their water and sewer systems (Wake Forest and Rolesville are also part of this regional utility). In accordance with the regional utility plan, the City of Raleigh assumed sole responsibility for operating, maintaining, improving and expanding the water and wastewater collection system that serves all the towns. Under this structure, the municipalities work together to schedule upgrades and improvements to the water and sewer system.

Within the LN area, the regional utility has resulted in the construction of major water supply lines and the installation of gravity sewer lines in major creeks to lift stations that connect to the Neuse River Resource Recovery Center. These investments were planned with the 2000-2004 future service areas in mind. Luckily, many of these investments also line up well with PLANWake. For example, the regional utility installed a sewer lift station at Poplar Creek and Poole Road, a location that served as the southern boundary of Knightdale in previous plans and is still the southern boundary in PLANWake.

The LN area also contains a high number of Wake County jurisdictional subdivisions on community wells and on community wastewater. Wastewater in these subdivisions drain to a central location and then is treated in a private facility.

Previous County Land Use and Area Plans

The LN Area Plan was part of three different area plans during the 2000-2004 area plan updates. **Figure LN2.13** shows the LN study area as it was studied in 2000-2004 and the future land use classifications adopted at that time. The yellow shading on the maps depicts future residential with the different shades of yellow representing different future densities of residential development.

The three big components of the 2000-2004 planning work were, identification of the future land use classifications, support of the annexation boundaries established by the municipalities and support for future and planned municipal expansion

into the established areas. In 2000-2004, there was no large area in the LN Area Plan that was anticipated to remain non-municipal long-term. The plan anticipated that all the land in the LN study area would eventually be municipal and over 80% of the land area was designated as future residential. The only properties identified as future non-residential were the Neuse River Resource Recovery Center, the NC-540 corridor, a few industrial properties and major historic properties including the Bailey and Sarah Williamson Farm.

Figure LN2.13 – 2000-2004 Wake County Planning Studies and Future Land Use Classifications

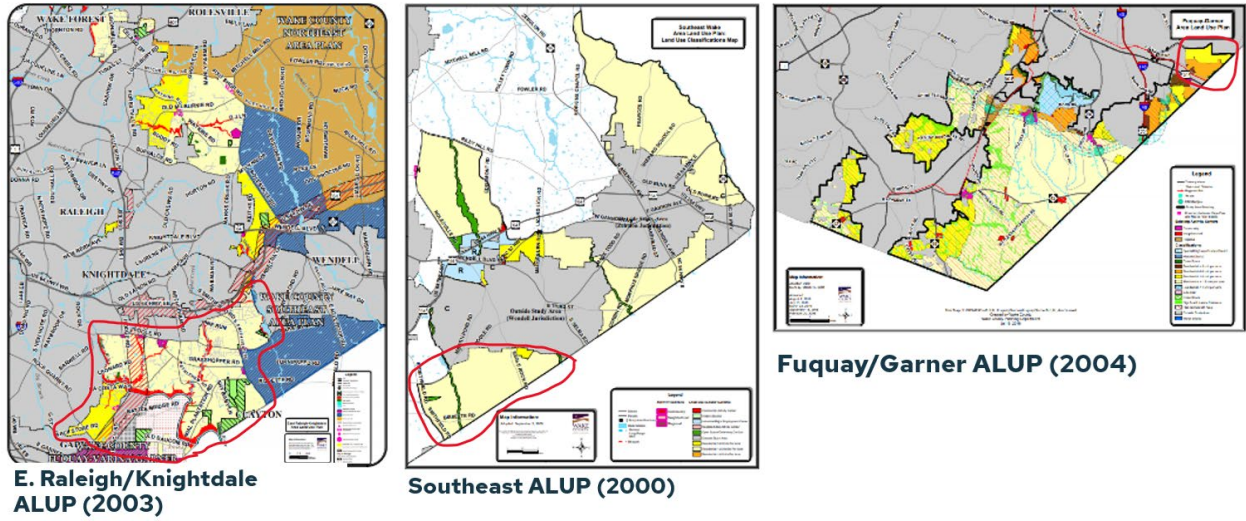


Figure LN2.14 – Municipal Annexation Boundaries Compared to 2023 PLANWake

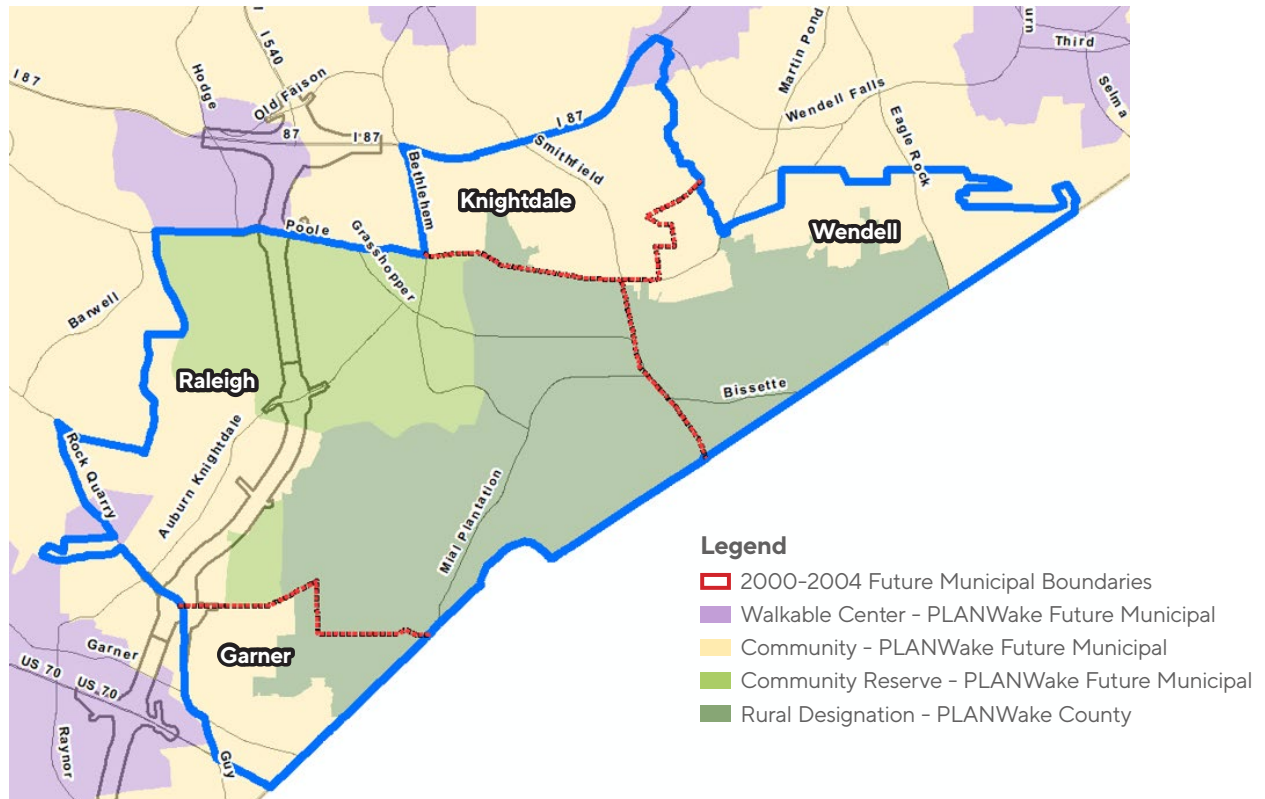


Figure LN2.14 details the annexation boundaries developed in 2000-04. The red lines note which municipality were supposed to provide services to each area and note how far into the LN area the municipalities were expected to expand. These boundaries were used as a guide in municipal water and sewer planning but cost and phasing also played

a role. As noted in the Water and Sewer Infrastructure and Expansion section, the current location of major water and sewer infrastructure aligns well with the new PLANWake boundaries. In PLANWake, the municipal areas are defined as any non-rural designation.

SECTION 3

2024 LN Public Engagement and Comments

2024 LN Public Engagement Overview

Public engagement for the 2024 LN Area Plan, and all the area plans, builds off the 12+ months of outreach conducted as part of PLANWake. The engagement for PLANWake was broad, extensive, and inclusive to develop overarching goals to move the County

forward on multiple fronts. The 2024 LN Area Plan process was intentionally faster and more focused; a quick look at the best ways to apply and implement PLANWake in the LN area today.

Online / Virtual Engagement

The 2024 LN Area Plan public outreach started in July 2023 with a kick-off meeting and online engagement tools. The online engagement tools stayed open for comment throughout the entire study to allow

anyone to comment at any time. **Figure LN3.1** shows a word cloud of the most mentioned issues online. **Figure LN3.2** details the comments that were most supported by other participants.

Figure LN3.1 – 2024 LN Word Cloud of Commonly Mentioned Tools in Online Engagement



Figure LN3.2 – 2024 LN Most Upvoted Comments in Online Engagement



Ideas and Suggestions

I think we should partner with the community/local businesses to make the greenway more commutable and as an option to bike/walk to places.



Ideas and Suggestions

It was proposed to turn Lake Myra into a public park several years ago. Would love to see that become a reality. It would be great to have a local lake with walking trails, fishing, and paddle boating.



Ideas and Suggestions

Better access for kayaking.



Ideas and Suggestions

The intersection of Smithfield and Poole rd needs left hand turn lanes from all directions and for the light to contain a left turning light. Traffic backs up here and drivers will often drive around lefthand turners which creates a very dangerous situation.

Follow-up Meetings / Discussions

Since the 2024 LN study was focused on finding the right ways to apply PLANWake in the LN area, it was important to hear from those who would be impacted by policy changes, specifically landowners and residents. A focused in-person event was held in the study area in September 2023 hosted by Triangle Land Conservancy at the Bailey and Sarah Williamson Preserve. A second in-person engagement event was hosted by the Good Hope Baptist Church in January 2024. Participants at the second meeting were able to review a draft version of 2024 LN proposed

future land use map and the proposed changes the PLANWake Development Framework Map.

Various stakeholder groups were contacted for further input. The pre-existing dialogue between the Wake County Soil and Water Conservation District and the area landowners and farmers was invaluable to this study. The study also benefited from direct conversations with Black faith-based organizations, landowners, farmers, and residents.

Influence of Public Engagement

Public engagement directly influenced the 2024 LN Area Plan. First, the only properties that were designated as Agricultural on the future land use map are those where a specific dialogue with the property owner occurred. Second, various community members noted strong and historic ties to the area's rural landscape and rural economy.

For these individuals, preservation presented more opportunity than uncontrolled development. Third, participants wanted clarity. Many stakeholders noted they understood some development was inevitable, but they hoped there was a strategy for how development could be encouraged in some areas while other areas were preserved.

