



North Falls Lake AREA STUDY

Core Technical Team Meeting #1

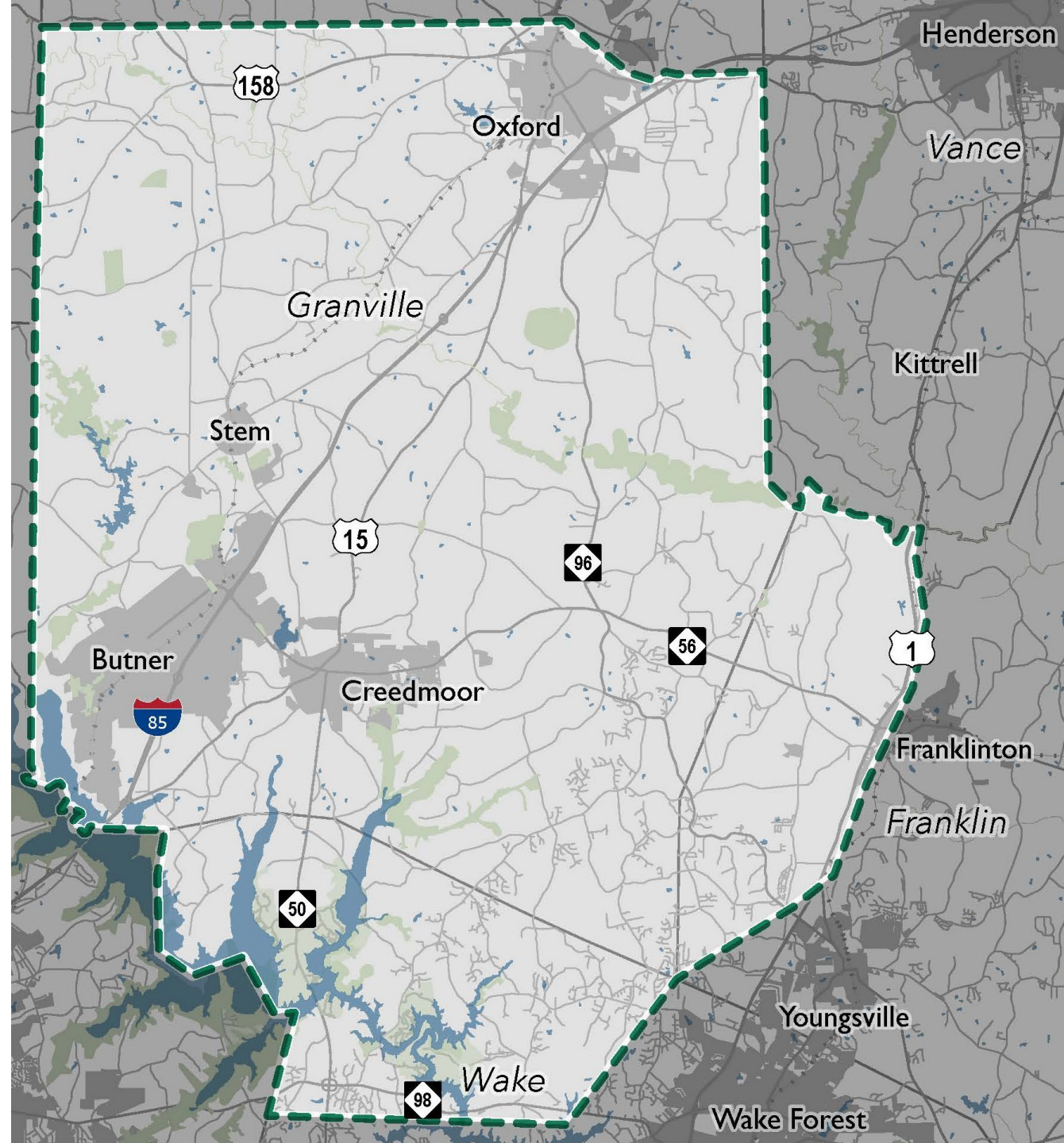
May 19, 2025, 3:00pm

Overview



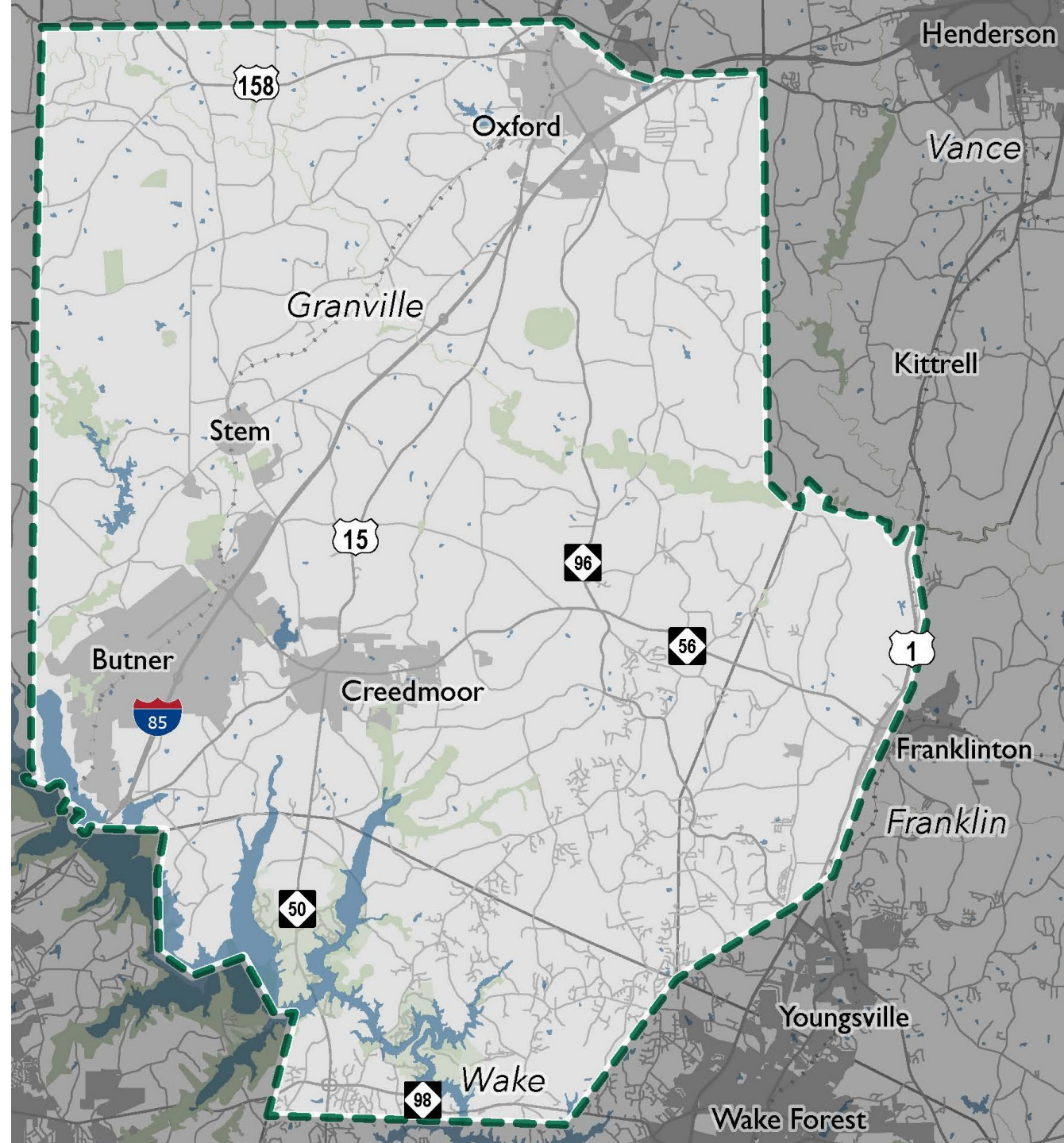
- Planning Process and Schedule Overview
- Role of the Core Technical Team
- Preliminary Environmental Review
- Regional Goals and Challenges
- Next Steps

Process Overview



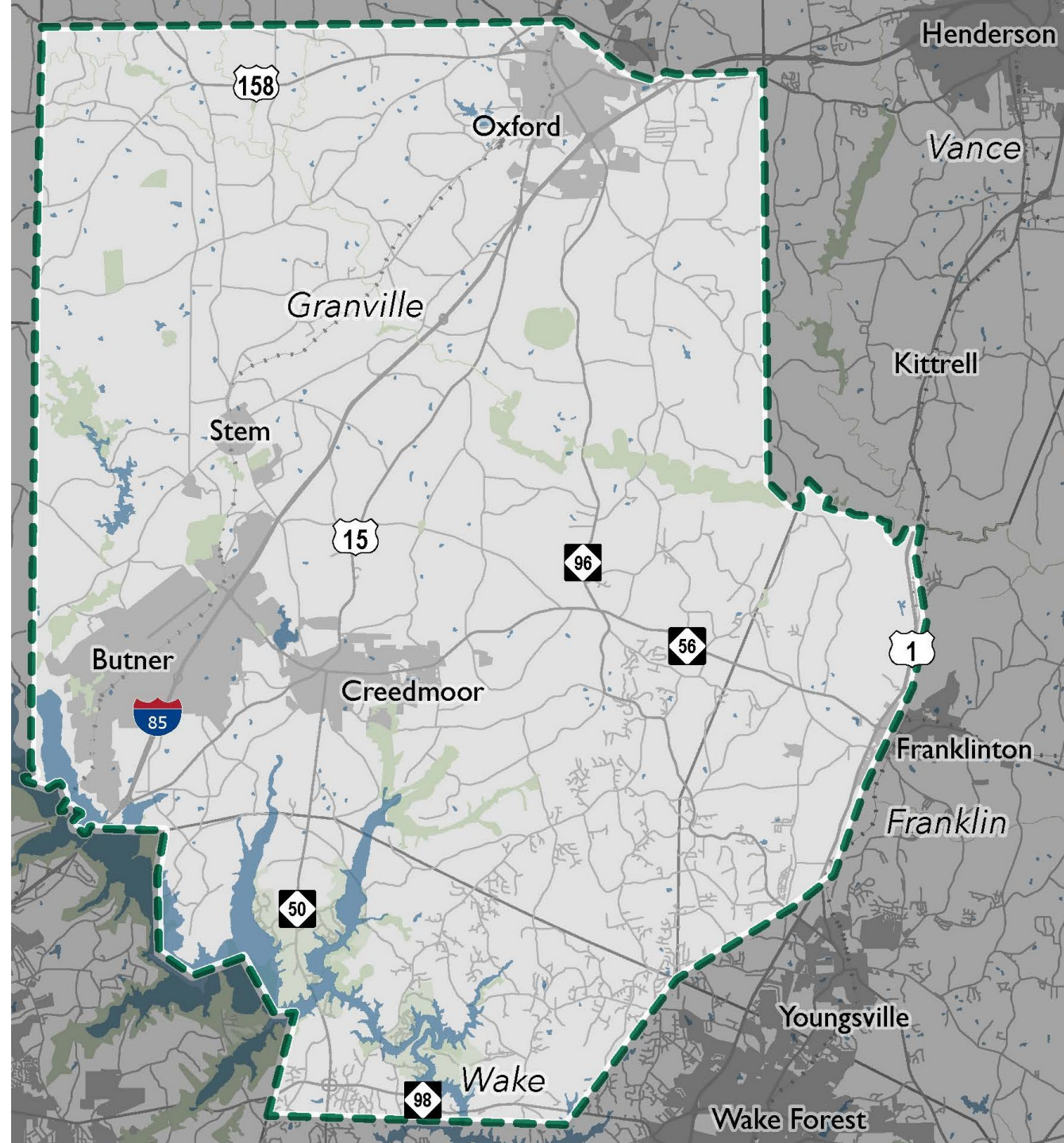
Process Overview

-
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3. Develop updated transportation plan for the region.



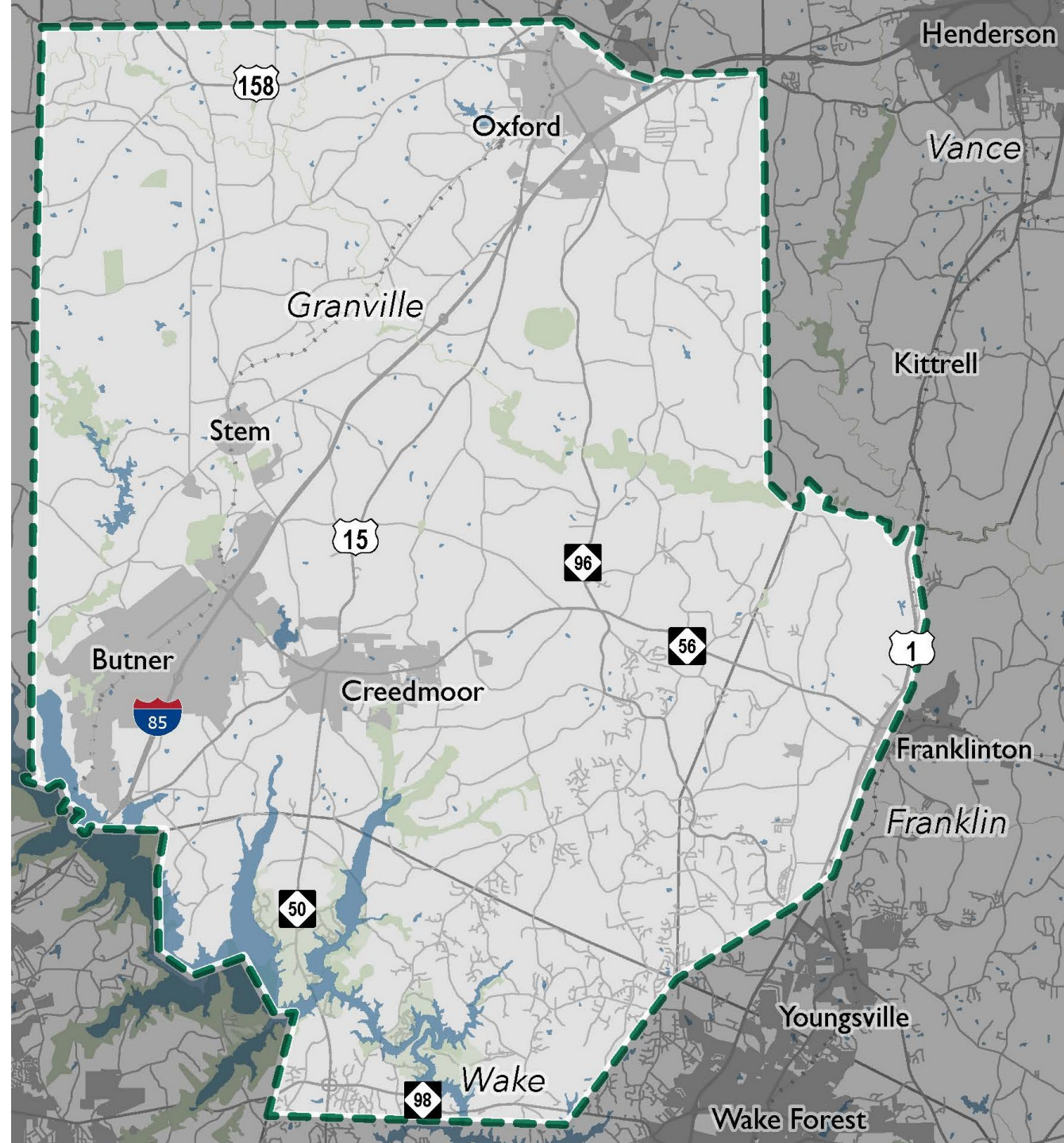
Process Overview

2. Identify a grounded, regional land use vision.
3. Develop updated transportation plan for the region.

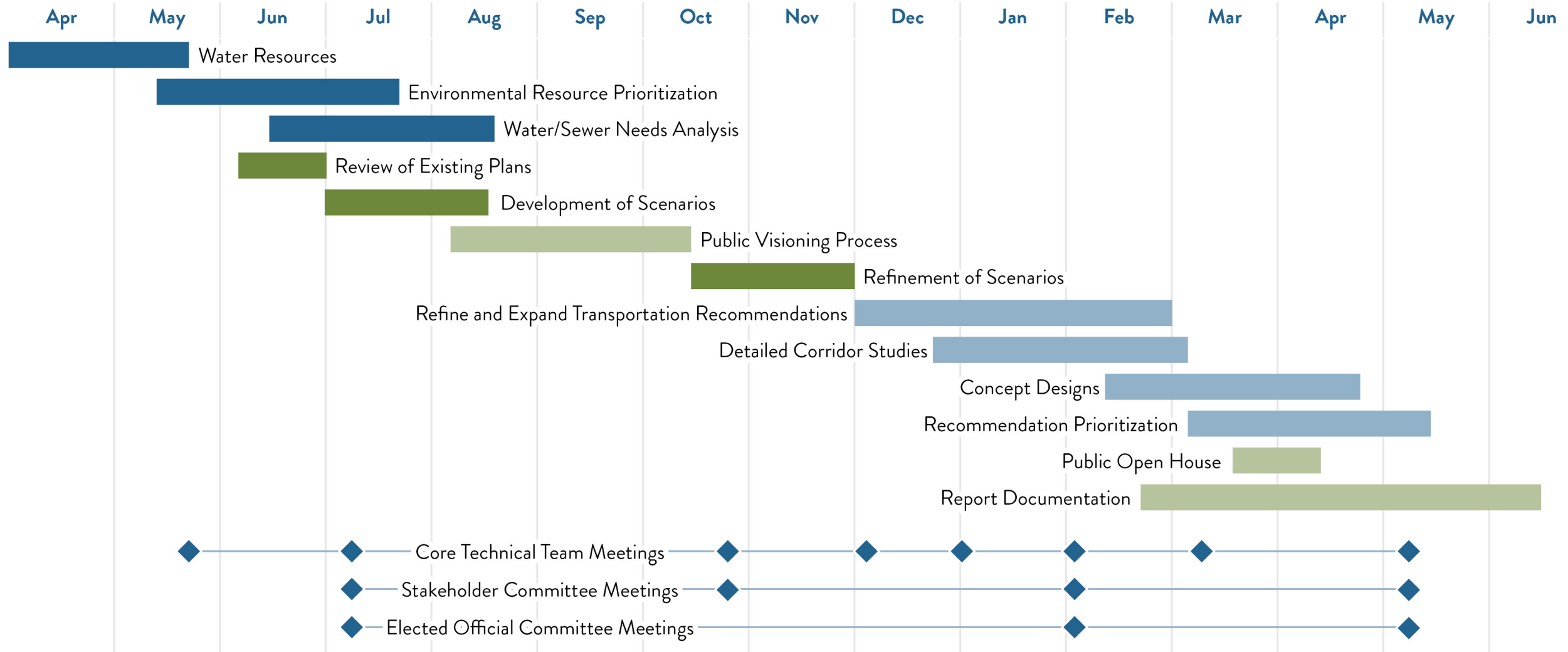


Process Overview

1. Understand environmental and utility limitations in the area.
2. Identify a grounded, regional land use vision.
3. Develop updated transportation plan for the region.



Schedule Overview



Expectations of the Core Technical Team



- Provide **honest, open input** to the planning team, representing your community's interests throughout the process.
- Act as **liaisons to your communities** and elected officials to help with engagement and education across the region.
- **Connect the planning team** with other staff members, data, community partners, and other resources.

Quick Brainstorm: Public Visioning Opportunities



- From mid-August through September, we'll be looking for opportunities to engage with the public through pop-up/intercept style activities.
- Goal will be to get an understanding of the community's priorities and vision for the future of development and transportation.
- What events in August and September in your community would be good fits for a pop-up event?

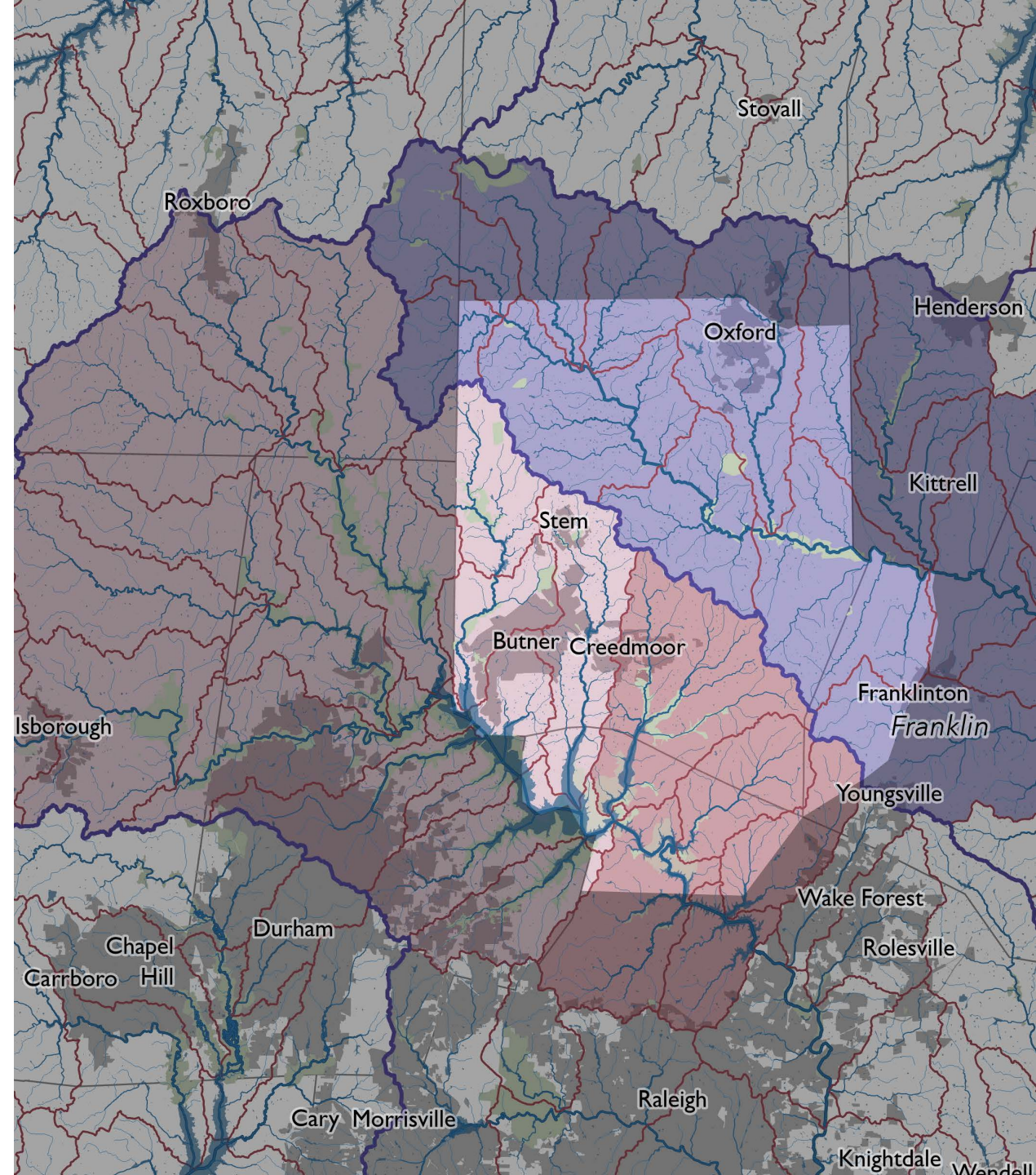
Preliminary Environmental Review

- Falls Lake Nutrient Strategy
- Tar-Pamlico Nutrient Strategy
- Nitrogen and Phosphorus Rules
- SGWASA, Oxford, Franklin and Wake Counties, Regional and Private providers

Falls Lake Area Study Watersheds



Source: ESRI, NCDOT, NCDNR, USFW, CAMPO



Existing Planning



Municipal Plans

- Oxford Comprehensive Plan
- Oxford Safe Streets Action Plan
- Creedmoor Comprehensive Plan
- Creedmoor Intersection Analysis
- Butner 2040 Comprehensive Plan
- Stem Town Plan 2040

Corridor Studies

- US 1, NC 50, NC 56, NC 98 Corridor Studies
- I-85 Future Interchange Location Analysis
- East Coast Greenway Alignment Feasibility

County Plans

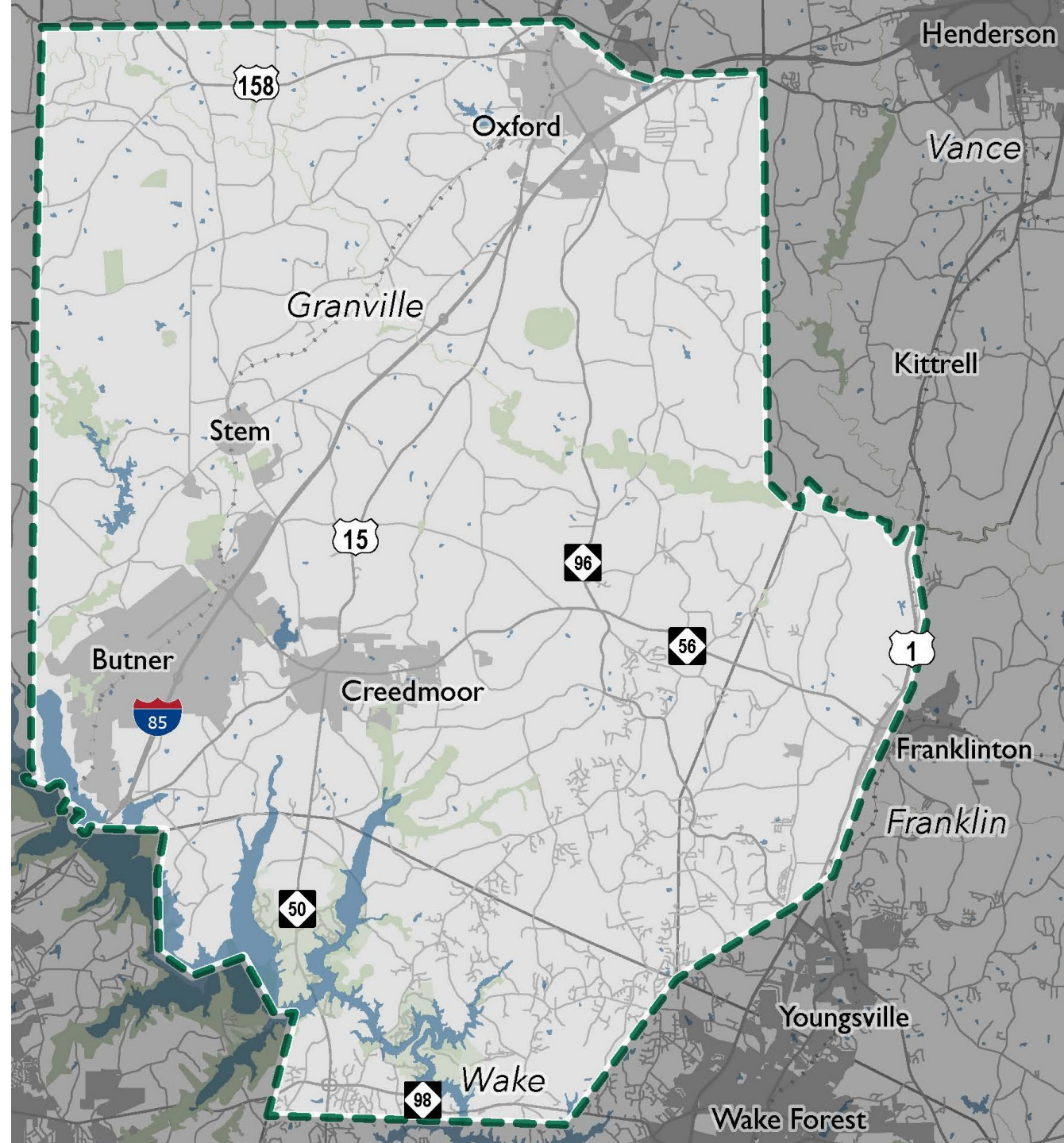
- Granville, Wake, and Franklin County Comprehensive Plans
- Granville, Wake, and Franklin County Comprehensive Transportation Plans
- Granville County Trail Feasibility Study

Regional Plans

- 2050 CTP and MTP
- Blueprint for Safety SS4A Plan
- NCDOT STIP
- Utilities' CIPs

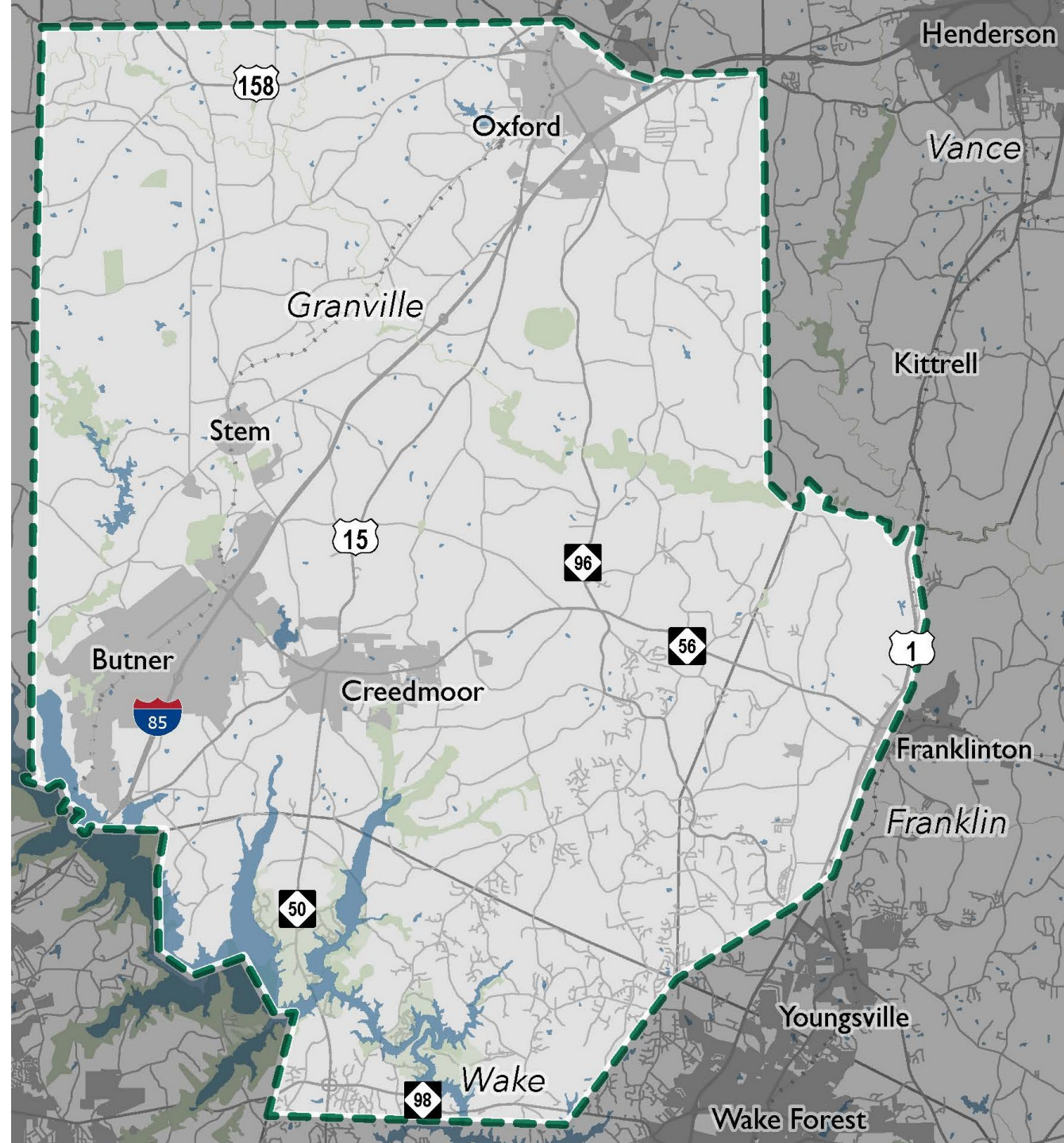
North Falls Lake Area Goals and Challenges

What is your community's vision for itself? How does that fit into a regional vision?



North Falls Lake Area Goals and Challenges

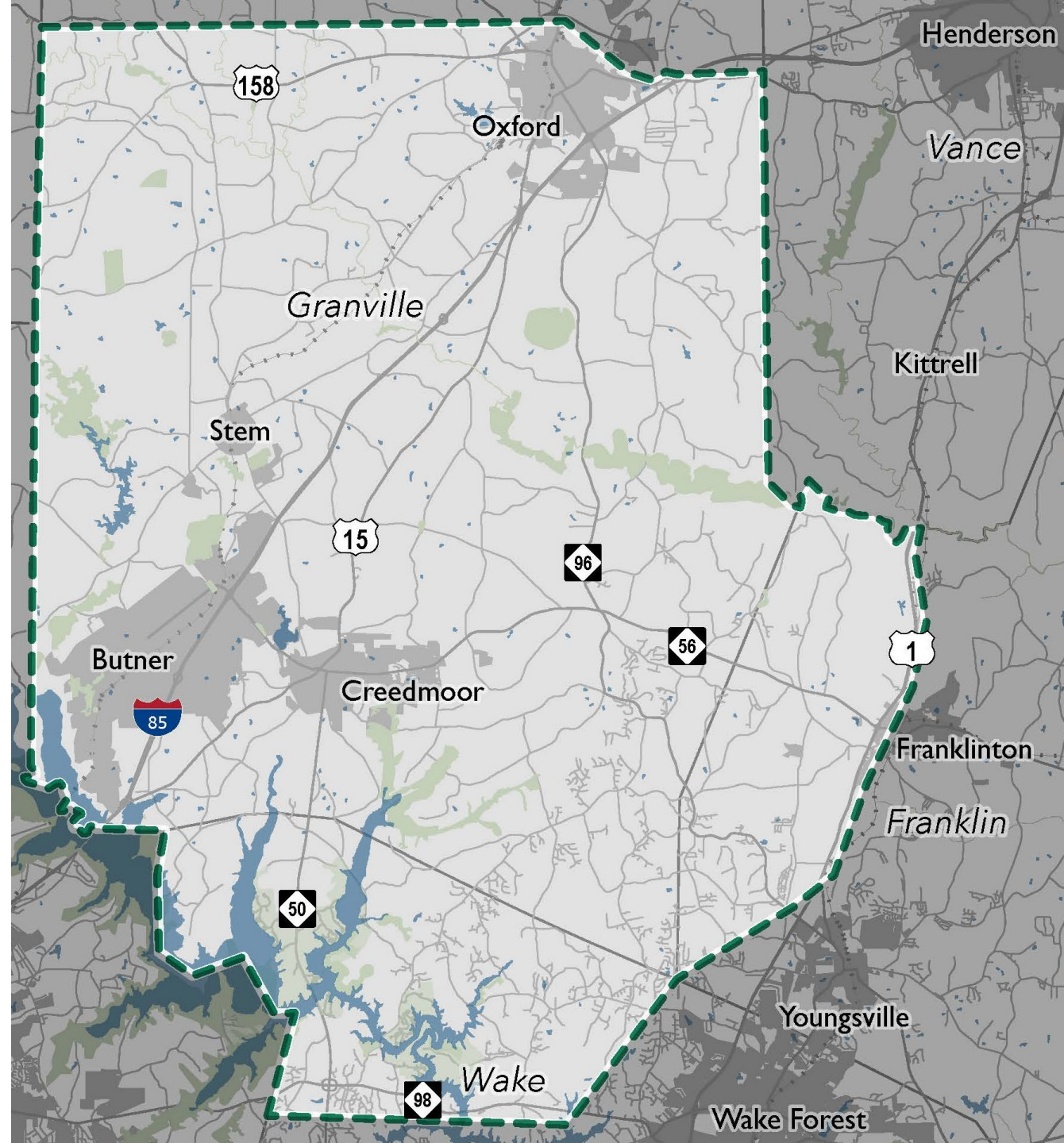
What regional (or beyond) influences does the planning team need to consider?



North Falls Lake Area Goals and Challenges

What constraints do you expect
to hold the region back?

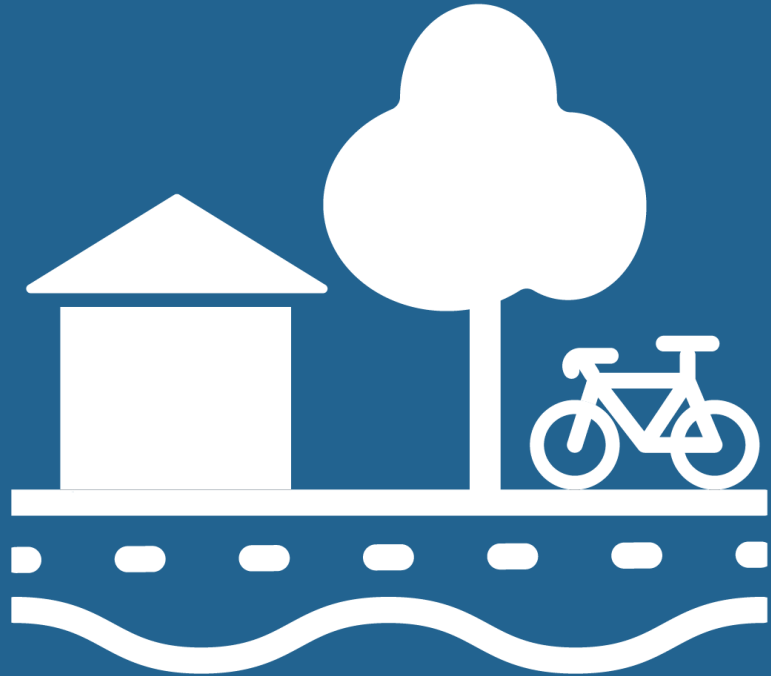
What challenges will need to be
overcome to realize the region's
vision?



Next Steps



- Look for scheduling individual community conversations to discuss:
 - Your community's vision, plans, priorities, and challenges
 - Opportunities for Public Visioning pop-ups in August and September
 - Technical input to support future land use and transportation modeling
- Next Core Technical Team meeting in early/mid July
 - Scheduling poll in early/mid June
- Follow-up data requests



North Falls Lake AREA STUDY

Core Technical Team Meeting #2

August 7, 2025, 2:00pm

Overview

- Purpose and schedule overview
- Environmental and Utility Constraints
- Land Use Scenarios and Metrics Discussion
- Elected Officials Committee and Stakeholder Committee Recap
- Next Steps

Plan Purpose, Process, and Schedule



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Study Goals and Process

**Understand Environmental and Utility
Limitations in the Area**

Identify a grounded, regional land use vision

Develop updated transportation plan
for the region

- Watershed protection rules/nutrition strategies
- Water providers
- Groundwater availability
- Sewer providers

Study Goals and Process

Understand Environmental and Utility
Limitations in the Area

Identify a grounded, regional land use vision

Develop updated transportation plan
for the region

- Compiling Comprehensive Plans and Future Land Use Plans
- Refining based on community priorities
- Quantifying future projections to better understand demand

Study Goals and Process

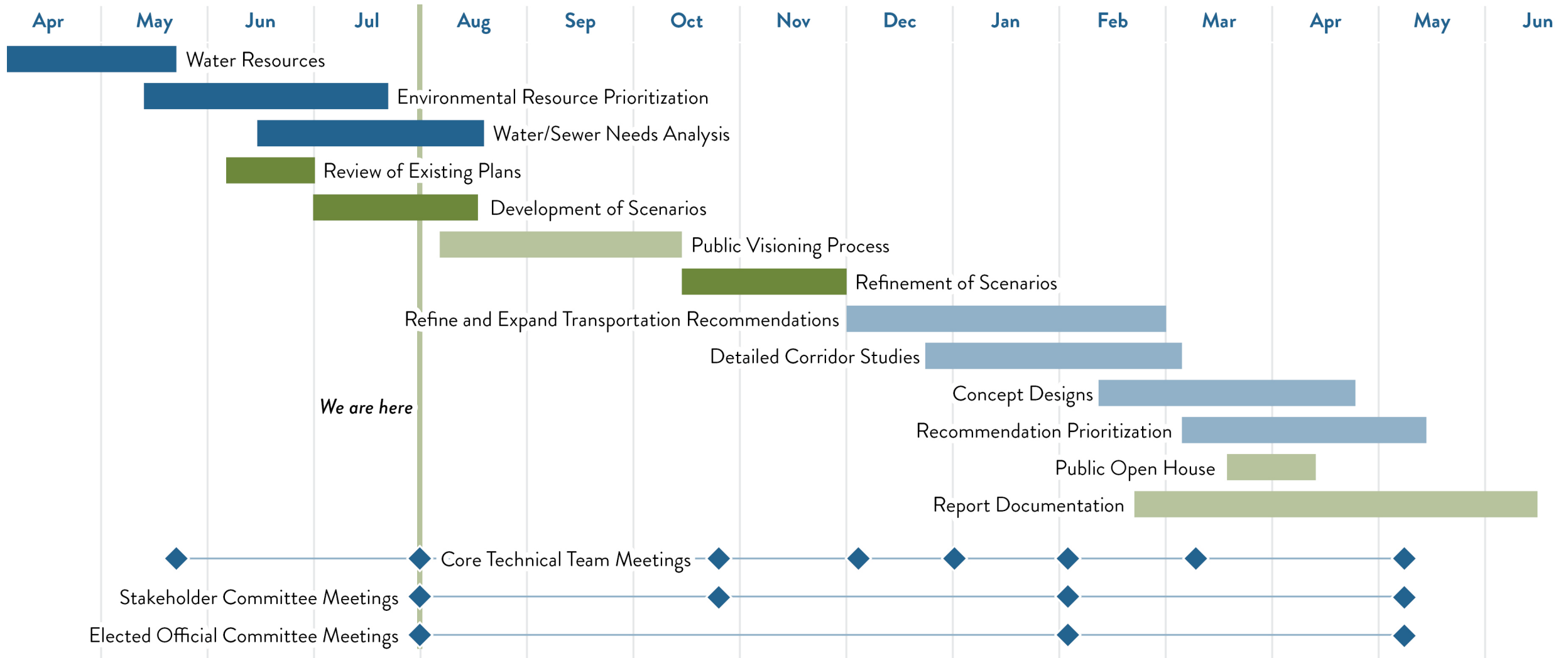
Understand Environmental and Utility
Limitations in the Area

Identify a grounded, regional land use vision

Develop updated transportation plan
for the region

- Multimodal transportation recommendations
 - Roadway / intersection improvements
 - New roadways
 - Walking and bicycling facilities
 - Regional transit services
- Used to update CAMPO's 2055 MTP or to inform the next MTP

Schedule Overview



Environmental and Utility Constraints

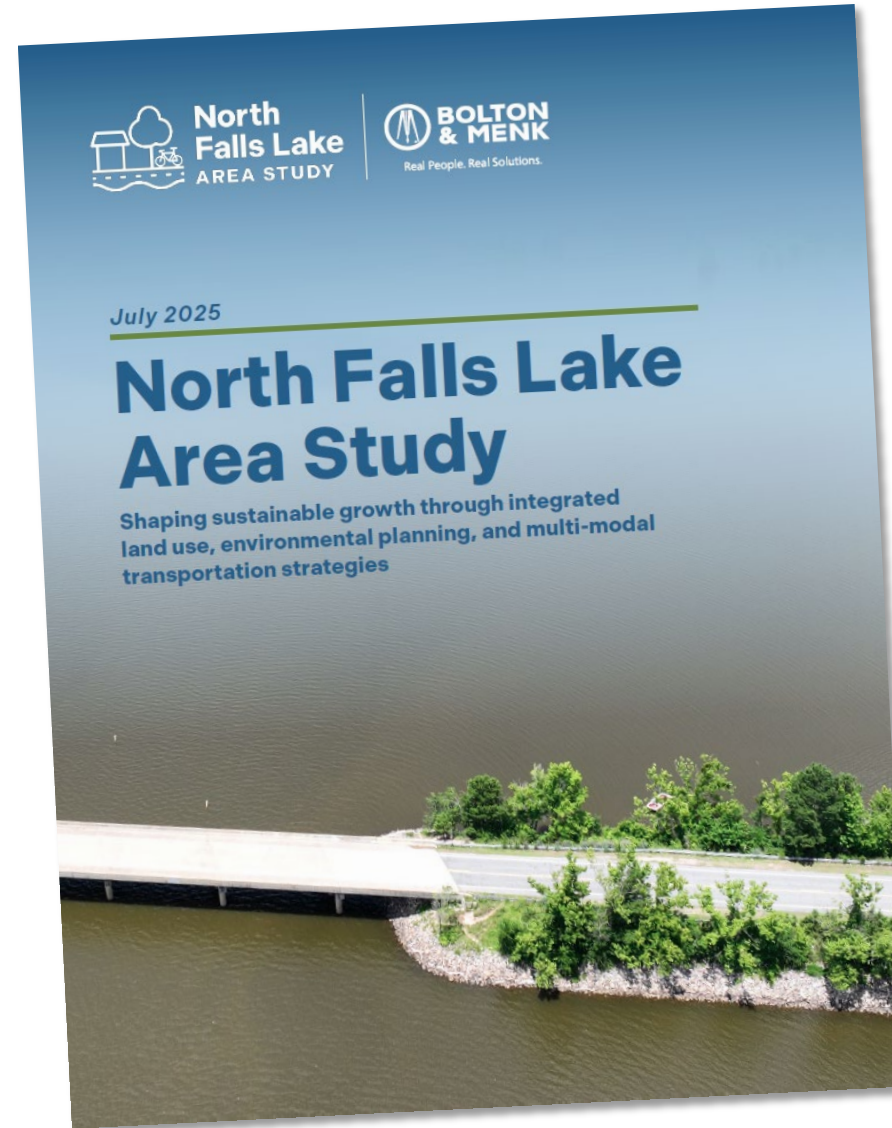


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Environmental Plan

- Draft document coming soon
- Documents:
 - existing environmental and utility provisions,
 - restrictions, and
 - challenges
- Will be a technical appendix
- Summary included in the plan body

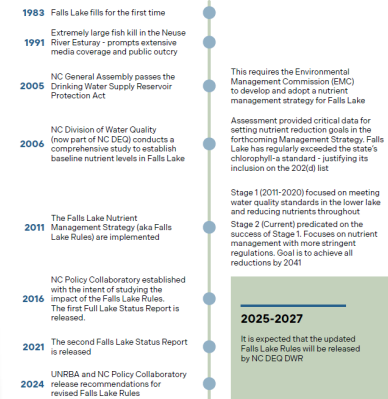


The Environmental Plan outlines the significant impacts of regulatory frameworks and the availability of water and sewer infrastructure on development within the region.