2024 LN Public Engagement Summary

The input from the 2024 LN engagement is summarized in the following bullet points.

- **Protect the unique area.** Respondents stressed the uniqueness of this area, particularly in Wake County. Many noted how many aspects of the historic rural landscape were intact.
- **Need closer retail options.** Respondents noted the need to travel for retail destinations, particularly higher quality groceries.
- **Protect specific resources in the LN area.** Respondents noted the need to protect the Lake Myra Store and other rural and historic features in the area. Respondents noted that many features were located next to roadways and could be impacted by plans to widen.
- **Work with property owners on preservation.** Respondents want agencies to find the right solutions. Many noted they appreciated the options to development created by the Wake County Open Space Program, the Triangle Land Conservancy, other preservation groups and the Wake County Soil and Water District, but wanted a voice in the process.
- **Transportation issues on key corridors.** Respondents noted that area roadways, specifically Smithfield Road, are extremely congested for large portions of the time.
- **Build more trails.** Respondents noted the popularity of the Neuse River Trail and noted that more trails should be built to more destinations, including employment centers and open space.

Engagement Equity Check

An important exercise in any public engagement process is to validate the results against known concerns of vulnerable populations including cost, access, and opportunity. The bullet points noted on providing more retail and addressing traffic concerns likely do so. If addressed well, i.e., a focus increasing access to all sorts of uses versus just recreation, the trail comment would also align.

The comments on preservation may benefit all residents in the Rural areas where preservation would be encouraged but could impact residents, particularly vulnerable populations, in the Community and Walkable Center areas where development will be encouraged. Based on this, a follow-up item has been added to better develop tools for housing affordability in Walkable Centers.

SECTION 4

2024 Lower Neuse Area Future Land Use Map

Figures LN4.1 – LN4.3 detail aspects of the 2024 LN Future Land Use Map. Details on notable changes, key objectives and use of the LN Future Land Use Map are provided after the figures.

Figure LN4.1 – 2024 Lower Neuse Area Future Land Use Map

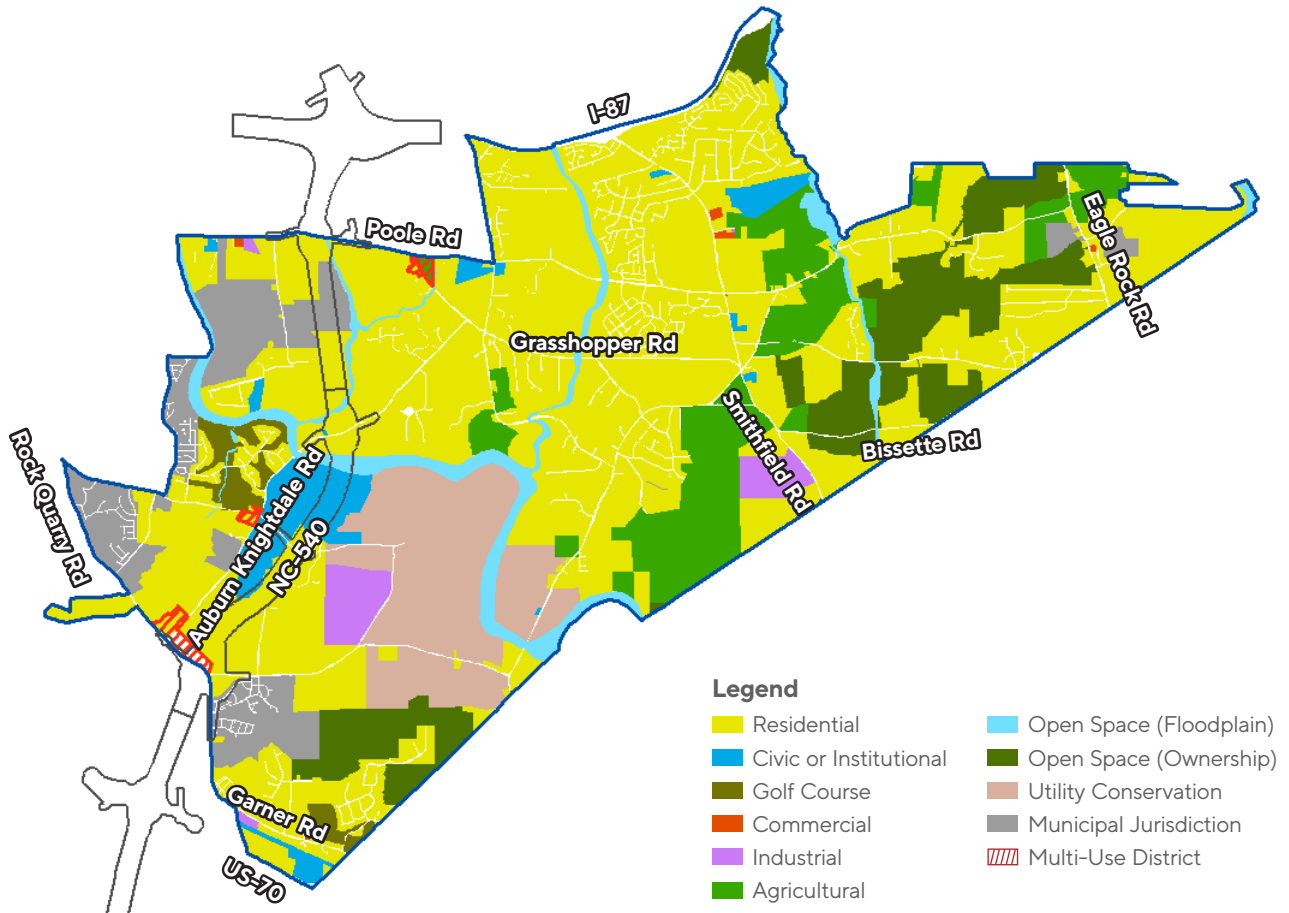


Figure LN4.2 – Classifications on the 2024 Lower Neuse Area Future Land Use Map

Land Use Classification	Description
Residential	The Residential classification indicates existing or planned locations for any type of residential land uses. The density of development in the County areas will be limited by wastewater treatment requirements. Based on previous policies and zoning this is the base classification for the LN study area.
Civic & Institutional	The Civic & Institutional classification indicates existing or planned locations of schools, religious institutions, government facilities or community centers.
Golf Course	The Golf Course classification indicates existing golf course locations where operations are expected to continue for decades.
Commercial	The Commercial classification indicates existing locations of public-facing retail and service uses. Commercial operations have been at many of these locations for decades.
Industrial	The Industrial classification indicates existing locations of industrial operations.
Agricultural	The Agriculture classification indicates areas where land owners have specifically committed to maintaining lands for agricultural operations and/or agricultural businesses for decades.
Open Space (Flood Plain)	The Open Space (Flood Plain) classification indicates areas that are restricted from development or redevelopment to reduce impacts from regular flooding. These areas can be used for appropriate active or passive recreation, including greenways.
Open Space (Ownership)	The Open Space (Ownership) classification indicates properties that have been purchased by Wake County or the State of North Carolina specifically to preserve open space. These properties may be used for appropriate active or passive recreation or agricultural operations.
Utility Conservation	The Utility Conservation classification indicates properties owned by the City of Raleigh as part of the Neuse River Resource Recovery Center. The goal of this classification is to allow the areas to be used as needed to accomplish the current and evolving roles of the Recovery Center while maximizing the natural character and rural viewshed aspects of the site. All development activities in this classification shall be undertaken in a manner that, to the extent possible, prevents the loss of habitat and valued natural resources and is focused on sustaining and improving the existing natural characteristics of the entire site.

Figure LN4.3 – Acreage and Percent of Land Area in each Classification on the 2024 LN Future Land Use Map

2024 Future Land Use	Acreage	%
Residential	10,641	54.6%
Civic and Institutional	639	3.3%
Golf Course	230	1.2%
Commercial	23	0.1%
Industrial	362	1.9%
Agricultural	2,001	10.3%
Open Space (Flood Plain)	739	3.8%
Open Space (Ownership)	1,822	9.3%
Utility Conservation	1,706	8.8%
City of Raleigh	912	4.7%
Town of Wendell	84	0.4%
Town of Garner	333	1.7%

Notable Changes of the 2024 LN Future Land Use Map

The 2024 LN Future Land Use Map makes four notable changes.

- Add a land use classification for Agriculture.** This classification allows visual recognition of the number of property owners who have made longer-term commitments to rural land and agriculture operations. In previous future land use projections, the future use of property was shown to change regardless of the goals of the property owner. The new effort allows property owners who request it to designate properties as agricultural as a future land use. This was not an option in Wake County previously.
- Add a land use classification for Open Space (Ownership).** This classification allows visual recognition of the efforts of the County and State of North Carolina to conserve the unique landscape in the LN area.
- Correctly classify existing Institutional, Golf Course, Commercial, and Industrial uses.** These land use classifications note that these existing uses are expected to continue to operate. Future expansion and use of these locations must comply with the Wake County Unified Development Ordinance and other related policies.
- Classify the Neuse River Resource Recovery Center as Utility Conservation.** This land use classification, originally developed for the land surrounding the Harris Nuclear Plant facility, notes that large properties can serve multiple roles. The classification notes that the location will continue to be used for its primary purposes while maximizing the natural character and rural viewshed aspects of the site.

Key Objectives and Usage of the 2024 LN Future Land Use Map

The future land use map will be used by Wake County to evaluate development proposals and will also serve as visual recognition of preservation efforts. Over time the map will reflect changes in municipal boundaries and development.

SECTION 5

Other Planning Elements

Municipal Transition Standards (MTS)

In 2022, to better align policies with the goals of PLANWake, Wake County adopted its MTS policy. This policy builds off and expands the requirements of the Transitional Urban Development Policy (TUDS) that was put in place around the time the area plans were originally adopted in 2000-04.

The older TUDS policy applied to residential developments proposed in Wake County's jurisdiction that were located less than 2,500 feet to an existing public water or sewer line (utilities). The TUDS policy required the developments to either connect to utilities and become municipal or to justify why a connection was not feasible.

The MTS policy expanded applicability of the policy to commercial as well as residential developments. It included all properties designated as Community, Walkable Center or Community Reserve on the PLANWake Development Framework Map well as those within proximity to an existing utility. The policy requires any potential developer in these areas to talk with the municipality before talking to the County.

The MTS tool, combined with many of the other planning elements listed, will better link municipal and developer efforts to achieve important goals set forth in PLANWake.

Multi-Use Districts

Formerly known as Activity Centers, Multi-Use Districts (MUDs) are the places stakeholders have felt are most appropriate for commercial and mixed-use development to occur. Typically, these are located at the intersections of major or moderate-sized roadways. In many instances, the district is centered around a location that is or has historically been a commercial use. A good example of this would be a gas station or community store that historically served the needs of the area population. The County uses MUDs to guide decisions on rezoning requests and development permits.