NORTH FALLS LAKE AREA STUDY | DRAFT Environmental Plan

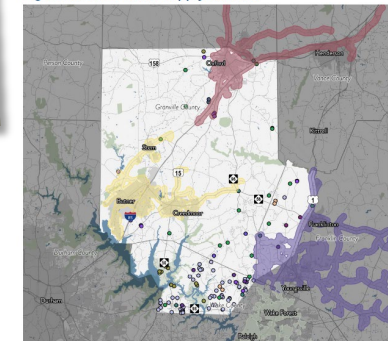
Falls Lake Nutrient Strategy

Overview Timeline



NORTH FALLS LAKE AREA STUDY | DRAFT Environmental Plan

Figure 5. Public Water Supply Sources



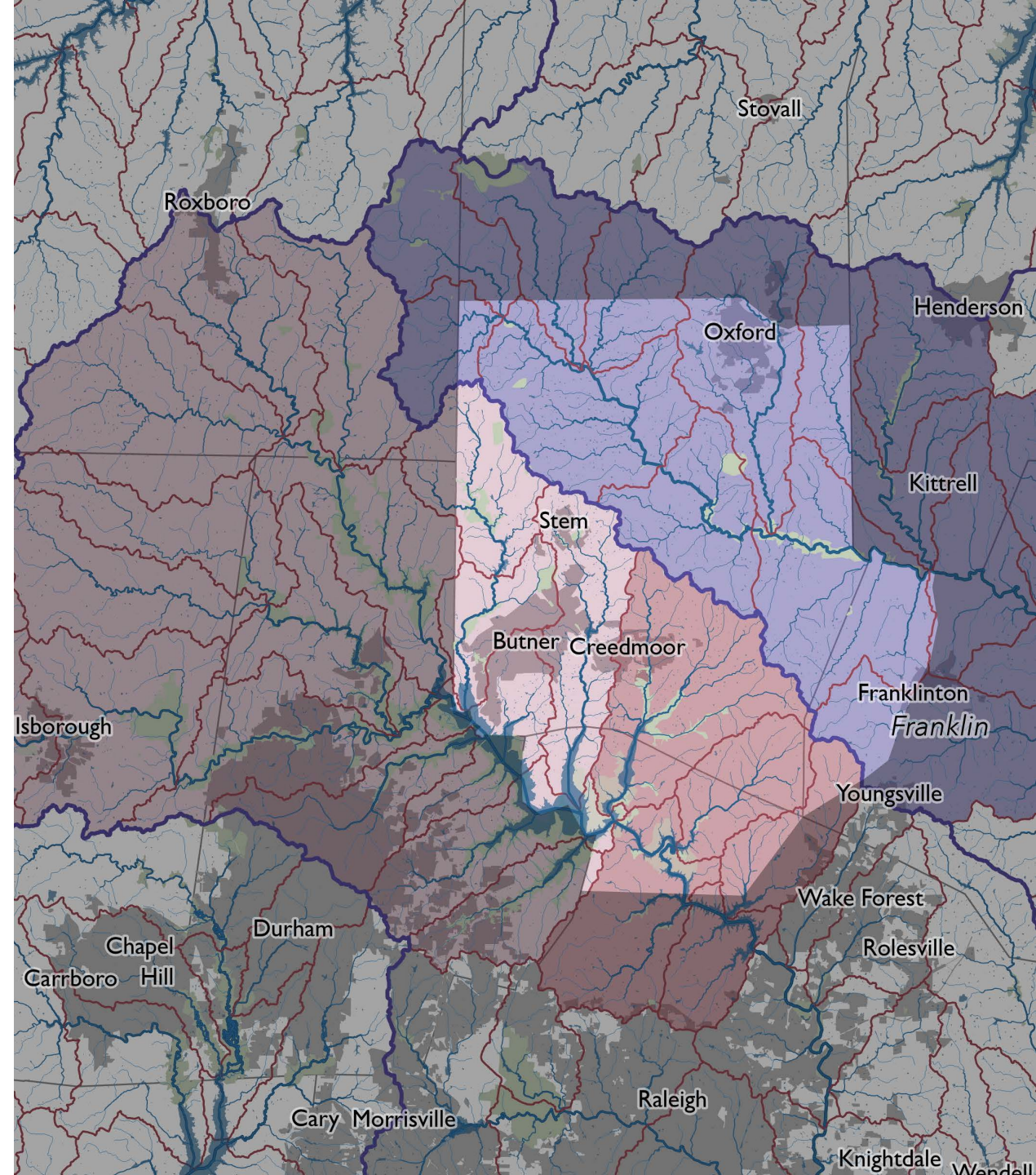
Preliminary Environmental Review

- Falls Lake Nutrient Strategy
- Tar-Pamlico Nutrient Strategy
- Nitrogen and Phosphorus Rules
- All water and sewer providers must comply with these strategies

Falls Lake Area Study Watersheds

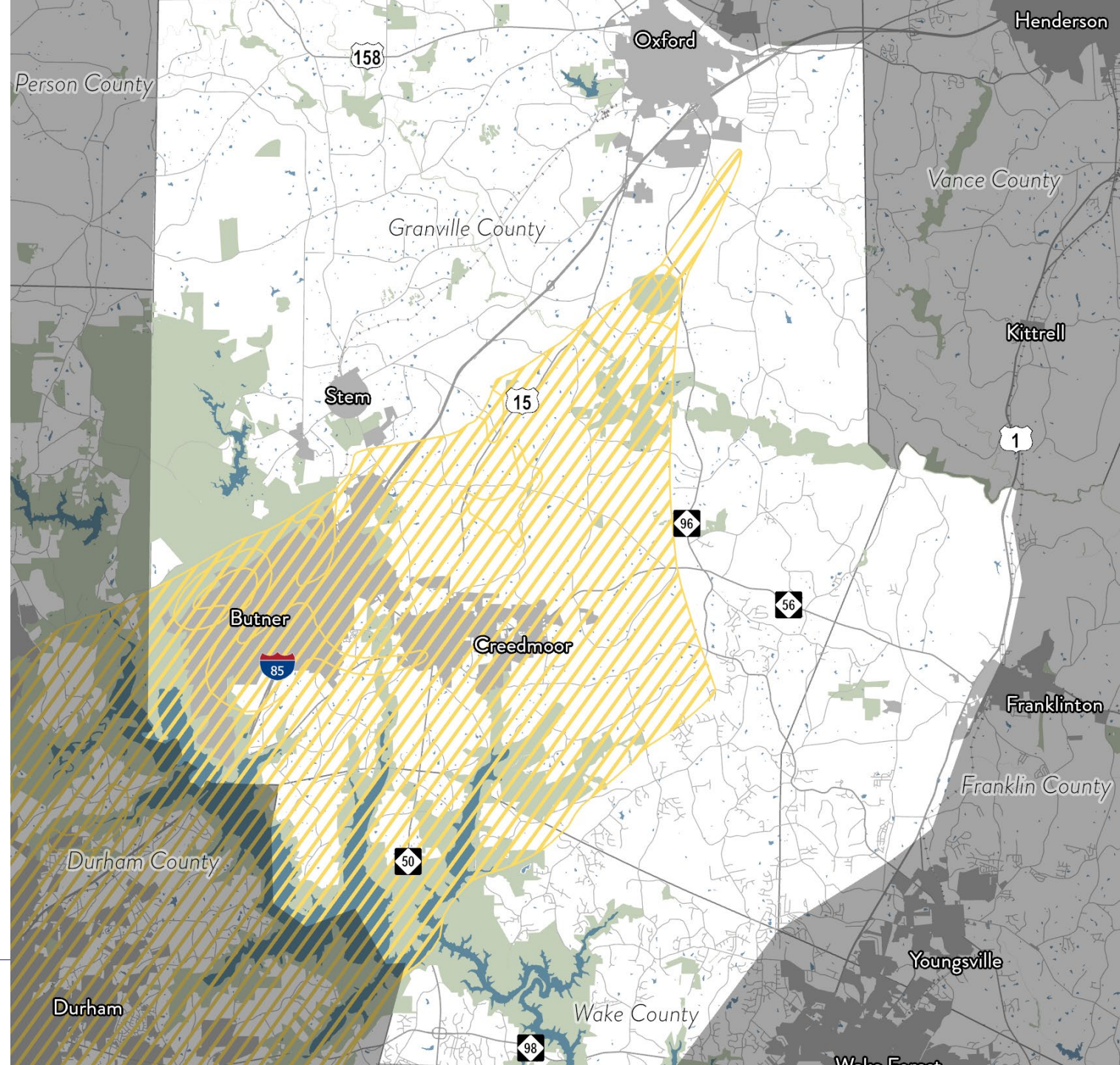
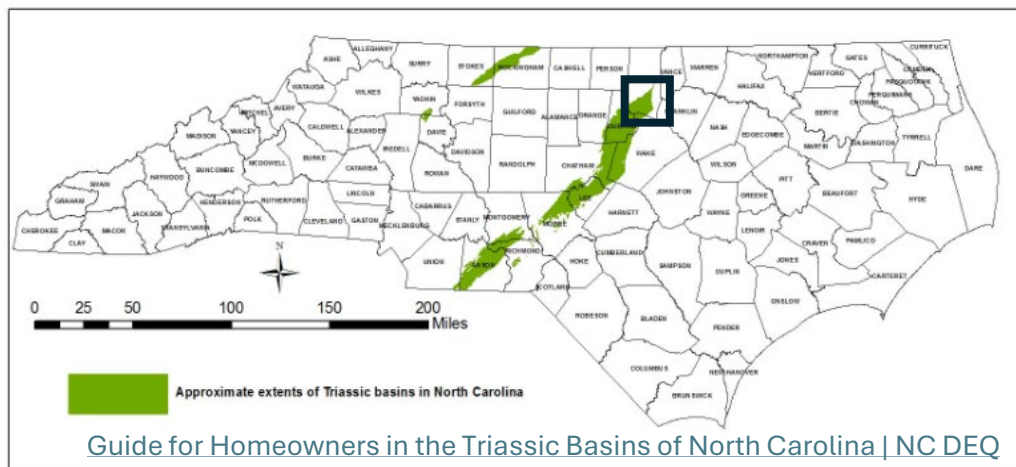


Source: ESRI, NCDOT, NCDNR, USFW, CAMPO



Water Supply

- Triassic Soils
 - Acidic, friable, and having poor drainage capabilities



Triassic Basin

Triassic Basins

Railroads

Roads

Protected Lands

Waterbodies

Municipal Boundary

County Boundaries

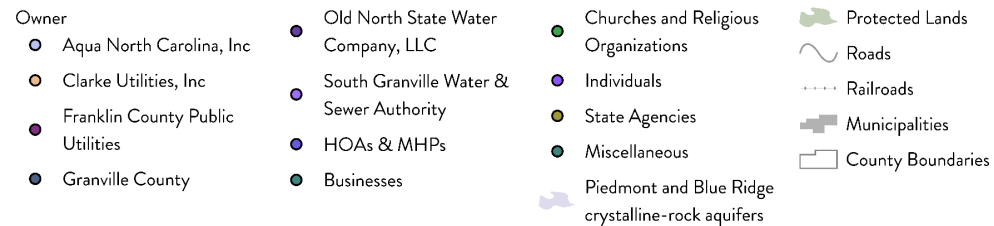
0 3 Miles

Source: ESRI, NCDOT, NCDNR, USFW, NRCS, NCDEQ, CAMPO, USGS

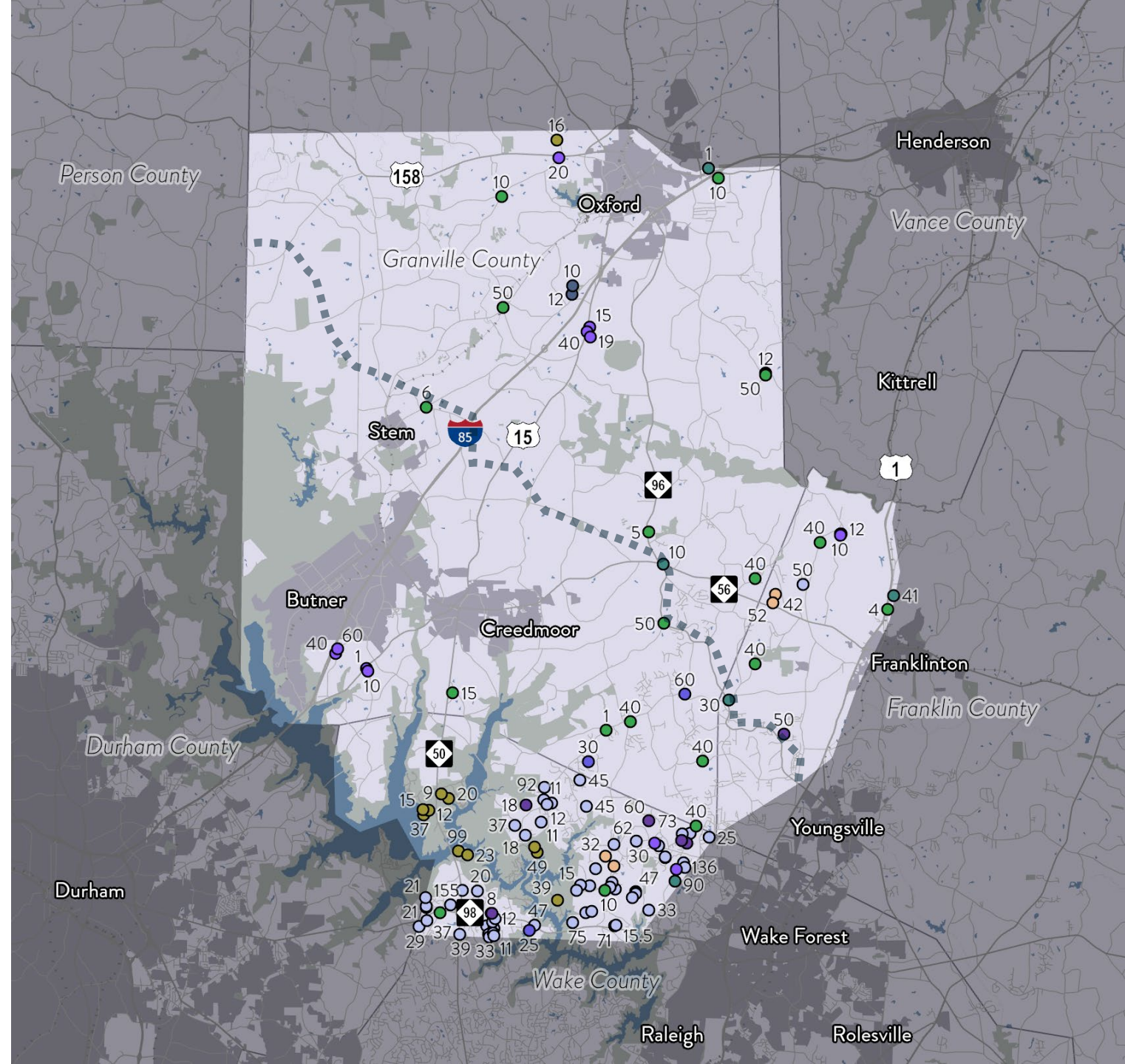
Water Supply

- Triassic Soils
- Groundwater Capacity

Wells, Aquifers, and Production Capacity



Source: ESRI, NCDOT, NCDNR, USFWS, CAMPO



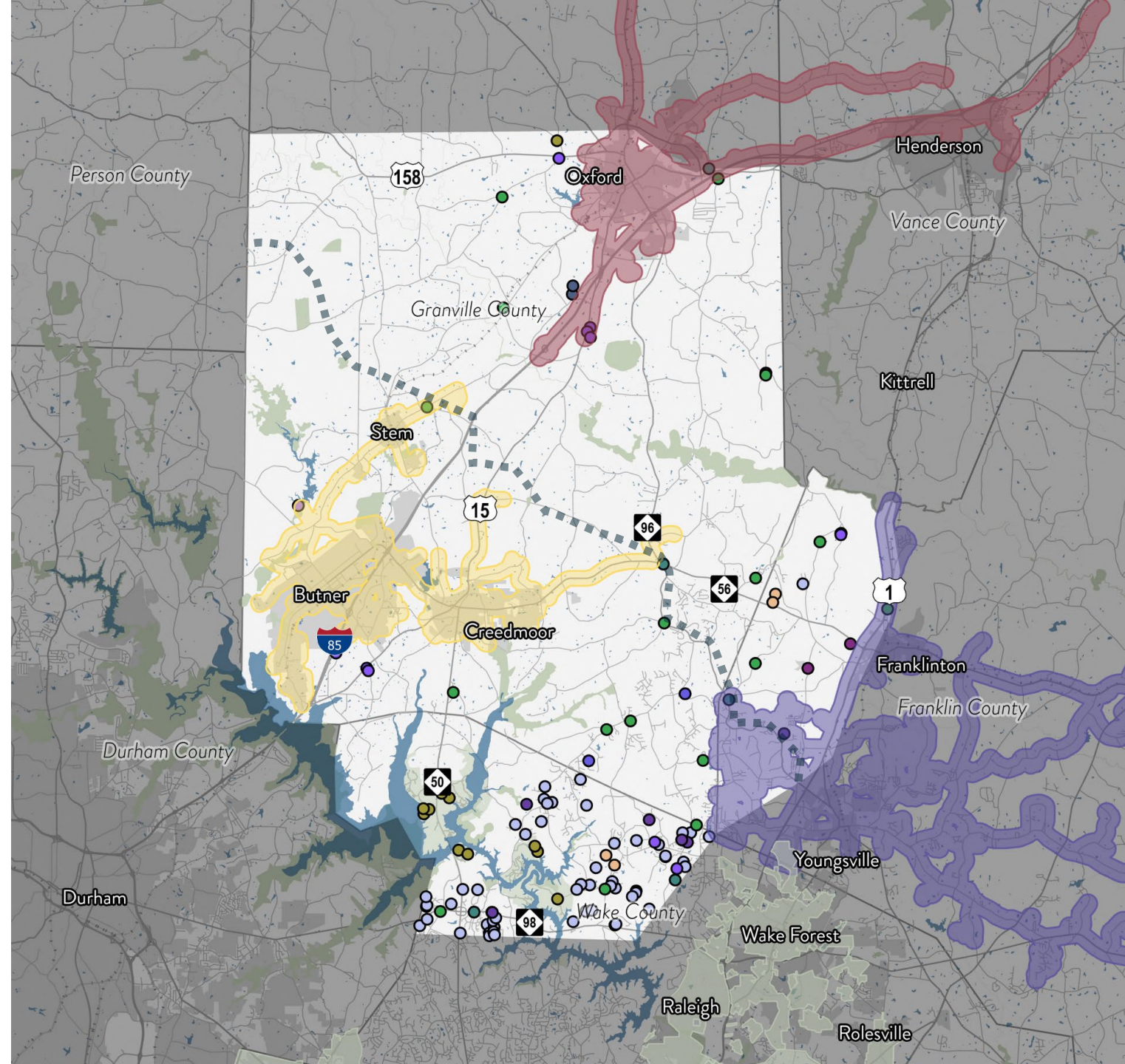
Water Supply

- Triassic Soils
- Groundwater Capacity
- Existing water suppliers
 - Surface water
 - Groundwater
 - Interbasin Transfer challenges

Water Service Providers and Public Water Supply Sources



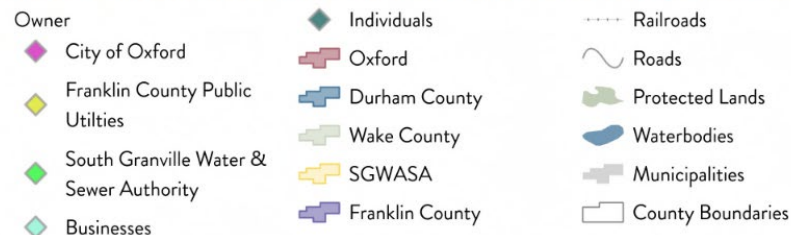
Source: ESRI, NCDOT, NCDNR, USFW, CAMPO, Wake County, Granville County, Franklin County, SGWASA



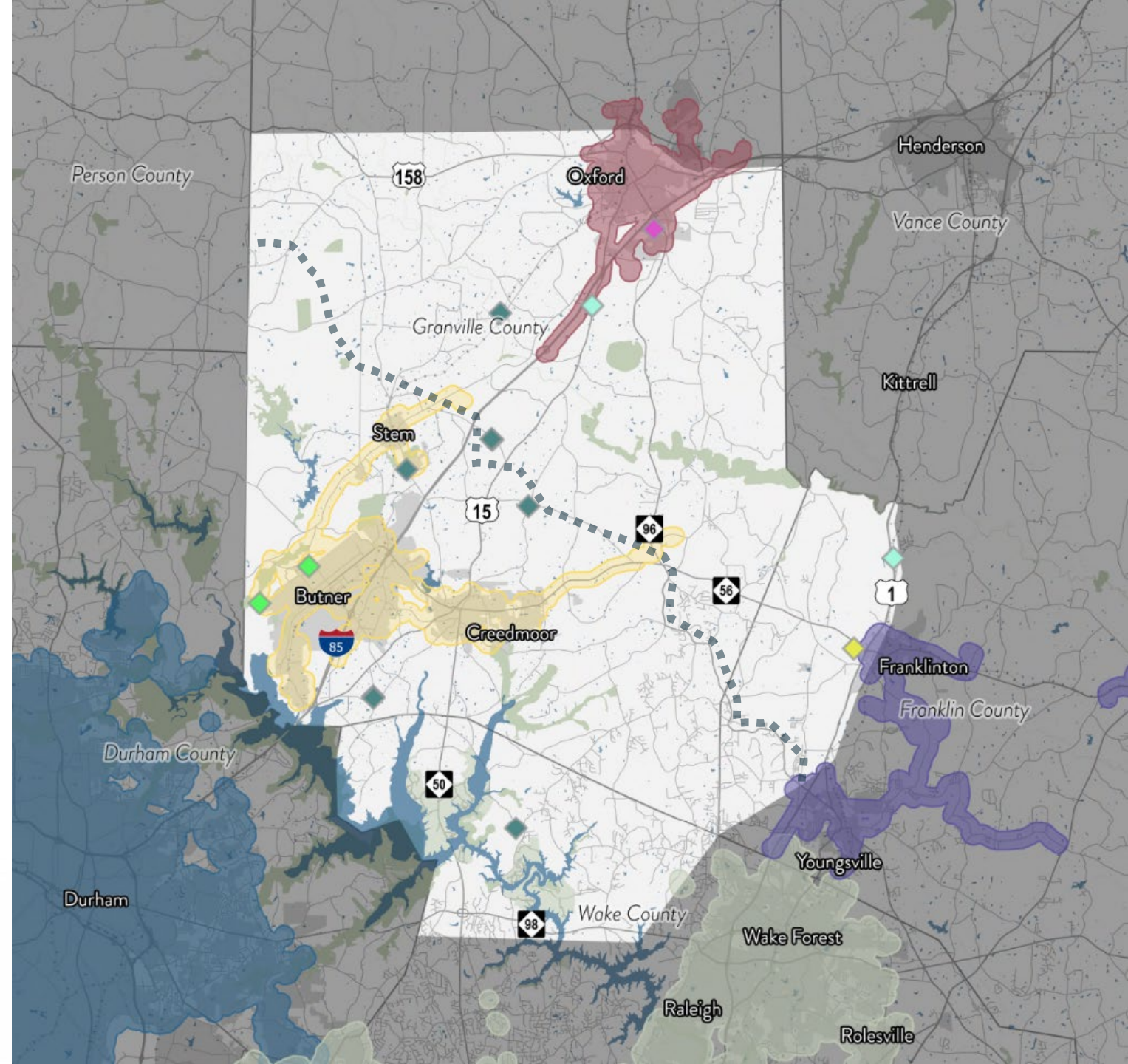
Sanitary Sewer

- Existing sanitary sewer treatment providers
 - Impacts of Nutrient Strategies
 - Nitrogen and Phosphorus
- Regional systems
 - Septic (drain field/storage)
 - Land application
 - Package plants

Sewer Service Providers and NPDES Wastewater Discharge Permits



Source: ESRI, NCDOT, NCDNR, USFW, CAMPO, Wake County, City of Durham, Granville County, Franklin County, SGWASA



Land Use Visions

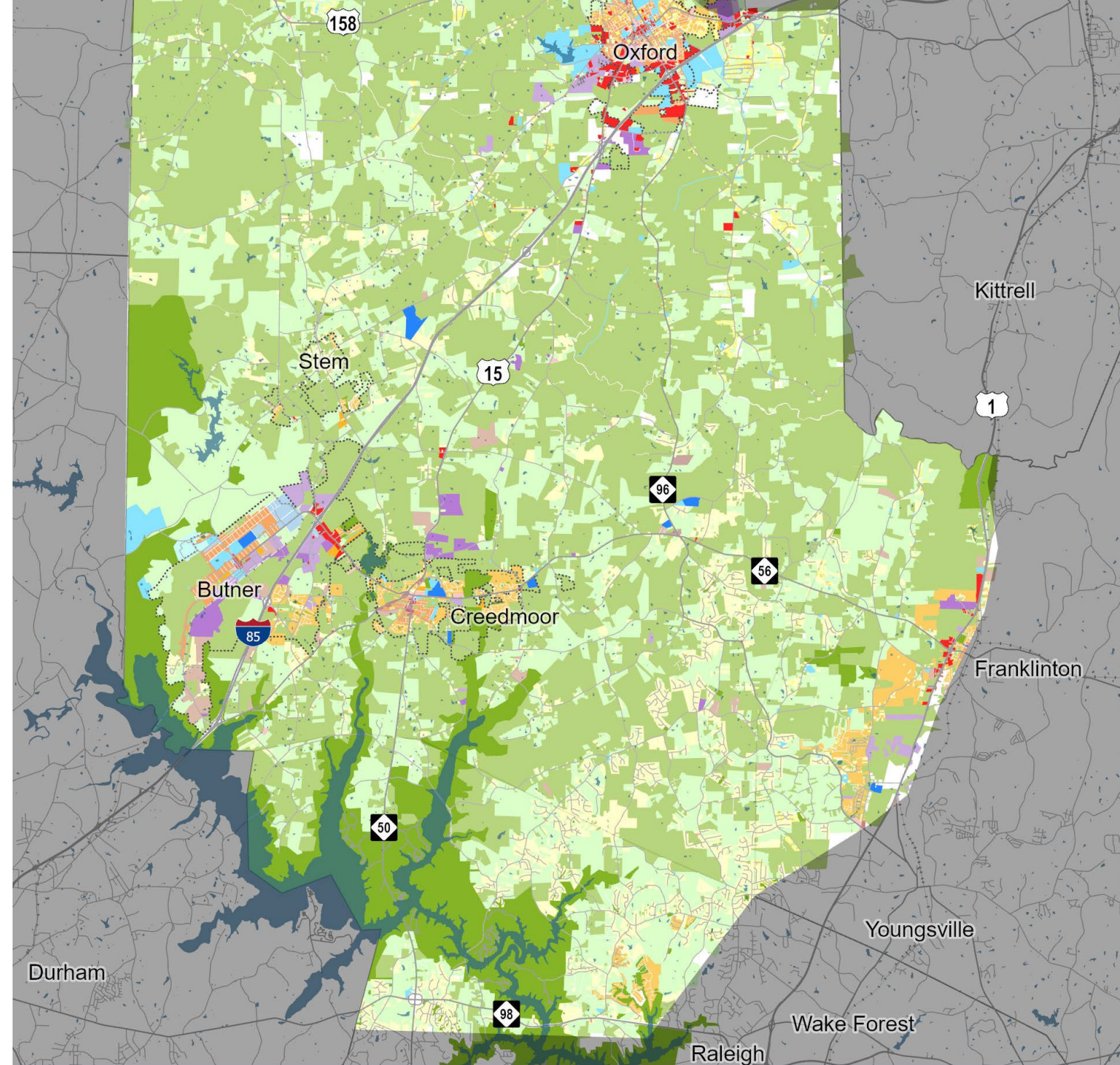


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Existing Land Use

2025 Placetype Estimate



2025 Existing Land Use

MTP_2055_AT_Parcel_FrGrNa

Place Type - 2055 PT Scenario

- Protected Green Space (POS)
- Farms and Forest (FF)
- Rural Living (RL)
- Larger-Lot Residential Neighborhood (LLRN)
- Mobile Home Neighborhood (MHP)

Mid-sized Lot Residential Neighborhood (MLRN)

Smaller Lot Residential Neighborhood (SLRN)

Urban Neighborhood (UN)

Mixed Density Residential Neighborhood (MRN)

Mixed-Use Neighborhood (MUN)

Multifamily Residential Neighborhood (MFRN)

Health Care Campus (HCC)

Civic and Institutional (CIV)

K-12 Education (K-12)

Office Center (OC)

Rural Crossroads (RCR)

Neighborhood Commercial Center (NCC)

Mixed Use Center (MUC)

Town Center (TC)

Community Commercial (CCC)

Light Industrial Center (LIC)

Heavy Industrial Center (HIC)

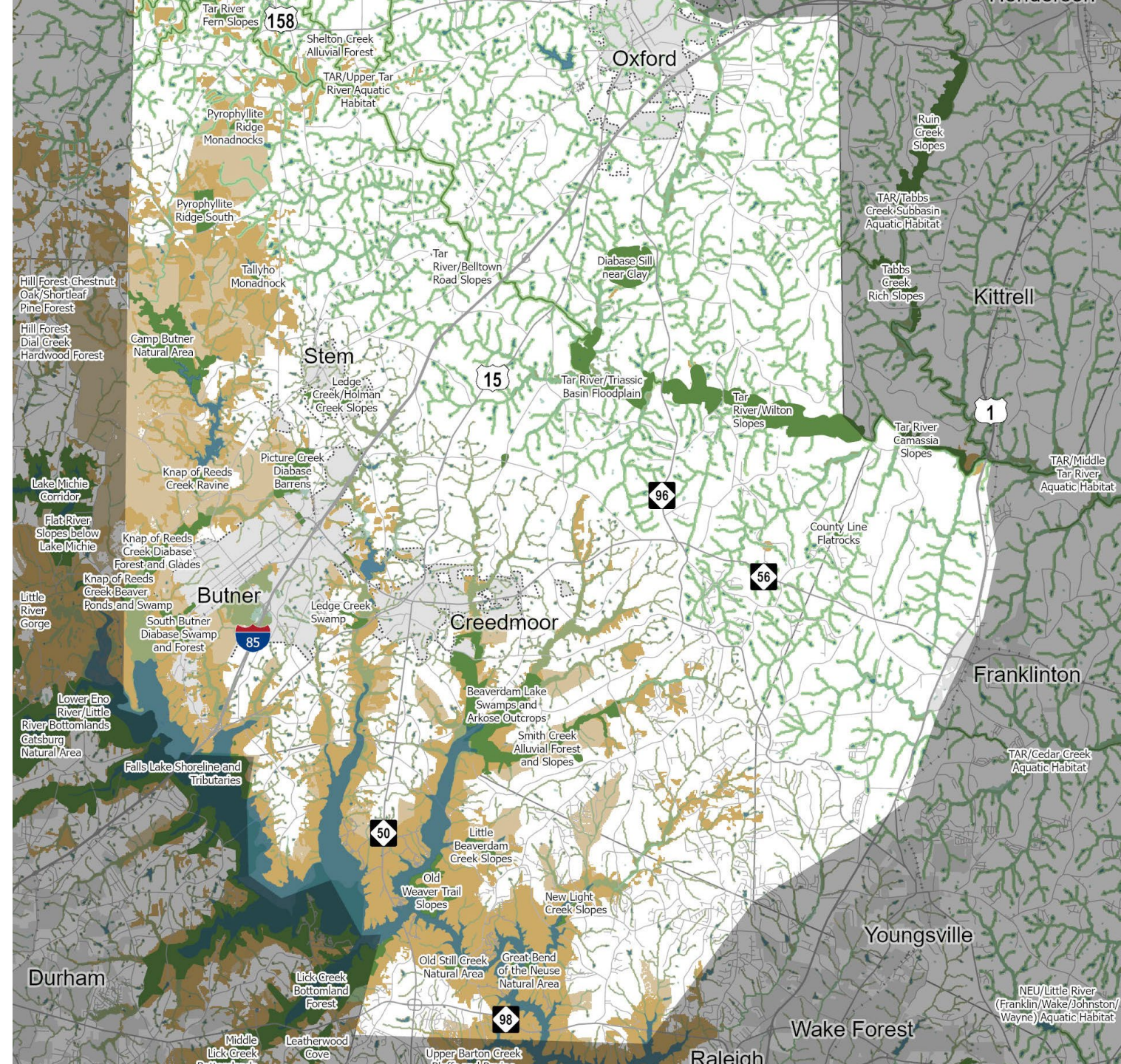
0 4 Miles



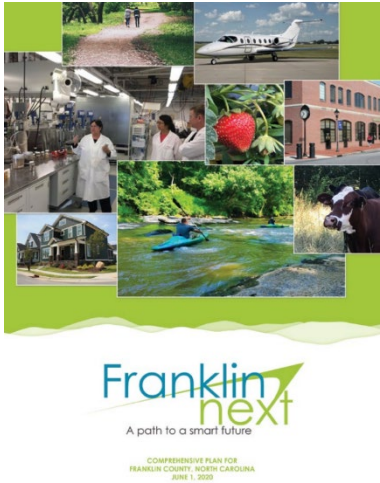
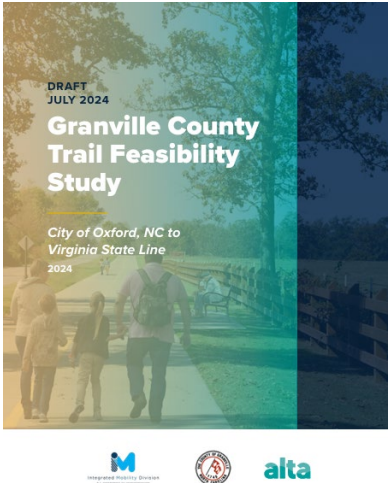
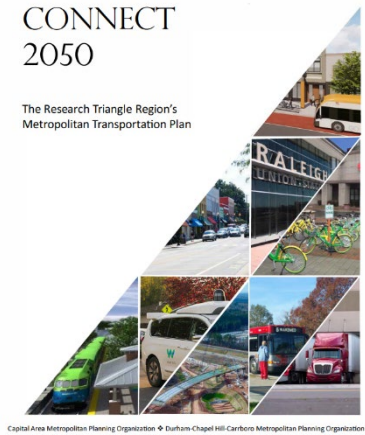
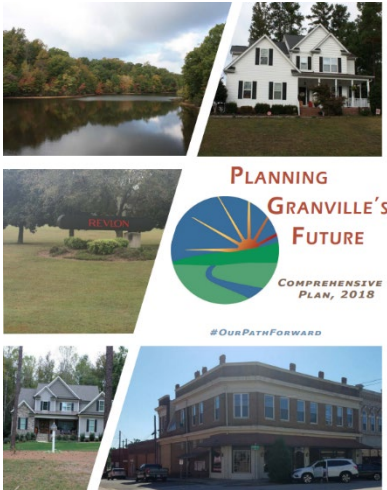
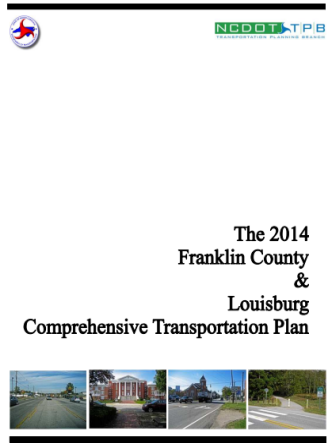
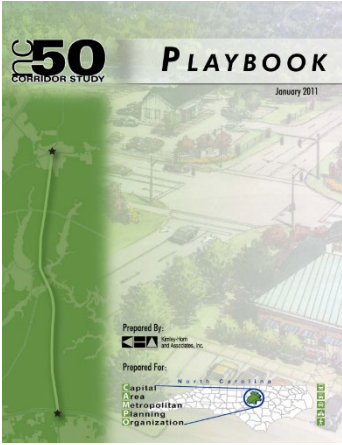
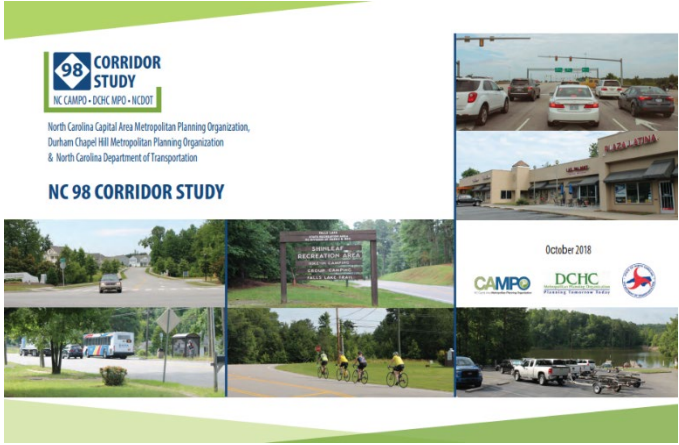
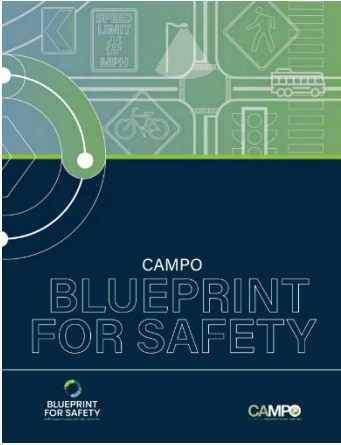
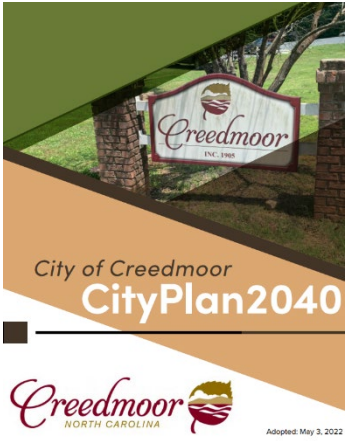
Natural Resources

- 35 Designated Natural Heritage Natural Areas
- Including exceptional and highly rated natural communities

Natural Resources



Previous Plans



Local Planning Themes



Land Use

- Update Zoning Ordinance (8 mentions)
- Preserve Natural Areas (7 mentions)
- Coordinate w/ Neighboring Jurisdictions (6 mentions)



Transportation

- Expand Multimodal Transportation (6 mentions)
- Improve Pedestrian Infrastructure (5 mentions)



Housing

- Increase Housing Diversity / Affordability (6 mentions)
- Maintain Existing Housing Stock (4 mentions)



Economic Development

- Support Local Businesses (5 mentions)
- Targeted Economic Development (5 mentions)



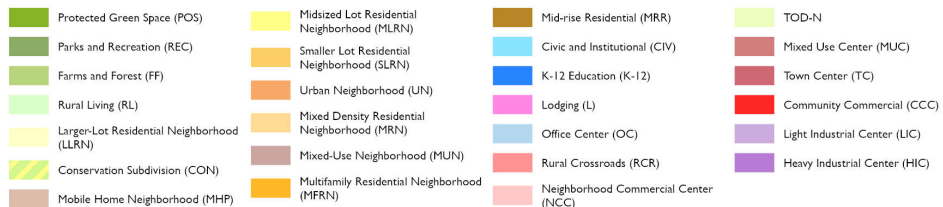
Parks & Recreation

- Expand Trail Connections (7 mentions)
- Access to Parks & Open Space (6 mentions)

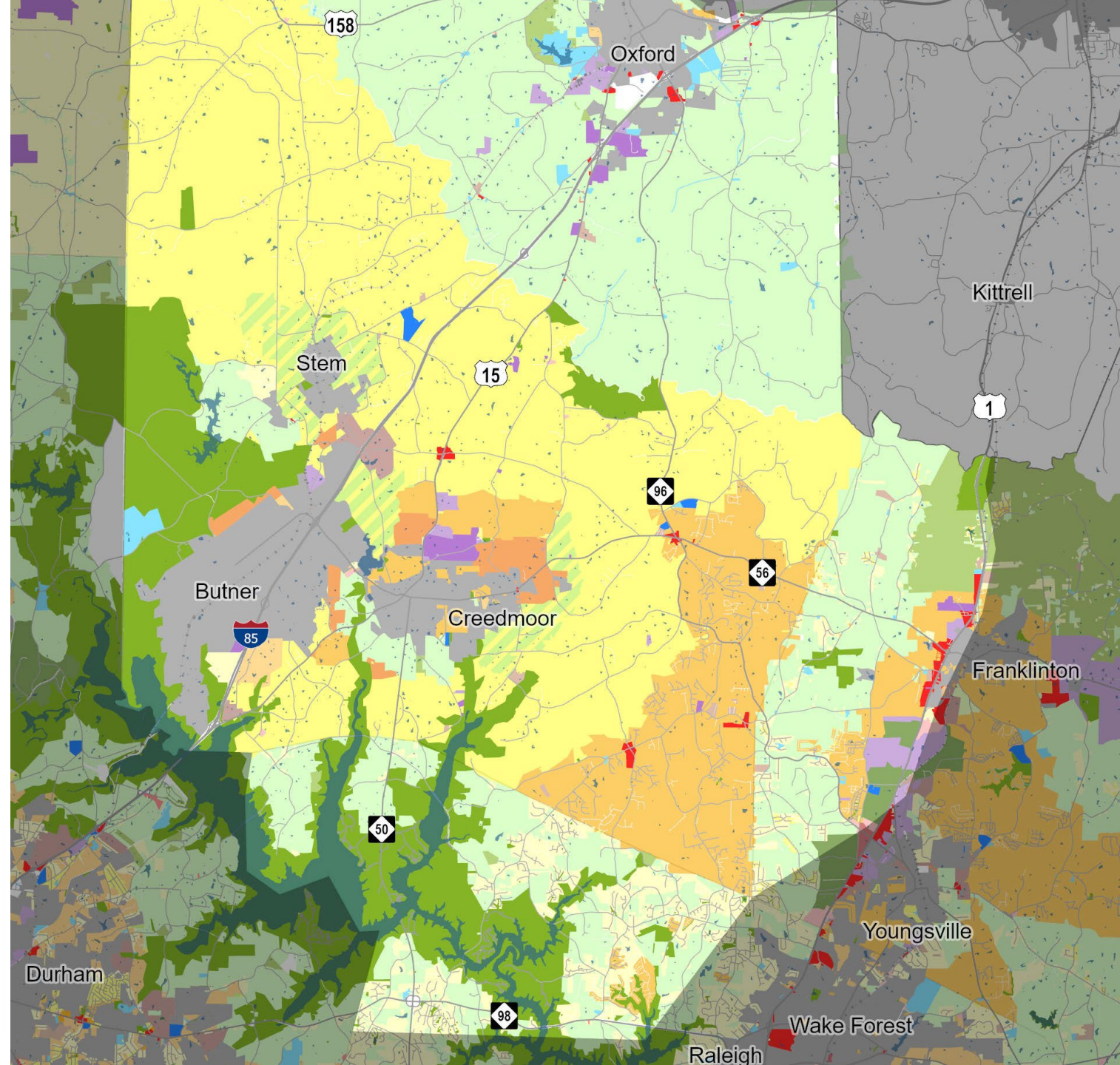
Future Land Use

2055 All Together Scenario Placetypes

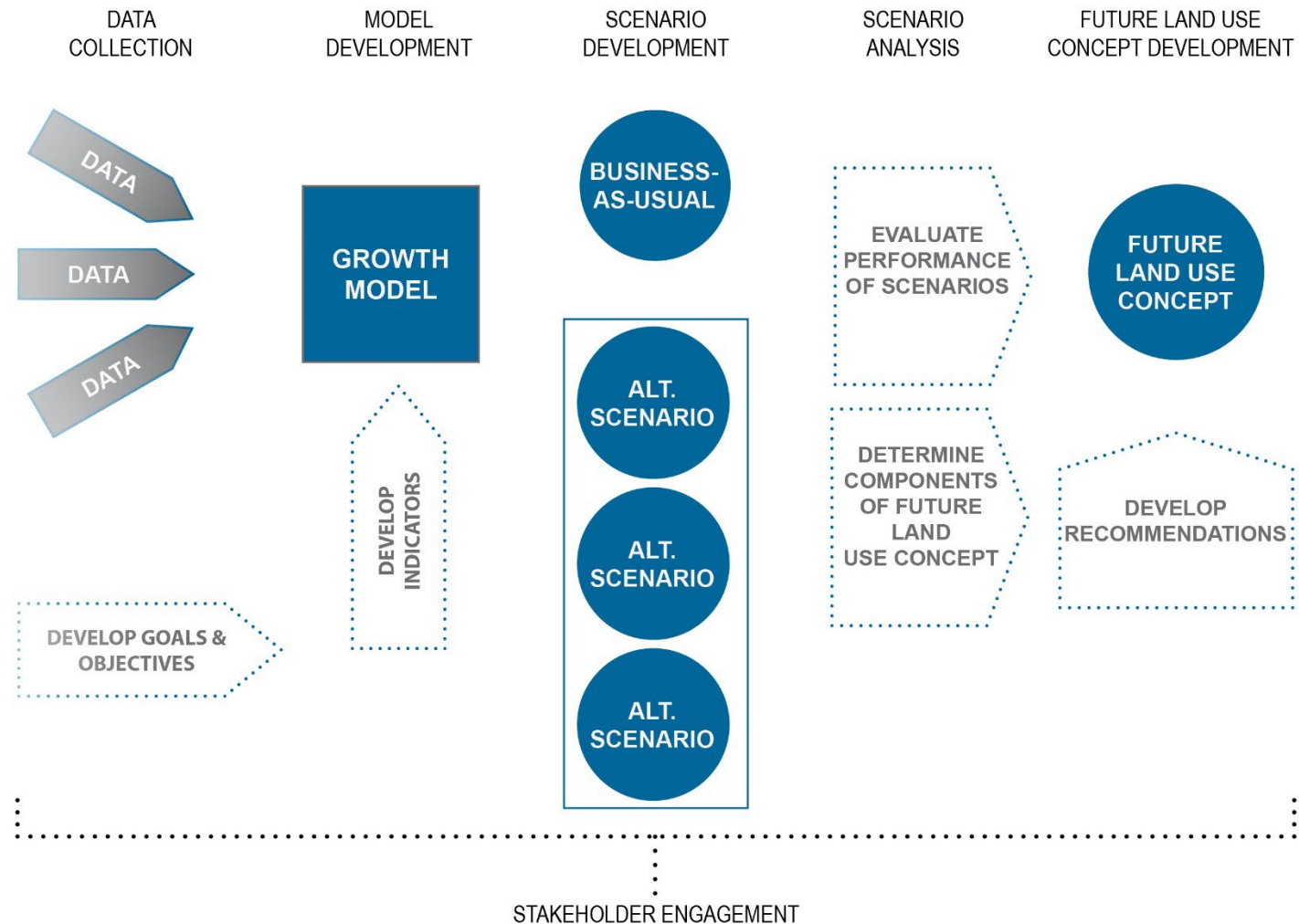
Placetypes



0 4 Miles



Scenario Planning



Scenario Ideas

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP



Watershed Protection

- Watershed and environmental protection focus

Land Use Tools

- **Zoning** (dimensional standards, permitted uses, site design / supplemental standards, approval processes) → defines WHERE and how easy land uses locate
- **Policies and incentives** → influences land use suitability
- **Infrastructure investment** → changes feasibility and suitability
- **Downzoning and disincentives** → recently complicated by SB 382 although exemptions are pending and work arounds will evolve

Elected Officials Committee & Stakeholder Committee Recap



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Who else is involved?

Core Technical Team

Planning and related staff from major jurisdictions
CAMPO Staff
TWTPD and Ker-Tarr RPO

Elected Officials

Elected officials from all jurisdictions in study area

Stakeholder Committee

Implementation Partners
NC DOT, GoTriangle, SGWASA, and others

Community Organizations
Schools, land conservancies, chambers of commerce, and others

Public

All members of the community at large

Meeting Content

- Planning Purpose, Process, and Schedule Overview
- Transportation Tools
- Environmental and Utility Constraints
- Land Use Vision / Discussion

Elected Officials + Stakeholders Committees Recap

What's your vision for the North Falls Lake area of the future?

Elected Officials

1. Being a slice of **nature** outside of the triangle. Keeping it **simple**.
2. Vibrant towns and **protected watershed**
3. **Organized growth**, Beneficial growth

Stakeholders

1. One that allows a range of housing everywhere and **higher densities in the cities**
2. **Sustainable growth**. One that balances economic growth with environmental protection.
3. A thriving community with a strong mix of **quality schools, safe water**, opportunities for **recreation, safe roads** and **alternative ways to get around, neighborhoods for young middle and old**

Elected Officials + Stakeholders Committees Recap

What transportation challenges do *you* see in this region?

Elected Officials

1. **Funding** keeping pace with the growth
2. **Rural roads** were not intended for the growth
3. **Funding** for real needs in real time

Stakeholders

1. **Too reliant on automobile** transit; outdated infrastructure and **limited funding** to update and evolve
2. Traffic; **lack of bike/pedestrian** connections
3. **Safer** roads for all users

Elected Officials + Stakeholder Committees Recap

What are the top land use and transportation priorities for the North Falls Lake area?

Elected Officials

1. Controlling the growth and making it work for the betterment of the area. **Sustainable and beneficial.**
2. **Mixed use** and building up not out.
Work where you live.
3. I-85 corridor

Elected Officials + Stakeholder Committees Recap

Tabletop Activities

Elected Officials

- Desire/willingness to **increase density/intensity within municipalities**
- Importance of **east-west routes** cross-region
- Interest in recruiting **industrial and commercial** development

Stakeholders

- **Growth** should happen in **municipalities** due to infrastructure availability
- Desire for access to **urban-style amenities** in area
- Need to balance **groundwater availability**

Elected Officials Committee Recap

Land Use Outcomes Exercise

Top Residential Choices

- **Increased density** and more housing types near Town Centers
- **Expansion of water and sewer** service areas
- **Residential infill**
- **Targeted preservation** of farmland and open space near Falls Lake

Top Nonresidential Choices

- **Increased employment areas**
- Increase **walkable commercial and mixed-use areas**
- **New interchange** with mixed-use development near Hester Road

Priorities and Vision Discussion



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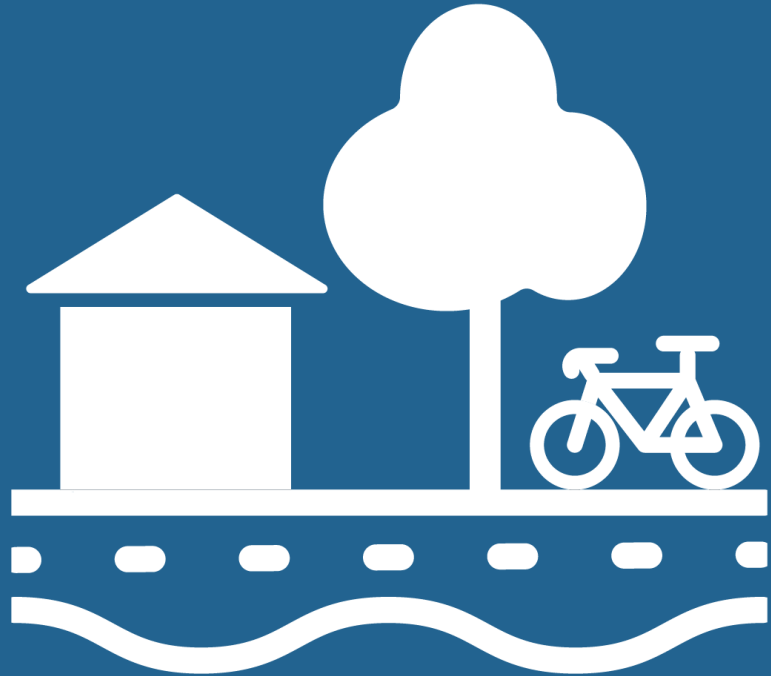
Priorities and Vision Discussion

What kinds of land use scenarios should we “test”?

What measures should we use to evaluate scenarios?

Next Steps

- Reconvene the CTT in **late October/early November**
- **Public Visioning** activities throughout the area in **late August through September**



North Falls Lake AREA STUDY

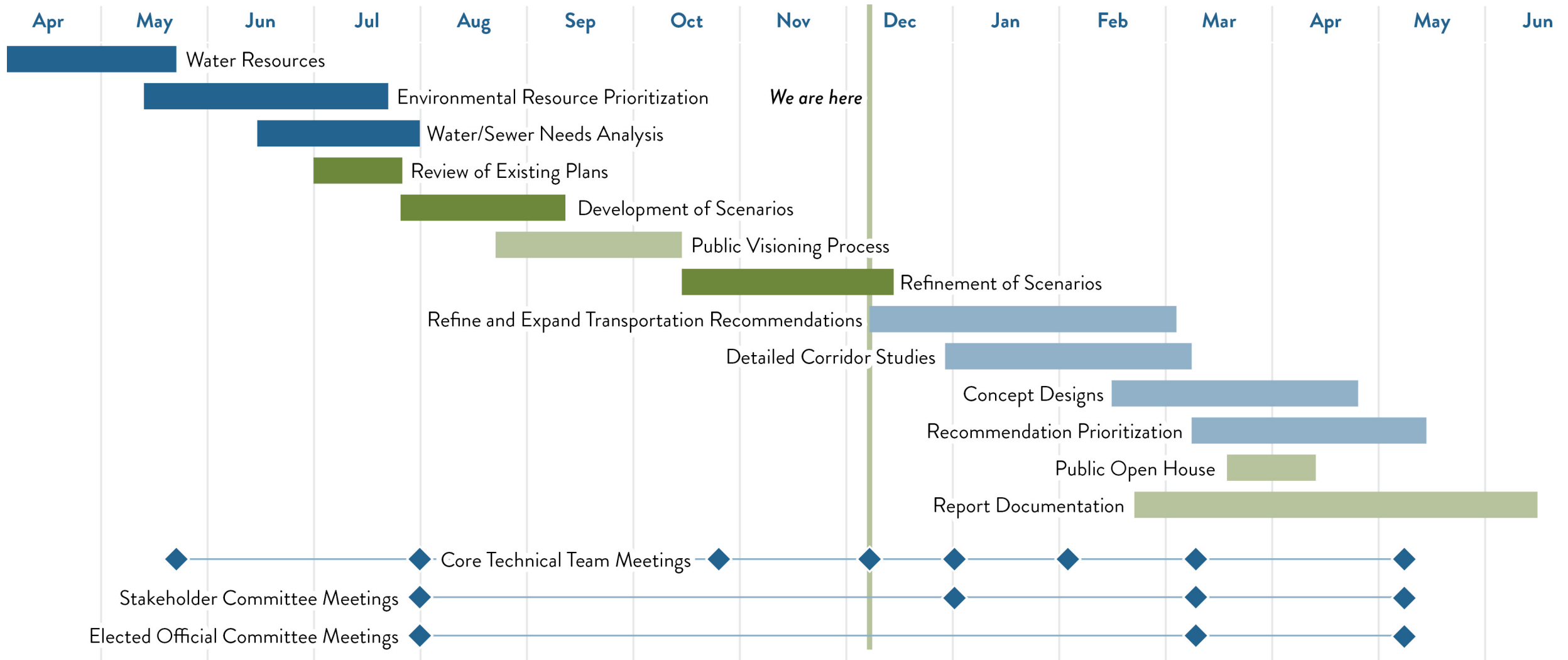
Core Technical Team Meeting #3
December 12, 2025, 1:00pm



Overview

- Public Visioning Summary
- Modeling Scenarios
- Performance Measures Discussion
- School Road Safety Audit Site Selection
- Next Steps

Schedule Overview



Public Visioning Summary



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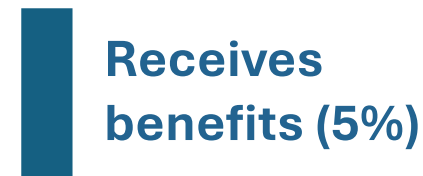
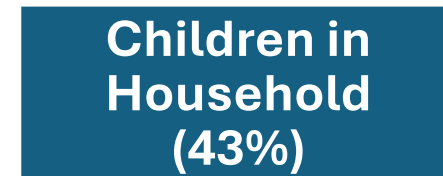
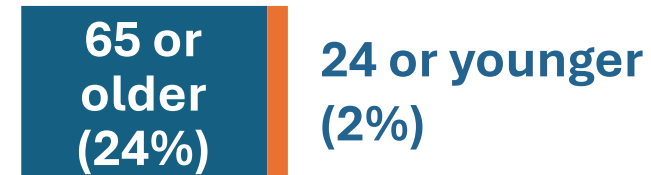
Where We Went

- **Pop-Up Events** at:
 - Granville Live! in Stem
 - National Night Out in Butner
 - Wilton Grill
 - Oxford Senior Center
 - Creedmoor Music Festival
- **Online Activities** at
PublicInput.com/NFallsLake from
late September through late
October



Who we heard from

- **Over 500 participants** to online survey
- Over **180 pins** placed on transportation activity
- Over **600 pins** placed on land use map activity
- At least **85 people** participated in in-person pop-up activities



Scenario Ideas

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP

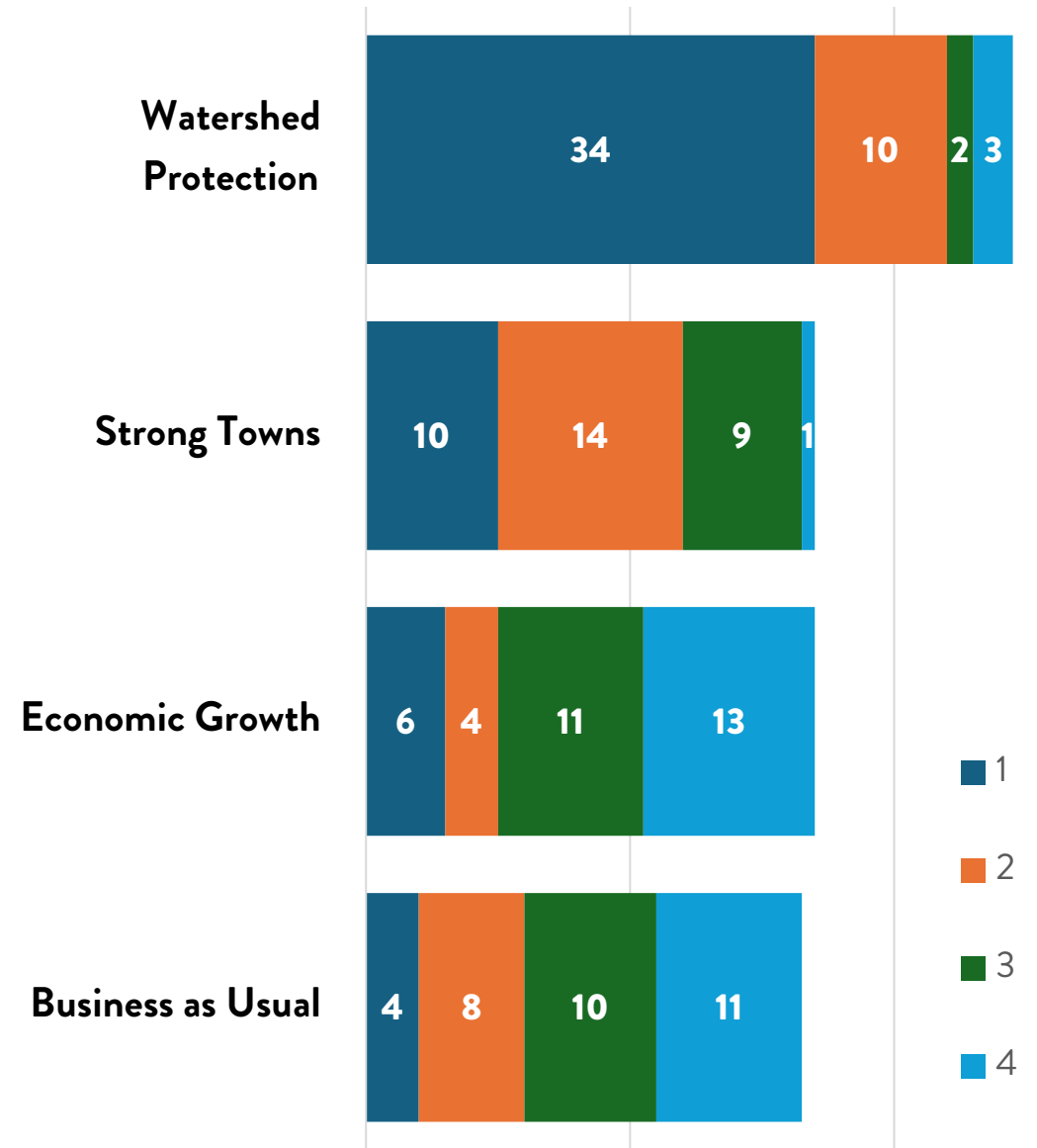


Watershed Protection

- Watershed and environmental protection focus

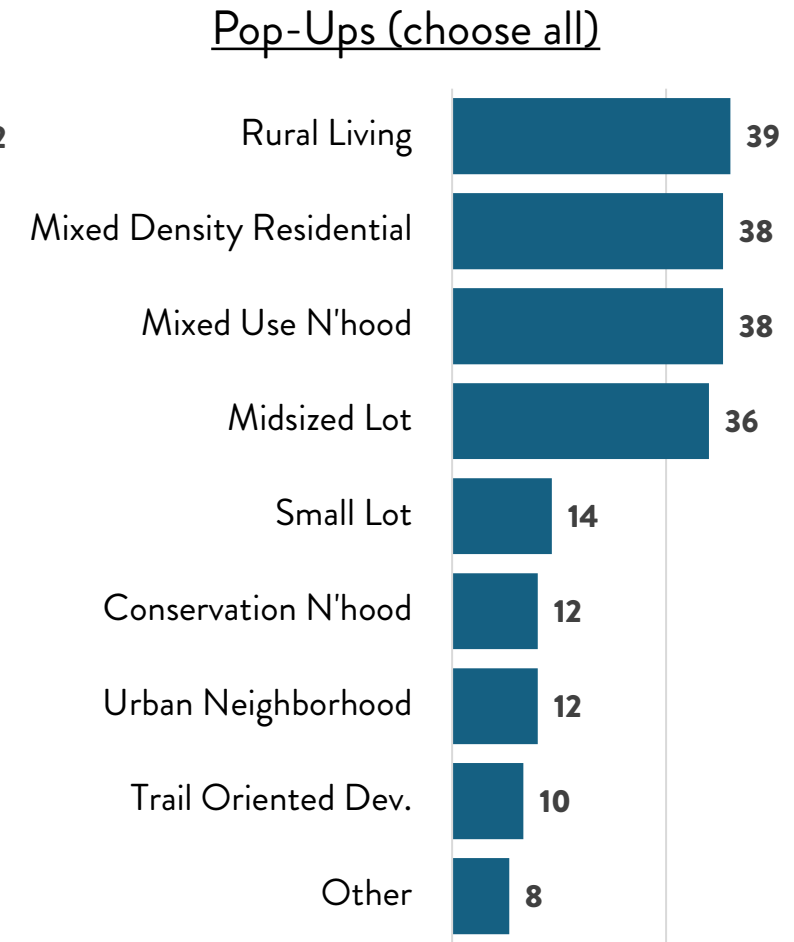
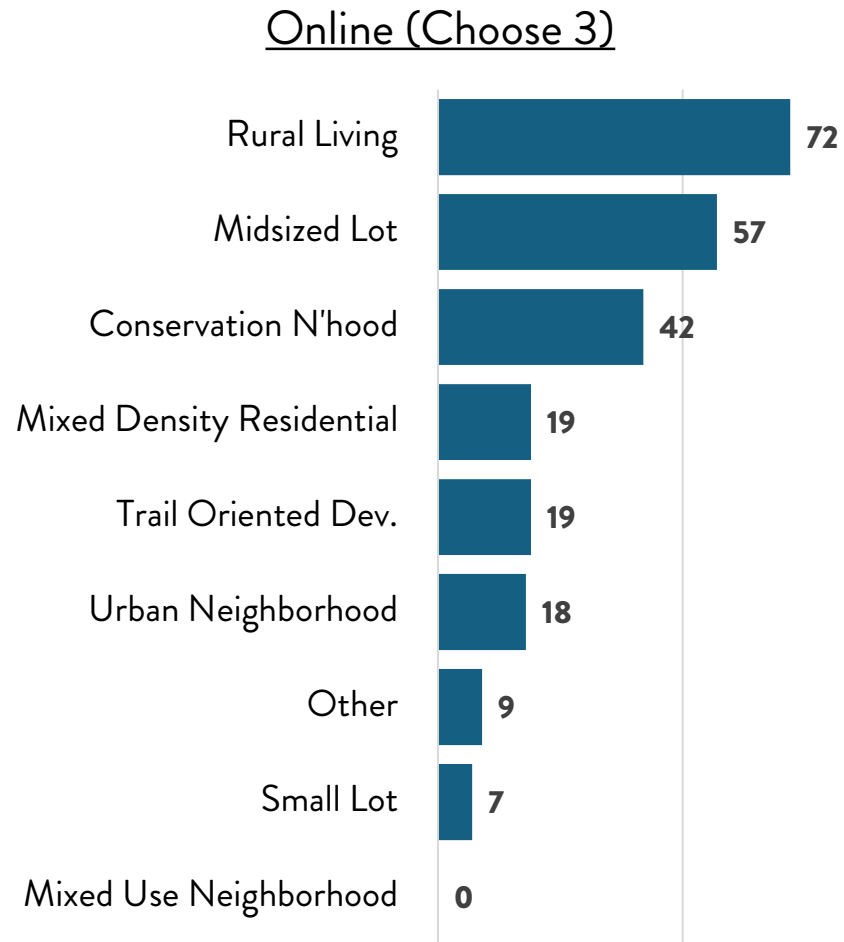
Land Use Scenario Preference

- Participants asked to rank scenarios from 1 (most preferred) to 4 (least preferred)
- Online only
- Top preference for the “Watershed Protection” scenario



Residential Placetypes

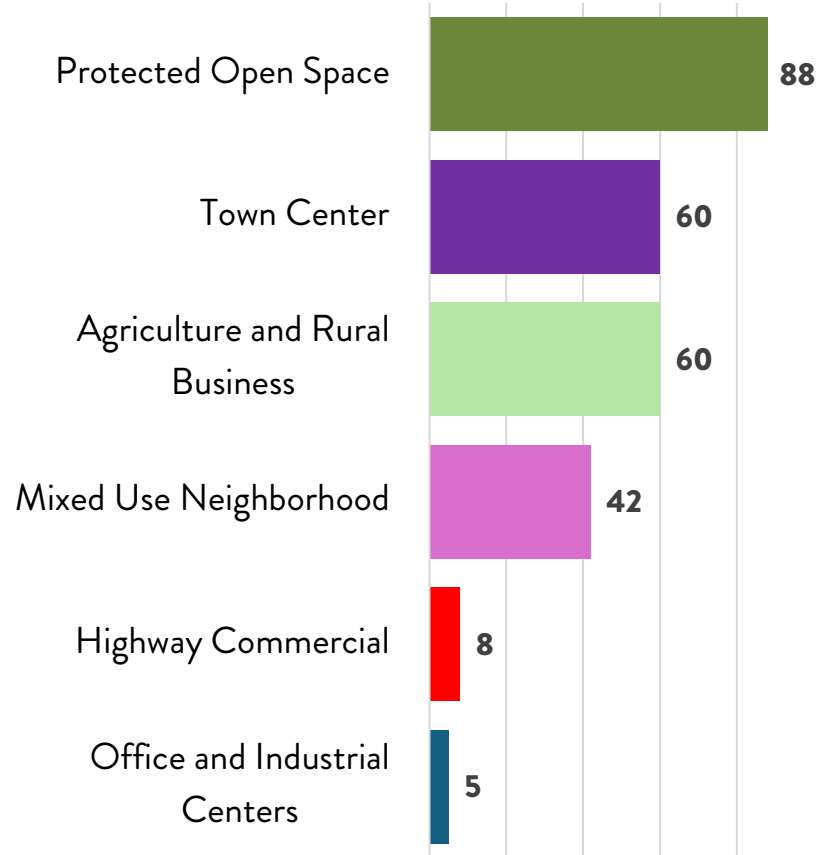
- Participants could select their top 3 choices online; could choose all they liked in person
- Rural Living, Midsized Lot, and Conservation Neighborhood top choices



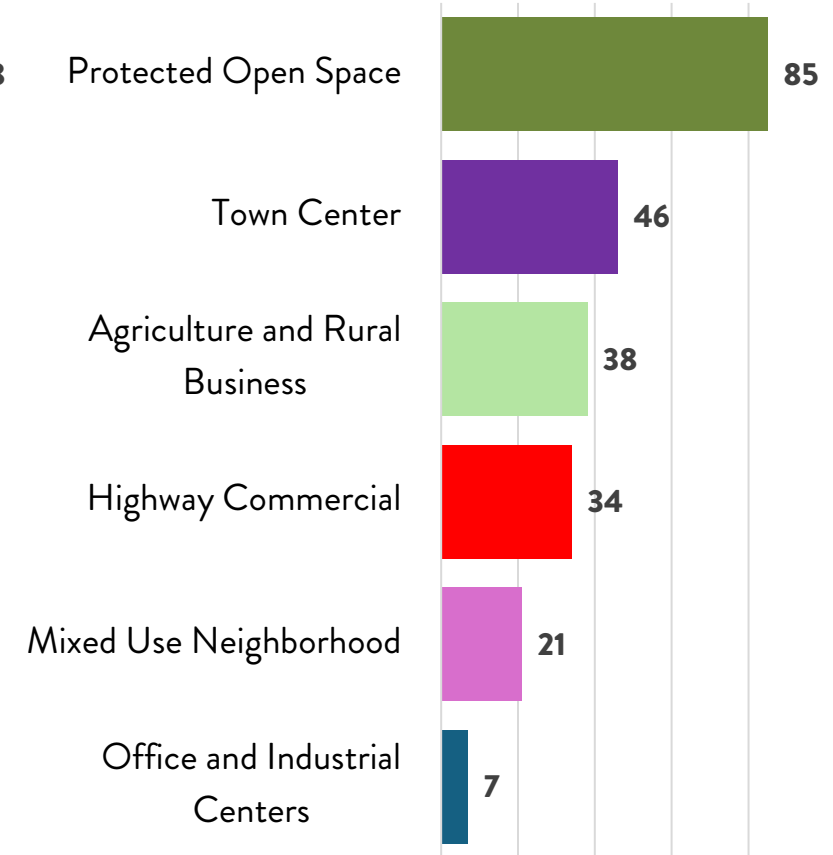
Nonresidential Placetypes

- Both groups chose Protected Open Space and Town Center as top placetypes

Online (Choose 3)



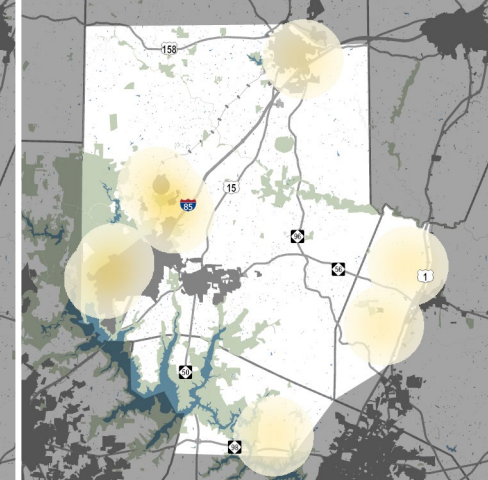
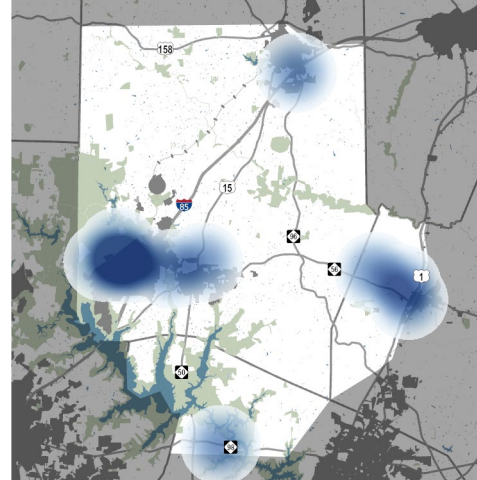
Pop-ups (choose all)



Land Use Map

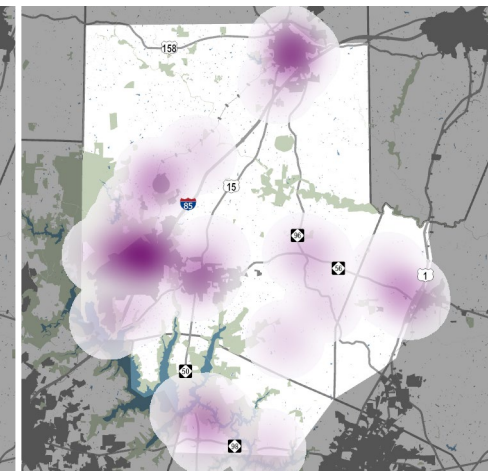
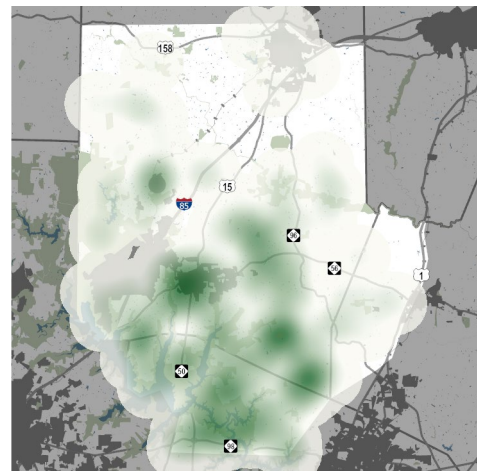
- Participants could place land uses across the study area
- Rural/Preservation influenced by one prolific participant
- Emphasis on non-residential development along I-85

Employment
Center



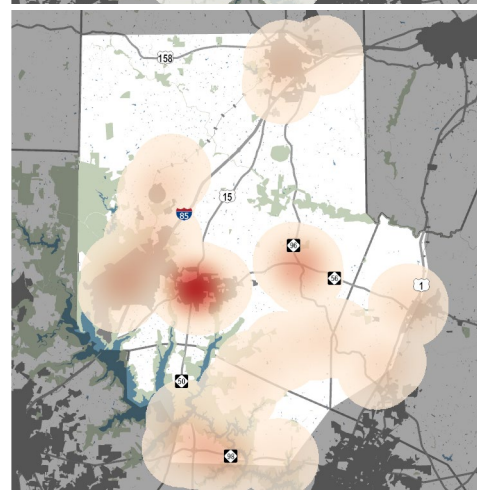
Residential

Rural/
Preservation



Mixed Use
Development

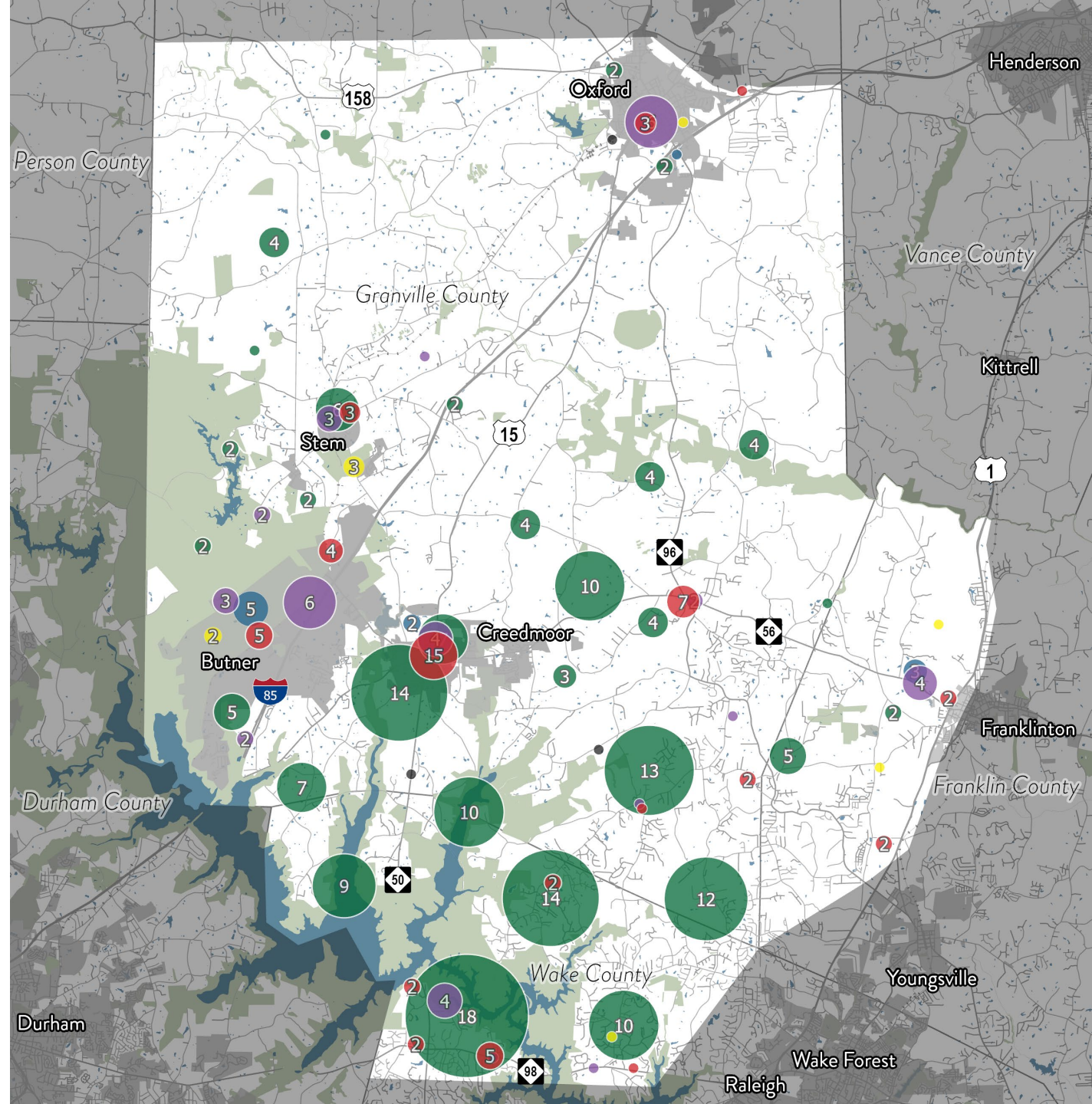
Shopping &
Restaurants



Other

Land Use Map

- Participants could place land uses across the study area
- Rural/Preservation influenced by one prolific participant
- Emphasis on non-residential development along I-85

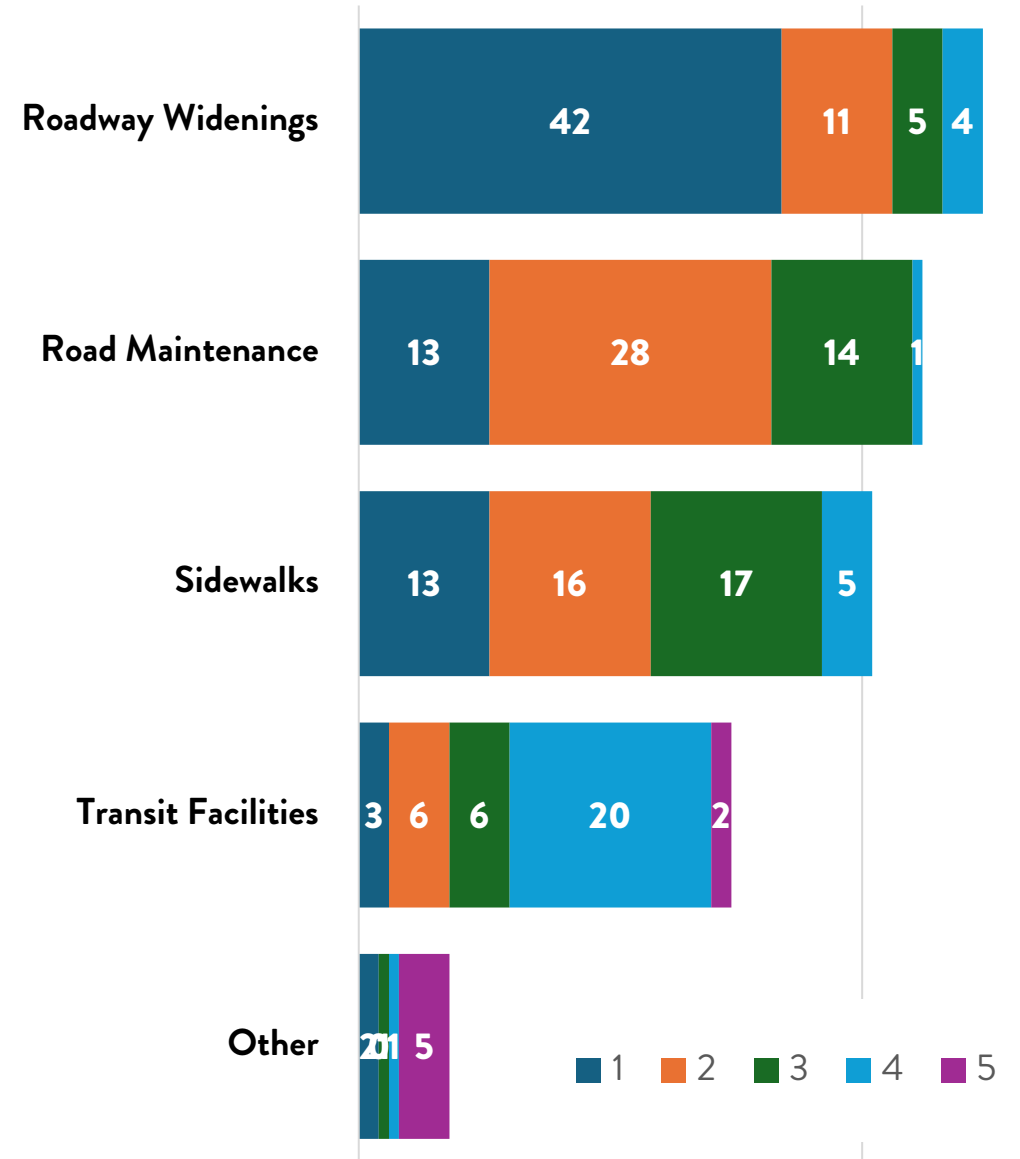


Common Land Use Comment Themes

- **Open Space** (47 mentions)
 - Concerns about farmland
 - Desire to focus development in downtown areas
- **Density Concerns** (44 mentions)
 - Oversaturation of single family homes
 - Desire to keep rural character
 - Related transportation concerns
- **Water Quality** (43 mentions)
 - Protection of watersheds and stream buffers
 - In addition to 42 other mentions of other environmental concerns
- **Infrastructure and Community Facilities** (43 mentions)
 - Poor road conditions and connectivity
 - Health care access and emergency response time concerns
 - In addition to 29 mentions of traffic or other transportation concerns

Transportation Priorities

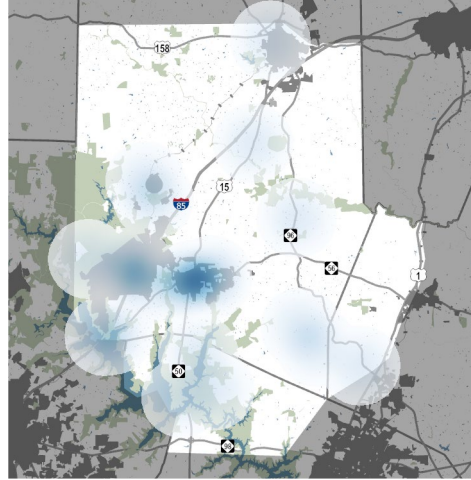
- Participants asked to rank these transportation improvement types from 1 (most preferred) to 5 (least preferred)
- Online only
- Top preference for roadway widenings, followed by roadway maintenance and sidewalks



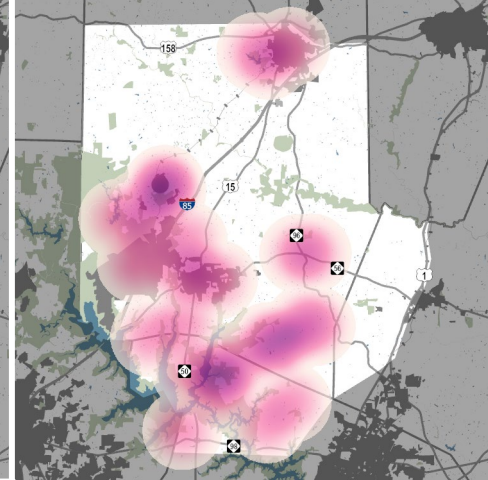
Transportation Map Activity

- Participants could place different improvement types in the study area
- Wide geographic distribution of pins placed, with emphasis in southern portion of study area and Oxford

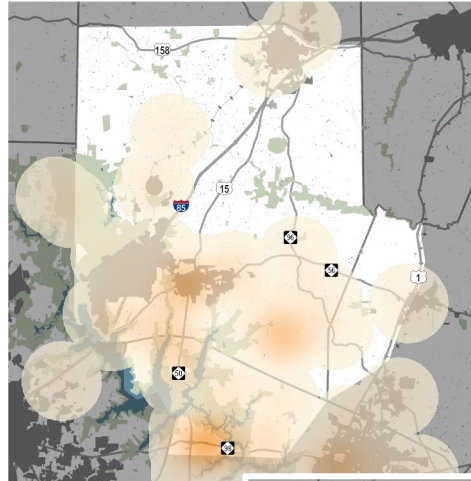
Bicycle or
Pedestrian
Impvt.