The LN Study process reviewed commercial sites, including the MUDs, in the LN area. After this review it was determined that three of the existing MUDs within the LN area should be left in place with the boundaries adjusted to match current jurisdictional lines and context added to describe how the MUDs interact with municipal development and the PLANWake Development Framework Map. The 2024 LN Study process removed the MUD at Smithfield Road and Poole Road.

There are three legacy MUDs from previous planning efforts in the LN area. Based on the PLANWake Development Framework Map, two of these – at Rock Quarry Road and Auburn Knightdale Road, and at Auburn Knightdale Road and Battle Bridge Road – are in areas designated as Community or Community Reserve and should be focused on preserving opportunity areas for commercial development to occur and expand as the municipal areas expand. These two MUDs will be designated as municipal focused districts. The third remaining MUD, at Poole and Grasshopper roads, is in a Rural designated area and should be focused on how a proposed use fits and serves the existing population. This district will be designated as Rural district.

Two MUDs that were created by previous studies and are located just outside the LN area are removed because of changes in municipal jurisdictions since 2004.

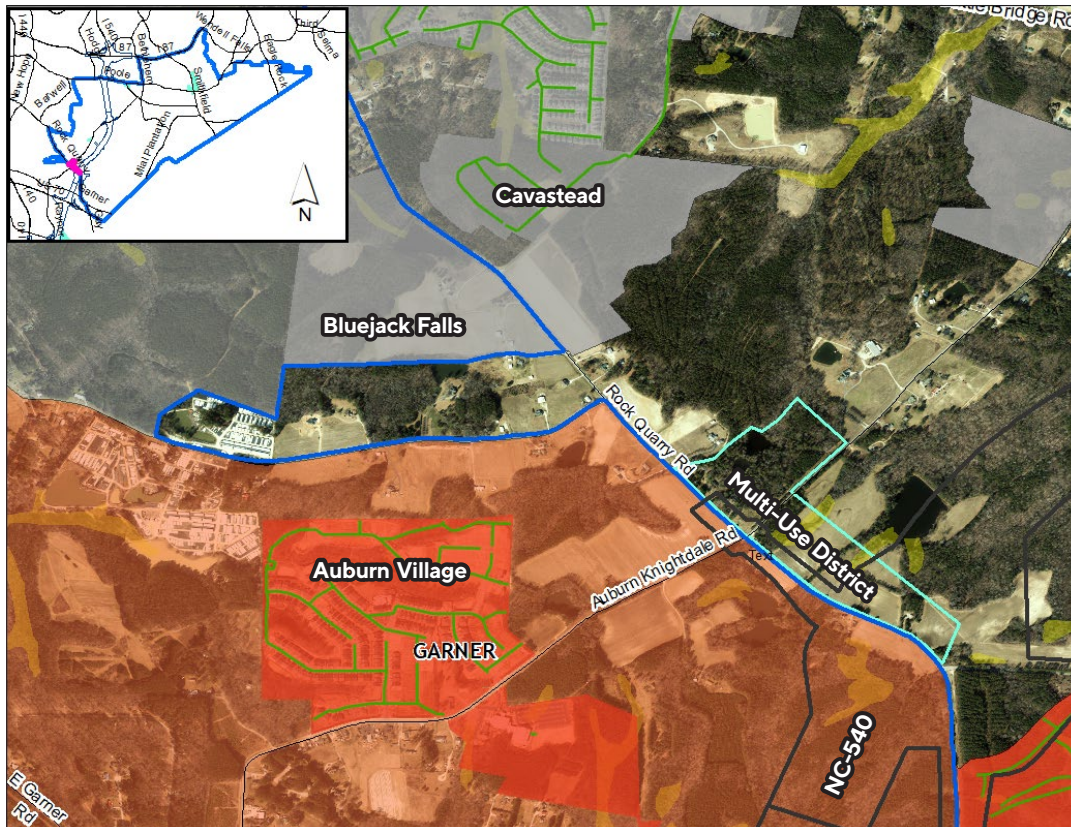
Multi-Use District at Rock Quarry Road at Auburn Knightdale Road (Municipal / Community)

The Rock Quarry Road at Auburn Knightdale Road Multi-Use District, as detailed on **Figure LN5.1**, was created in 2004. Since that time Wake County has not permitted any commercial uses. In 2023, the district was used for residences and agriculture. The southeastern edge of the district will be impacted by the construction of NC-540, expected to be complete by 2028. This district is less than a quarter mile from the Rock Quarry Road Walkable Center shown on the PLANWake Development Framework Map. This area was identified as one of the City of Raleigh's priority expansion areas in 2023. The district is directly

adjacent to the Town of Garner's ETJ, although at the border between Garner and Raleigh's future annexation agreement boundary and is less than half a mile from the Auburn Village Development.

The PLANWake Development Framework Map identifies this area as Community. In 2023, the City of Raleigh identified this area as a priority expansion area but noted it may take further City investment to fully serve this area. Wake County should work closely with Raleigh on future development proposals in this area.

Figure LN5.1 – Multi-Use District at Rock Quarry Rd and Auburn Knightdale Rd (Municipal / Community)



Multi-Use District Designation: Community
Multi-Use District Current Size: 57 Acres
2024 Current Uses: Residential
 Agricultural

2024 Recommended District Boundary Changes: None
2023 Development Framework Map Designation:
 Community / Rural

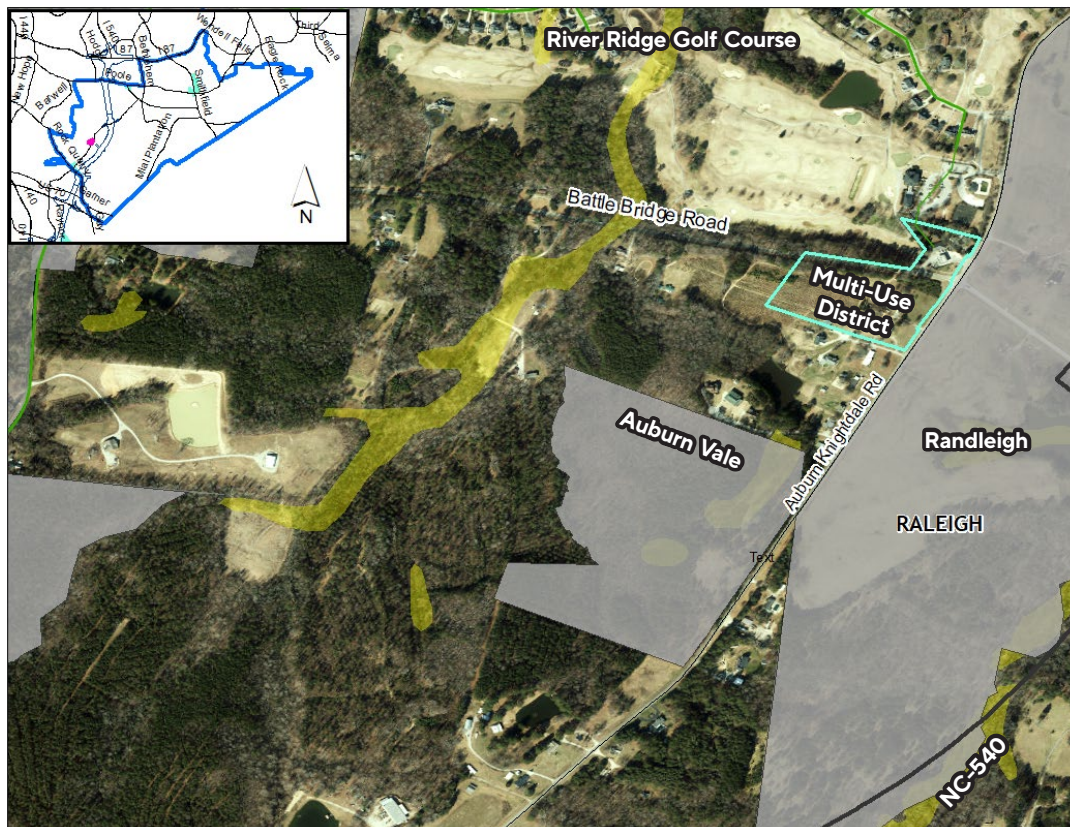
Multi-Use District at Auburn Knightdale Road at Battle Bridge Road

The Auburn Knightdale Road at Battle Bridge Road Multi-Use District, as detailed on **Figure LN5.2**, was created in 2003. Since that time Wake County has not permitted any new commercial uses. The Bagwell C-Stop convenience store and gas station operates on the northern portion of the district. In 2023, the remainder of district was used for residences and agriculture. This area was identified as one of the City of Raleigh's priority expansion areas in 2023. In 2007, Raleigh annexed the 414-acre Randleigh Farm property located across Auburn Knightdale from the district. This site is planned for City facilities

and potentially a park and school. In 2023, Raleigh annexed a 44-acre site, located a quarter mile south of the district, for a proposed residential development known as Auburn Vale.

The PLANWake Development Framework Map identifies this area as Community. In 2023, the City of Raleigh identified this area as a priority expansion area but noted it may take further City investment to fully serve this area. Wake County should work closely with Raleigh on future development proposals in this area.