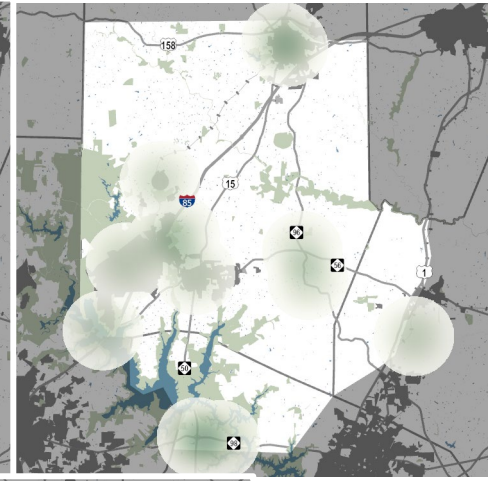
Greenways
and Trails



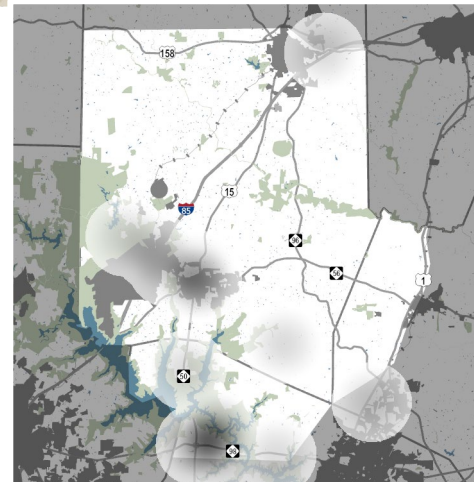
Intersection
or Road
Impvt.



Transit
Service

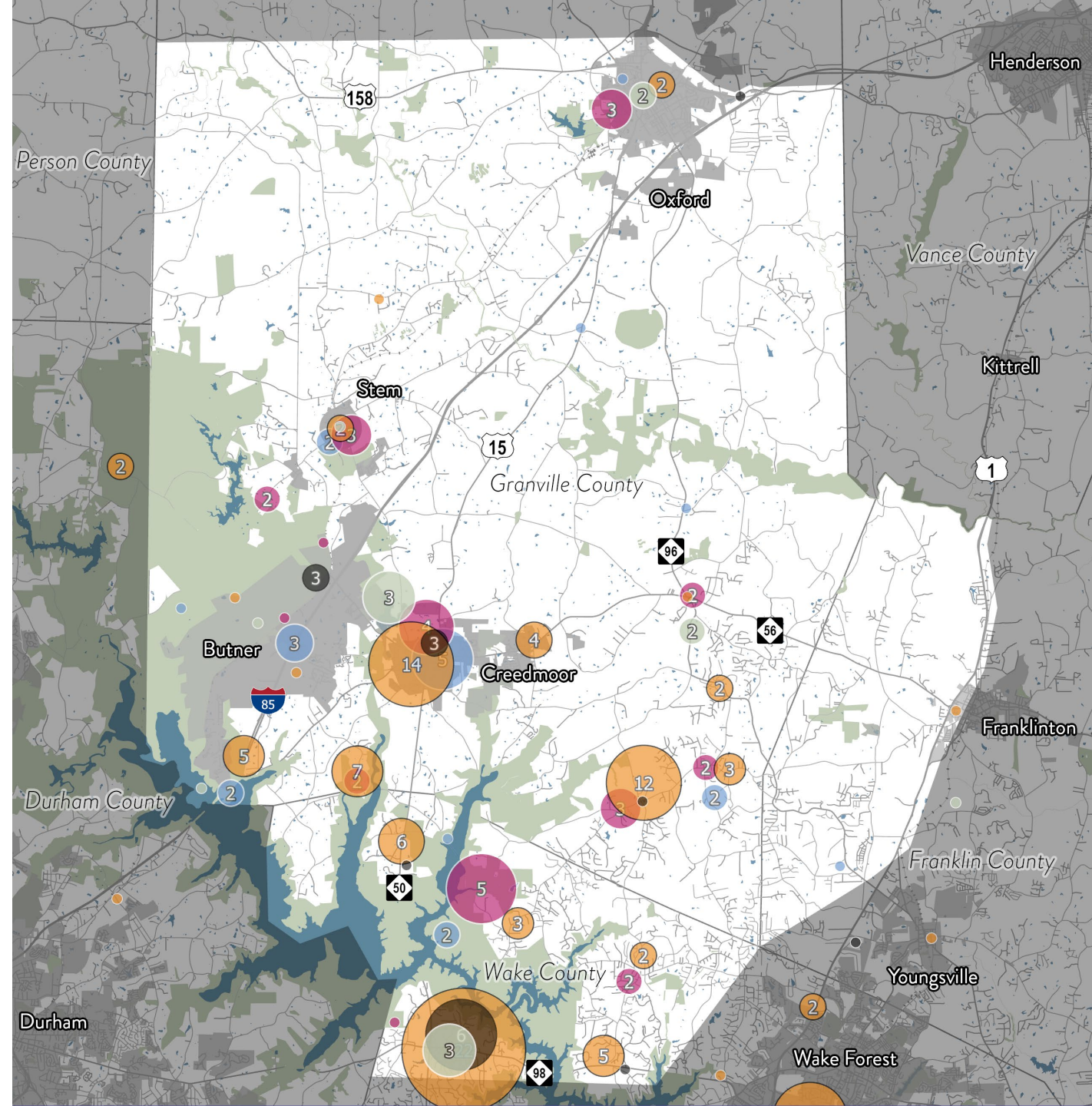


Other



Transportation Map Activity

- Participants could place different improvement types in the study area
- Wide geographic distribution of pins placed, with emphasis in southern portion of study area and Oxford



Transportation Improvement Locations

Participants could also provide written comments about where they wanted to see transportation improvements. **Top mentioned locations included:**

- Bruce Garner Road
- Lawrence Road
- Brassfield Road
- Creedmoor Road
- Six Forks Road
- New Light Road
- Highway 98
- Highway 96
- Highway 56
- Highway 50
- US Highway 1
- US Highway 15

Land Use Model Scenarios



**North
Falls Lake**
AREA STUDY



Scenario Ideas

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP



Watershed Protection

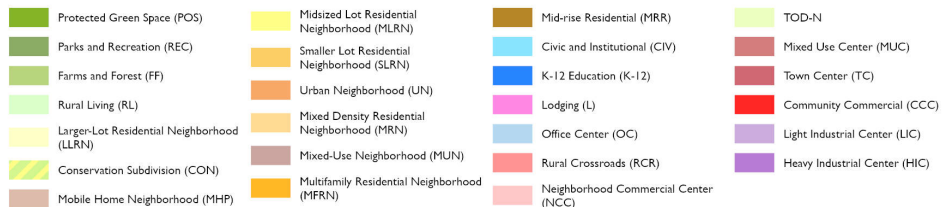
- Watershed and environmental protection focus

BAU

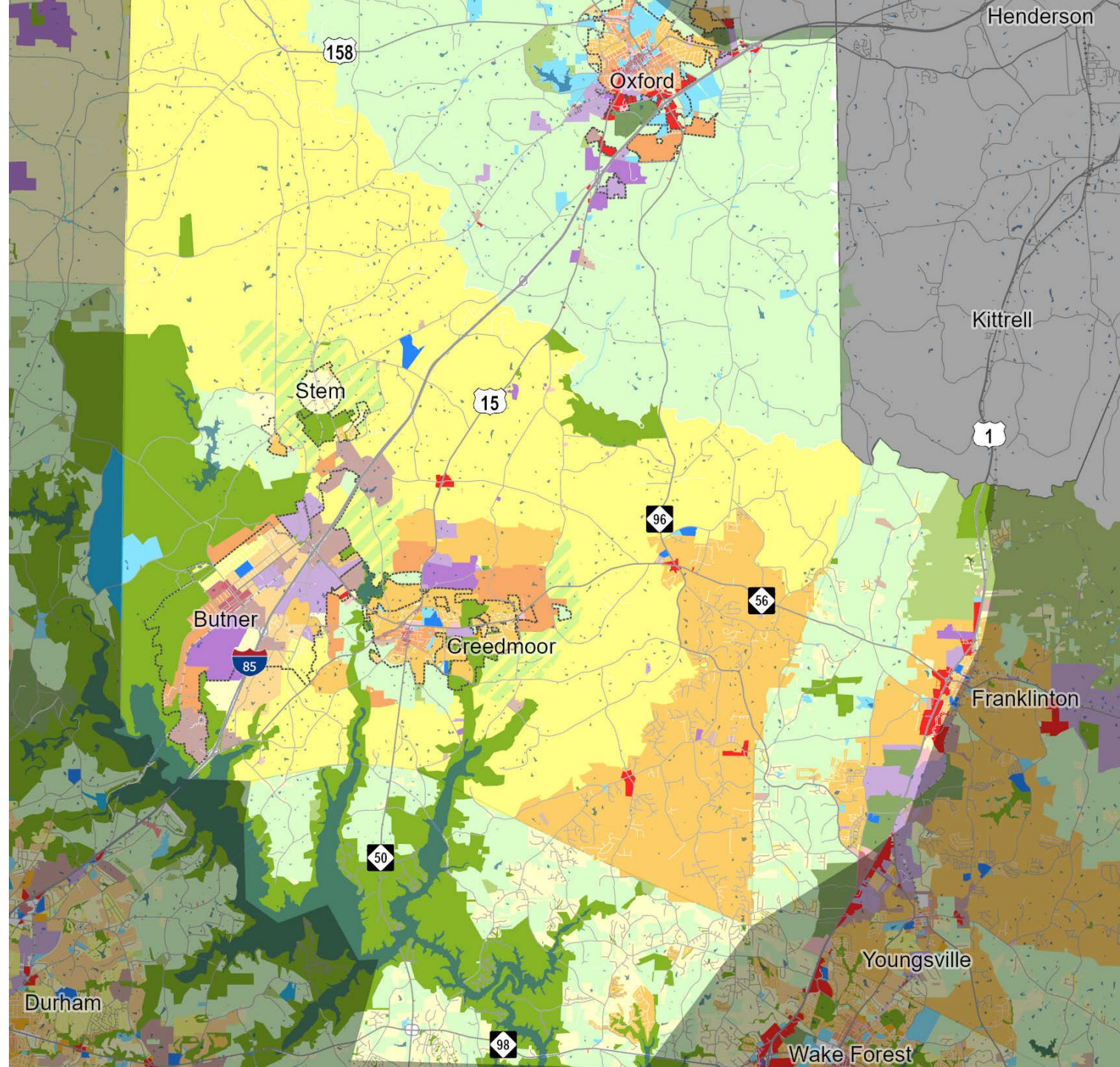
Business As Usual

- Draft*

Placetypes



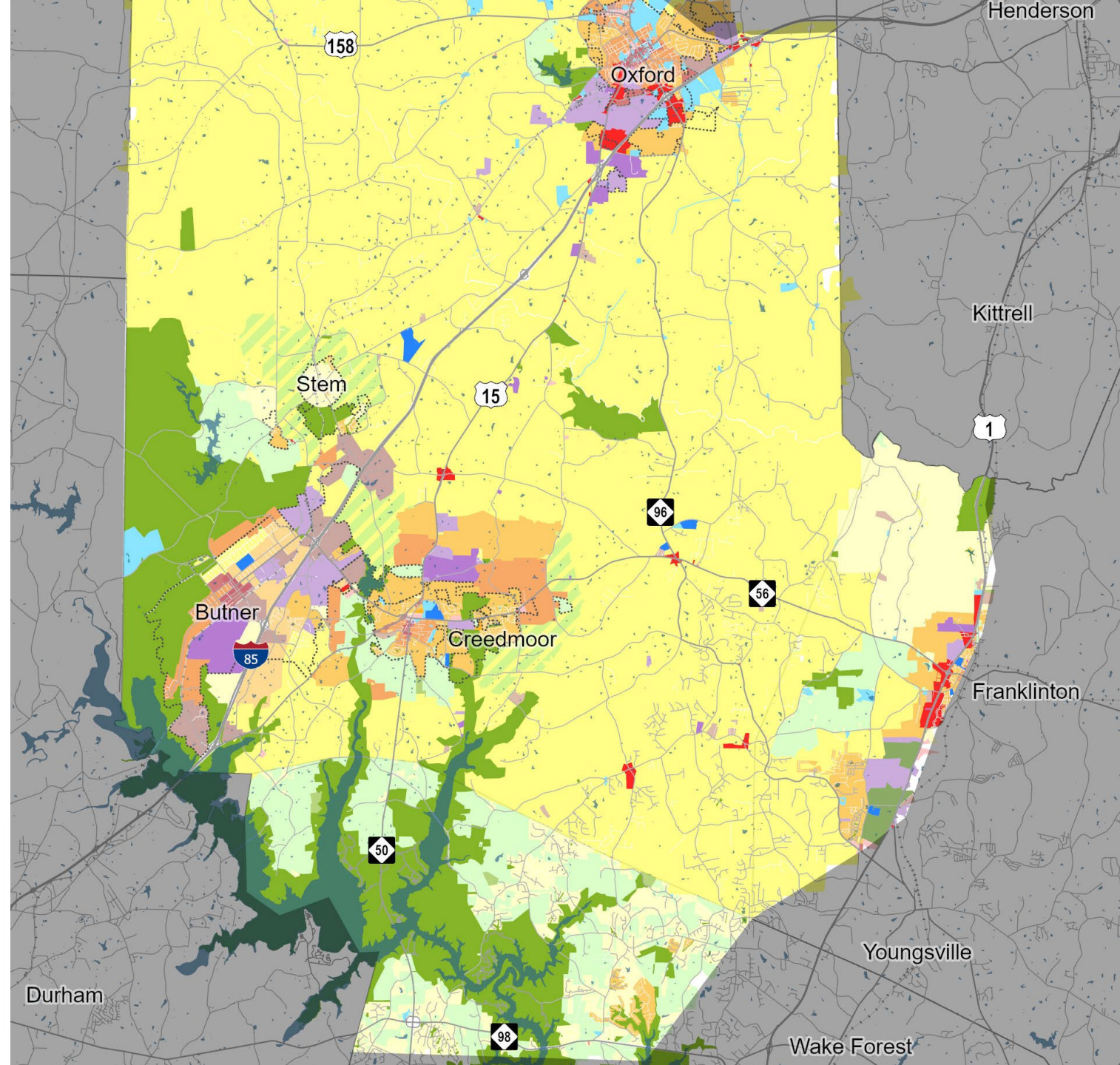
0 4 Miles



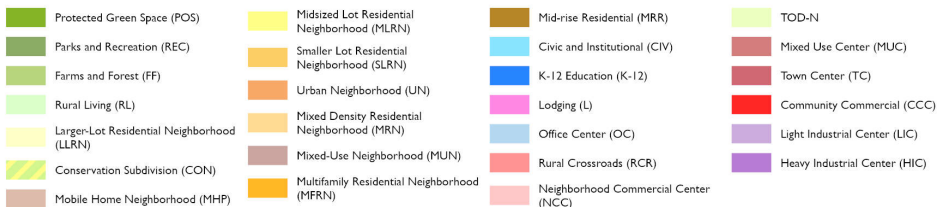
BAU

Business As Usual

- Revised based on Granville and Franklin zoning and Oxford FLU



Placetypes



Land Use Scenario Input

Tier 1: Most Supported



Rural Living



Midsized Lot



Conservation
Neighborhood



Mixed Density
Residential

Residential Placetype Preferences

Tier 2: Some Support



Urban
Neighborhood



Trail Oriented
Development

Limited Support



Small Lot Residential

Land Use Scenario Input

Tier 1: Most Supported



Protected Open Space



Town Center



Agriculture and Rural
Business



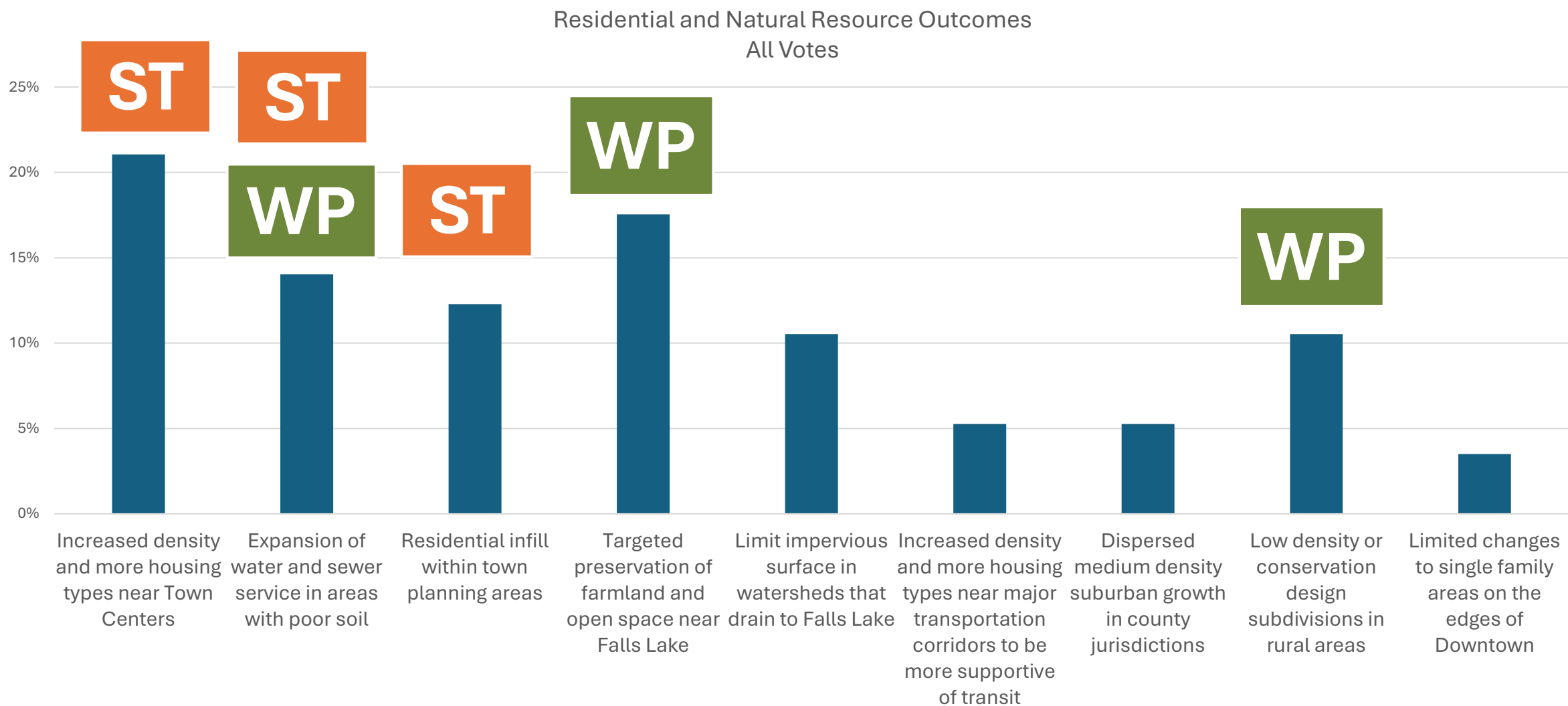
Mixed-Use
Neighborhood

Nonresidential Placetype Preferences

Preference for open space and rural preservation AND compact, mixed-use development.

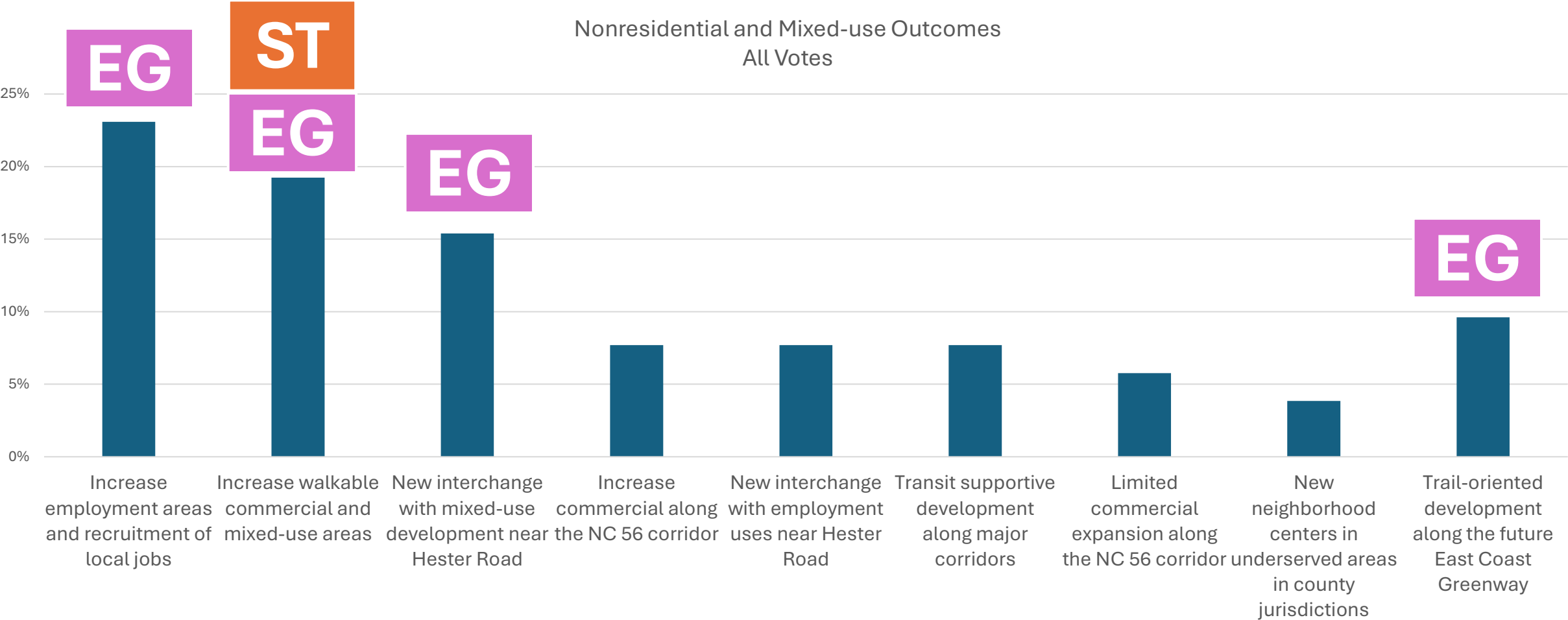
Land Use Scenario Input

Elected Officials and
Stakeholders Meeting



Land Use Scenario Input

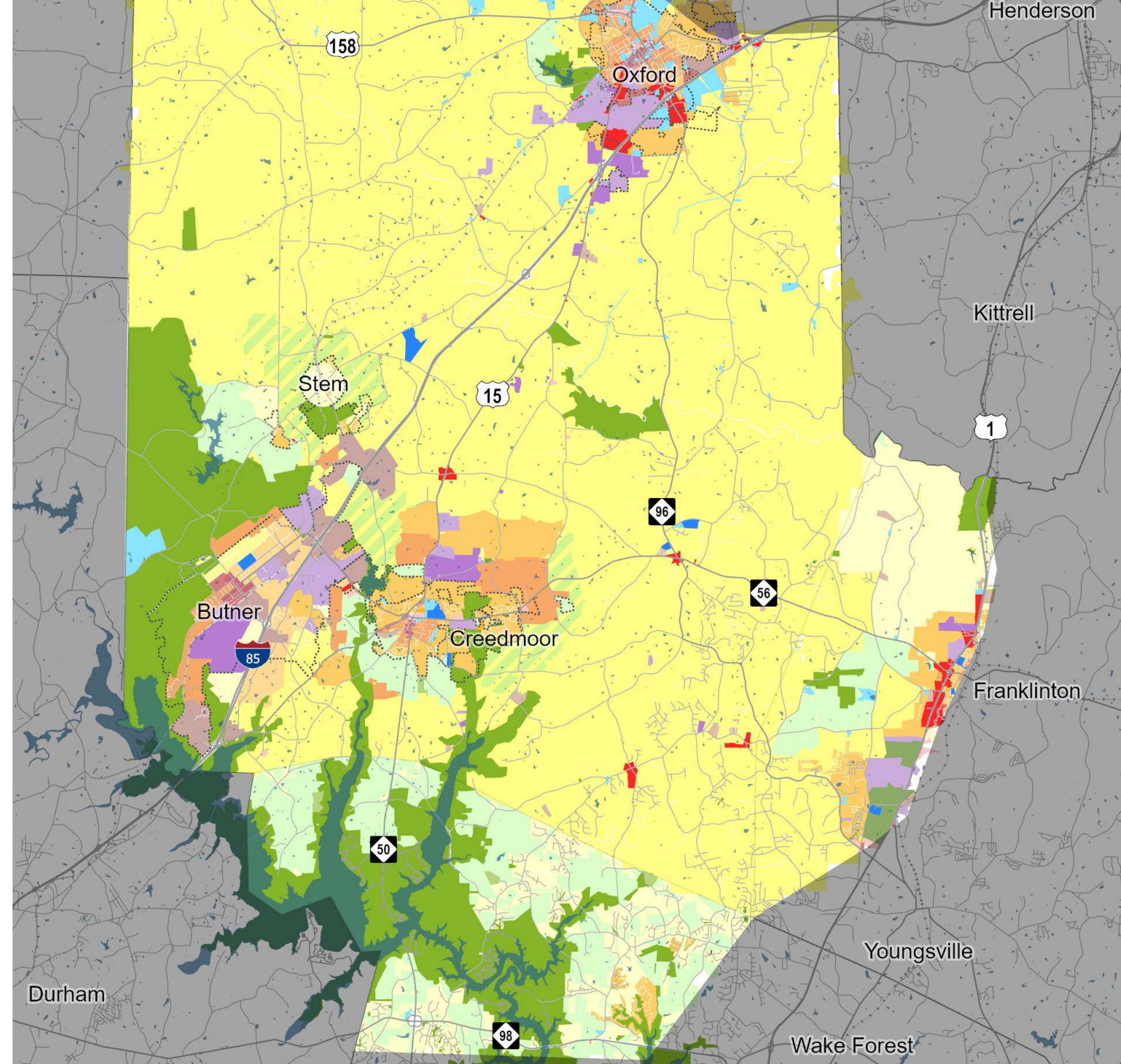
Elected Officials and
Stakeholders Meeting



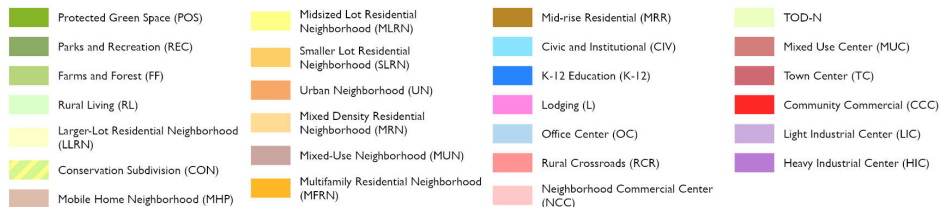
BAU

Business As Usual

- Revised based on Granville and Franklin zoning and Oxford FLU



Placetypes

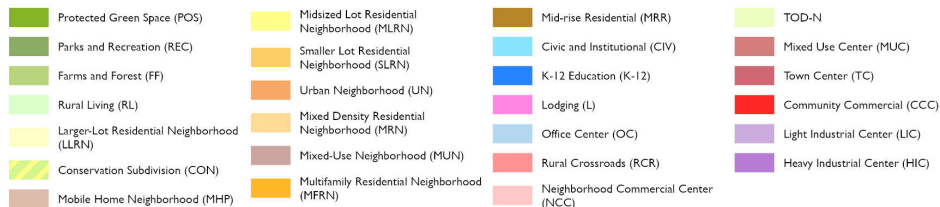


EG

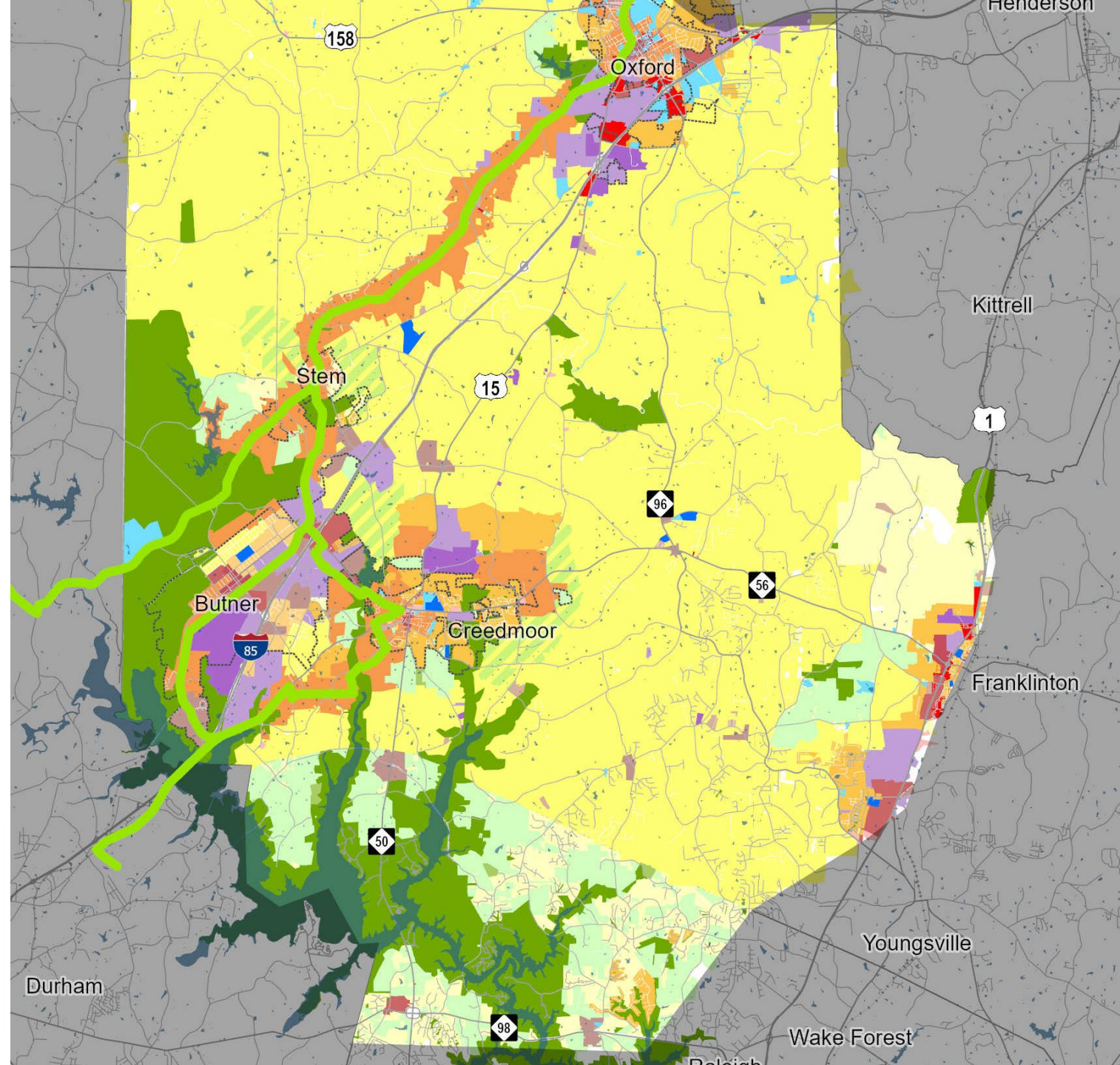
Economic Growth

- Job recruitment accelerated (+25%)
- More industrial areas near I-85
- Increase in Mixed Use Centers and Commercial areas
- Trail Oriented Development (More Urban Neighborhoods and Mixed Density Residential and Mid-rise Residential near planned GTS)

Placetypes



0 4 Miles

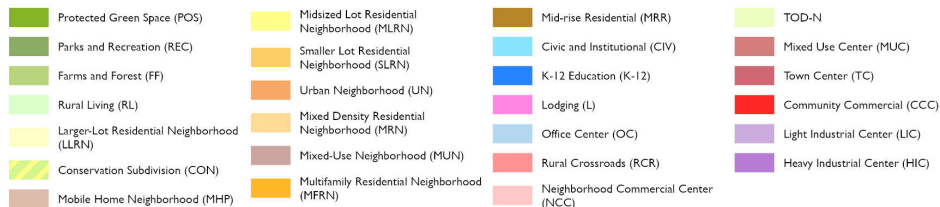


ST

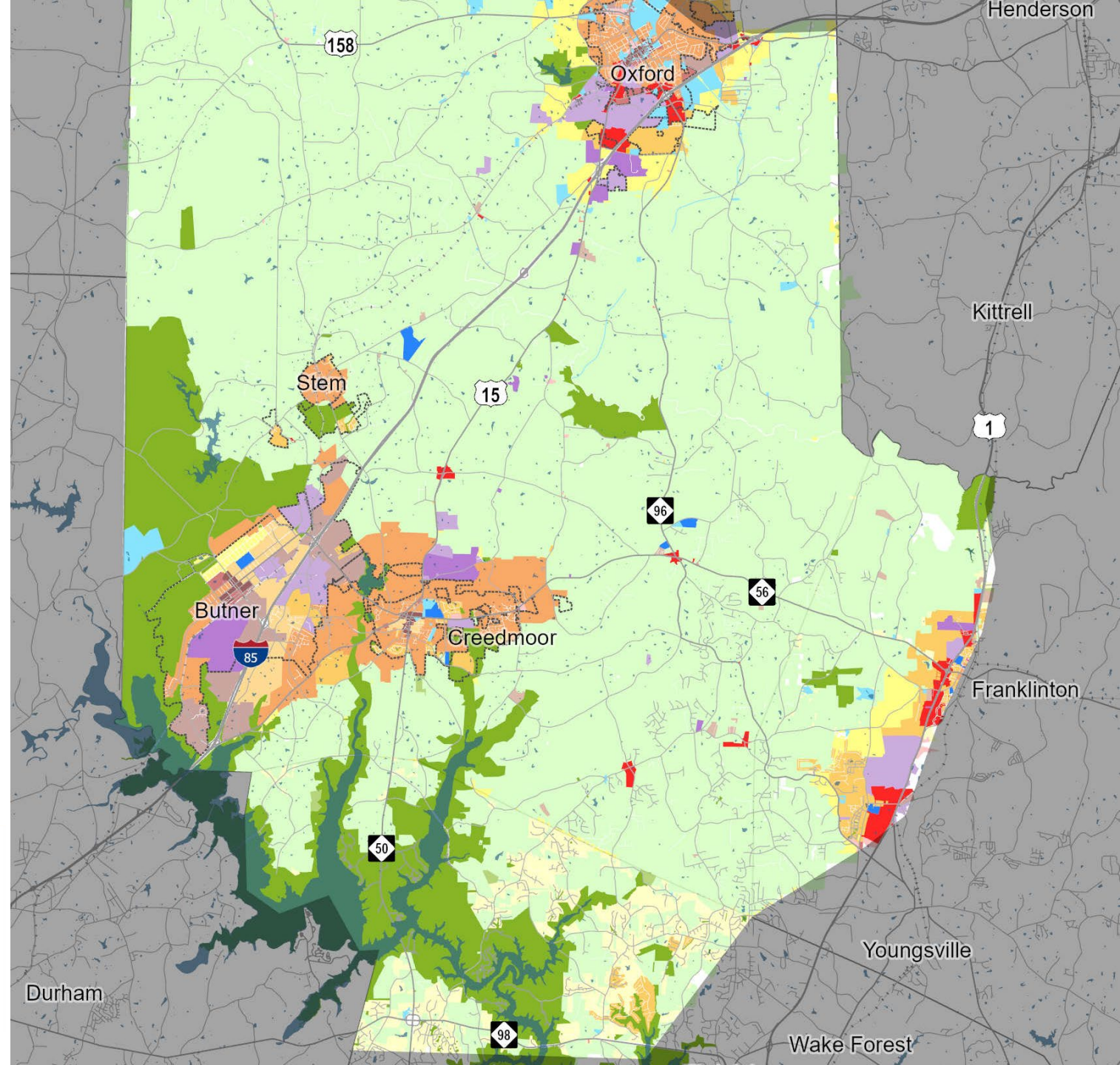
Strong Towns

- More Urban Neighborhoods and Mixed Density Residential Neighborhoods in Towns
- Expanded Town Centers and Mixed-Use Neighborhoods in Downtowns and Adjacent to DTs
- Rural Living in most areas of the county

Placetypes



0 4 Miles

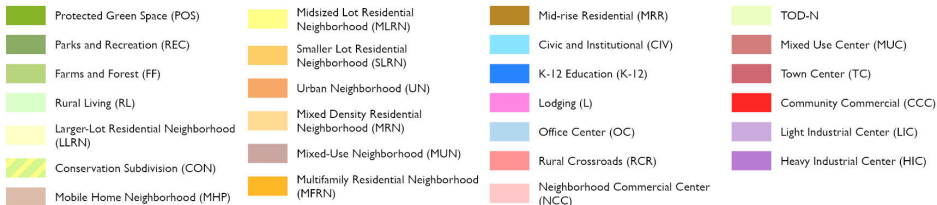


WP

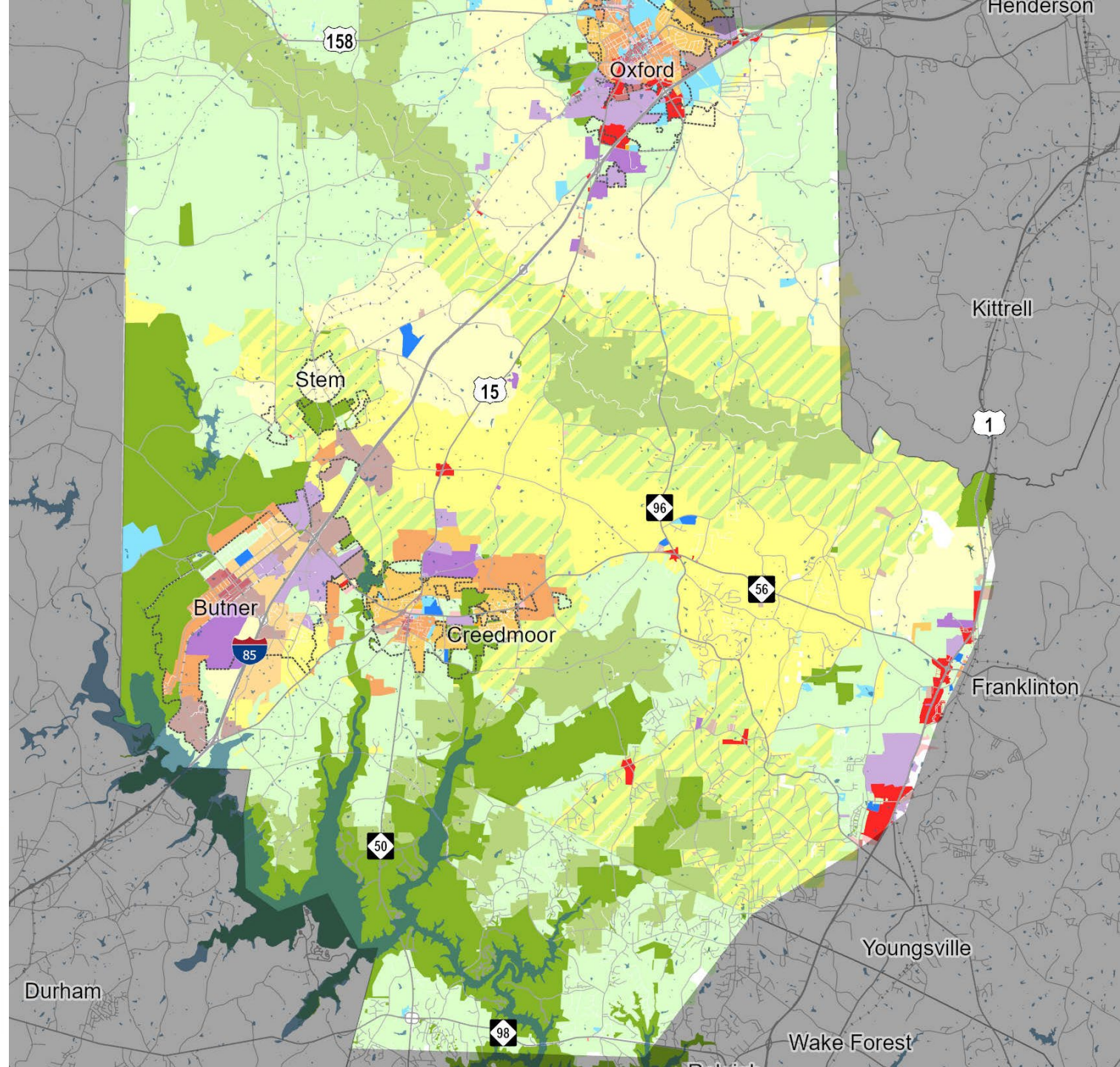
Watershed Protection

- Protected Open Space, Rural Living or Farms and Forest in south Granville in Triassic Basin
- Conservation Subdivisions or Larger Lot Residential Neighborhood outside of Triassic Basin in SE Granville and along Tar River.

Placetypes



0 4 Miles

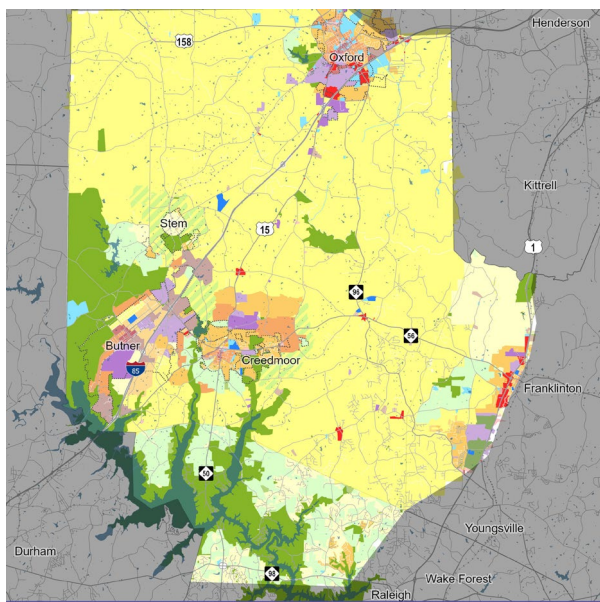


BAU

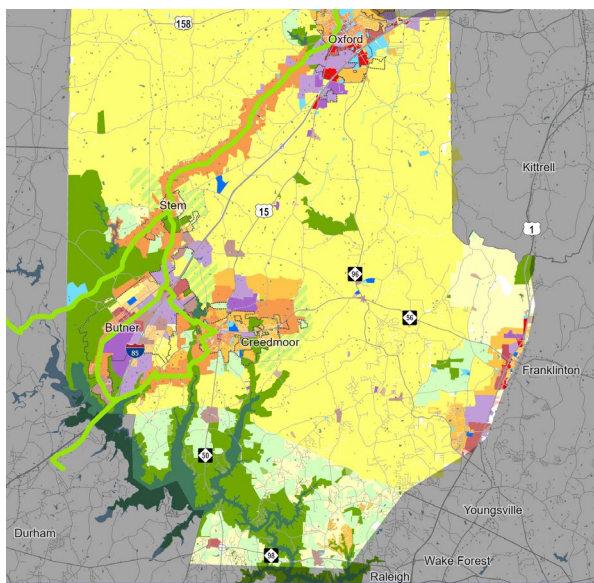
EG

ST

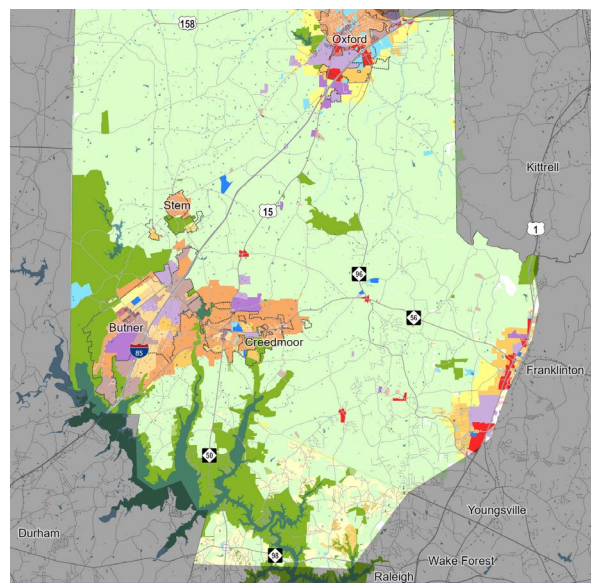
WP



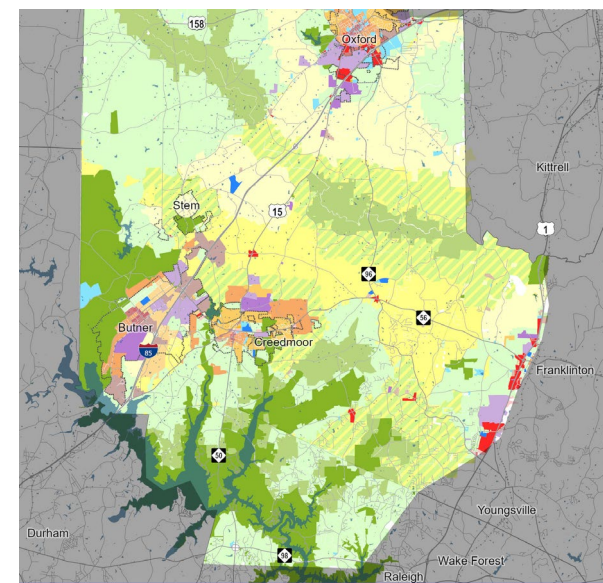
2055 Placetypes



2055 Placetypes



2055 Placetypes



2055 Placetypes



Summary of Public, Elected Officials, and Stakeholder Input

- Support for Strong Towns and Watershed Protection scenarios.
- Public leaned to WP scenario (rural preservation), elected officials and stakeholders leaned Strong Towns (compact development).
- Economic development was more important to elected officials and stakeholders than the public.



Performance Measures



**North
Falls Lake**
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Potential Performance Measures

Land Use

- Acres of Industrial Development
- Acres of Commercial Development
- Jobs at Build-out
- Preserved Open Space in New Development
- Urban Footprint
- Homes in Municipalities
- New Property or Sales Tax Revenue from Growth

Potential Performance Measures

Transportation + Environmental/Utility

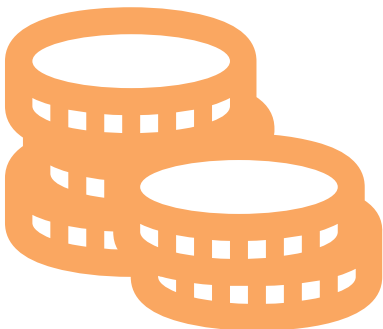
Transportation

- Total Vehicle Miles Traveled
- Total Vehicle Hours Traveled
- Congested VMT
- Homes in Walkable Communities
- Homes in Walking and/or Bicycling Distance to Parks, Greenways, etc.
- Transit Propensity (micro, etc.)

Environmental/Utility

- New Homes and Jobs within Existing and Planned Water/Sewer Service Regions
- New Water/Sewer Demand (Compared to Existing and Planned Infrastructure Capacity)
- Impervious Surface in Sensitive Watersheds

Report Card Mock up



REPORT CARD

SCENARIO KEY

BAU	= Business As Usual
EG	= Economic Growth
ST	= Strong Towns
WP	= Watershed Protection

RESULTS KEY

- = Worse than CP scenario
- ◐ = Less than 5% change from CP scenario
- ◑ = Significant improvement compared to CP scenario
- = Best improvement compared to CP scenario

BAU	EG	ST	WP
-----	----	----	----

INFRASTRUCTURE AND JOBS

Acres of Office and Industrial Areas				
Acres of New Commercial or Mixed-use Development				
Sewer Demand inside Utility Service Area (MGD)				

PARKS AND OPEN SPACE

Households Close to Parks				
Preserved Open Space in New Development				
Urban Footprint				
New Homes Near Conserved Lands or Sensitive Areas				

TRANSPORTATION

Total Vehicle Miles Traveled				
Total Vehicle Hours Traveled				
Travel Time in Congestion				

INFRASTRUCTURE AND COST OF SERVICES

Homes in Municipalities or Walkable Communities				
New households near Fire Stations				
Sewer Demand inside Utility Service Area (MGD)				

School Road Safety Audits



**North
Falls Lake**
AREA STUDY

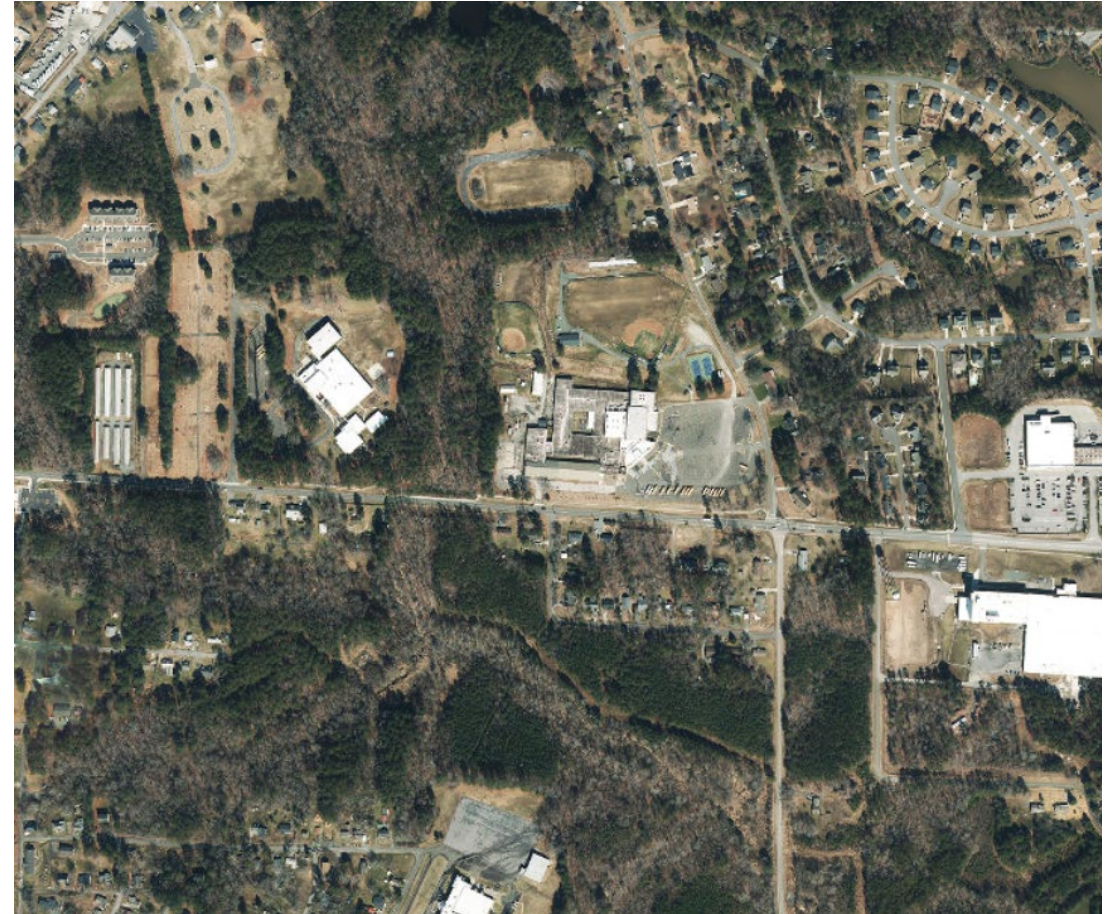


Road Safety Audit

- Multi-disciplinary review of a roadway(s) to identify safety concerns
- Emphasis on all modes of travel
- NFLAS project to include one RSA at a school location in study area
- Granville County Schools suggested three potential locations:
 - South Granville High School
 - Mt. Energy Elementary School
 - Butner-Stem Elementary School

South Granville High School

- Largest high school in district
- Over half of students ride the bus
- Recent sidewalk and greenway construction has created pedestrian traffic
- NC 56 has NCDOT Planning-level Safety Score of 44/100
- One pedestrian/school bus crash in 2009; no fatal/serious crashes in immediate vicinity



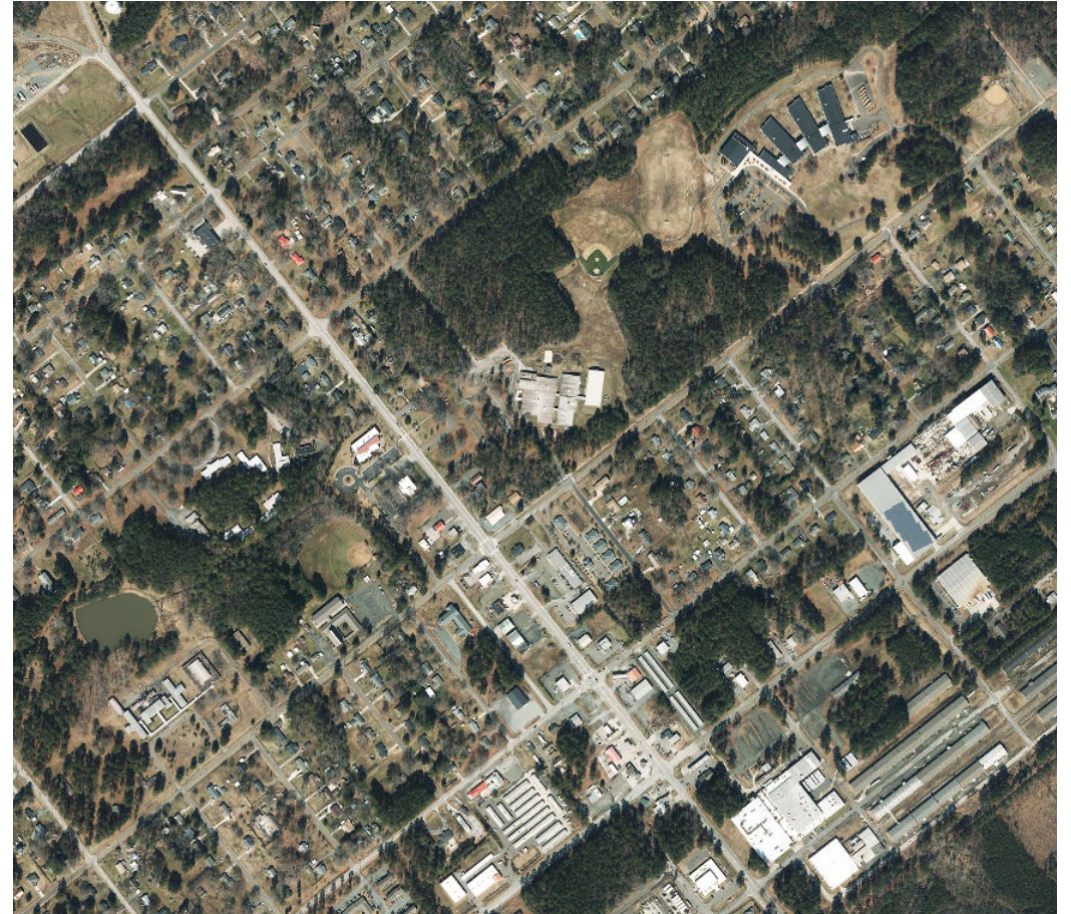
Mount Energy Elementary School

- Largest elementary school in district
- Just east of South Granville High, also on NC 56
- NC 56 has NCDOT Planning-level Safety Score of 67/100
- Fatal crash in 2020 at Hayes Road; no non-motorist crashes



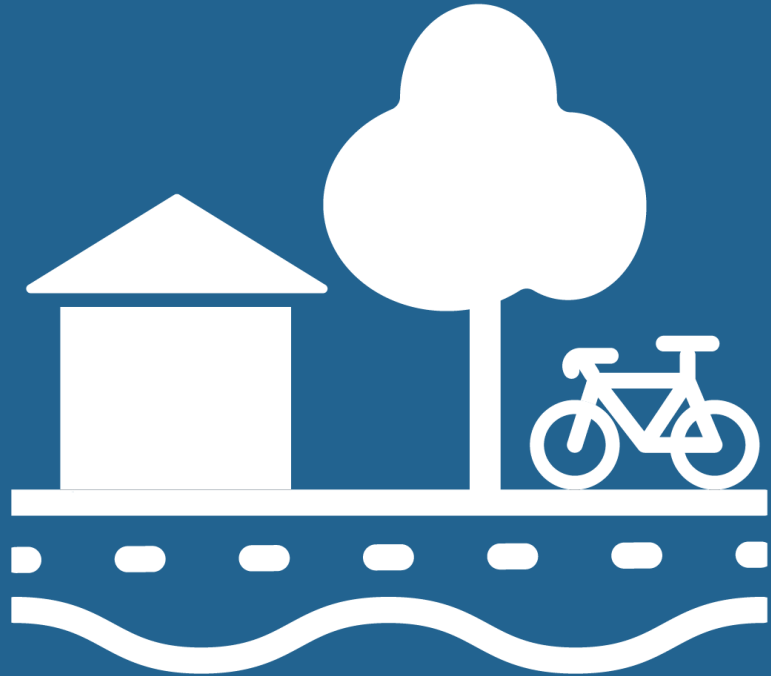
Butner-Stem Elementary School

- Second-largest elementary school
- Highest share of bus riders
- Nestled in Butner's street grid
- Central Avenue has NCDOT Planning-level Safety Score of 78/100
- No recent non-motorist, fatal, or serious injury crashes in immediate vicinity



Next Steps

- Reconvene the CTT in **January** to discuss modeling outputs
- Also convene the stakeholder committee and elected officials committee in January



North Falls Lake AREA STUDY

Core Technical Team Meeting #4
February 6, 2026, 10:00am

Overview

- Overall Process Check-In
- Review of Land Use Model Outputs
- Preferred Scenario Discussion
- Corridor Studies Selection
- Next Steps

Process Check-In



**North
Falls Lake**
AREA STUDY



Since our last meeting (December '25)

- Continued to update the **Environmental Report** based on CTT comments
 - Additional notes on **IAIA Stage II**
 - Conversation with **SGWASA**
 - **Next step:** Updates will be added to the document for future water/sewer demands as land use visioning wraps
- Finalized the **four test land use scenarios** based on CTT comments
 - Completed CommunityViz modeling
 - Performed TRM transportation modeling
 - Identified initial Land Use, Environmental, Utility, and Transportation metrics

Ongoing and Up Next

Ongoing

- Meeting with CTT (today), **Elected Officials and Stakeholder Committees** (Wednesday)
- Setup for **Roadway Safety Audit** at Butner-Stem Elementary School

Up Next

- Creation of **Preferred Scenario**, including same metrics and final changes to make compatible with TRM
- Initial development of **transportation recommendations**
- Startup of **two corridor studies** after selection today
- RSA workshop (targeting March)

Process Overview

Understand Environmental and Utility Limitations in the Area

- Watershed protection rules/nutrition strategies
- Water providers
- Groundwater availability
- Sewer providers

Identify a grounded, regional land use vision

- Compiling Comprehensive Plans and Future Land Use Plans
- Refining based on community priorities
- Quantifying future projections to better understand demand

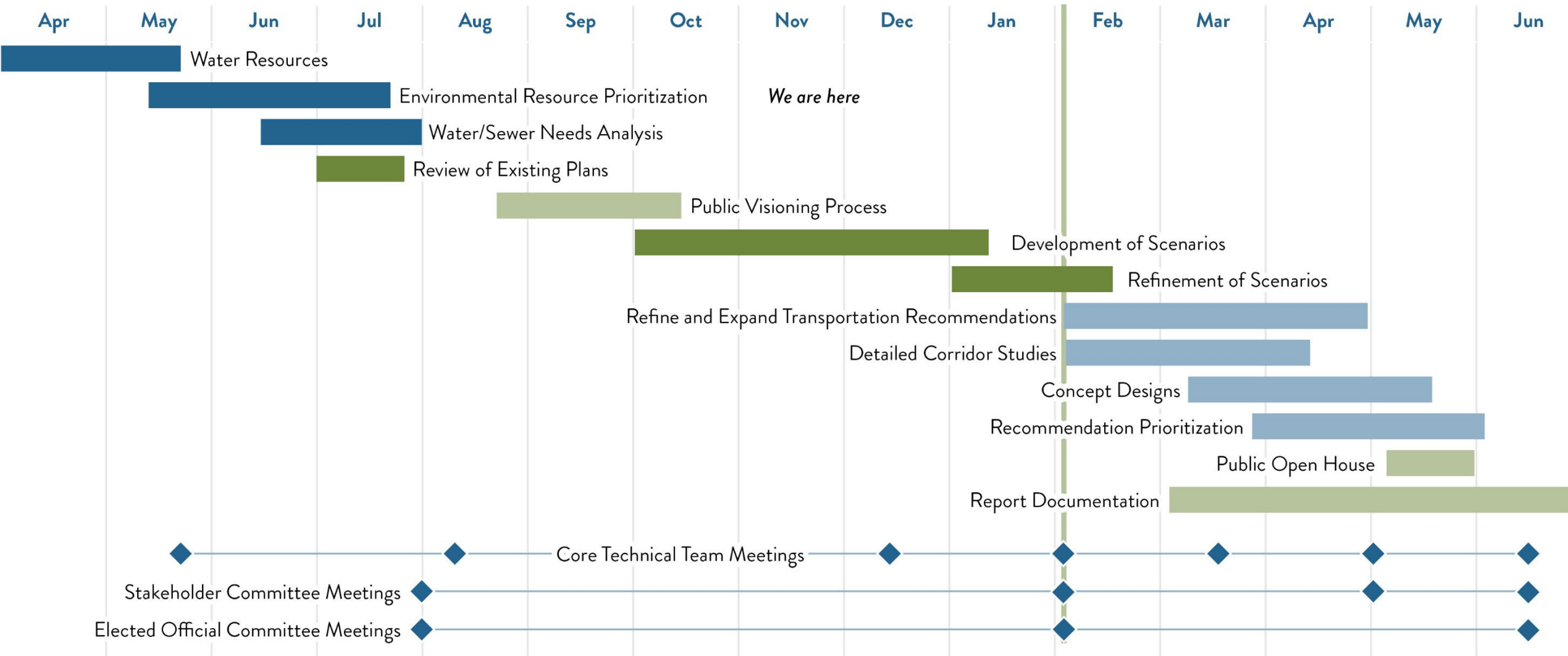
Develop updated transportation plan for the region

- Roadway / intersection improvements
- New roadways
- Walking and bicycling facilities
- Regional transit services

We are here



Detailed Schedule



Review of Land Use Model Outputs



**North
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AREA STUDY



NFLAS Scenario Modeling

Last meeting

Develop Initial Land Use Scenarios

- Four scenarios:
 - Business as Usual
 - Economic Growth
 - Strong Towns
 - Watershed Protection
- Developed previously and discussed during last CTT

Today's discussion

Evaluate Scenarios and Create Preferred Land Use Scenario

- Evaluating today based on metrics including:
 - Land Use
 - Environmental/Utility
 - Transportation
- Will take the most important parts of each to create Preferred Scenario

Next steps

Create Transportation Recommendations

- Develop transportation recommendations to support the Preferred Scenario
 - Roadway and intersection improvements
 - Transit services
 - Walking and bicycling facilities
 - Policy changes

Scenarios Included

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP



Watershed Protection

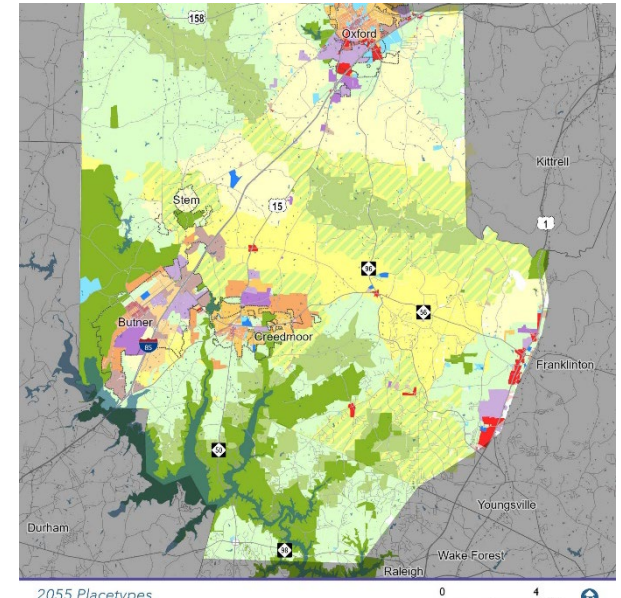
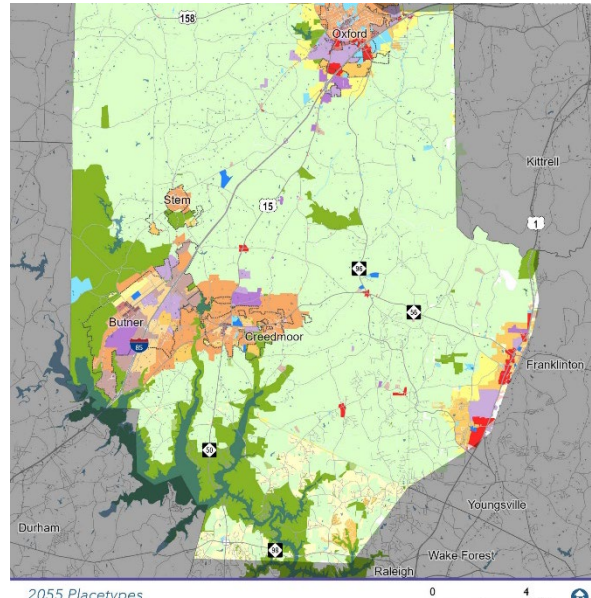
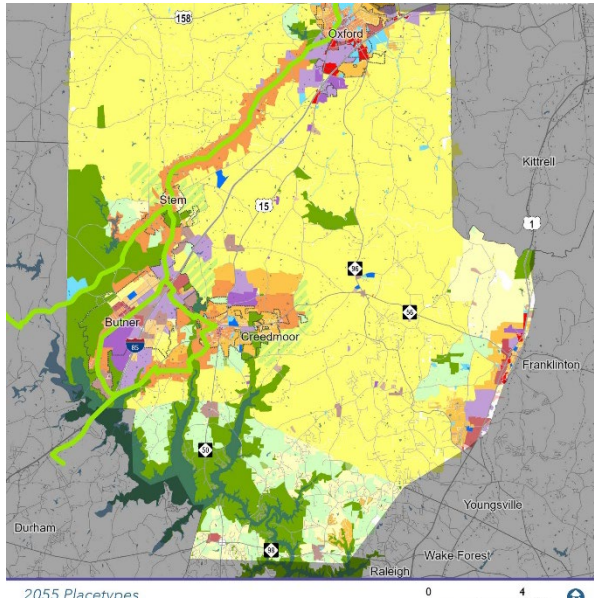
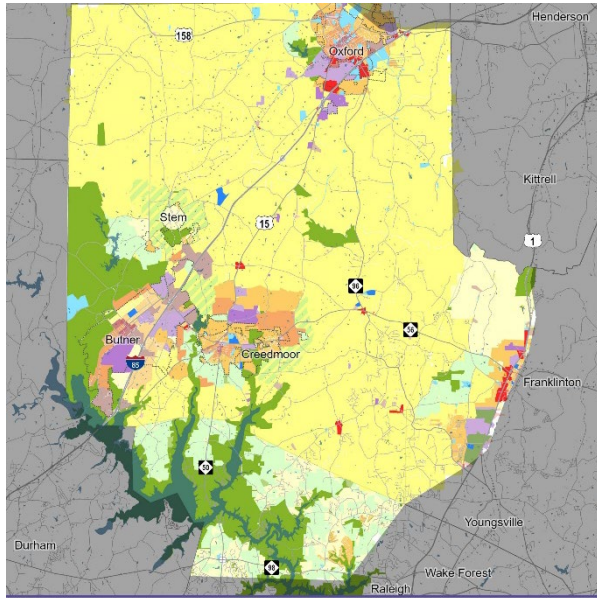
- Watershed and environmental protection focus

BAU

EG

ST

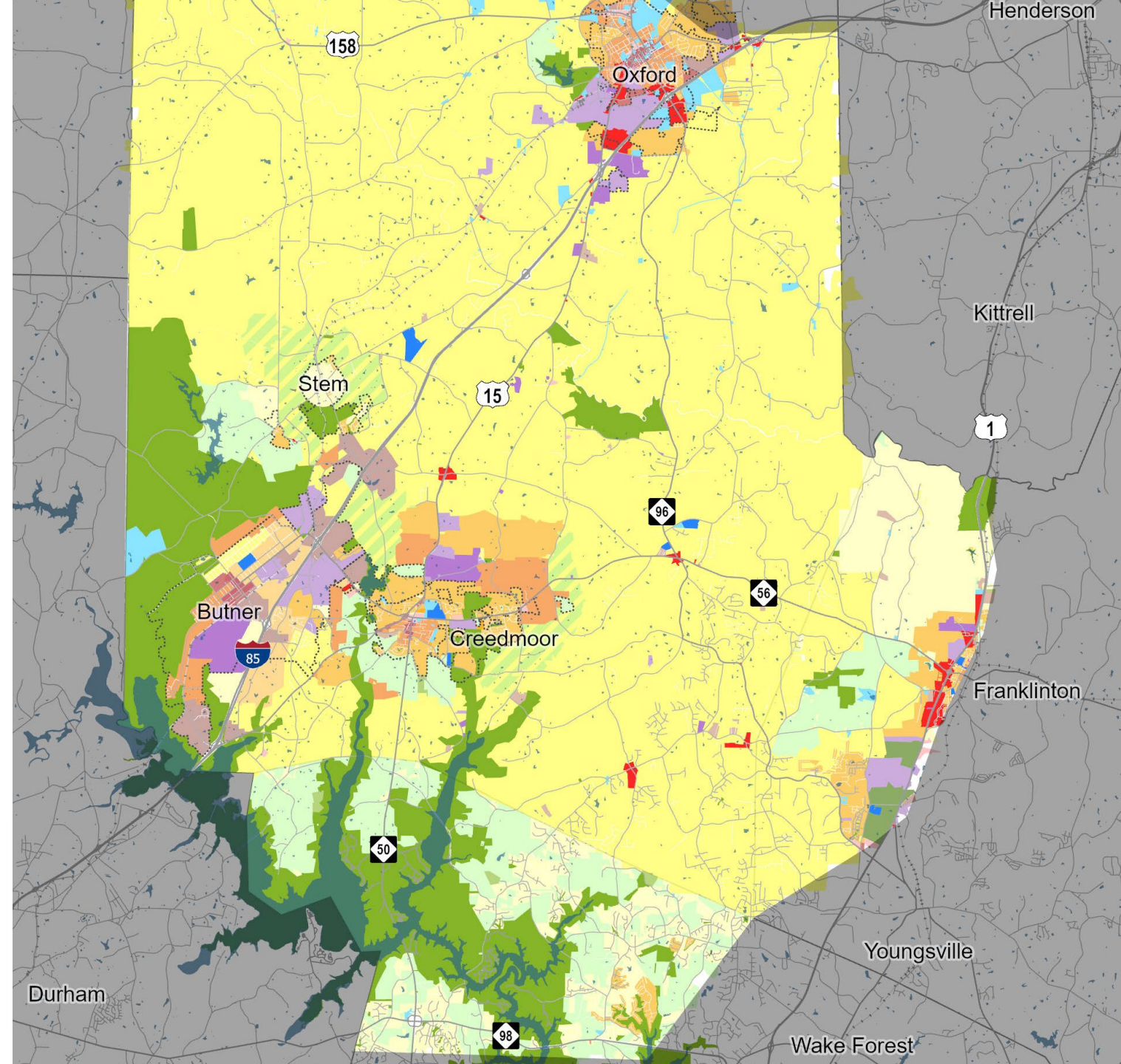
WP



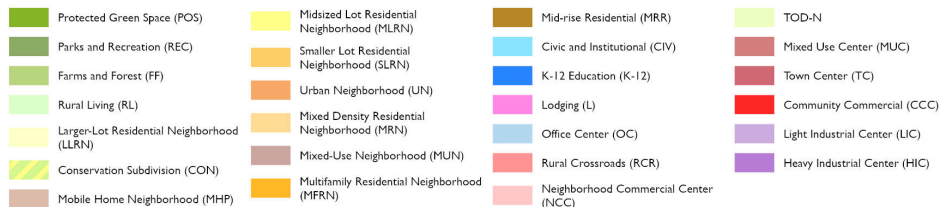
BAU

Business As Usual

- Revised based on Granville and Franklin zoning and Oxford FLU



Placetypes

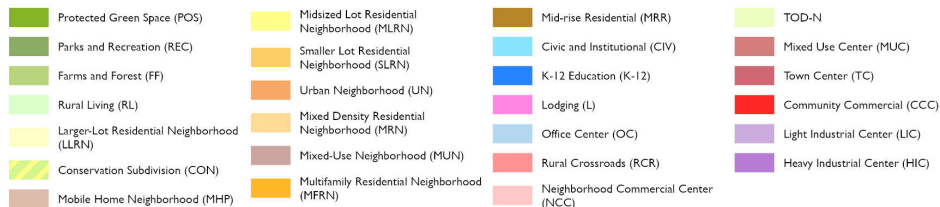


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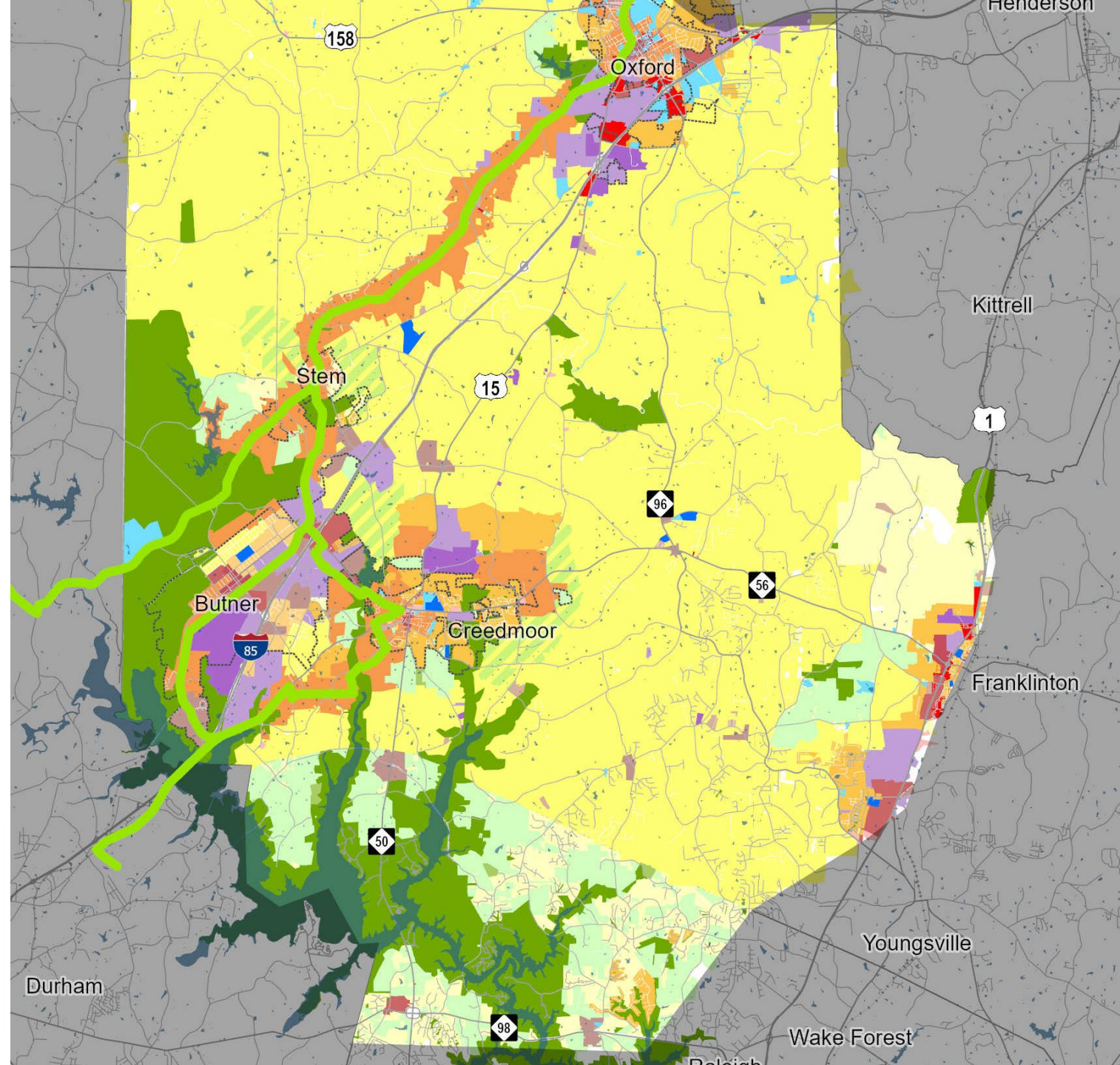
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Placetypes



0 4 Miles

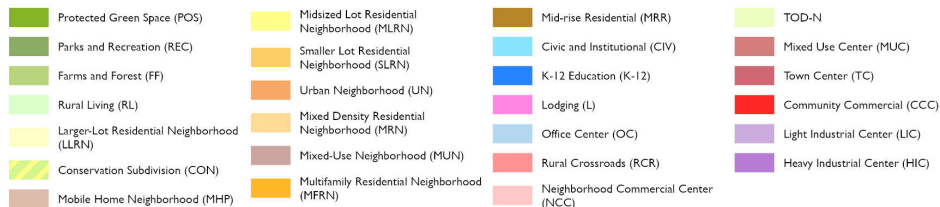


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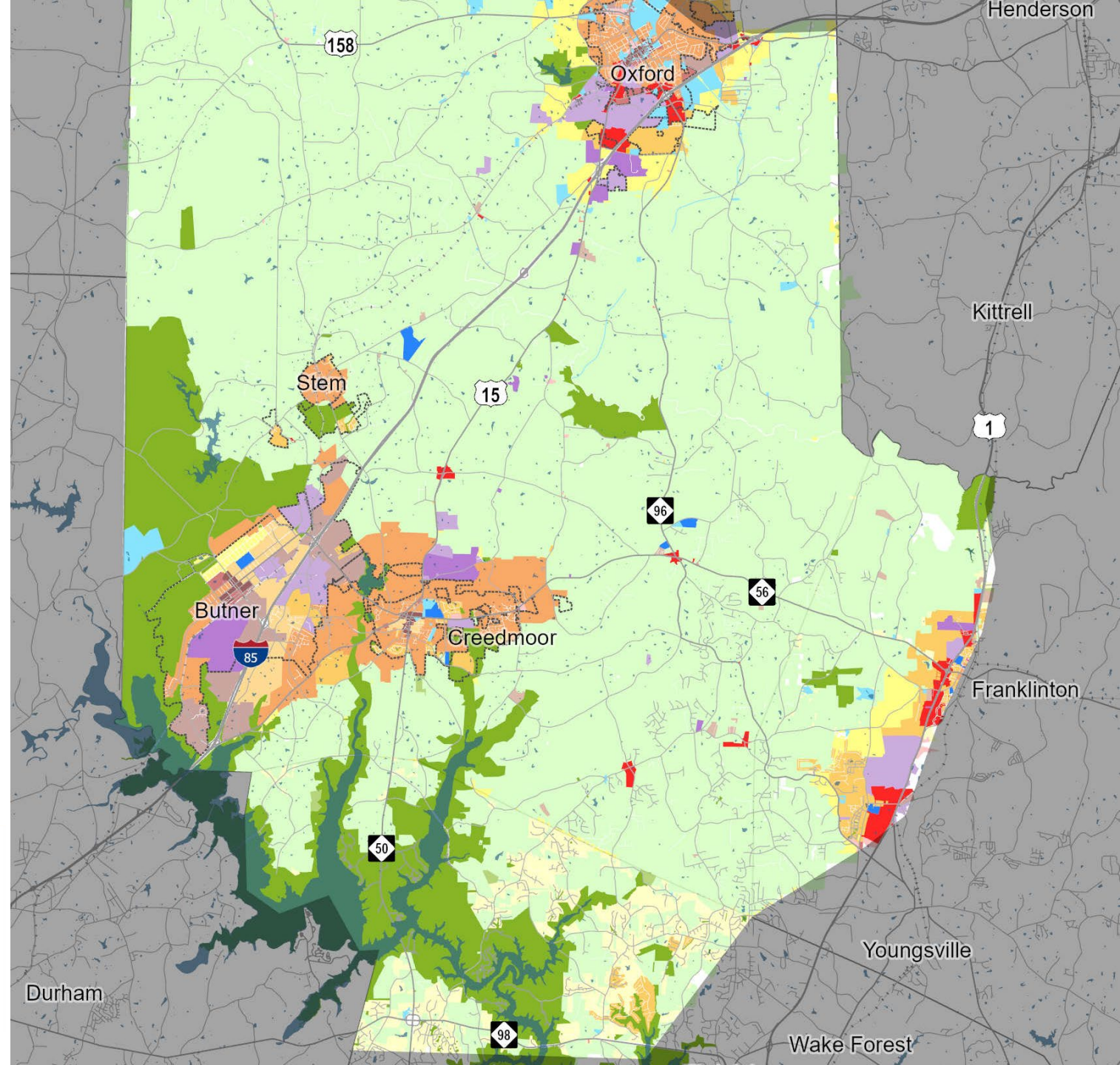
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Placetypes



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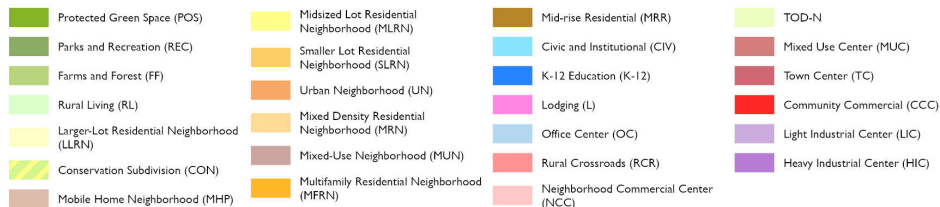


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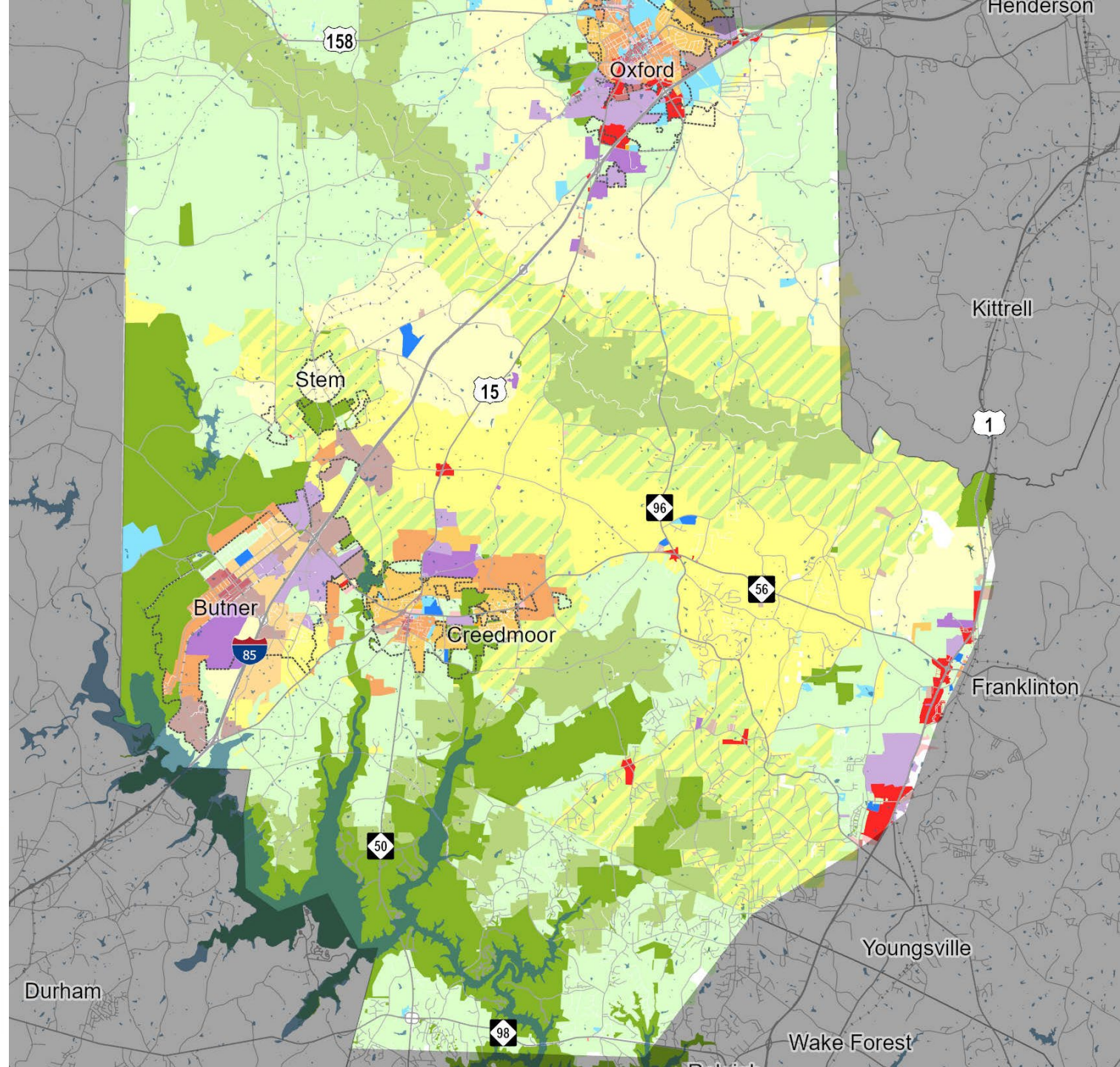
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Placetypes