Figure LN5.2 – Multi-Use District at Auburn Knightdale Rd and Battle Bridge Rd (Municipal / Neighborhood)



Multi-Use District Designation: Neighborhood

Multi-Use District Current Size: 11 Acres

2024 Current Uses: Bagwell's Convenience Stop
Residential
Agricultural

2024 Recommended District Boundary Changes: None

2023 Development Framework Map Designation: Community

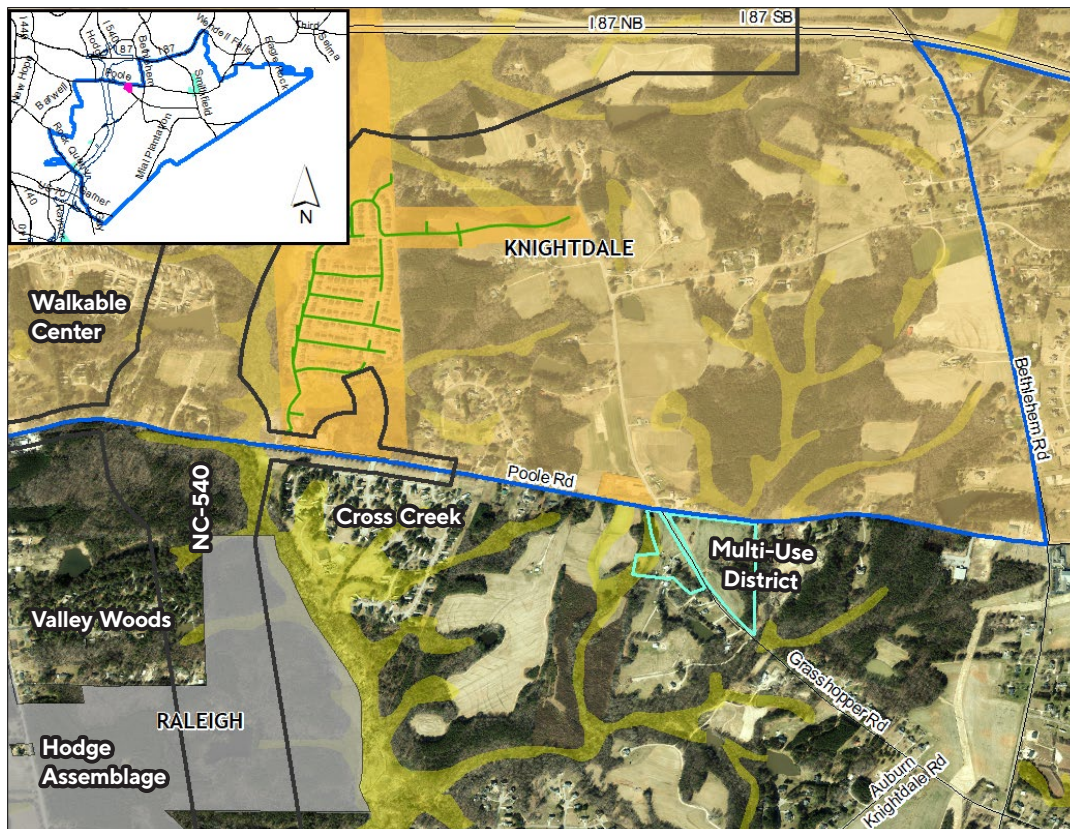
Multi-Use District at Poole Road at Grasshopper Road (Rural)

The Poole Road at Grasshopper Road Multi-Use District, as detailed on **Figure LN5.3**, was created in 2003. In 2007, the Town of Knightdale expanded its planning jurisdiction to include the areas north of Poole Road at Grasshopper Road. In 2023, the Town of Knightdale constructed a Town fire station on the northeast corner of Poole Road and Grasshopper Road. Grasshopper Farms operates on the eastern side of the remaining district. This rural-focused retail business operates in a structure from the 1890's that once housed Broadwell's Grocery. Grasshopper Farms operates a plant nursery and hosts activities

like a corn maze, a pumpkin patch and farm fun park where people can connect with rural and agricultural lands. Grasshopper Farms works closely with Wake County's Soil and Water Conservation District and is a recognized agricultural business.

The PLANWake Development Framework Map identifies the remaining Wake jurisdiction area as Rural. Wake County should work closely with Wake County's Soil and Water Conservation District to support agricultural businesses in this area.

Figure LN5.3 - Multi-Use District at Poole Road and Grasshopper Road (Rural)



Multi-Use District Designation: Neighborhood

Multi-Use District Current Size: 20 Acres

2024 Current Uses: Grasshopper Farms
Residential
Agricultural

2024 Recommended District Boundary Changes: Delete in Knightdale jurisdiction

2023 Development Framework Map Designation: Rural

Multi-Use District at Smithfield Road and Poole Road (REMOVE)

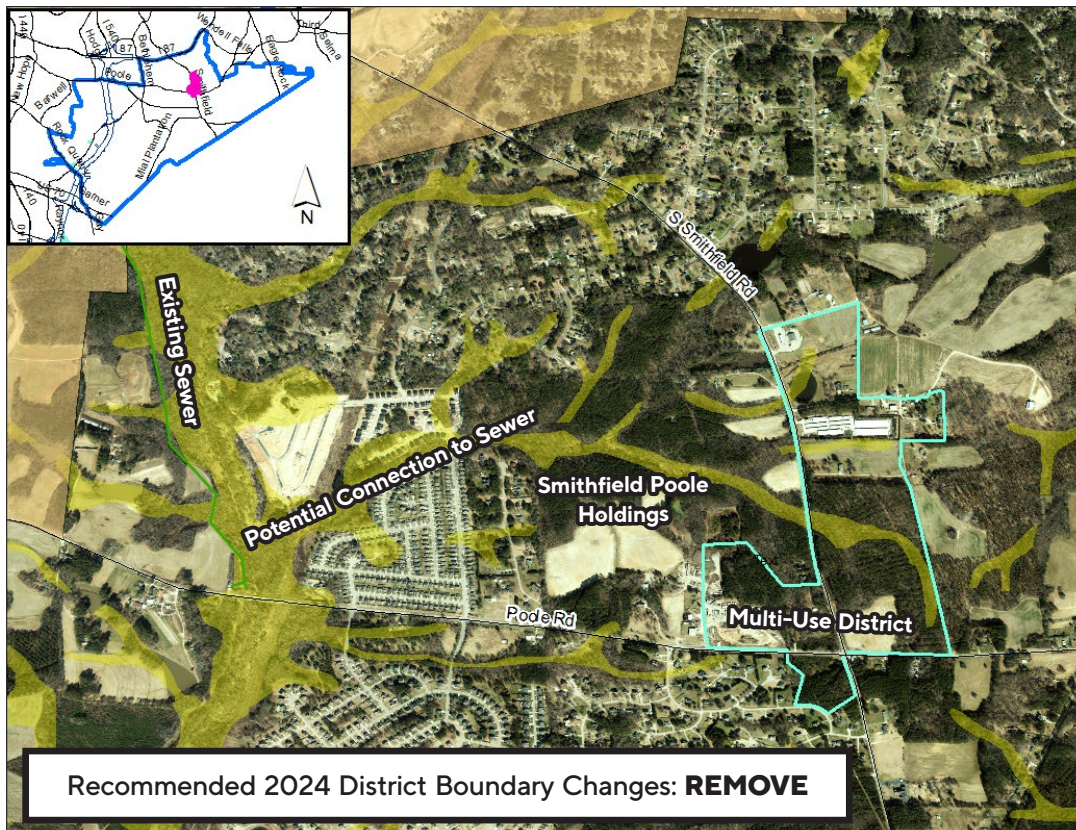
The Smithfield Road and Poole Road Multi-Use District, as detailed on **Figure LN5.4**, was created in 2003. Since that time Wake County has permitted the development of the Poor Boy Farm General Store and a mini-storage location. Hopkins Inc operates along Poole Road on a long-standing commercial property. In 2021, Food Lion purchased the seven-acre corner lot created by the Moorefield Development on the southernmost part of the district south of Poole Road. In 2022, Smithfield-Poole Holdings LLC purchased 200 acres of property which included the largest remaining non-commercial part of the district at the northeast corner of the Smithfield and Poole Road intersection. The remainder of the Smithfield-Poole Holdings LLC property sits on the western edge of the district and extends toward the west creating a potential route to connect the district to municipal utilities.

municipal areas and the rural area. In 2023, the Town of Knightdale reaffirmed its interest in a future mix of commercial and residential used in this area but noted it is at the very edge of its future service area.

The Smithfield Road and Poole MUD was carefully considered during the 2024 LN Area Plan. The 2024 LN Area Plan process determined: 1. The past purpose of the Smithfield Road and Poole Road MUD did not align with the County’s adopted comprehensive plan, known as PLANWake. 2. A change or the removal of the MUD would not change the zoning designation of properties and would not impact future expansion options on properties within the MUD. 3. The existing MUD did not beneficially contribute to the dialogue about how this area should develop in the future. With these considerations, the 2024 LN Area Plan removed the MUD at Smithfield Road and Poole Road.

The PLANWake Development Framework Map identifies this area as the boundary between the

Figure LN5.4 – Multi-Use District at Smithfield Rd and Poole Rd (Municipal / Community)

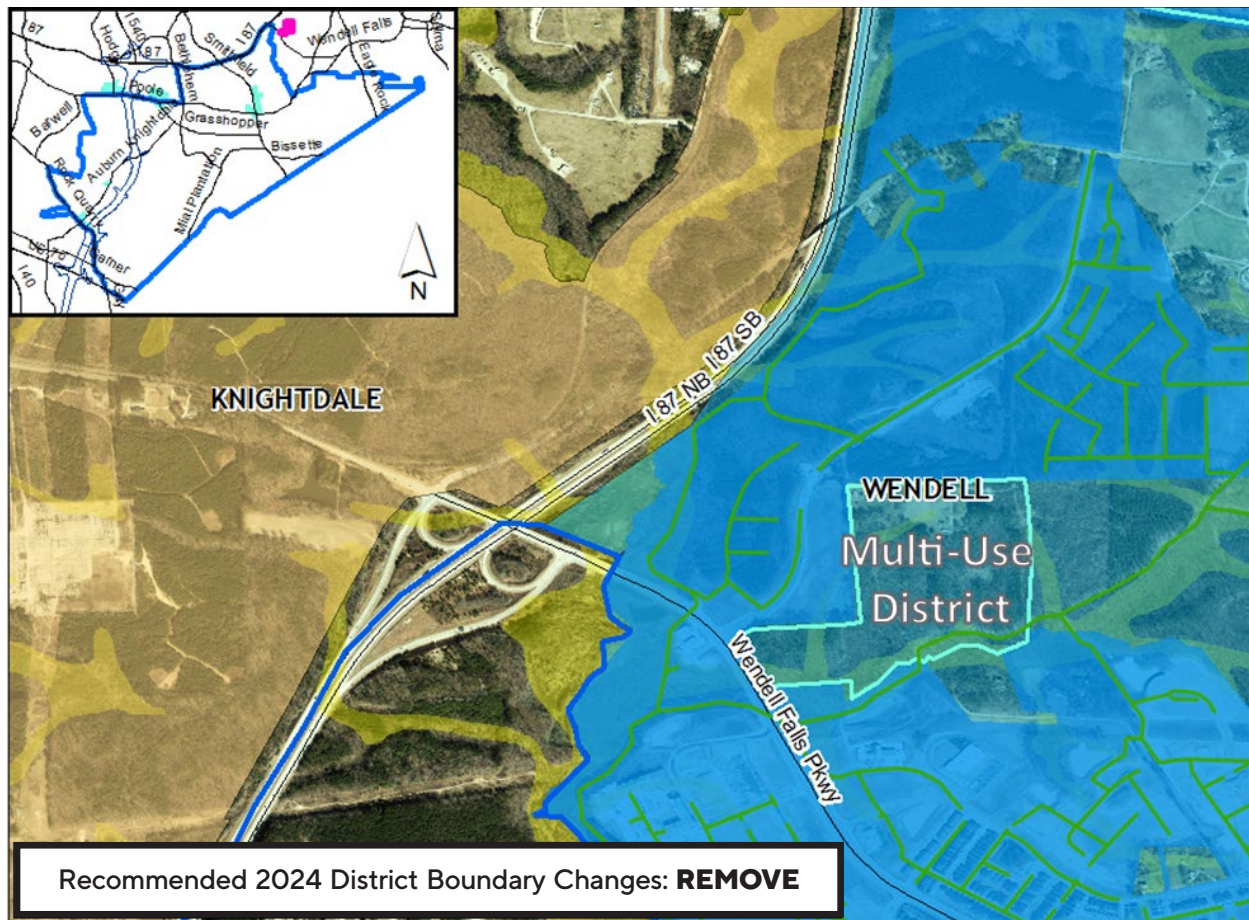


Multi-Use District at Wendell Falls (REMOVE)

The Wendell Falls Multi-Use District, as detailed on **Figure LN5.6**, was created in 2003. In 2009, the Town of Wendell expanded its planning jurisdiction to include the areas around the Wendell Falls annexation. This district is surrounded by properties within the corporate limits of the Town of Wendell.