0 4 Miles



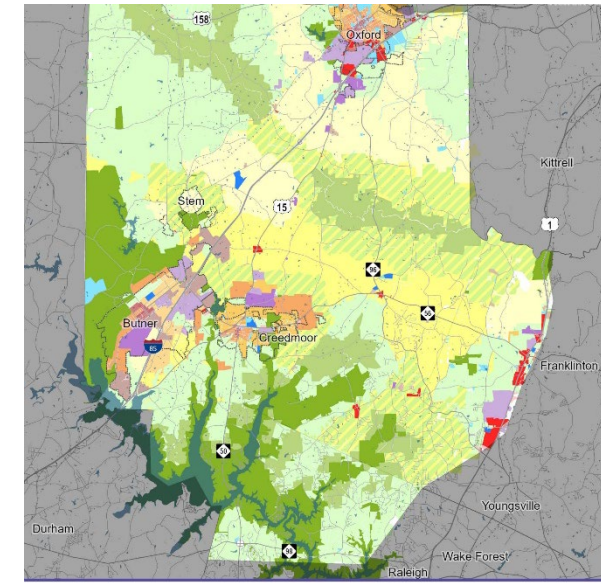
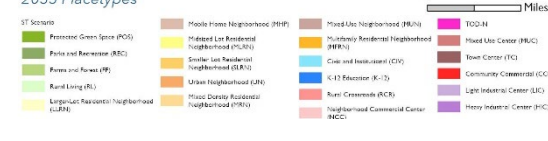
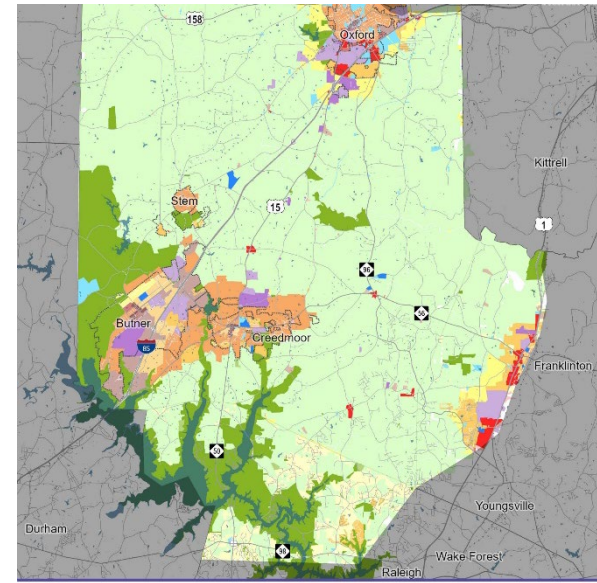
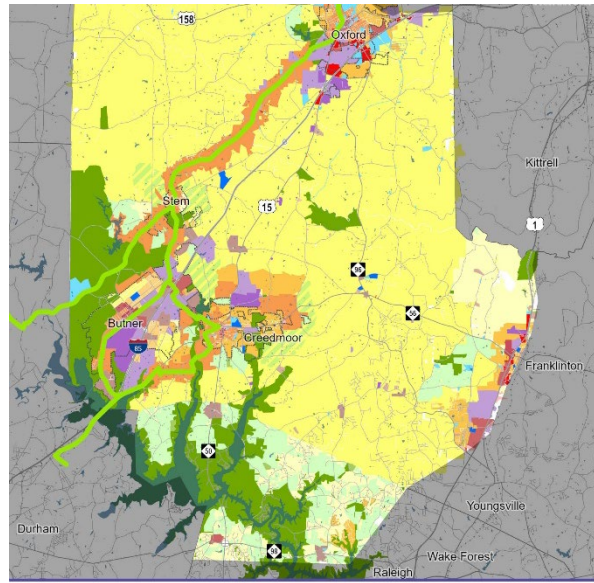
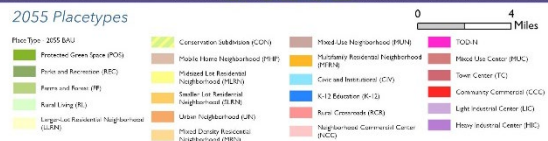
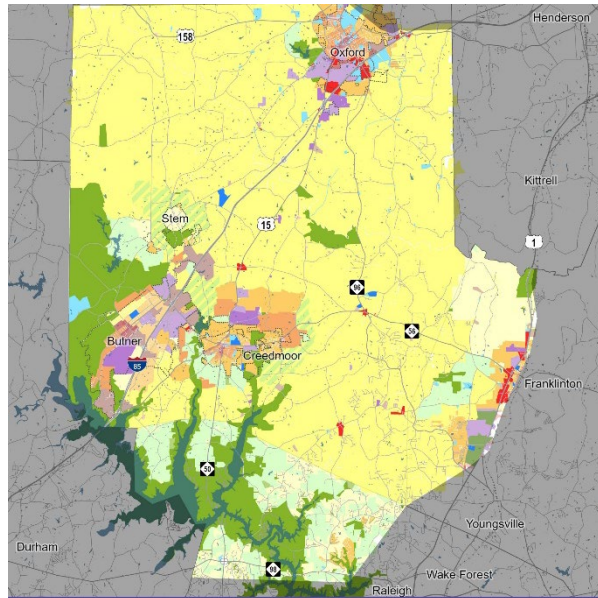
Placetypes

BAU

EG

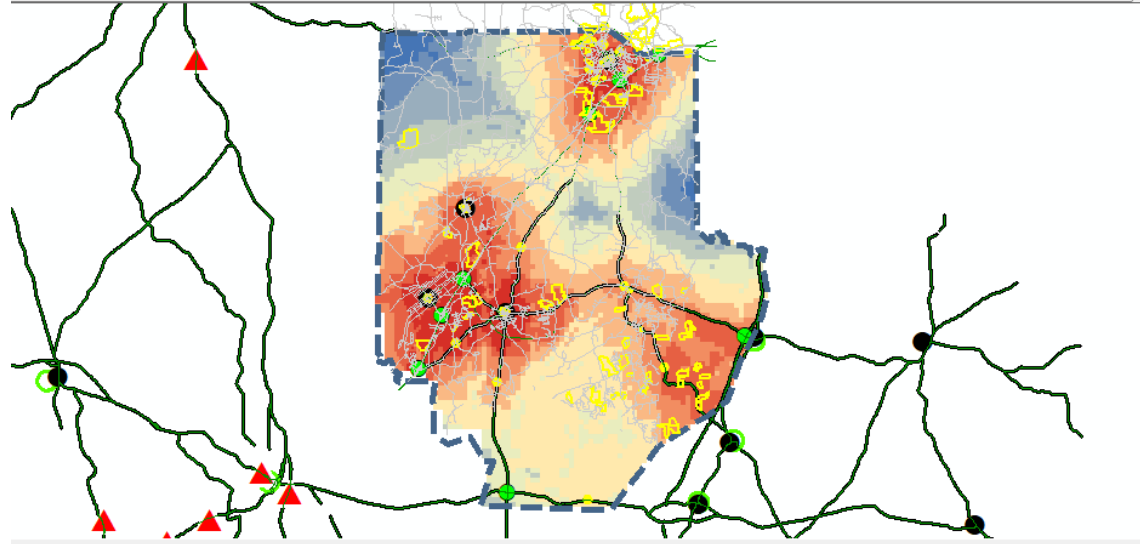
ST

WP

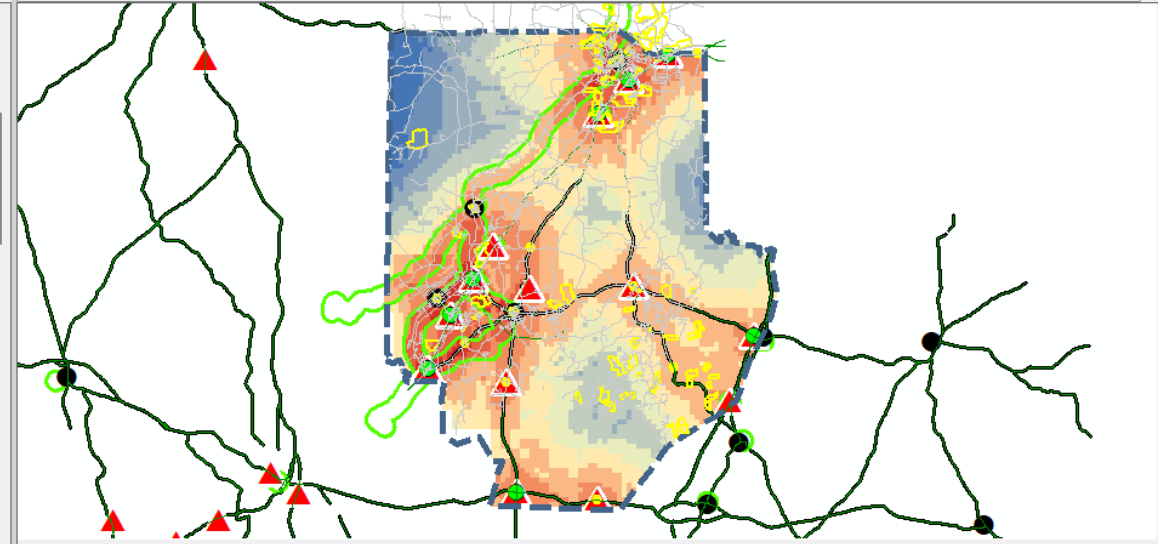


Land Use Suitability

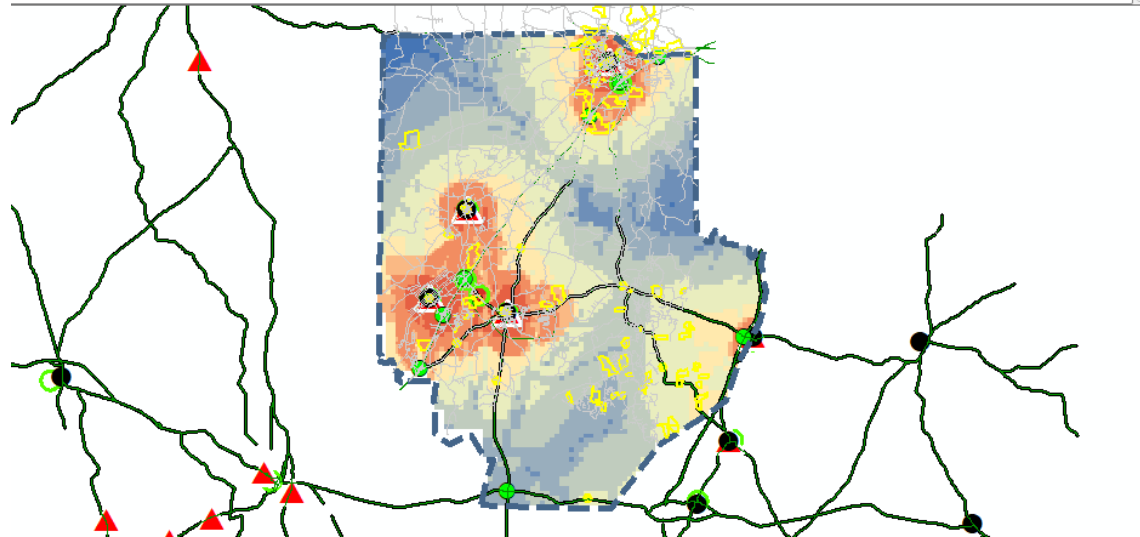
Base Scenario



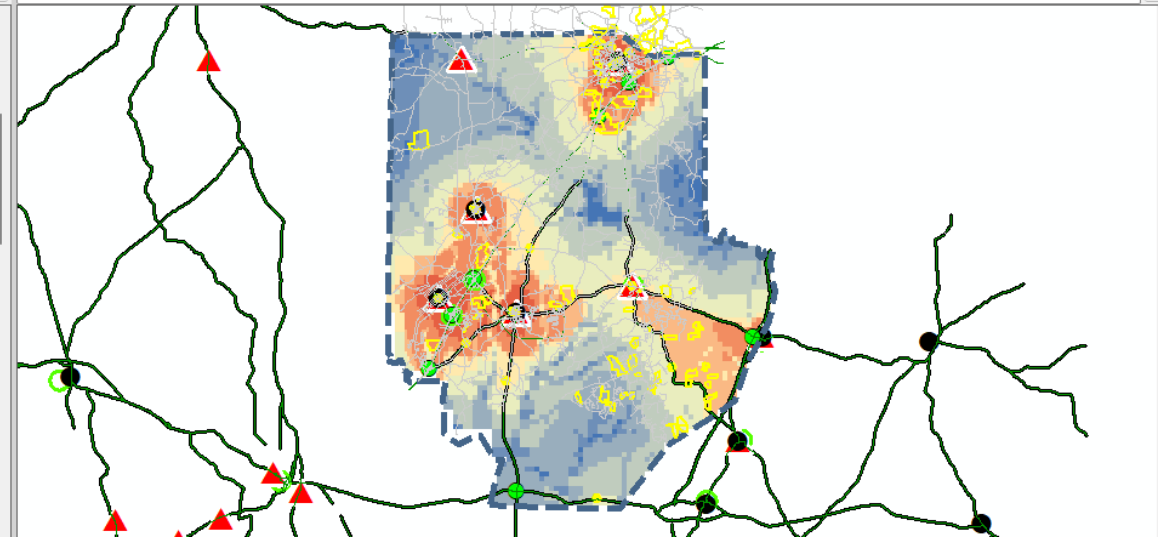
EG



ST



WP



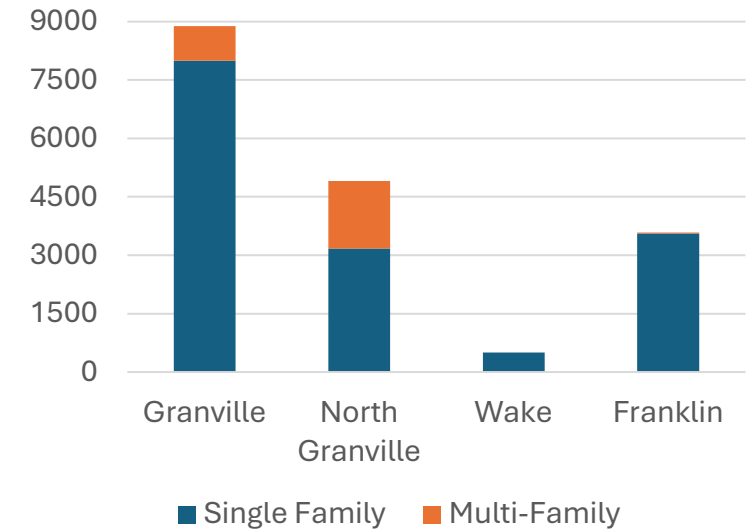
Control Totals

Growth 2020-2055*

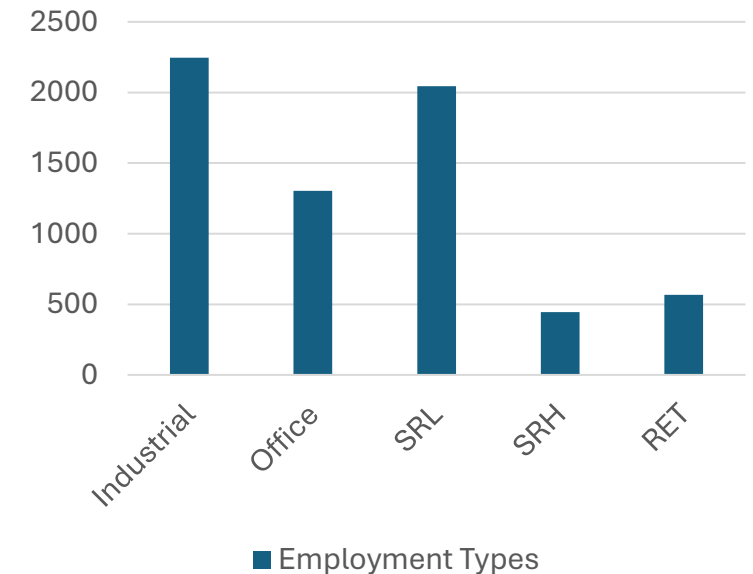
Land Use Type	Granville	North Granville (Outside of TRM Modeled Area)	Wake (in NFLAS Study Area Only)	Franklin (in NFLAS Study Area Only)	Total
Single Family Dwelling Units	7,998	3,170	500	3,562	15,230
Multi-Family Dwelling Units	889	1,736	0	24	2,649
Industrial	894	585	0	768	2,247
Office	464	765	0	74	1,303
Service Low	1,401	311	0	332	2,044
Service High	314	121	0	10	445
Retail	277	229	0	62	568

**Draft control totals used for alternative scenarios. Final control totals used for Final Preferred Scenario may include adjustments to match MTP model runs.*

Single Family and Multi-Family by Area



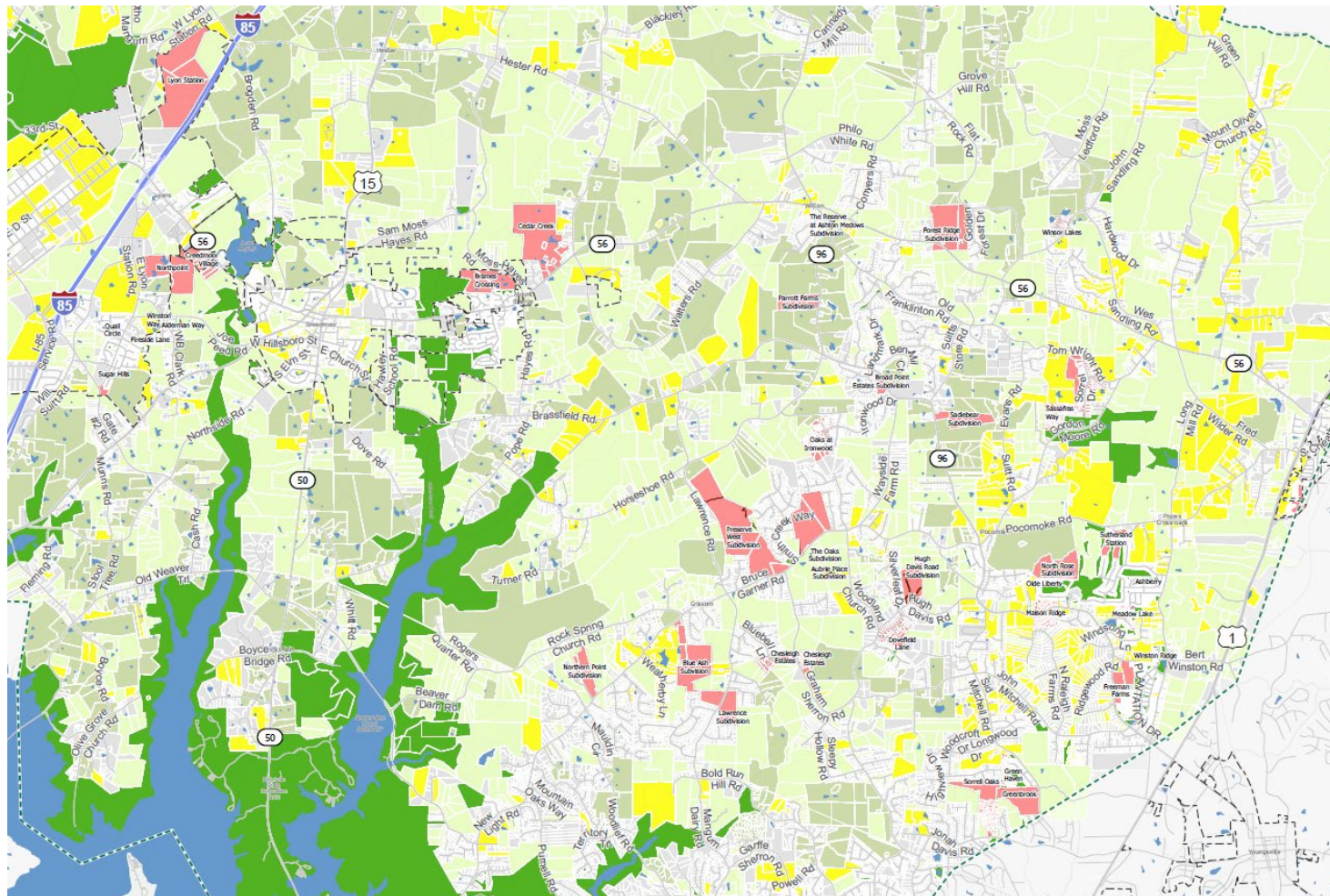
Employment Types in NFLAS Area



Committed Development*

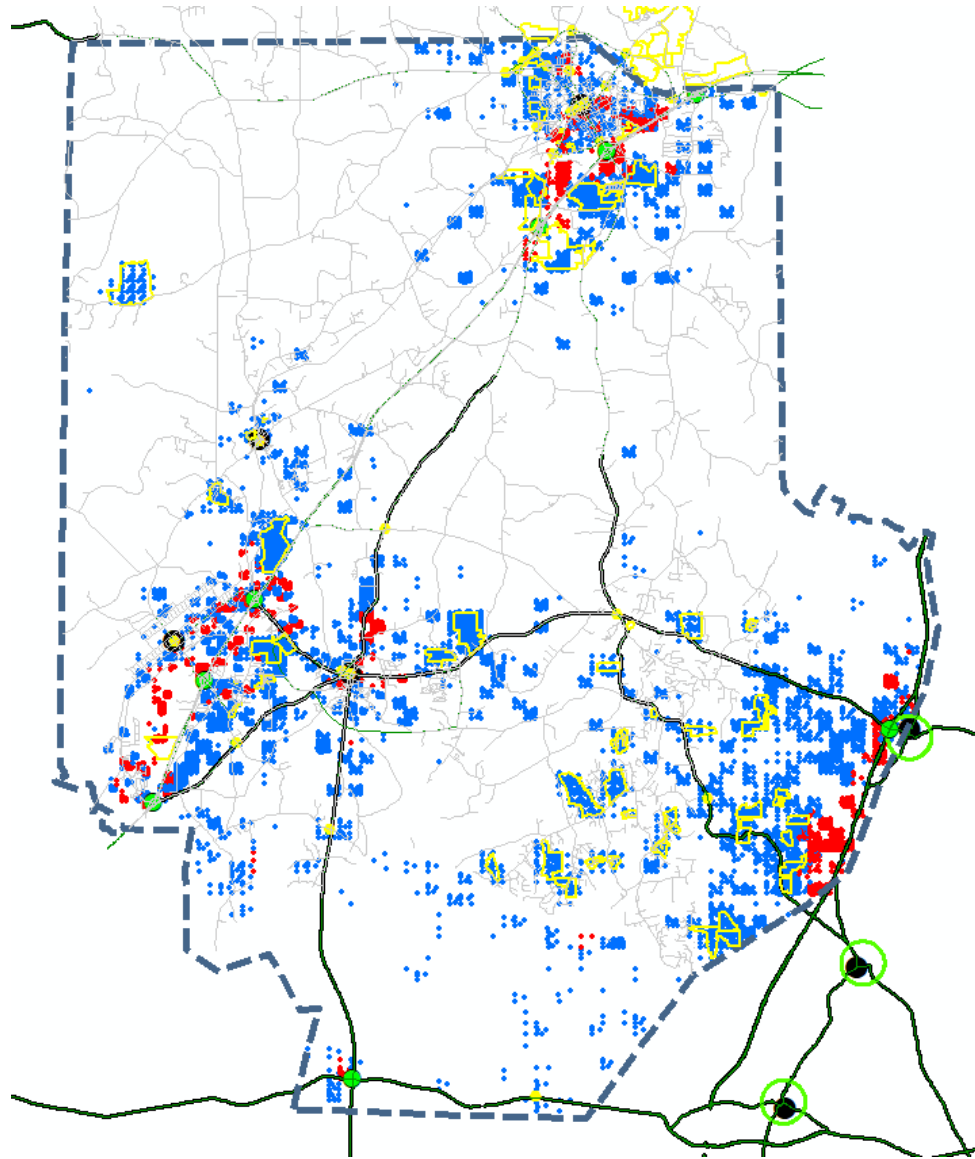
Area	Single Family Dwelling Units	Multi-Family Dwelling Units	Total
Franklin (in NFLAS Study Area Only)	1,148	0	1,148
Granville	3,398	536	3,934
North Granville (Outside of TRM Modeled Area)	1,261	868	2,129
Total	5,807	1,404	7211

**Draft committed development figures used for alternative scenarios. Final control totals used for Final Preferred Scenario may include adjustments.*

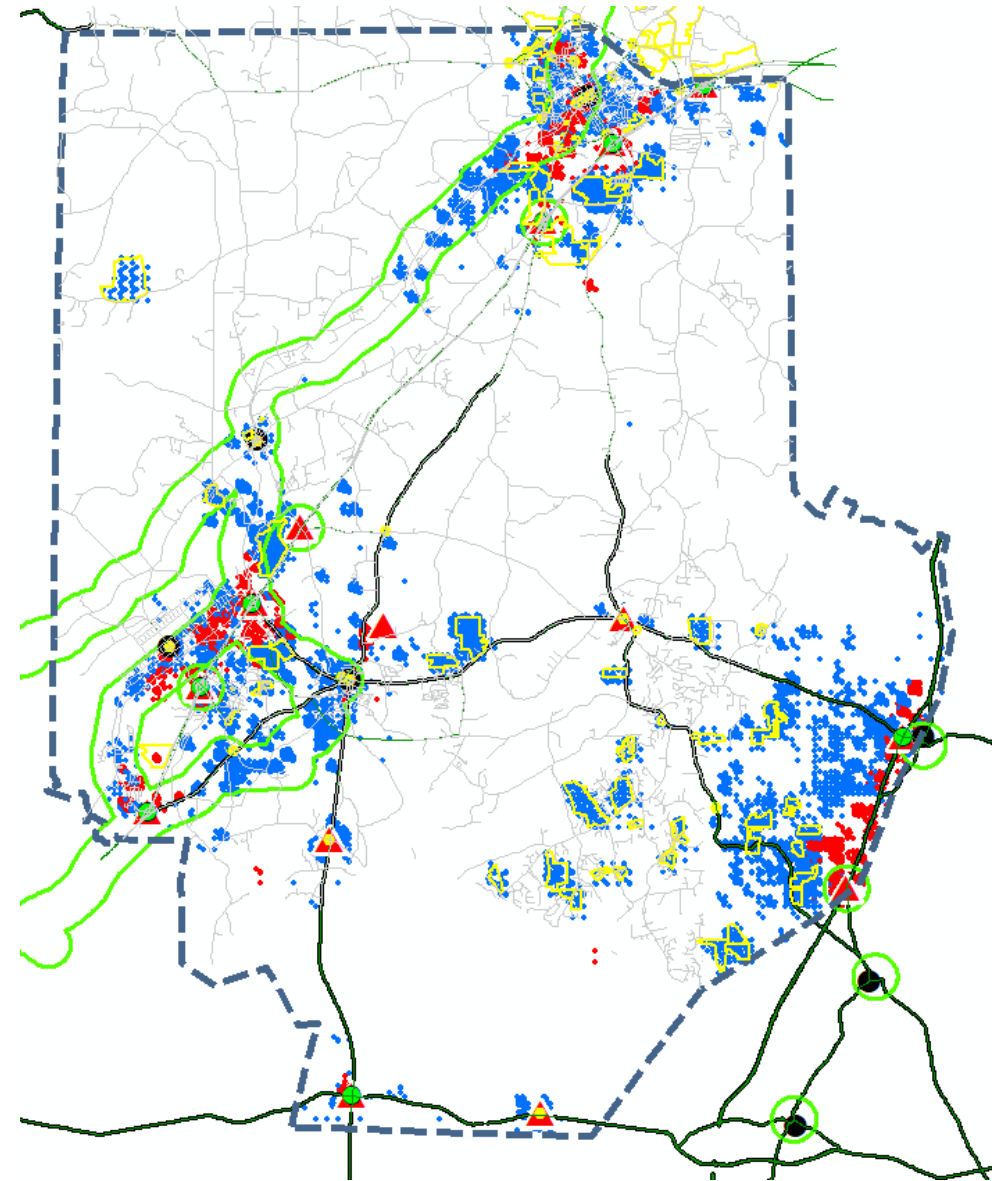


Growth Allocation

BAU

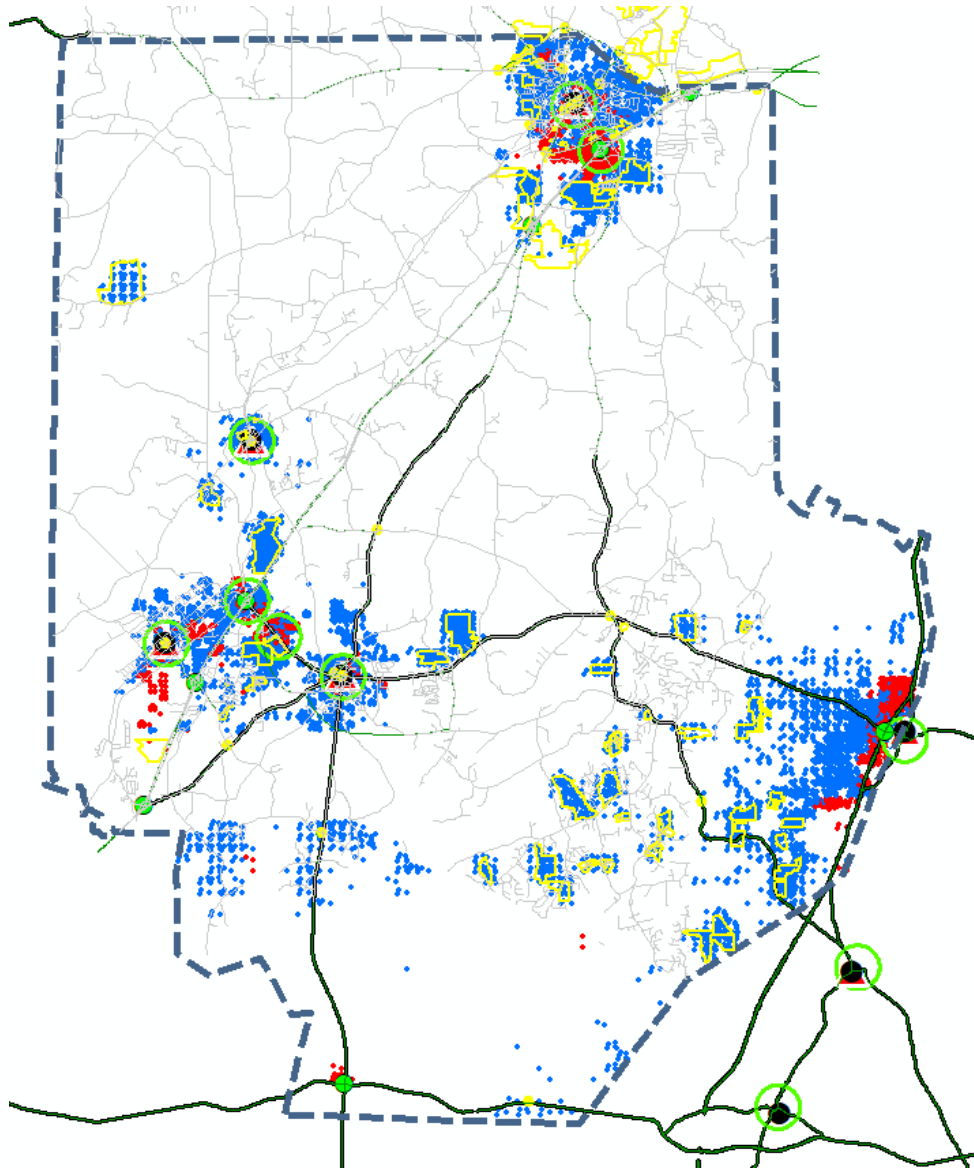


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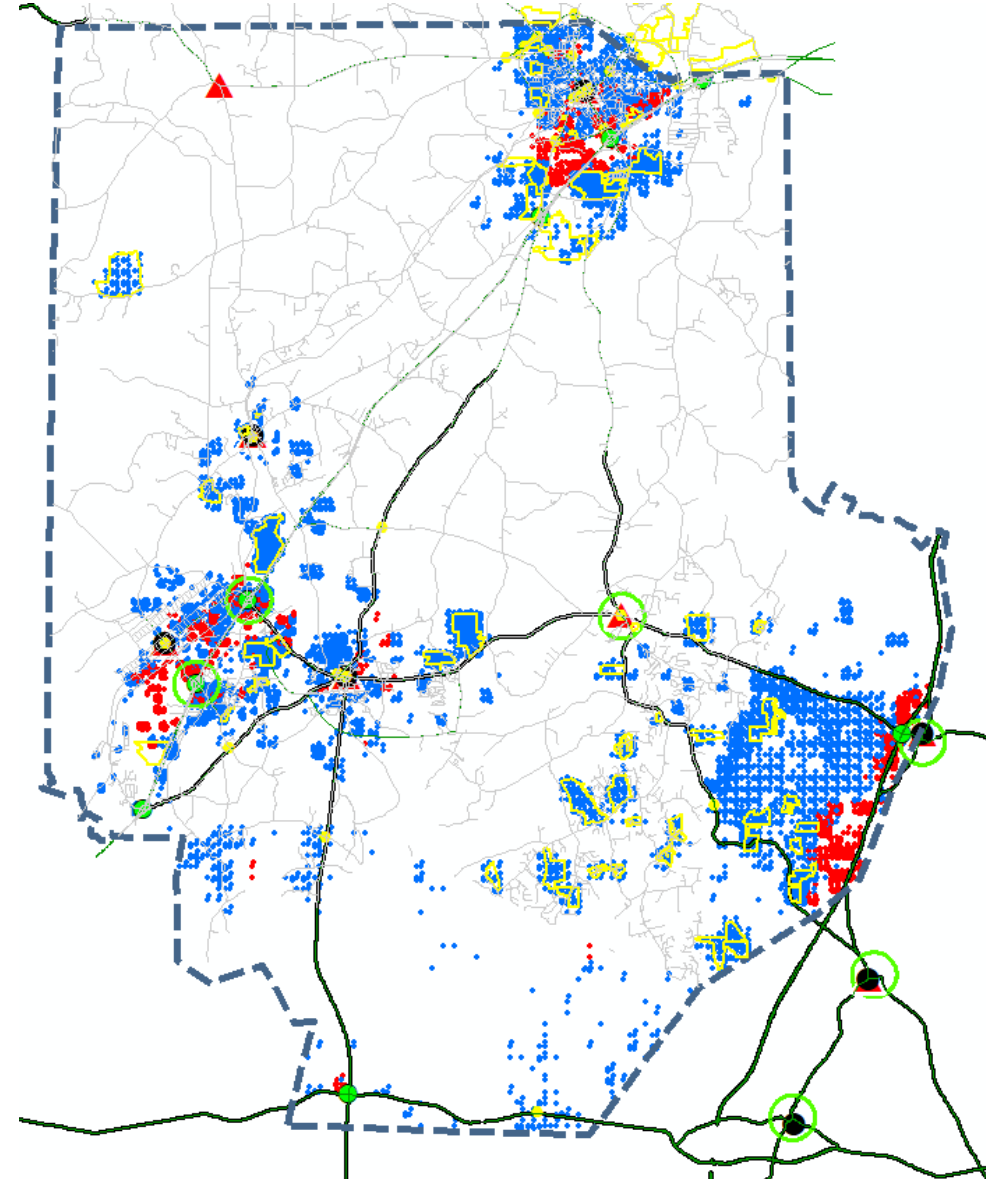


Growth Allocation

ST



WP



Performance Measures



**North
Falls Lake**
AREA STUDY



Draft Indicator Results



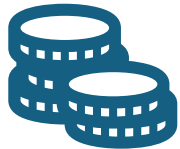
	BAU	EG	%Δ	ST	%Δ	WP	%Δ
ECONOMIC DEVELOPMENT							
Acres of Industrial Areas	6,020	8,779	+46%	5,886	-2%	6,043	+0.4%
Acres of New Commercial or Mixed-Use Development	3,676	5,101	+39%	4,555	+24%	4,530	+23%
Jobs in Municipalities	3,584	5,708	+59%	4,949	+38%	3,871	+8%



ENVIRONMENT AND OPEN SPACE							
Impervious Surface in Sensitive Watersheds (Acres)	63	74	+16%	75	+19%	56	-12%
Urban Footprint (Grids)	1,322	1,479	+12%	231	-83%	321	-76%
Preserved Open Space in New Development or Protected Open Space	TBD	TBD		TBD		TBD	
Growth in Sensitive Natural Areas	TBD	TBD		TBD		TBD	



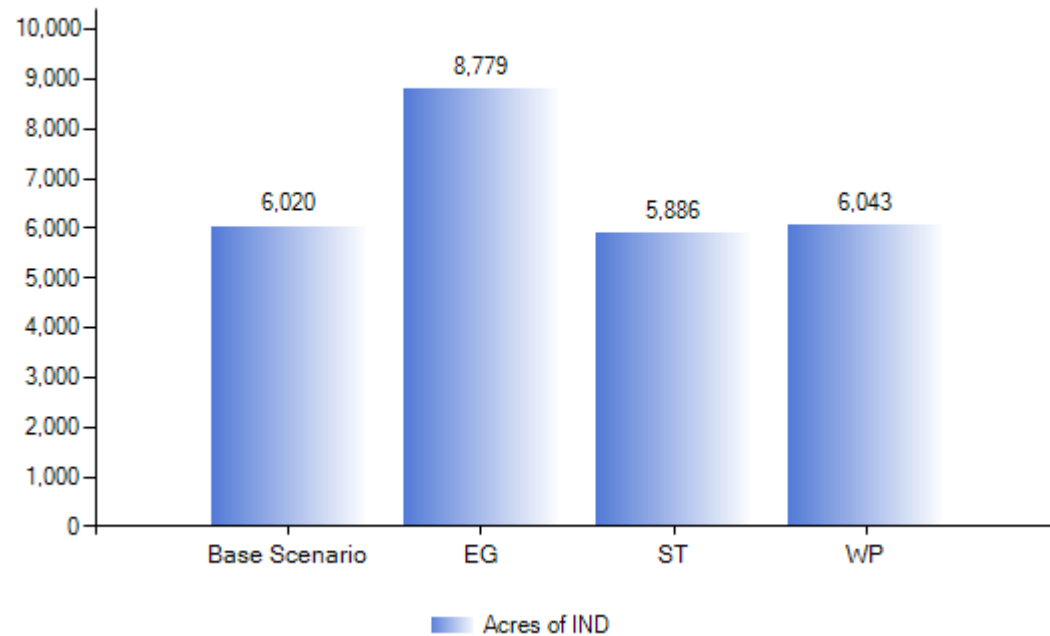
LAND USE AND TRANSPORTATION							
Homes in Walkable Communities	TBD	TBD		TBD		TBD	
Homes in Walking and/or Bicycling Distance to Parks and Greenways	6,590	9,383	+42%	9,859	+50%	8,046	+22%
Transit Propensity (Homes and Jobs Near Transit)	0	5,445	N/A	7,985	N/A	3,169	N/A
Total Vehicle Miles Traveled	2,502,611	2,494,878	-0.3%	2,495,762	-0.3%	TBD	
Total Vehicle Hours Traveled	49,690	49,414	-0.6%	49,473	-0.4%	TBD	
Travel Time in Congestion	3,211	3,294	+2.6%	3,205	-0.2%	TBD	



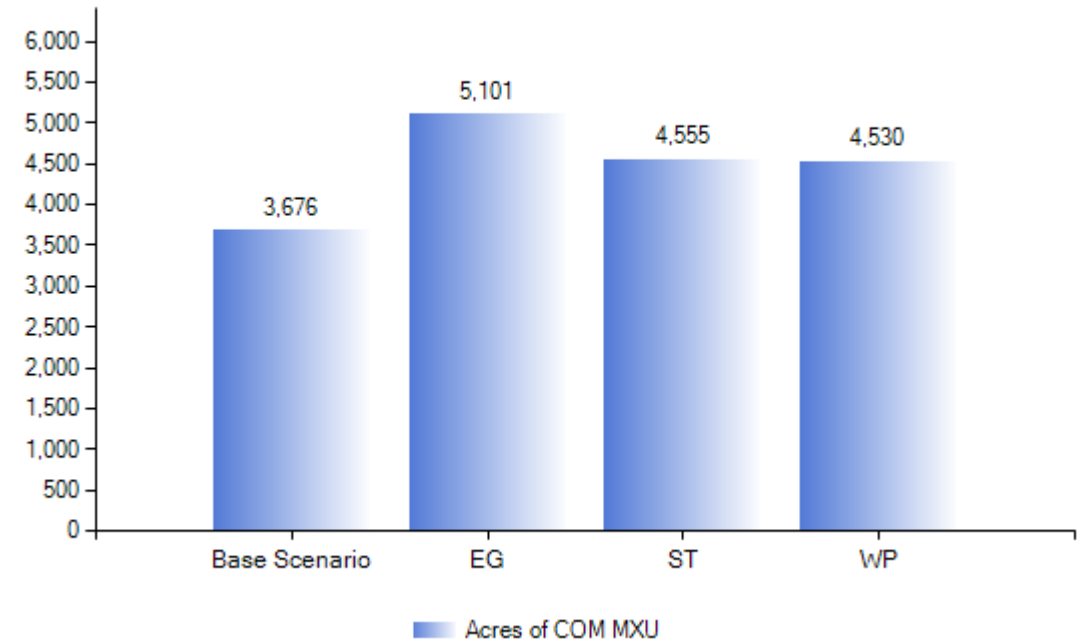
INFRASTRUCTURE AND COST OF SERVICES							
Homes in Municipalities	5,365	6,016	+12%	8,612	+61%	7,205	+34%
Homes Near Municipalities	9,703	10,778	+11%	13,363	+38%	11,784	+21%
New Water/Sewer Demand (MGD)	2,076,374	2,243,386	+8%	2,893,673	+39%	2,538,605	+22%
Build-out Potential (Dwelling Units)	152,969	165,868	+8%	73,435	-52%	83,120	-46%

Draft Indicator Results

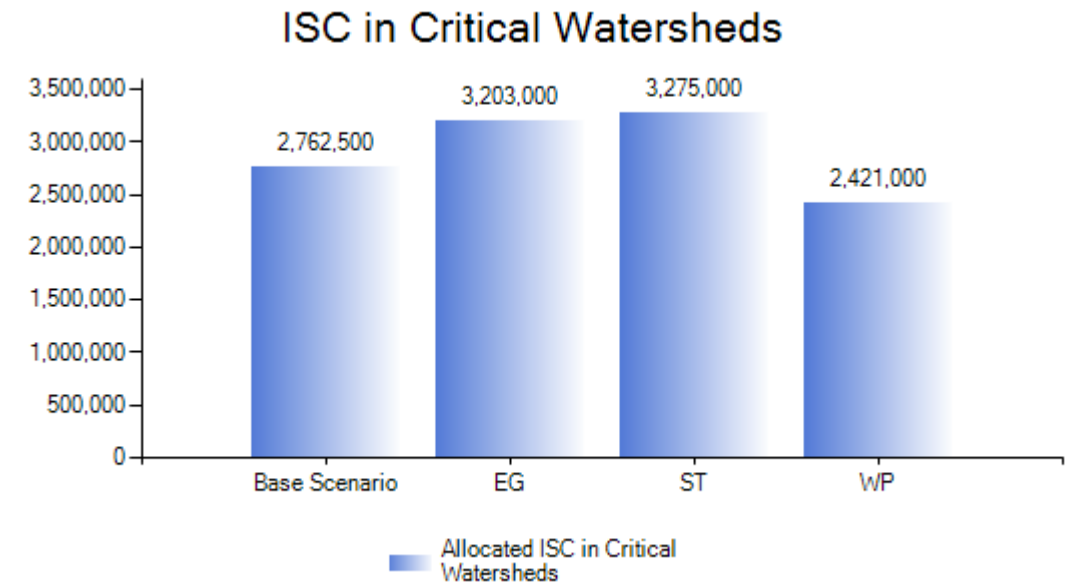
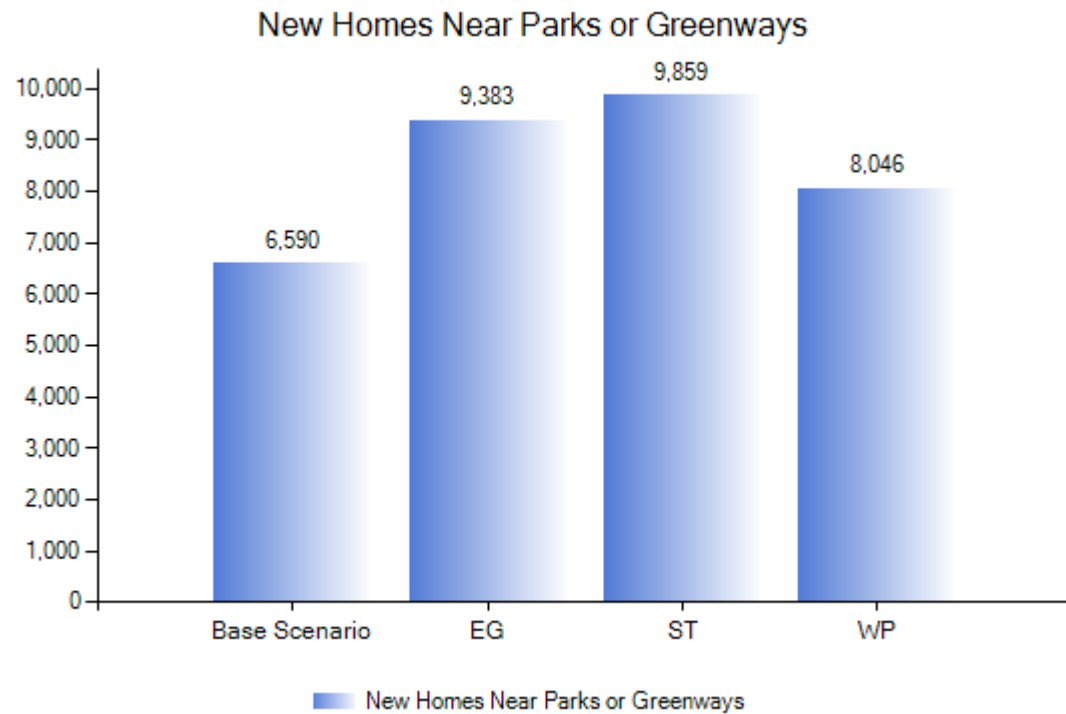
Acres of IND