Since this Multi-Use District is now in the planning jurisdiction of the Town of Wendell, the district will be deleted.

Figure LN5.6 – Multi-Use District at Wendell Falls (REMOVE)



PLANWake Development Framework Map Area Plan Overview

In 2021, Wake County adopted PLANWake. A key component of PLANWake was the Development Framework Map that designates all areas of the County as one of five classifications. The five classifications are, Transit Focus, Walkable Center, Community, Community Reserve and Rural. The Development Framework Map plays two important roles. The first is that it designates the general land uses that are expected in particular areas. For example, the development that occurs in a Transit Focus area is expected to look and feel quite different than the

development that occurs in a Community area. The second is that it replaces older tools, i.e., urban service areas, that set expectations for municipal investment. In general, the new map asks the municipalities to focus on less area but rather prepare to serve areas more strategically and comprehensively and aligned with county-wide priorities like housing affordability, transit access and equitable economic development. The map also notes that the municipalities should not be planning on providing services in the areas designated as Rural.

PLANWake Development Framework Map Changes

The PLANWake Development Framework Map is expected to stay conceptually the same for a long time. This works because the map is big picture with resiliency built in and no single development is required to move the needle over time. That said, it was always expected that the Development Framework Map would be changed and adjusted to best project the overarching vision and align with new information.

In the LN study area, Wake County worked with the City of Raleigh to allow the city more time to work with its residents to determine the best solutions on its eastern edge. As noted on **Figure LN5.7**, this was accomplished by designating areas on the Development Framework Map as Community Reserve. For many decades the City of Raleigh's comprehensive plan called for low-density development just beyond its eastern-most boundary. As the County continued to develop overall and NC-540 neared construction in this area, pressure to develop more densely increased. Importantly, participants in PLANWake overwhelmingly supported placing more connected, walkable development around the new interchanges of NC-540. In 2023, the City of Raleigh annexed the Hodge Road assemblage and is working with the developer to find the right solution for the area. The changes as reflected on **Figure LN5.8** and **Figure LN5.9** adjust the Development Framework Map to reflect recent City of Raleigh decisions but leave other areas unchanged to allow further future community dialogue.

As detailed in Section 4 of this study, one of the major initiatives of the LN study is to allow recognition for property owners who want to make longer-term commitments to rural land and agriculture operations. In previous future land use projections, the future use of property was shown to change regardless of the goals of the property owner. The new effort allows property owners who request it to designate properties as agricultural as a future land use. This was not an option in Wake County previously. The results of the effort in the LN area are shown on **Figure LN4.1**.

The combination of the designation of selected parcels as agriculture, with the efforts of the County and other resource groups to conserve the unique landscape in the Marks Creek area, presented an opportunity to expand the Rural designated areas on the PLANWake Development Framework Map in small but important ways. These changes, as reflected on **Figures LN5.8** and **LN5.9**, extend the rural areas to connect to and reach into the Wendell area in a similar way as the rural area extends into Knightdale along Poplar Creek.

Figure LN5.7 – 2023 PLANWake Development Framework Map with Reasons for Changes

Figure LN5.7 shows the 2023 version of the PLANWake Development Framework map with the reasons for the recommended changes. Note the 2023 City of Raleigh Annexation in the Community Reserve area, and the future agricultural parcels in Community area.

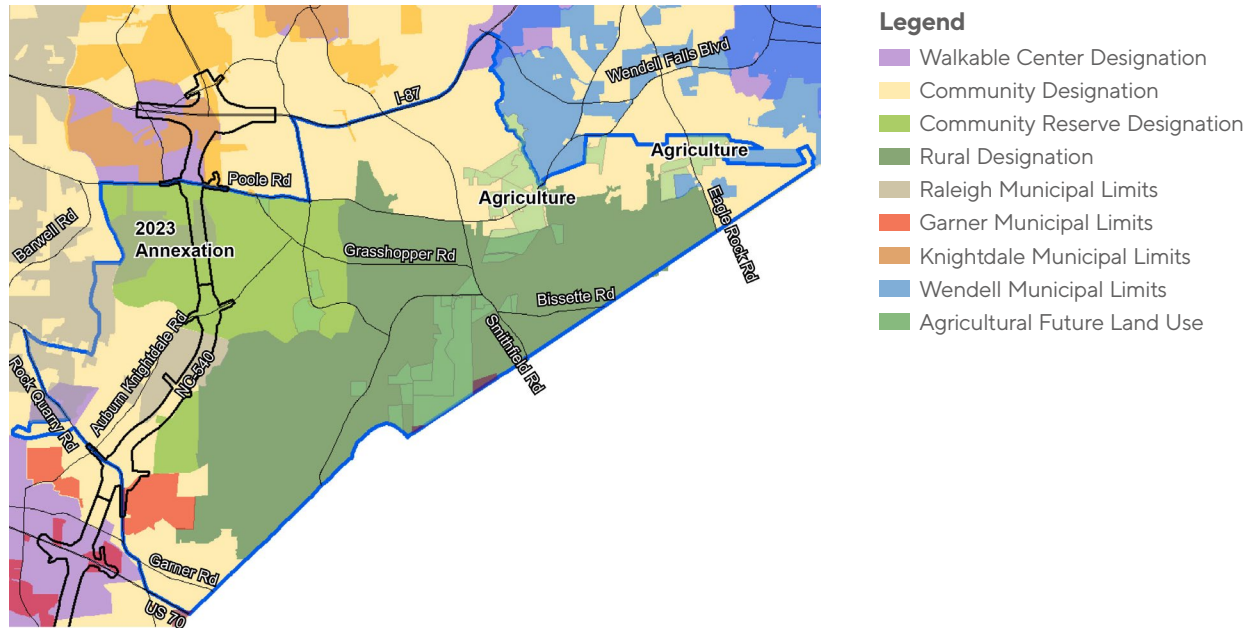


Figure LN5.8 – 2023 PLANWake Development Framework Map with 2024 LN Changes

Figure LN5.8 shows the recommended changes to the 2023 version of the PLANWake Development Framework map.

- 24LN.DFM.1 – Change 900 Acres from Community Reserve to Walkable Center
- 24LN.DFM.2 – Change 560 Acres from Community Reserve to Community
- 24LN.DFM.3 – Change 560 Acres from Community to Rural
- 24LN.DFM.4 – Change 215 Acres from Community to Rural

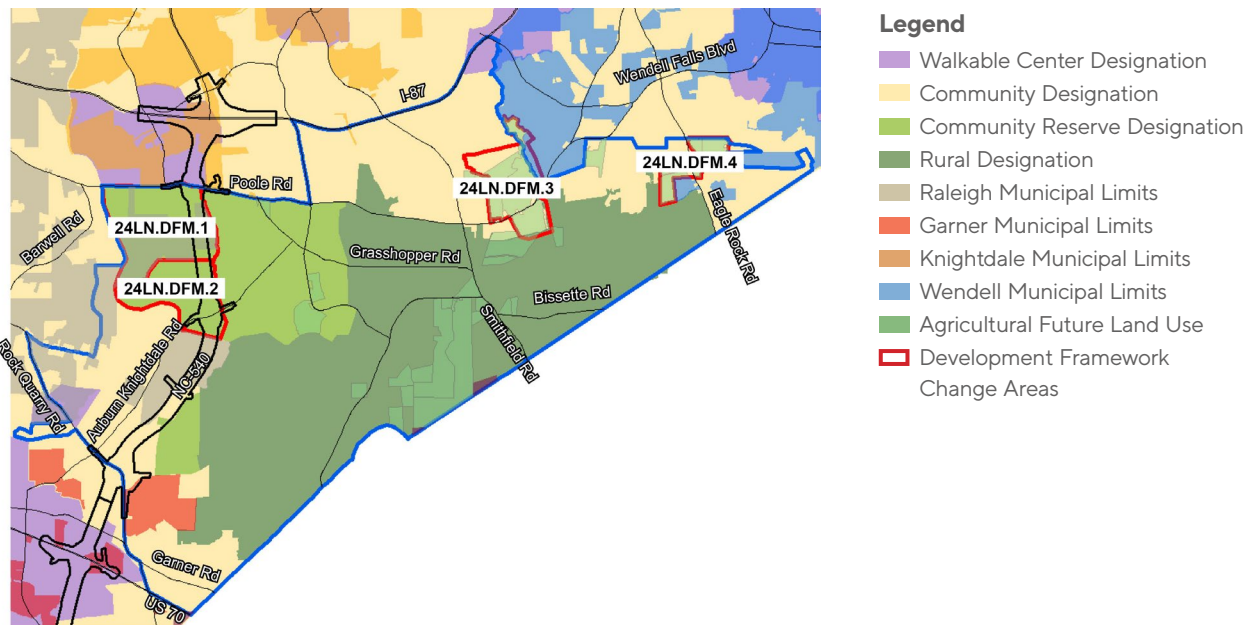
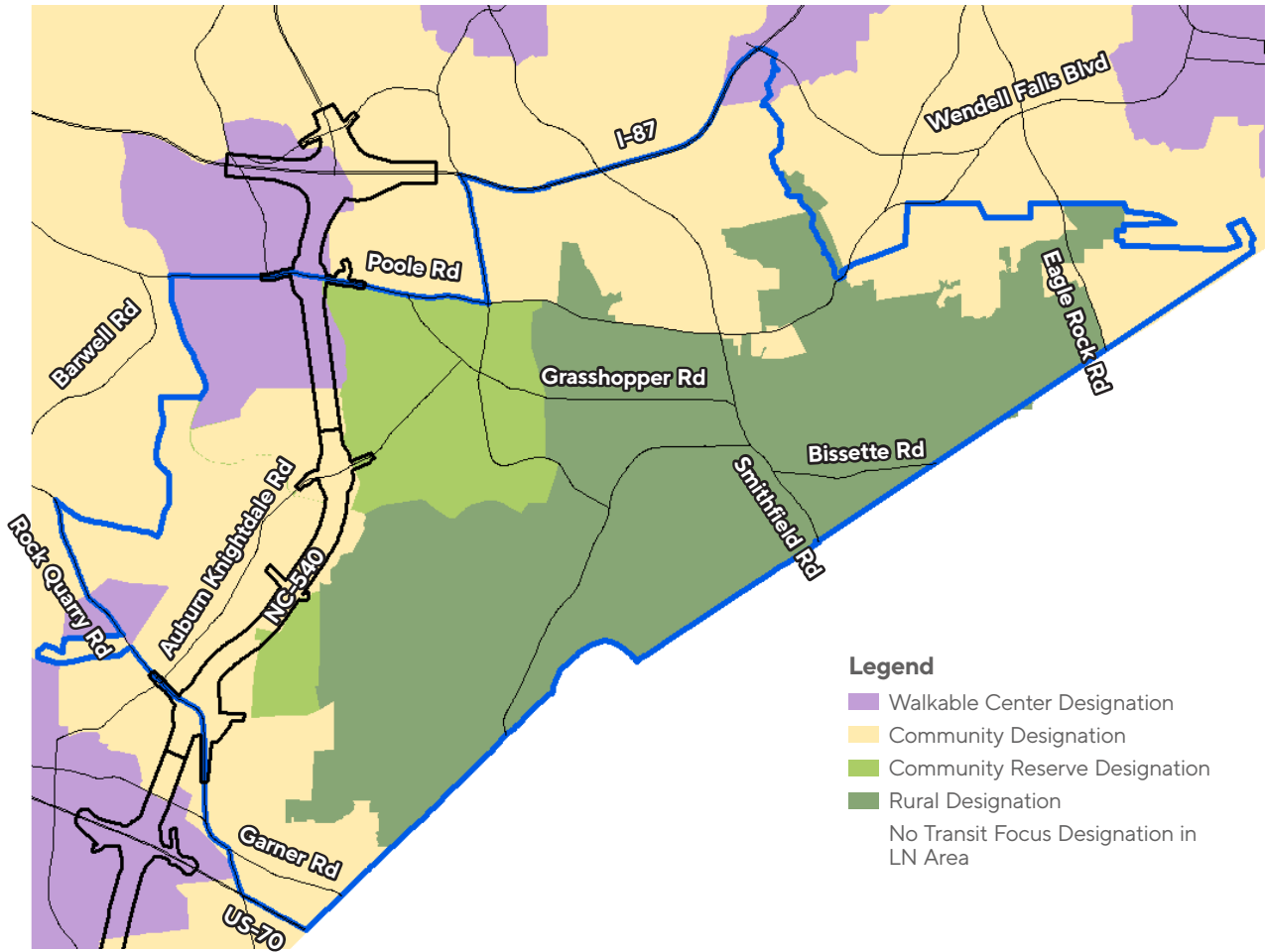