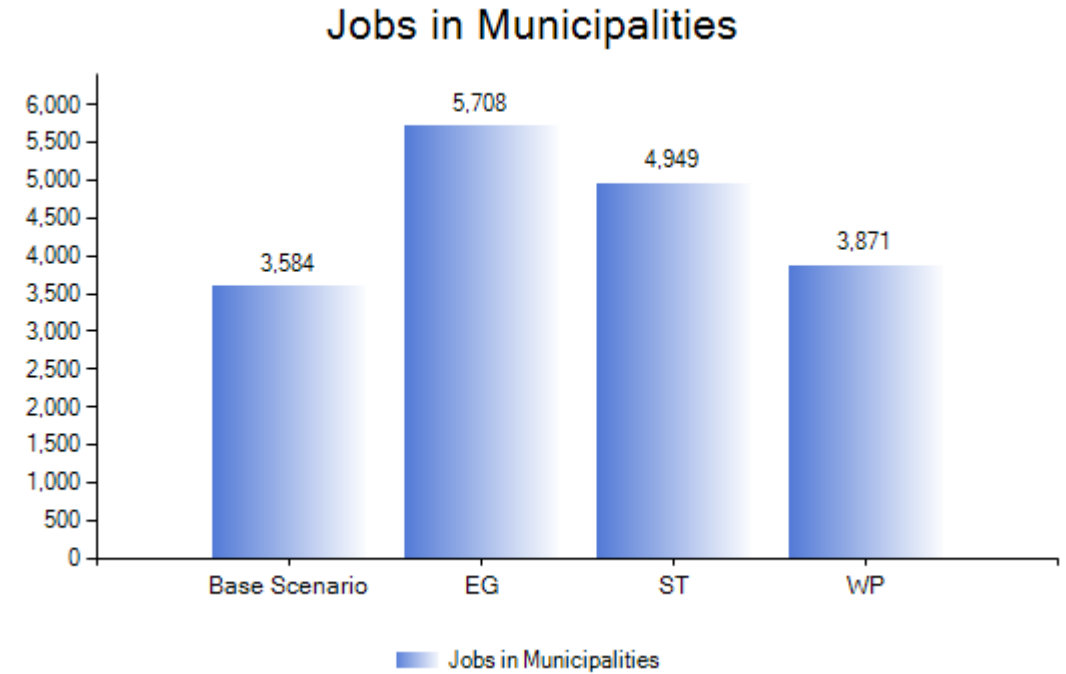
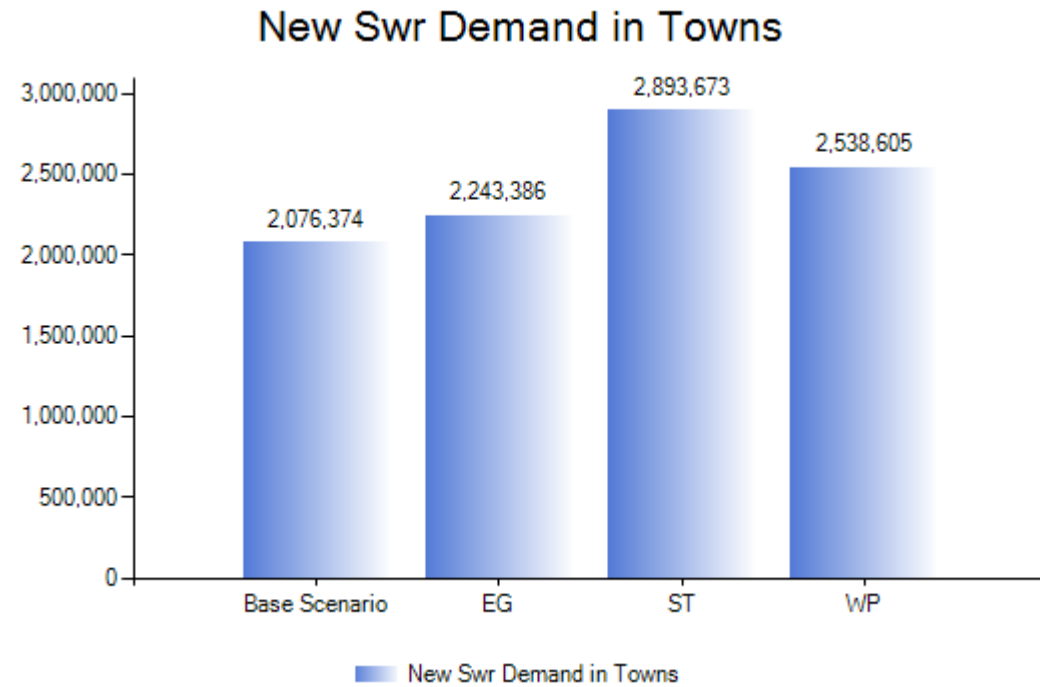
Acres of COM MXU



Draft Indicator Results



Draft Indicator Results

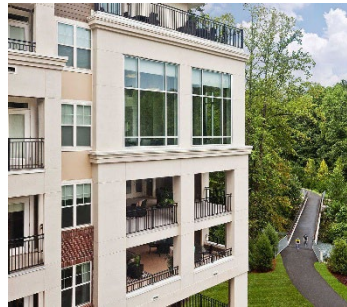


Implementation Options

EG

Economic Growth Scenario

Key Placetypes



Indicator Performance



Good Performance

- Acres of Industrial
- Acres of Commercial or MXU
- Jobs in Towns
- Homes Near Parks and Greenways



Poor Performance

- Impervious Surface in Sensitive Watersheds
- Urban Footprint
- Travel Delay

Potential Land Use Policies

- Recruitment of local jobs
- Protection of prime industrial sites
- Encourage/allow mixed-use development in key areas
- Allow for Trail-oriented Development (TOD)

Potential Transportation Projects

- New interchange on I-85 near Brogden / Hester Road
- Complete sections of the East Coast Greenway completed
- Express bus on key corridors

Implementation Options

ST

Strong Towns Scenario

Key Placetypes



Indicator Performance



Good Performance

- Urban Footprint
- Homes in Towns and Walkable Communities
- Homes near Parks and Greenways
- Transit Propensity
- New Water/Sewer Demand



Poor Performance

- Impervious Surface in Sensitive Watersheds
- Build out potential reduction (+/-)

Potential Land Use Policies

- Focused growth in and near existing towns
- Mixed-use town centers 2-3 story buildings
- Residential infill including small lot / small homes and missing middle housing (duplexes, triplexes and quadplexes)

Potential Transportation Projects

- Sidewalks and streetscape improvements
- Expanded collector street system in towns including the Creedmoor Southern Connector
- Neighborhood circulator bus route

Implementation Options

WP

Watershed Protection Scenario

Key Placetypes

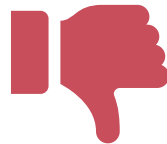


Indicator Performance



Good Performance

- Impervious Surface in Sensitive Watersheds
- Urban Footprint
- Homes in Towns
- New Water/Sewer Demand
- Growth in Sensitive Areas



Poor Performance

- Acres of Industrial Areas
- Jobs in Municipalities

Potential Land Use Policies

- Enhanced open space protection efforts near Falls Lake and along the Tar River Corridor
- Reduce development density or change in processes to discourage growth in rural areas
- Incentivize conservation subdivisions

Potential Transportation Projects

- Intersection improvements on major roads in county (i.e. NC 56, etc.)
- Access management and corridor improvements in commercial areas
- Bus service on I-85 and US 1

Draft NFLAS Indicator Methods

January 29, 2026

Category / Goal	Indicator	Level	Methods
Economic Development	Acres of Industrial Development	Capacity Analysis Parcels (Build-out)	Acres in industrial placetypes including Light Industrial Center (LIC) or Heavy Industrial Center (HIC)
Economic Development	Acres of Commercial or Mixed Use Development	Capacity Analysis Parcels (Build-out)	Acres in commercial or mixed use placetypes including Mixed Use Neighborhood (MUN), Community Commercial (CCC), Town Center (TC), or Mixed Use Center (MUC)
Economic Development	Jobs in Municipalities	Analysis Grid (Allocation)	Allocated jobs within municipalities
Economic Development	New Property or Sales Tax Revenue from Growth	Capacity Analysis Parcels (Build-out)	TBD
Environment	Impervious Surface in Sensitive Watersheds	Analysis Grid (Allocation)	Estimated impervious surface from growth allocated to areas in critical watersheds* Formula: DUs * 3,000 sqft + Jobs * 500 sqft <i>*Does not include committed development</i>
Environment	Urban Footprint	Capacity Analysis Parcels (Build-out)	Residential footprint at build-out > 1 dwelling unit per acre.
Environment	Preserved Open Space in New Development or Protected Open Space	Capacity Analysis Parcels (Build-out)	TBD
Environment	Growth in Sensitive Natural Areas	Analysis Grid (Allocation)	Not Done Yet: Define sensitive areas including areas within X distance of Falls Lake, X distance of the Tar River, and Areas with high Biodiversity and Wildlife Habitat Value.
Land Use / Transportation	Homes in Walkable Communities	Analysis Grid (Allocation)	Build out or allocation of homes to placetypes that are walkable including (PT_MTP55 in ('UN', 'TOD-N', 'TC', 'NCC', 'MUN', 'MUC', 'MRN', 'MFRN')). Select PTs on capacity parcels, export as walkable area coverage for each scenario, tag grid based on that coverage for each scenario.
Land Use / Transportation	Homes in Walking and/or Bicycling Distance to Parks and Greenways	Analysis Grid (Allocation)	New homes within 1 mile of existing parks or within ½ mile of proposed greenways.
Land Use / Transportation	Transit Propensity (micro, etc.)	Analysis Grid (Allocation + Committed)	New homes within ½ mile of proposed transit hub.
Infrastructure and Cost of Services	Homes in Municipalities	Analysis Grid (Allocation)	Allocated homes within a municipality
Infrastructure and Cost of Services	Homes Near Municipalities	Analysis Grid (Allocation)	Allocated homes within ½ mile of a municipality
Infrastructure and Cost of Services	New Water/Sewer Demand	Analysis Grid (Allocation)	Estimated water and sewer demand for allocated and committed development in municipalities Allocated: DUs * 250 gpd + (Jobs * Sqft per job by type) / gpd per 1000 sqft

Discussion

- What scenario do you support most?
- What are indicators are a priority?
- What elements do you want to see in a preferred scenario?



Corridor Studies Selection



**North
Falls Lake**
AREA STUDY



Corridor Studies

- NFLAS scope includes **two corridor studies**; level of detail and focus areas to be determined
- **Any corridor** within the study area is a potential candidates
- Preliminary brainstorming identified **five initial corridor ideas**

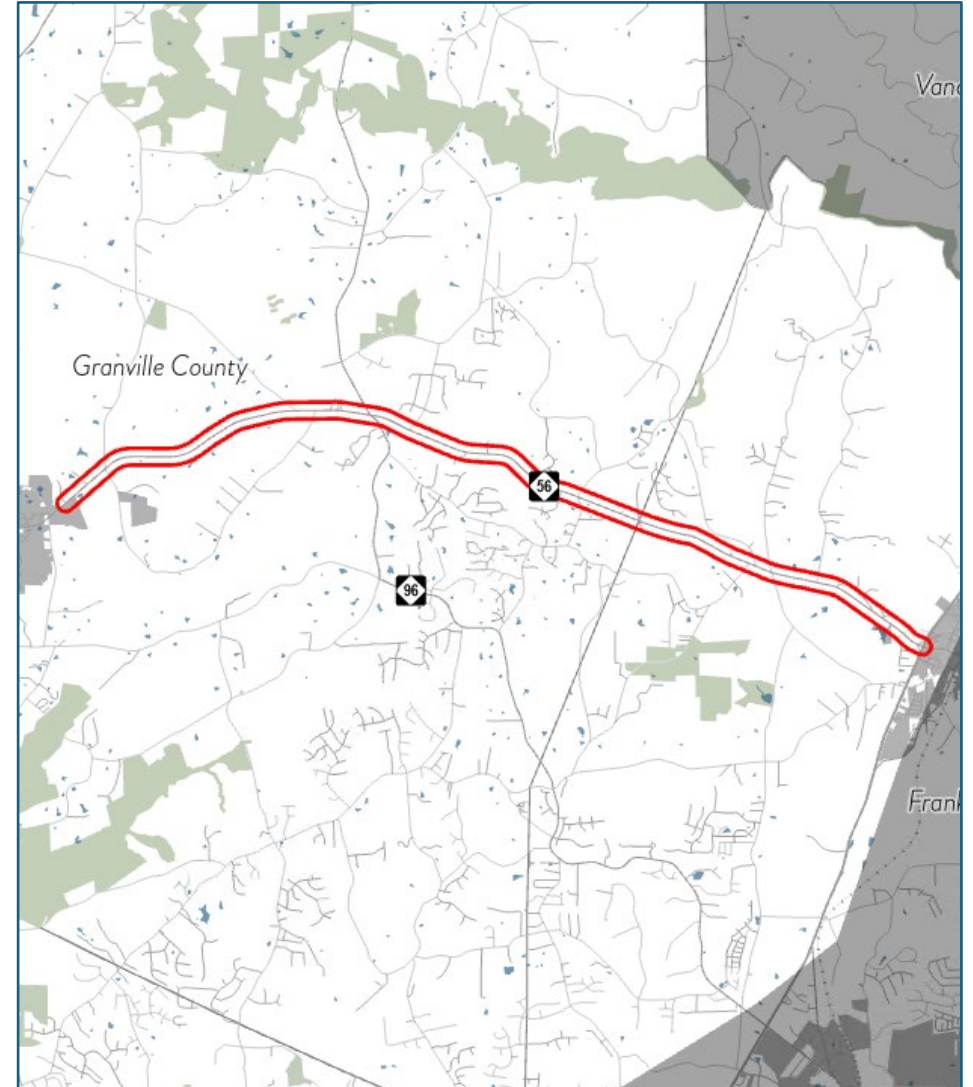
Corridor Studies

- NFLAS scope includes **two corridor studies**; level of detail and focus areas to be determined
 - **Any corridor** within the study area is a potential candidates
 - Preliminary brainstorming identified **five initial corridor ideas**
- **NC 56** from Mt. Energy Elementary School to US 1
 - **Bruce Garner Road** from Falls Lake to NC 96
 - **NC 50** from NC 56 to Old Weaver Trail
 - **Old Weaver Trail** from NC 50 to New Light Road
 - **US 158** west of Oxford

NC 56

from Mt. Energy Elementary to US 1

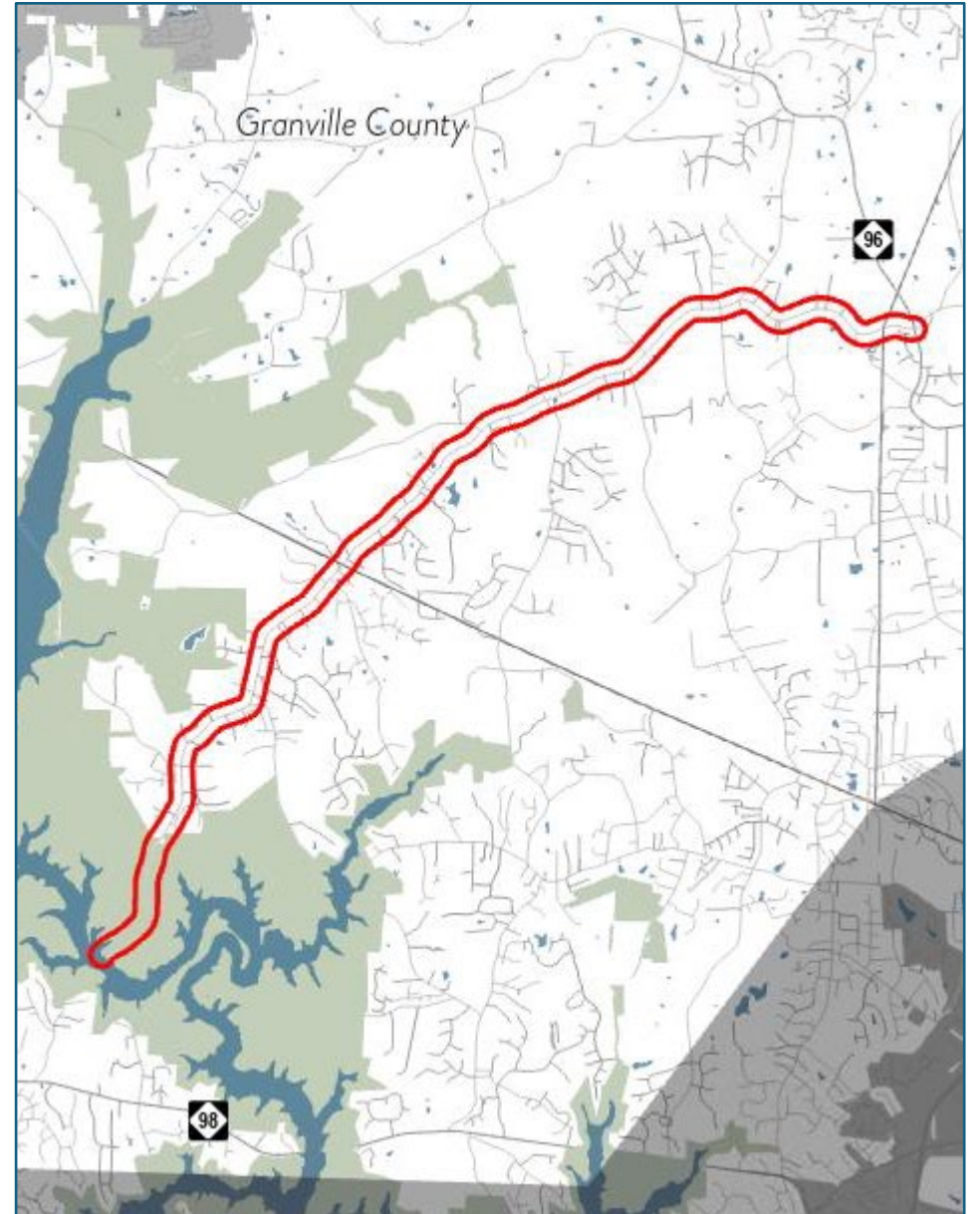
- Effective extension of previously completed NC 56 corridor study near I-85
- 10.7 miles, connects to the Wilton area at NC 96
- Average daily traffic between 6,000 and 9,000 vehicles per day
- Safety Section Score between 44 and 78
- 3 bicyclist and 2 pedestrian crashes
- 10 fatal and 13 serious injury crashes



Bruce Garner Road

from Falls Lake to NC 96

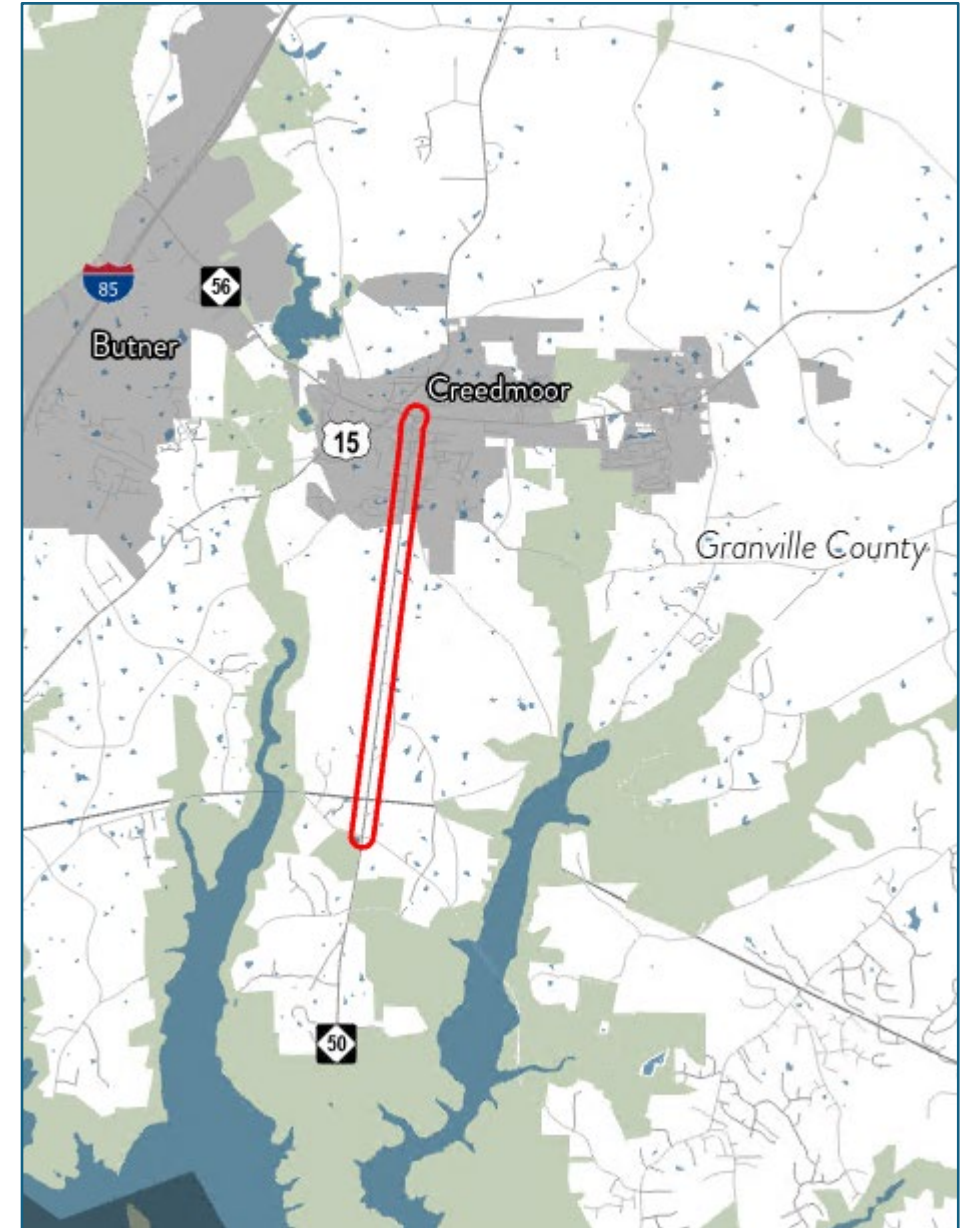
- 10.1 miles in southern Granville and northern Wake Counties
- Average daily traffic between 3,000 and 7,000 vehicles per day
- Safety Section Score between 0 and 89 (most segments above 66)
- 5 bicyclist and 3 pedestrian crashes
- 2 fatal and 13 serious injury crashes



NC 50

from NC 56 to Old Weaver Trail

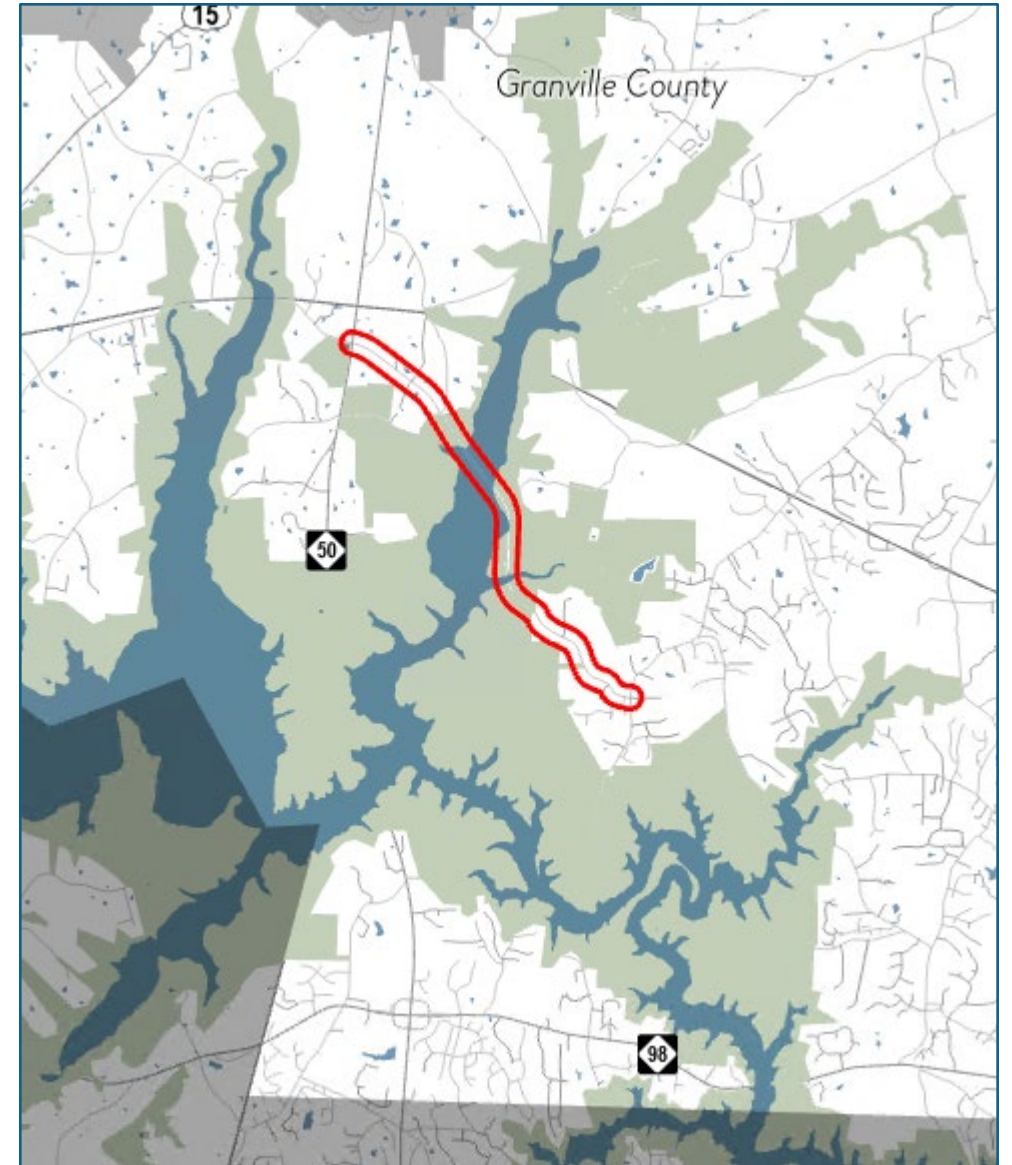
- 3.6 miles from Downtown Creedmoor to the south
- Average daily traffic between 6,500 and 9,500 vehicles per day
- Safety Section Score between 44 and 78
- 1 bicyclist and 2 pedestrian crashes
- 2 fatal and 5 serious injury crashes



Old Weaver Trail

from NC 50 to New Light Road

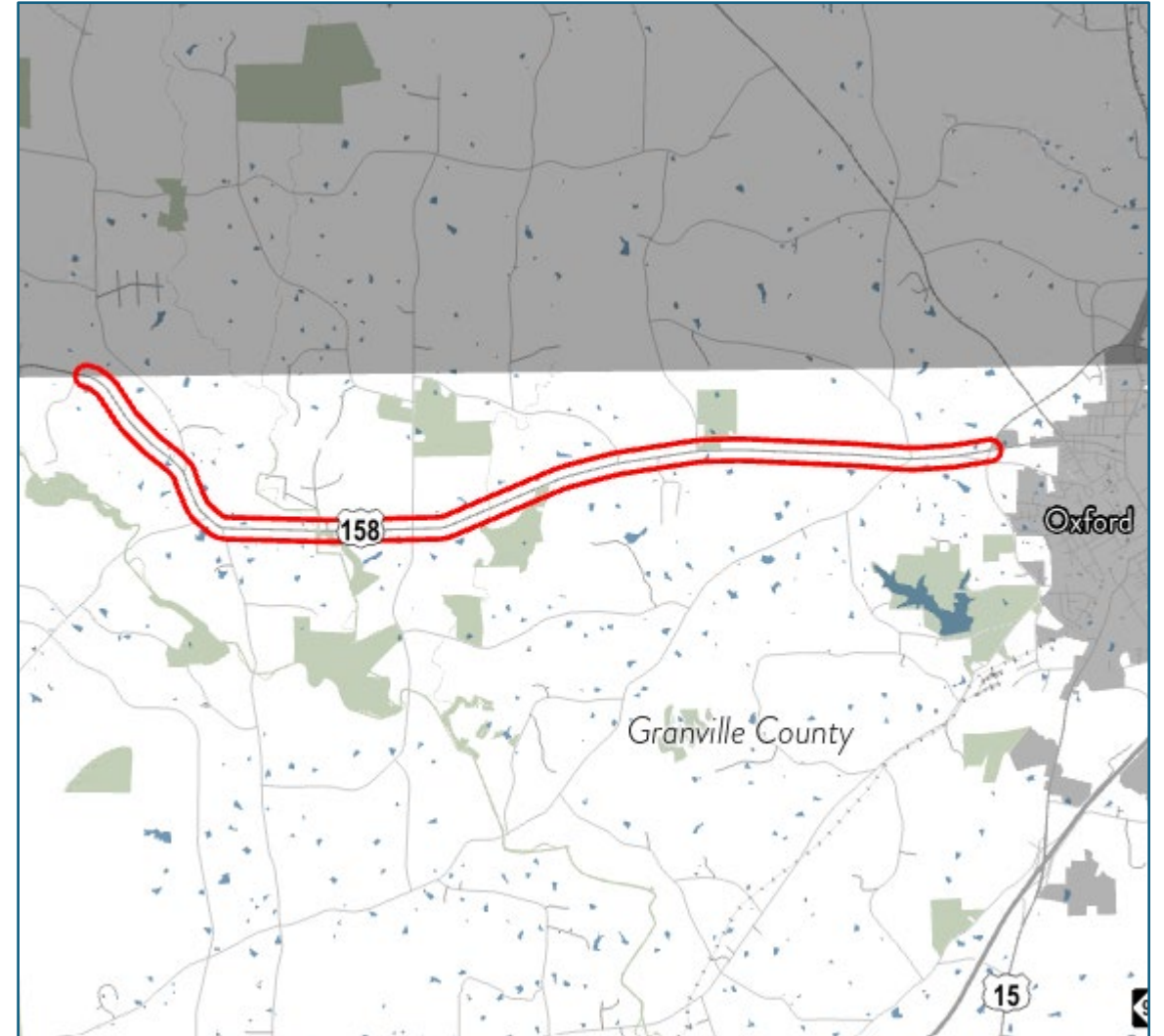
- 4.1 miles across Beaver Dam Lake
- Average daily traffic between 3,000 and 7,000 vehicles per day
- Safety Section Score between 0 and 89 (most segments above 66)
- 5 bicyclist and 3 pedestrian crashes
- 2 fatal and 13 serious injury crashes



US 158

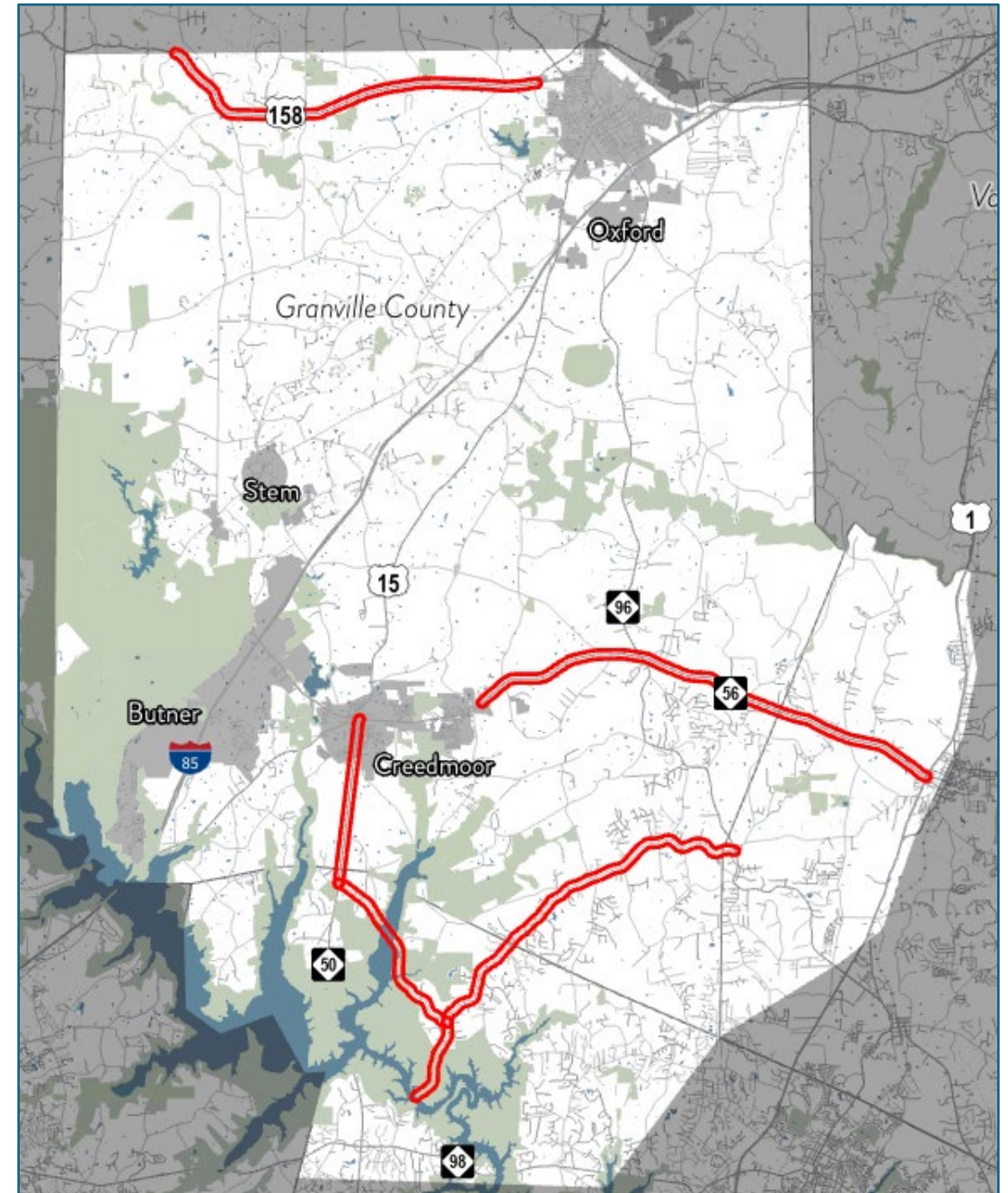
west of Oxford

- 8.5 miles connecting Person County to Oxford and beyond
- Average daily traffic between 1,000 and 4,500 vehicles per day
- Safety Section Score typically between 33 and 77
- 2 pedestrian crashes
- 6 fatal and 6 serious injury crashes



Corridor Studies

- Which of these corridors should we study? Or is there **another** corridor we should include instead?
- Are the **limits** of the study what they need to be?
- What specific **topical** or **geographic focuses** should the study have?



Corridor Studies

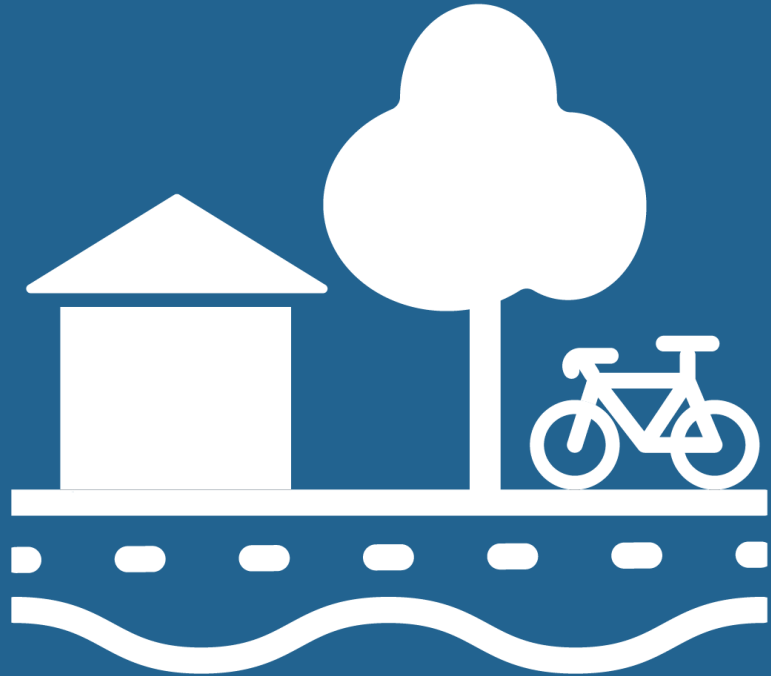


- Which of these corridors should we study? Or is there another corridor we should include instead?
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- What specific topical or geographic focuses should the study have?

- **NC 56** from Mt. Energy Elementary School to US 1
- **Bruce Garner Road** from Falls Lake to NC 96
- **NC 50** from NC 56 to Old Weaver Trail
- **Old Weaver Trail** from NC 50 to New Light Road
- **US 158** west of Oxford

Next Steps

- Creation of **Preferred Scenario**, including same metrics and final changes to make compatible with TRM
- Initial development of **transportation recommendations**
- Startup of **two corridor studies** after selection today
- RSA workshop (targeting March)
- Reconvene the CTT in **March** to discuss Preferred Scenario and its modeling outputs, as well as initial transportation direction



North Falls Lake AREA STUDY

 Core Technical Team Meeting
March 20, 2026, 1:30pm

Overview

- Overall Process Check-In
- Preferred Scenario Outputs
- Corridor Studies Existing Conditions
- Transportation Prioritization Metrics
- Next Steps

Process Check-In



**North
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AREA STUDY



Since our last meeting (February '26)

- Met with both Elected Officials Committee and Stakeholders Committee
- Finalized outputs from our three test land use scenarios
- Created two new land use scenarios – BAU2.0 and the Preferred Scenario



Elected Officials Meeting (2/11/26)

Ongoing and Up Next

Ongoing

- Corridor studies on Brogden Road and NC 56
- Initial transportation needs analysis
- Roadway Safety Audit at Butner-Stem Elementary School

Up Next

- Development of transportation recommendations and prioritization approach
- Recommendations work for the two ongoing corridor studies

Process Overview

Understand Environmental and Utility Limitations in the Area

- Watershed protection rules/nutrition strategies
- Water providers
- Groundwater availability
- Sewer providers

Identify a grounded, regional land use vision

- Compiling Comprehensive Plans and Future Land Use Plans
- Refining based on community priorities
- Quantifying future projections to better understand demand

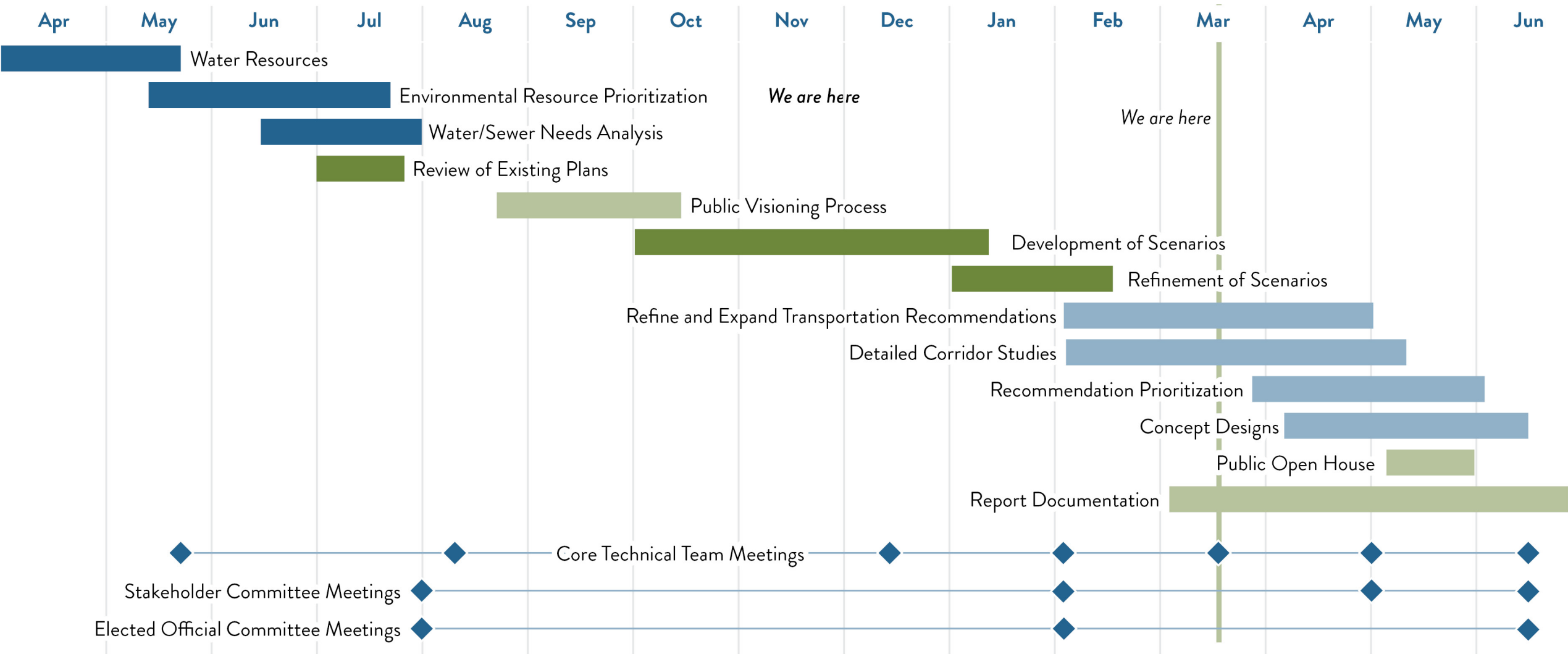
Develop updated transportation plan for the region

- Roadway / intersection improvements
- New roadways
- Walking and bicycling facilities
- Regional transit services

We are here



Detailed Schedule



Elected Officials and Stakeholder Committees



**North
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AREA STUDY



EOC/SC Meeting Agenda (February '26)

- Public Engagement Update
- Connecting Development Patterns and Services
- Land Use Scenario Modeling Results
- Preferred Scenario Discussion

EOC/SC Feedback

How many people do you think moved to the North Falls Lake area since 2000?