Figure LN5.9 – 2024 PLANWake Development Framework Map after 2024 LN



2024 LN Area Future Walkability Map

Wake County has an amazing existing trail network with segments in each municipality. Many of the segments connect between communities. Wake County also has a good track record with finding the right solutions for different areas with the County, NCDOT and the municipalities experimenting with creek-side trails, road-side trails and through-trails across new development, park land and open space. These trails, especially the long and connected segments, do not happen by accident or overnight. Completing these trails take a broad vision and years or decades of commitment.

Figure LN5.10 identifies the long-term trail and walkability network for the LN area. **Figure LN5.11** provides details on the different segments. Most of these segments are shown on municipal plans. Most segments follow creeks or existing road right-of-way. A few trails on this map are extended by this plan to a logical connection with another trail.

Figure LN5.10 – 2024 LN Future Walkability Map

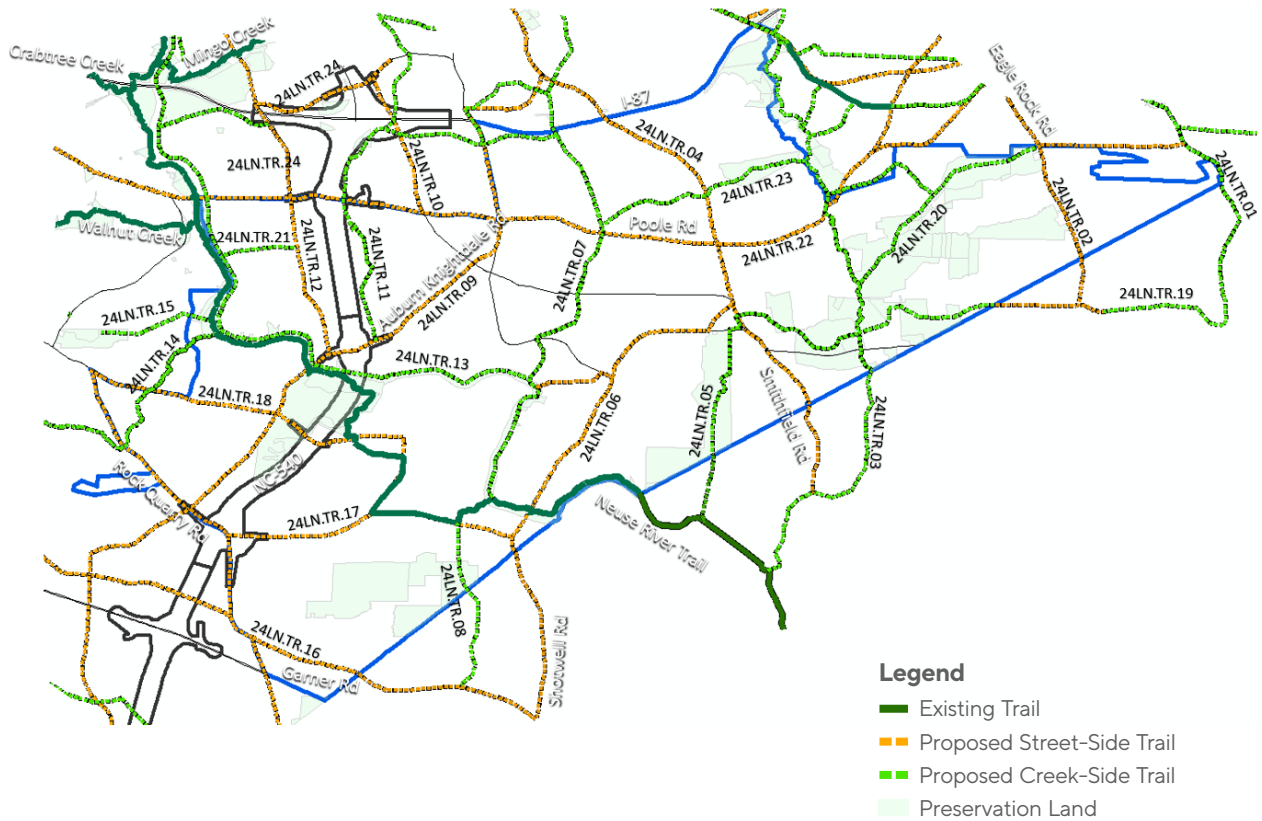


Figure LN5.11 – LN 2024 Walkability Map Segments

Trail Segment	Common Name	Notes
24LN.TR.01	Buffalo Creek	Creek-Side Path from US 64 to Wake Open Space Southern East/West
24LN.TR.02	Eagle Rock Road	Street-Side Path from Downtown Wendell to Turnip Seed Road
24LN.TR.03	Marks Creek	Creek-Side Path from I-87 to Neuse River Greenway
24LN.TR.04	Smithfield Road	Street-Side Path from BUS US 64 to Marks Creek Trail
24LN.TR.05	Williamson Preserve Connector	Greenway from Smithfield Road to Neuse River
24LN.TR.06	Mial Plantation/Shotwell Road	Street-Side Path from Smithfield Road to Rock Garner Road
24LN.TR.07	Poplar Creek	Creek-Side Path from I-87 to Garner Road
24LN.TR.08	Clemmons Forest Connector	Greenway from Neuse River to Garner Road
24LN.TR.09	Bethlehem Road/Auburn Knightdale	Street-Side Path from BUS US 64 to Garner Road
24LN.TR.10	Clifton Road	Street-Side Path from North of I-87 to Poole Road
24LN.TR.11	NC-540 Eastside Parallel Trail	Greenway from Poplar Creek to Neuse River Trail
24LN.TR.12	Hodge Road	Street-Side Path from North of I-87 to Auburn Knightdale Road
24LN.TR.13	Neuse River Eastside/Northside Trail	River Side Trail on opposite side from existing trail from north of I-87 to Mial Plantation Road
24LN.TR.14	Unnamed Creek (south of Barwell Road)	Creek-Side Path from Neuse River Trail to Garner Road
24LN.TR.15	Barwell Connector	Greenway from Neuse River to Barwell Park
24LN.TR.16	Garner Road	Street-Side Path from East of I-40 to Mial Plantation
24LN.TR.17	Rock Quarry Road	Street-Side Path from East of I-40 to Mial Plantation
24LN.TR.18	Battle Bridge Road	Street-Side Path from Rock Quarry Road to Neuse River Trail
24LN.TR.19	Wake Open Space Southern East/West	Street-Side Path/Greenway from Neuse River Trail to Buffalo Creek
24LN.TR.20	Wake Open Space Northern East/West	Greenway from Marks Creek to Buffalo Creek
24LN.TR.21	Hodge Road Connector	Path from Neuse River Trail to Hodge Road
24LN.TR.22	Poole Road	Street-Side Path from I-440 to Eagle Rock Road
24LN.TR.23	Poplar Creek to Marks Creek Connector	Path from Poplar Creek to Marks Creek
24LN.TR.24	I-87/Neuse Connector	Path from Neuse River Trail to Clifton Road

Use of the 2024 LN Area Future Walkability Map

It is expected to take decades to complete this trail network. The County and others should regularly review this map and ensure that development does preclude future trail construction. As possible,

included through-trails and trail connections shall be incorporated into the planning and design of public open space, parks, and buildings and grounds.

2024 LN Area Walkable Center Walkability Assessment

The Walkable Centers, as established by PLANWake, are intentionally much bigger than a single development and are specifically named for their key element, walkability. Although the Walkable Centers need to have a mix of uses besides residential i.e., retail, dining, entertainment, recreation, employment, and benefit from uses that are closer together, the key to changing the way people interact with the different uses is to have low-stress walkable connections between them. It is anticipated that the connections in these Walkable Centers will create demand and opportunity for continued development over time.

Walkability in the Walkable Centers will be provided by: 1) street-side paths and well-designed crosswalks; 2) non-roadway access opportunities such as bike and pedestrian pass-throughs and connected neighborhood paths; and 3) specific and particular infrastructure at interactions with major roadways. Municipal and NCDOT policies and investment will play a role, particularly in the road right-of-way. Private development will also play a role, particularly in designing and constructing pass-throughs and paths.

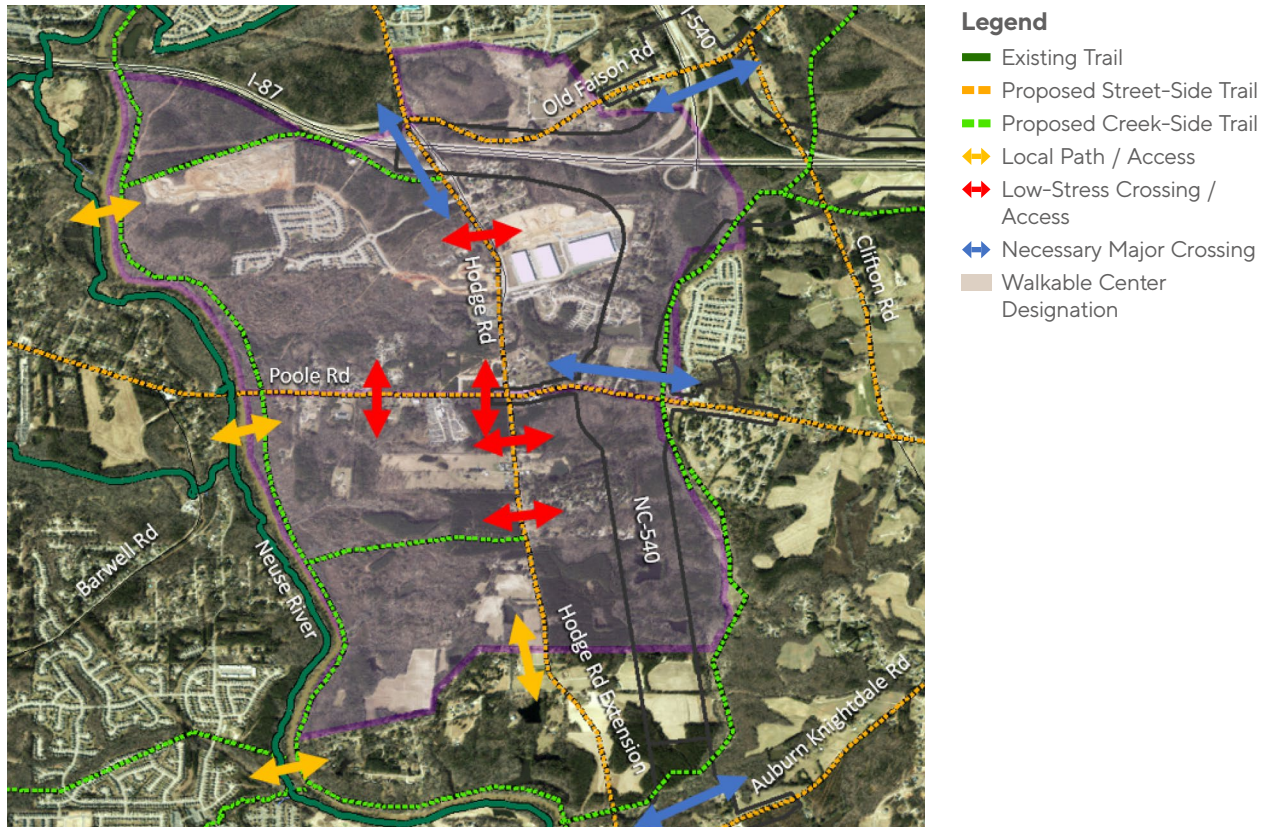
2024 LN Walkability Assessment – Walkable Center Poole Road at NC-540

The Walkable Center at Poole Road on the westside of NC-540 (Poole-NC540-WC) contains about 2,184 acres. The center extends from the Neuse River on the eastside to the just east of NC-540 on the westside and from I-87 on the northside to about the existing end of Hodge Road on the southside. About half of the center is located north of Poole Road in Knightdale's planning jurisdiction with the other half south of Poole Road in an area that is and is planned to be Raleigh jurisdiction. The current land uses in the area are residential, including the Cross Creek mobile home park, agricultural and commercial. 523 acres of land within the Walkable Center is expected to be developed as mixed-use in the City of Raleigh as part of the Hodge Road assemblage. There are additional residential areas located adjacent to the Walkable Center south and west of the Neuse River and east of the proposed NC-540.

The center of the Poole-NC540-WC is located about three miles from the Walkable Center on US-64 Business and about three miles from the Walkable Center at Rock Quarry Road and NC-540. Poole-NC540-WC has about one mile of frontage with Poole Road and about a mile and half of frontage on Hodge Road.

Figure LN5.12 shows how the proposed 24 LN Walkability Network interacts with the Poole-NC540-WC and notes important connections that should be examined. The center is well connected by the overall network with both street-side and off-street paths. The major roadways that provide access to the Walkable Center can also be barriers to walkability. The interchanges of major freeways, like NC-540 and I-87 can be very difficult to cross without appropriate infrastructure.

Figure LN5.12 – 2024 LN Walkability Assessment – Poole Road at NC-540



2024 LN Walkability Assessment – Walkable Center Rock Quarry Road at Auburn Knightdale Road

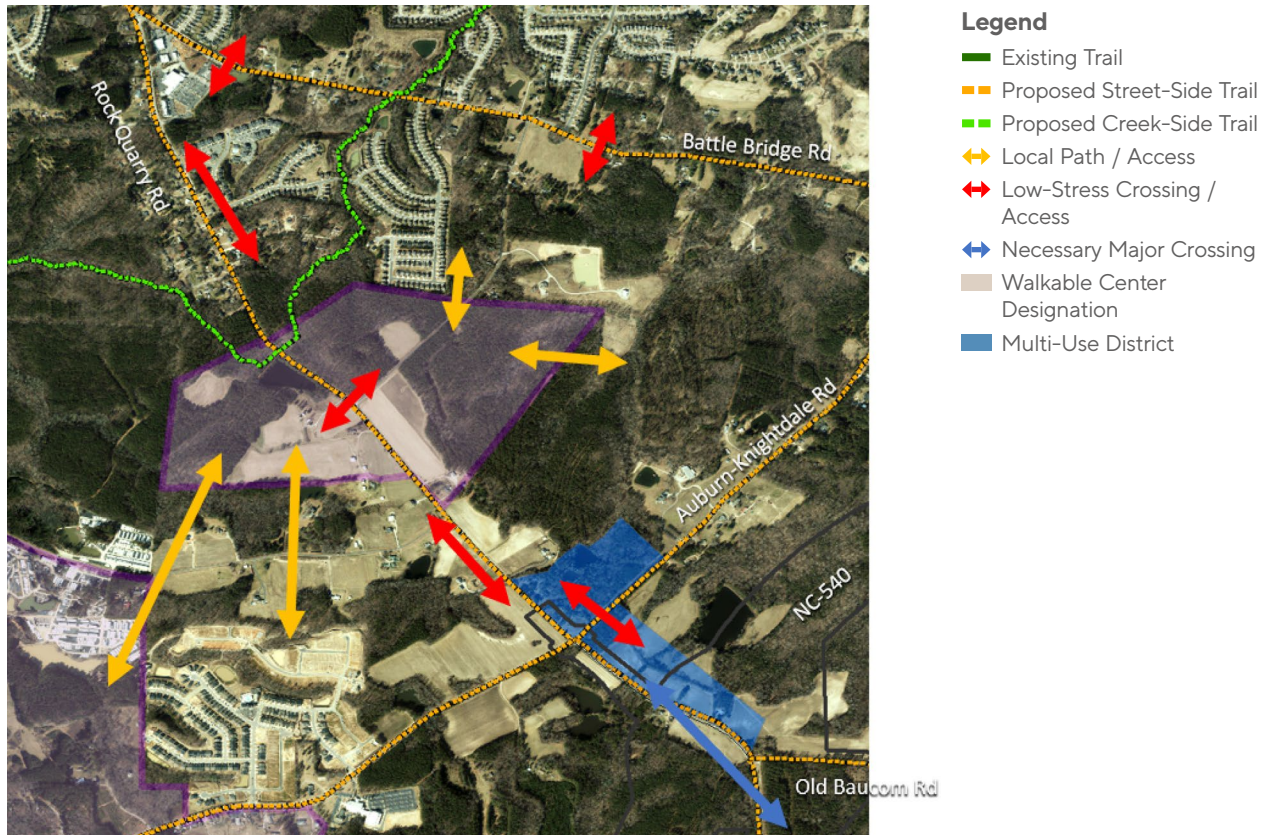
The Walkable Center at Rock Quarry on the northwest side of NC-540 and its connection with the MUD at Rock Quarry and NC-540 and the retail center at Rock Quarry at Battle Bridge (Rock-Quarry-NC540-WC) contains about 900 acres. The center extends along Rock Quarry Road from Battle Bridge to NC-540. The center is in an area planned to be Raleigh jurisdiction. The current land uses in the area are residential, agricultural and commercial. The center is about 300 feet from the retail center located at Rock Quarry Road and Battle Bridge Road (for the purposes of the review this is considered part of the Walkable Center). There are additional residential areas located adjacent to the Walkable Center north of Battle Bridge Road and east of Rock Quarry Road.

The center of the Rock-Quarry-NC540-WC is located about three miles from the Walkable Center on Poole

Road but only about one and half miles from the large Walkable Center at US 70 in Garner. Rock-Quarry-NC540-WC has about two miles of frontage with Rock Quarry Road, about half a mile a frontage on Auburn-Knightdale and about a mile of frontage on Battle Bridge Road.

Figure LN5.13 shows how the proposed 24 LN Walkability Network interacts with the Rock-Quarry-NC540-WC and notes important connections that should be examined. The center is well connected by the overall network with both street-side and off-street paths. The major roadways that provide access to the Walkable Center can also be barriers to walkability. The interchanges of major freeways, like NC-540 can be very difficult to cross without appropriate infrastructure.

Figure LN5.13 – 2024 LN Walkability Assessment – Rock Quarry Road at Auburn Knightdale Road

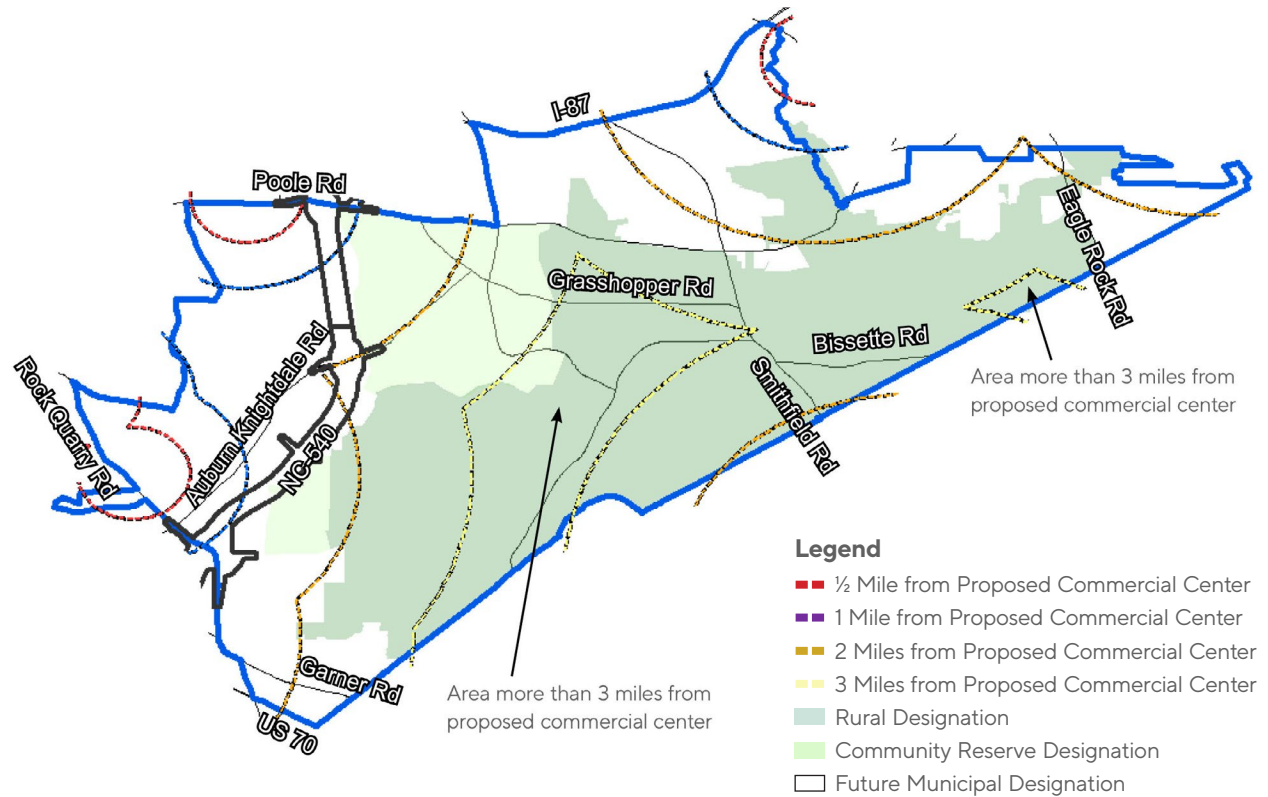


2024 LN Area Commercial Center Location Strategy

As noted in Section 2 and Section 3, there is a demand for more and better-quality retail options in the LN area. To understand how this demand overlaps with the desire to preserve the rural landscape, the 2024 LN Study developed a commercial center location strategy to predict how far areas of the LN area will

be from future commercial centers. This strategy suggests that most of the Community and Walkable Center Areas will be within two miles of a commercial center and most of the entire LN area will be within three miles of a center. This strategy projects that no commercial centers will be created in the Rural area.

Figure LN5.14 – 2024 LN Commercial Center Location Strategy



Use of the 2024 LN Area Commercial Center Location Strategy

Figure LN5.14 notes that there are opportunities for commercial centers in the portions of the LN study area planned for municipal growth. Municipal partners and developers should be aware of this

strategy, specifically where commercial centers will be encouraged, and the demand for retail and service options in the area.

2024 LN Area Private Well Water Strategy

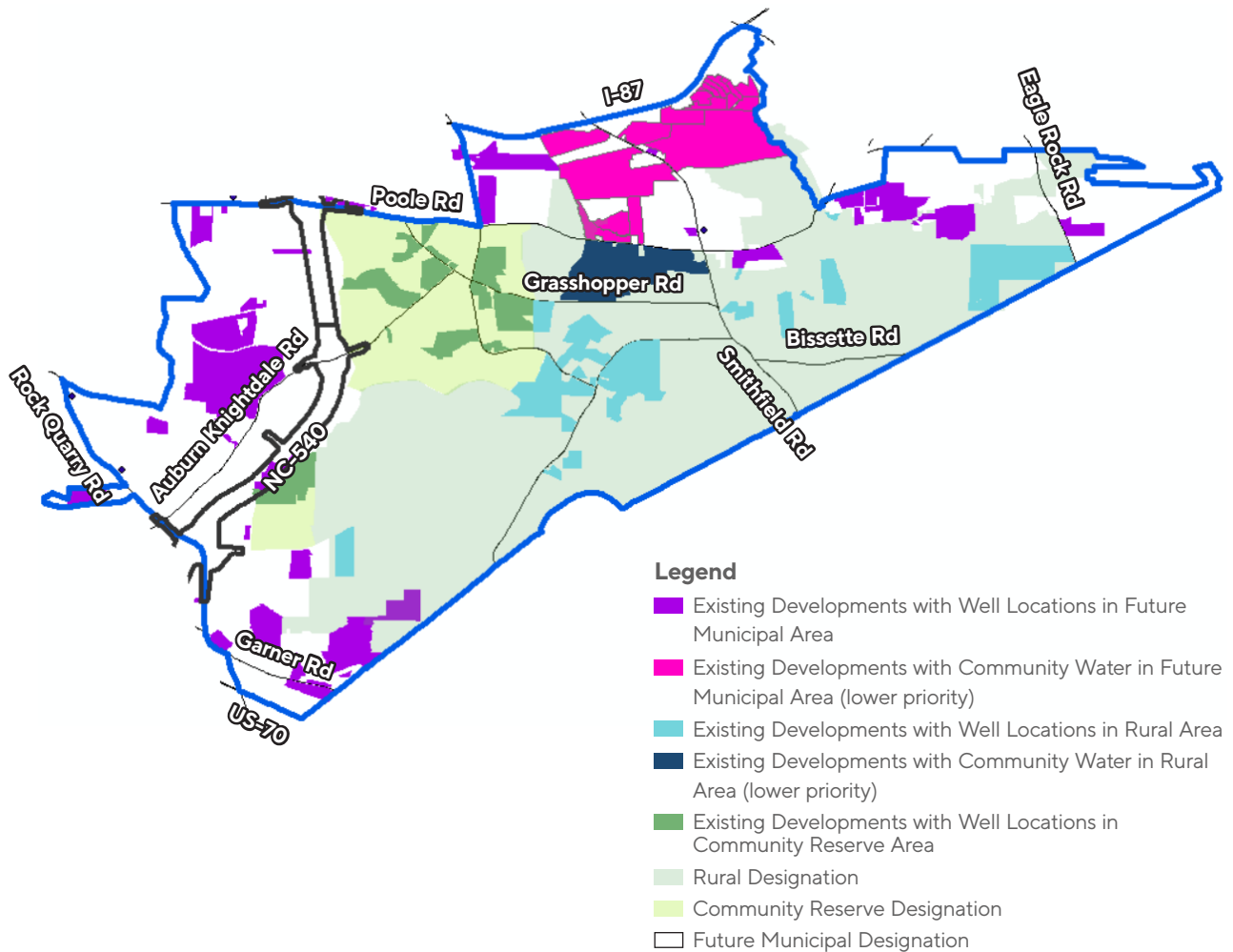
As noted in Section 2, one in five private wells in eastern Wake County have unsafe levels of contamination. This high percentage of contamination comes from the uranium and radium present in the rock underneath this area. These contaminants can be mitigated through installation of individual treatment systems to reduce contaminants to safe levels or by connection to municipal water supply, when and where that is available.

To address this concern over time and with the appropriate tools, the 2024 LN Study has developed a private well water strategy, detailed on **Figure LN5.15**. This strategy clearly identifies developed areas currently relying on private wells that will be surrounded by municipal jurisdictions in the future, areas where private wells are expected to remain in the County jurisdiction, and developed areas served by community well water systems. To avoid creating pockets of development surrounded by municipal

jurisdiction but without access to municipal water service, the implementation strategy recommends that municipalities identify opportunities to make municipal water service available to the developed areas relying on private wells during planning for future development. It is understood that connecting to municipal utilities requires several different

agreements and will require dialogue with many stakeholders. Point of use solutions, that treat well water before use, or non-municipal community systems should be encouraged in the areas expected to remain county (Rural). **Figure LN5.15** maps the residential developments in the LN area and depicts the tools that should be considered in each area.

Figure LN5.15 – 2024 LN Private Well Water Strategy



Use of the 2024 LN Area Private Well Water Strategy

This map should be regularly reviewed by municipal and utility agencies. When extensions are planned, opportunities to connect water to purple areas should

be considered. County agencies should determine best point source solutions for the brown areas.

SECTION 6

2024 Next Steps and Follow-up Items

The 2024 LN Area Plan identified the following next steps.

- Develop strategies for housing affordability in Walkable Centers. Wake County departments will work with partners to determine viable solutions.
- Work with partners to expand interest in and recognition of the historic rural landscape. Wake County will work with partners to determine appropriate solutions and timing.
- Coordinate with NCDOT Bonus Allocation program to address the most pressing transportation issues. The Capital Area Metropolitan Planning Organization and the area municipalities are likely to meet in 2024 to discuss what projects to construct with the bonus allocation funding. This funding is provided to the area when a toll road is constructed. On the previous sections of NC-540, this funding has been used to construct many smaller, high impact intersection improvements to address specific safety or congestion areas.
- Work with partners to adjust transportation plans to align with the 2024 LN Area Plan, including trail planning and connections. Wake County will work with partners to integrate the 2024 LN Area Plan recommendations into related regional transportation plans.
- Work with the City of Raleigh to develop a strategy for the remaining Community Reserve areas designated on the PLANWake Development Framework Map. The timeframe for these efforts will be dictated by the City of Raleigh.
- Work with partners to implement the commercial center location strategy over time. The commercial centers in the LN area are intended to develop as part of a municipality.
- Work with partners to implement the well investment strategy over time. The implementation of this strategy, particularly the connections to municipal utilities, will require dialogue with many stakeholders.
- Track commitments to agricultural preservation and open space and adjust the future land use map and metrics as needed. The future land use map is an important visual recognition of efforts. Anecdotally, many participants noted they chose to participate when they heard the experiences of participants nearby.
- Track changes in the LN area overall and address notable changes. Wake County will monitor the various metrics in the 2024 LN Plan and provide updates as needed.