- Answers between 1* and 60,000
- Most answers 10,000 and 20,000
- Actual answer: about 27,600
(total population growth 2020-2025)

**We did tell one group we were using The Price is Right rules*

Initial Alternative Scenarios

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP



Watershed Protection

- Watershed and environmental protection focus

EOC/SC Meeting Discussion

- Clarification around open space requirements and conservation subdivisions
- Land protection/conservation
- General support for greater densification in town centers, in part for benefits to other rural land preservation
- Continued discussion of life-cycle housing opportunities
- What motivated people to move to NFLAS area – rural feel/lifestyle or affordability/commutability?
- Desire for local jobs (beyond retail/service)

Preferred Scenario Outputs



**North
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AREA STUDY



NFLAS Scenario Modeling

Last meeting

Develop Initial Land Use Scenarios

- Four scenarios:
 - Business as Usual
 - Economic Growth
 - Strong Towns
 - Watershed Protection
- Developed previously and discussed during last CTT

Today's discussion

Evaluate Scenarios and Create Preferred Land Use Scenario

- Evaluating today based on metrics including:
 - Land Use
 - Environmental/Utility
 - Transportation
- Will take the most important parts of each to create Preferred Scenario

Next steps

Create Transportation Recommendations

- Develop transportation recommendations to support the Preferred Scenario
 - Roadway and intersection improvements
 - Transit services
 - Walking and bicycling facilities
 - Policy changes

Initial Alternative Scenarios

BAU



Business As Usual

- Plans and trends

EG



Economic Growth

- Emphasis on economic growth and new job and commercial / mixed-use centers

ST



Strong Towns

- Compact development around towns

WP



Watershed Protection

- Watershed and environmental protection focus

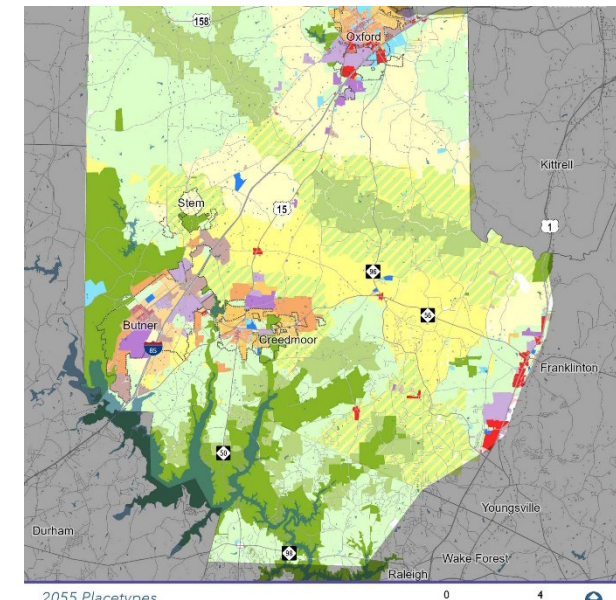
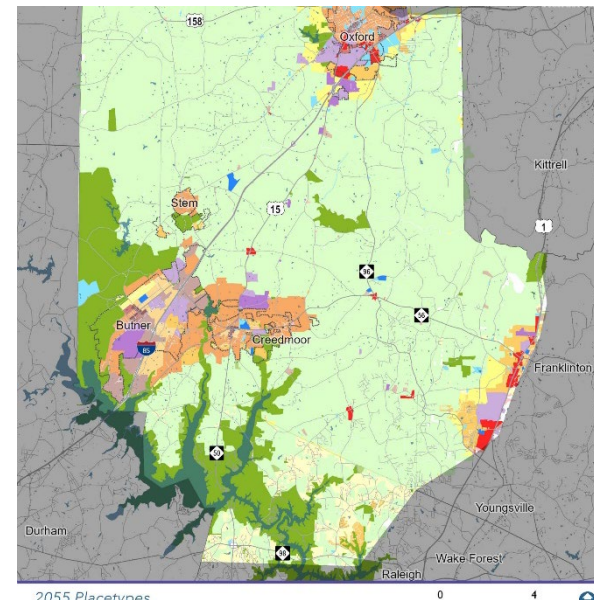
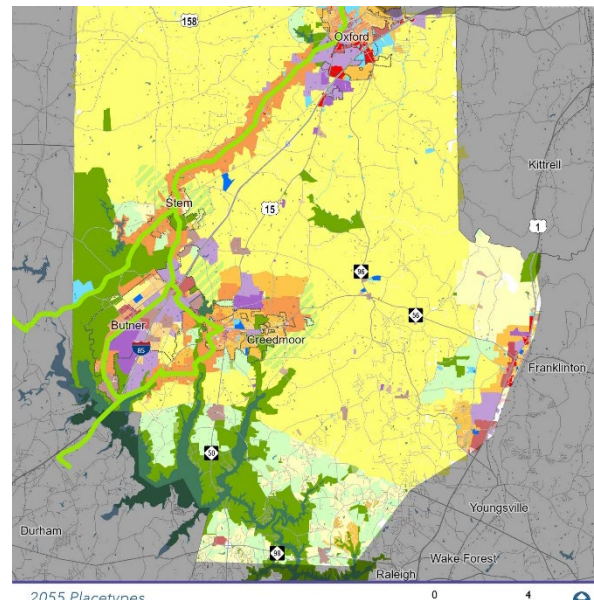
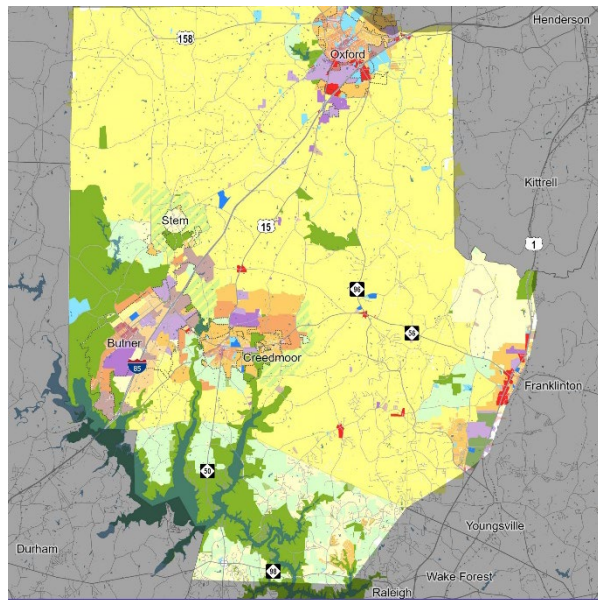
Placetypes

BAU

EG

ST

WP



Final Alternative Scenarios

BAUv2



PS



Business As Usual

- Plans and trends
- Updated with latest control totals and using county/regional CommunityViz Model instead of subarea model

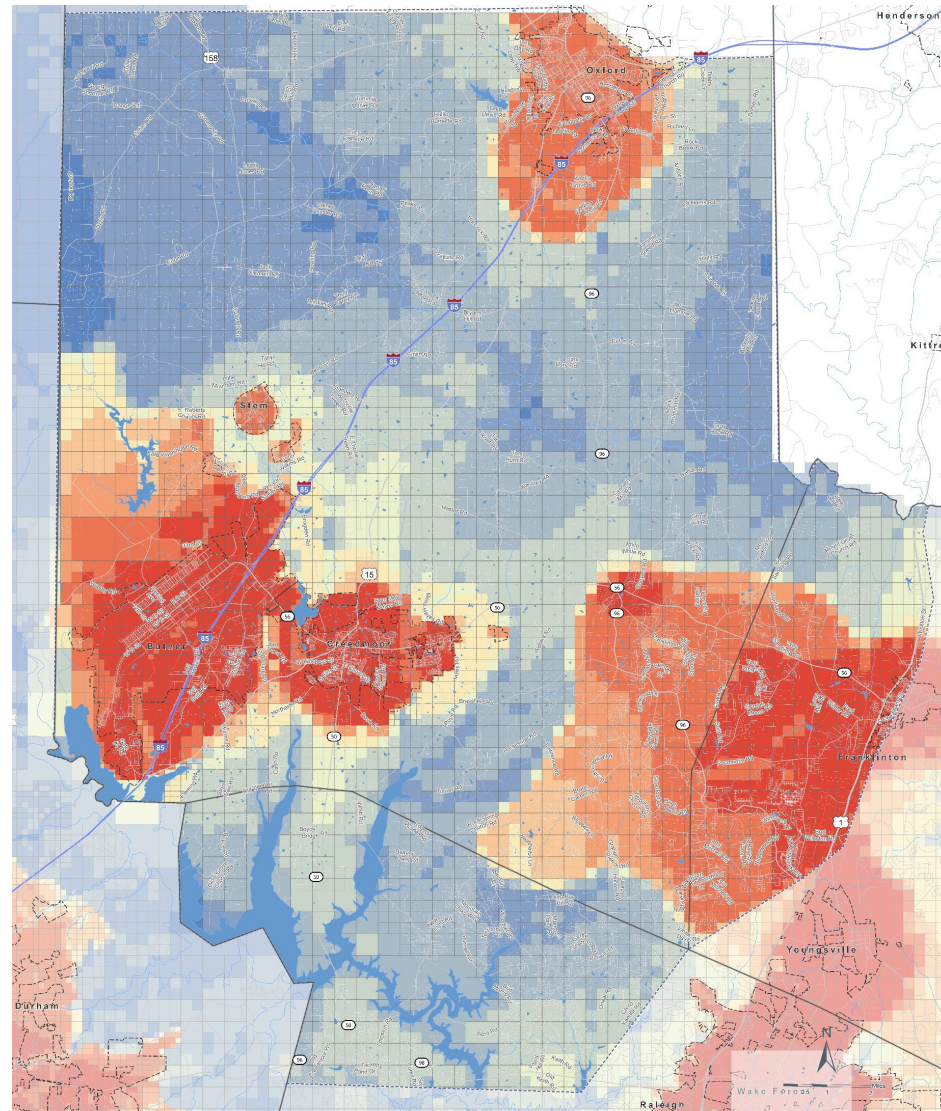
Preferred Scenario

- Blend of alternatives including placetypes and suitability factors/weights from Strong Towns, Economic Growth, and Watershed Protection scenarios

Land Use Suitability

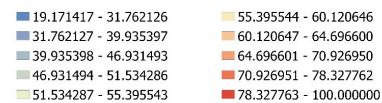
Suitability is the likelihood or probability of development in the CV model.

BAUv2

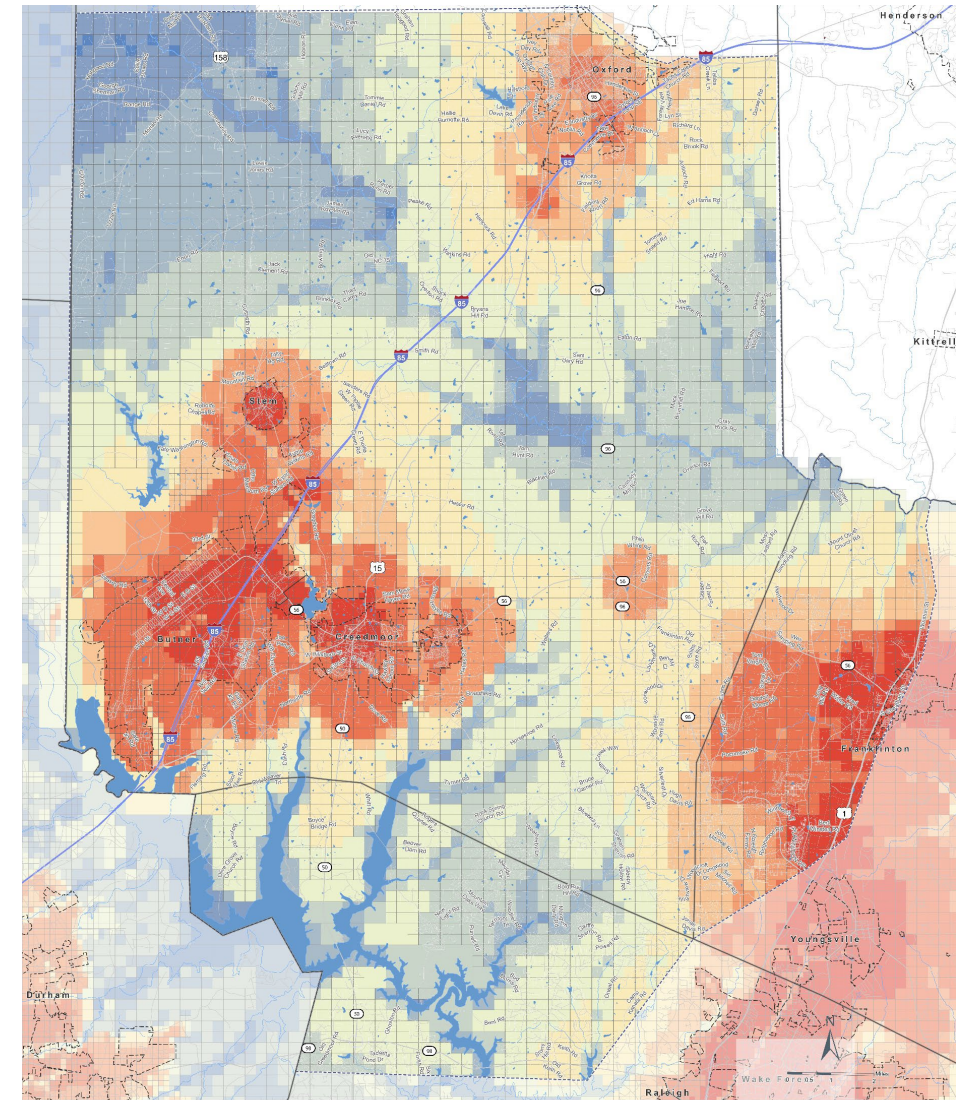


BAU Scenario

Suitability



PS



PS Scenario

Suitability

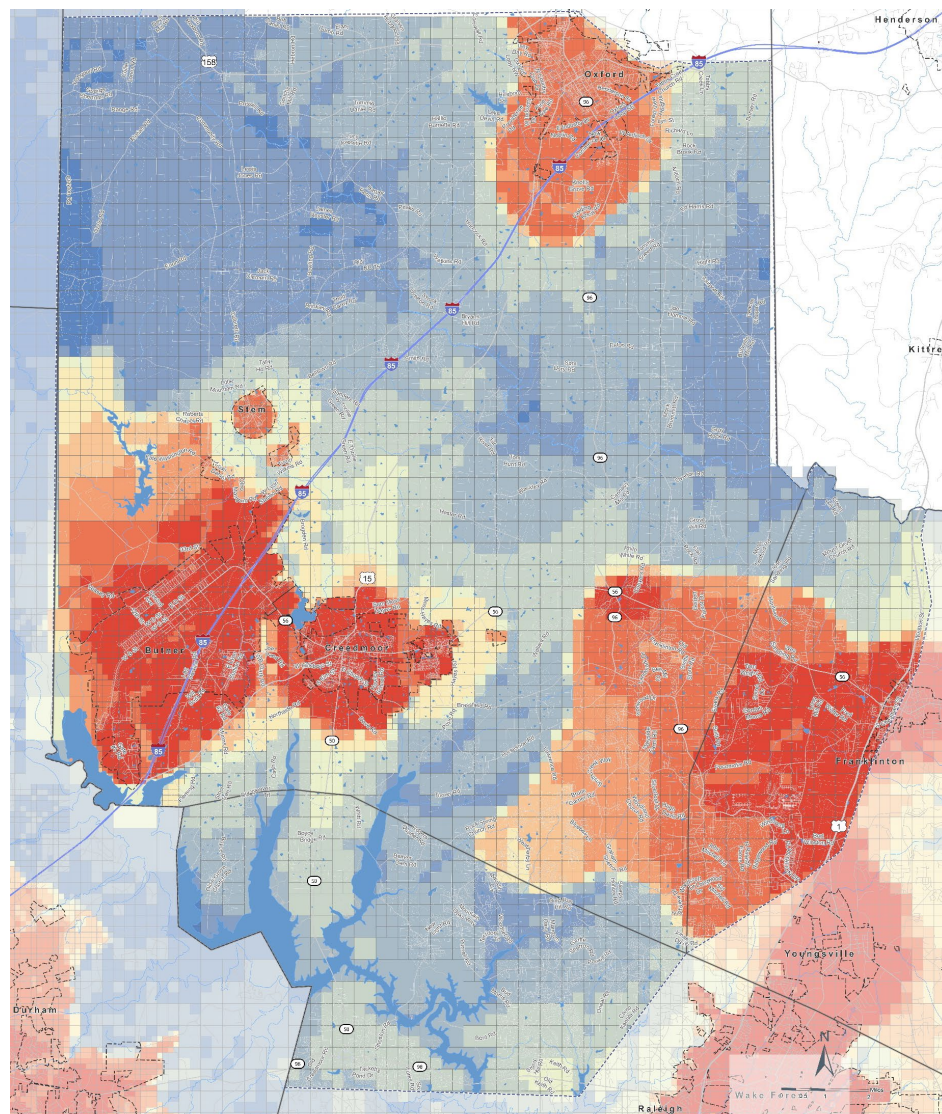


Land Use Suitability

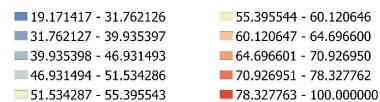
PS

Updated
with Critical
Watersheds
as Suitability
Input

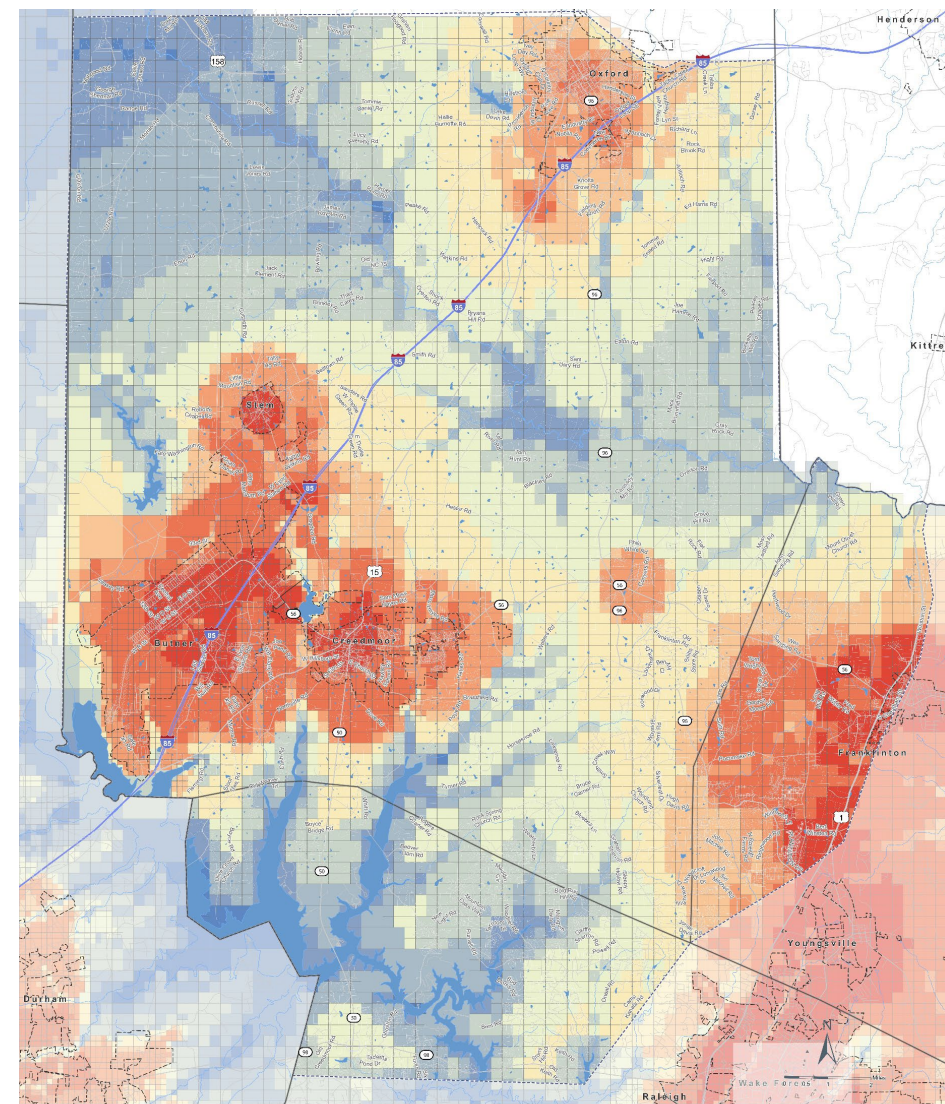
BAUv2



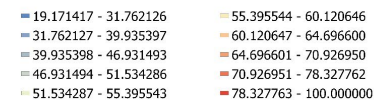
BAU Scenario
Suitability



PS



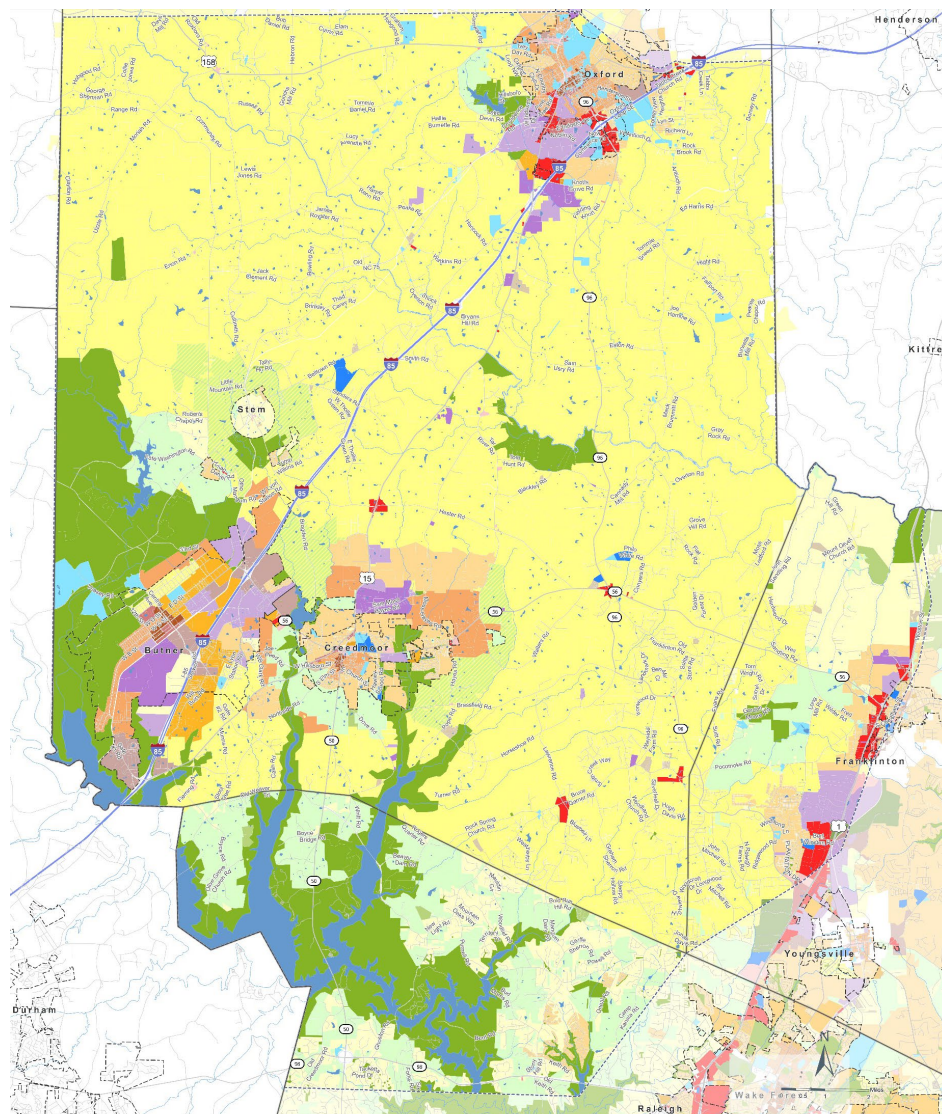
PS Scenario
Suitability



Placetypes

Placetypes control density and what types of development (residential and employment types) are allowed to be allocated to different areas in the CommunityViz model

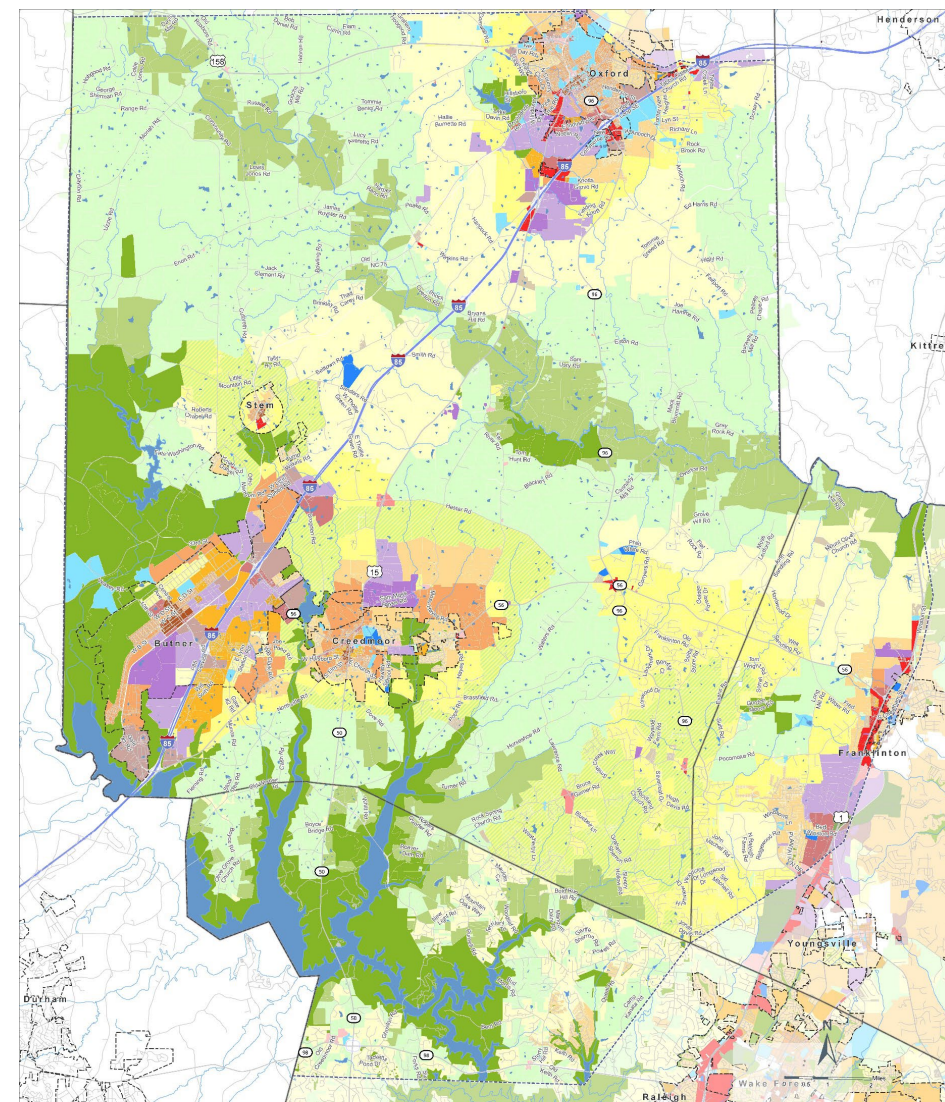
BAUv2



BAU Scenario
Placetypes

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> Protected Green Space (POS) Parks and Recreation (REC) Farms and Forest (FF) Rural Living (RL) Larger-Lot Residential Neighborhood (LLRN) Conservation Subdivision (CON) | <ul style="list-style-type: none"> Mobile Home Neighborhood (MHP) Mid-sized Lot Residential Neighborhood (MLRN) Smaller Lot Residential Neighborhood (SLRN) Urban Neighborhood (UN) | <ul style="list-style-type: none"> Mixed Density Residential Neighborhood (MRN) Mixed-Use Neighborhood (MUN) Multifamily Residential Neighborhood (MFRN) Civic and Institutional (CIV) K-12 Education (K-12) | <ul style="list-style-type: none"> Rural Crossroads (RCR) Neighborhood Commercial Center (NCC) Mixed Use Center (MUC) Community Commercial (CCC) Light Industrial Center (LIC) Heavy Industrial Center (HIC) |
|---|---|---|--|

PS



PS Scenario
Placetypes

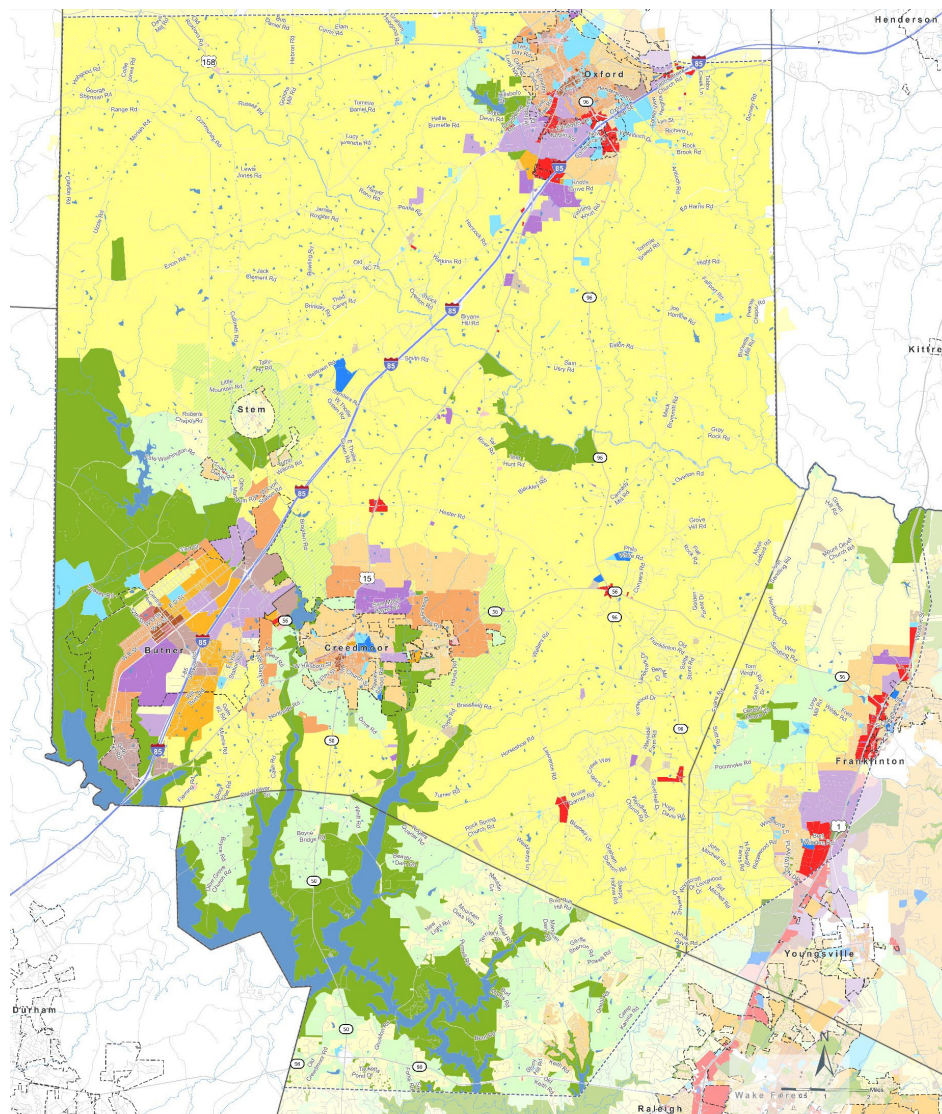
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|---|---|---|--|
| <ul style="list-style-type: none"> Placetypes Protected Green Space (POS) Parks and Recreation (REC) Farms and Forest (FF) Rural Living (RL) Larger-Lot Residential Neighborhood (LLRN) | <ul style="list-style-type: none"> Conservation Subdivision (CON) Mobile Home Neighborhood (MHP) Mid-sized Lot Residential Neighborhood (MLRN) Smaller Lot Residential Neighborhood (SLRN) Urban Neighborhood (UN) | <ul style="list-style-type: none"> Mixed Density Residential Neighborhood (MRN) Mixed-Use Neighborhood (MUN) Multifamily Residential Neighborhood (MFRN) Civic and Institutional (CIV) K-12 Education (K-12) | <ul style="list-style-type: none"> Rural Crossroads (RCR) Neighborhood Commercial Center (NCC) Mixed Use Center (MUC) Town Center (TC) Community Commercial (CCC) Light Industrial Center (LIC) Heavy Industrial Center (HIC) |
|---|---|---|--|

Placetypes

PS

With
Placetype
Changes in
Critical
Watersheds

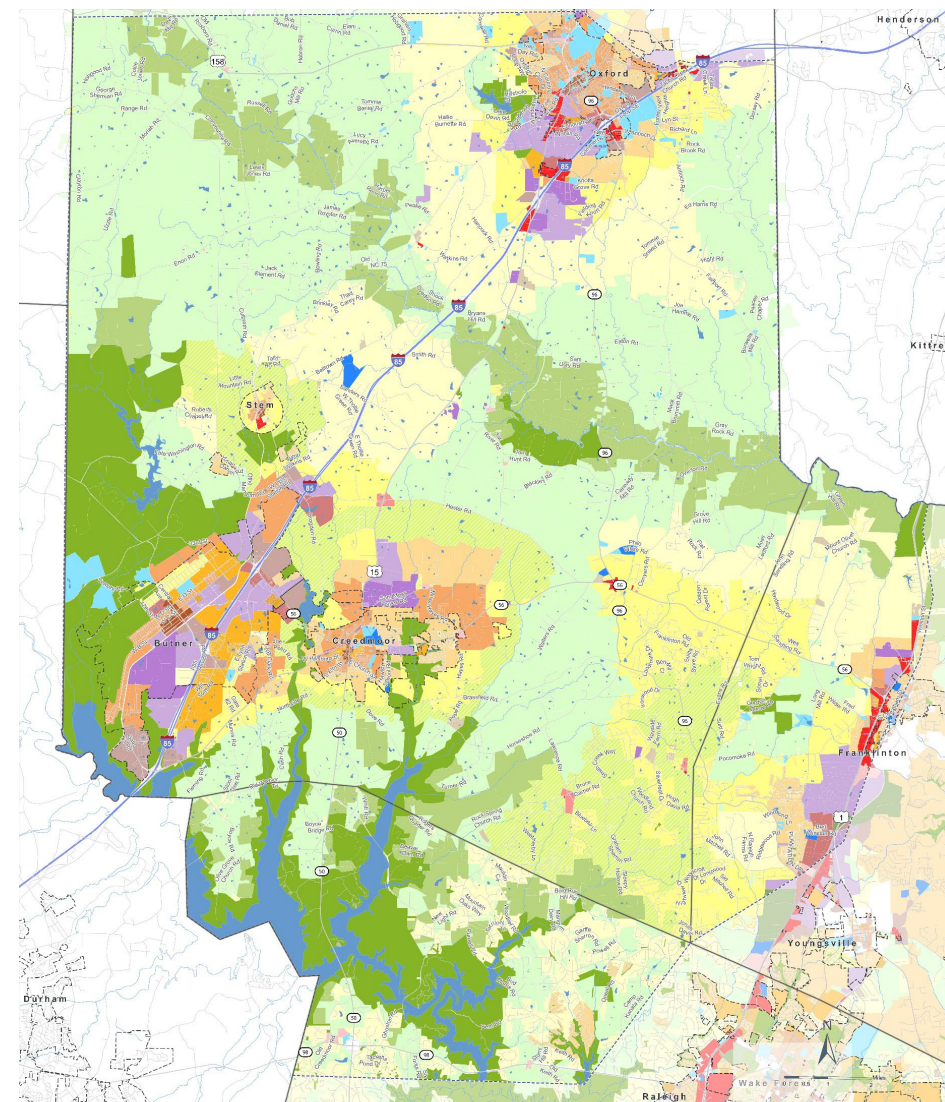
BAUv2



BAU Scenario
Placetypes

- Protected Green Space (POS)
- Parks and Recreation (REC)
- Farms and Forest (FF)
- Rural Living (RL)
- Larger-Lot Residential Neighborhood (LLRN)
- Conservation Subdivision (CON)
- Mobile Home Neighborhood (MHP)
- Mid-sized Lot Residential Neighborhood (MLRN)
- Smaller Lot Residential Neighborhood (SLRN)
- Urban Neighborhood (UN)
- Mixed Density Residential Neighborhood (MRN)
- Mixed-Use Neighborhood Center (MUN)
- Multifamily Residential Neighborhood (MFRN)
- Civic and Institutional (CIV)
- K-12 Education (K-12)
- Rural Crossroads (RCR)
- Neighborhood Commercial Center (NCC)
- Mixed Use Center (MUC)
- Community Commercial (CCC)
- Light Industrial Center (LIC)
- Heavy Industrial Center (HIC)

PS



PS Scenario
Placetypes

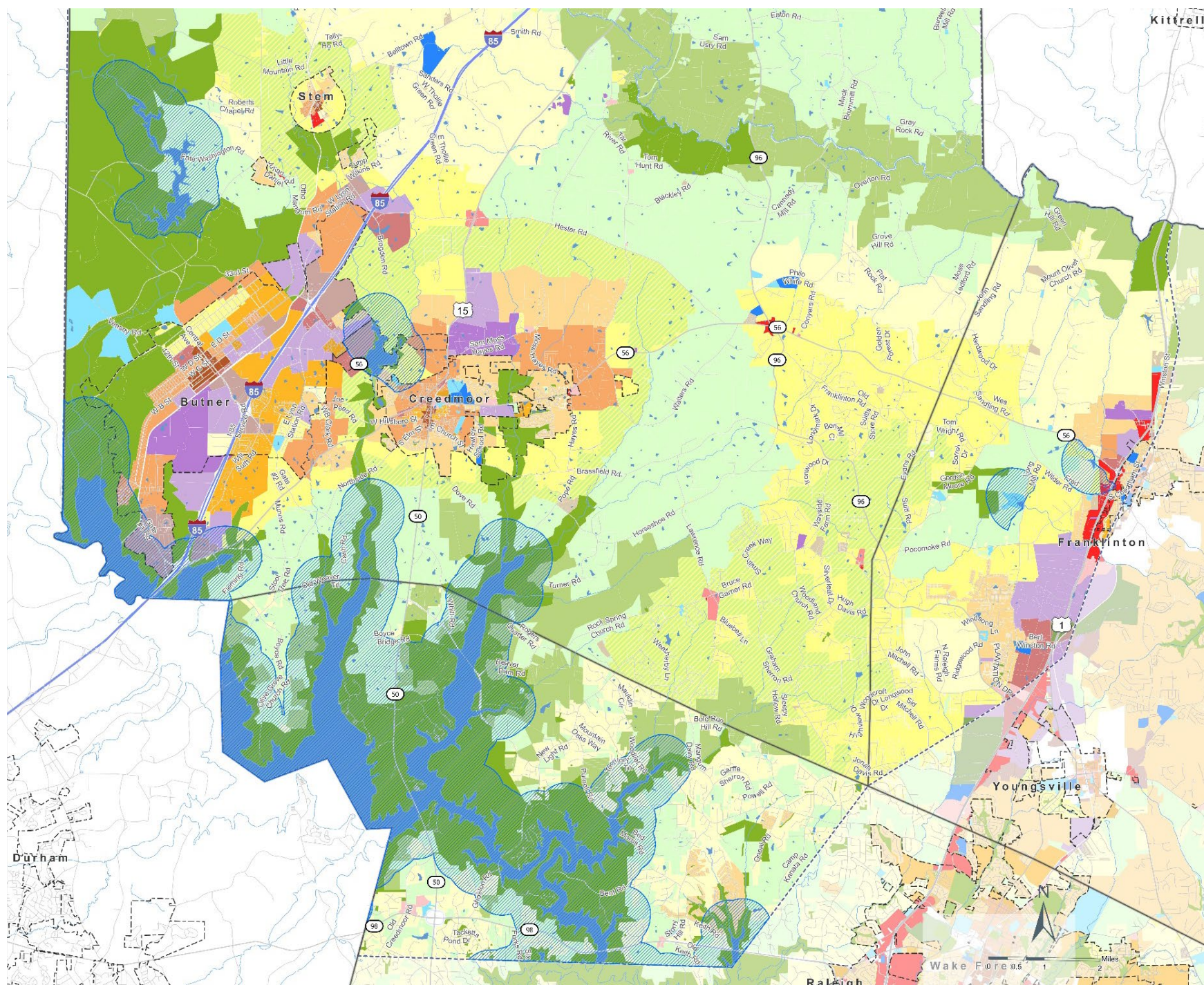
- Protected Green Space (POS)
- Parks and Recreation (REC)
- Farms and Forest (FF)
- Rural Living (RL)
- Larger-Lot Residential Neighborhood (LLRN)
- Conservation Subdivision (CON)
- Mobile Home Neighborhood (MHP)
- Mid-sized Lot Residential Neighborhood (MLRN)
- Smaller Lot Residential Neighborhood (SLRN)
- Urban Neighborhood (UN)
- Mixed Density Residential Neighborhood (MRN)
- Mixed-Use Neighborhood Center (MUN)
- Multifamily Residential Neighborhood (MFRN)
- Civic and Institutional (CIV)
- K-12 Education (K-12)
- Rural Crossroads (RCR)
- Neighborhood Commercial Center (NCC)
- Mixed Use Center (MUC)
- Town Center (TC)
- Community Commercial (CCC)
- Light Industrial Center (LIC)
- Heavy Industrial Center (HIC)

PS

Placetypes

PS

With
Placetype
Changes in
Critical
Watersheds



PS Placetypes



Town Center

PS Placetypes



Mixed Use Center

PS

Placetypes



Conservation Neighborhood



Urban Neighborhood

PS

Placetypes



**Small Lot Residential
Neighborhood**



**Mid-sized Lot
Residential
Neighborhood**

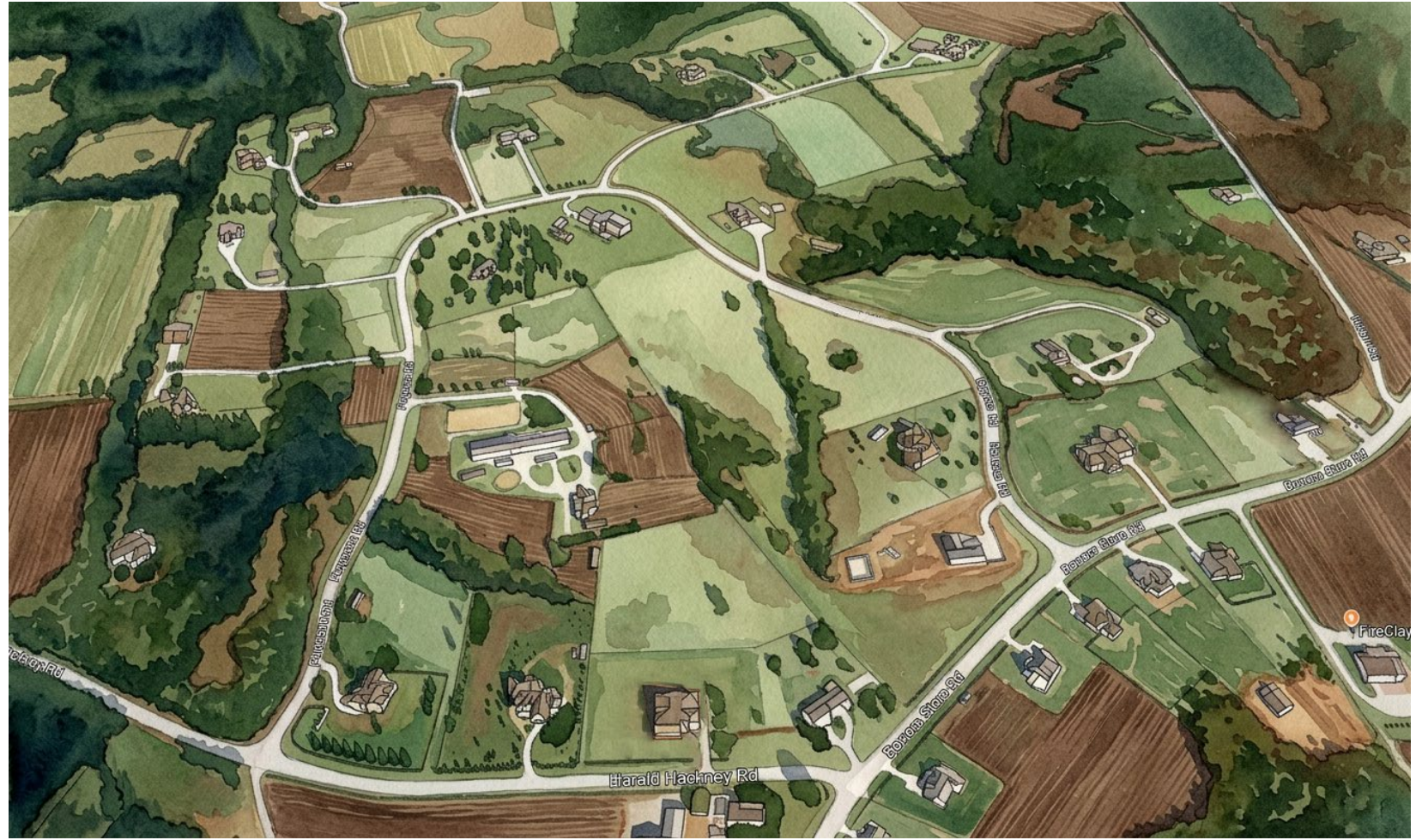


**Mixed Density
Residential
Neighborhood**

PS Placetypes



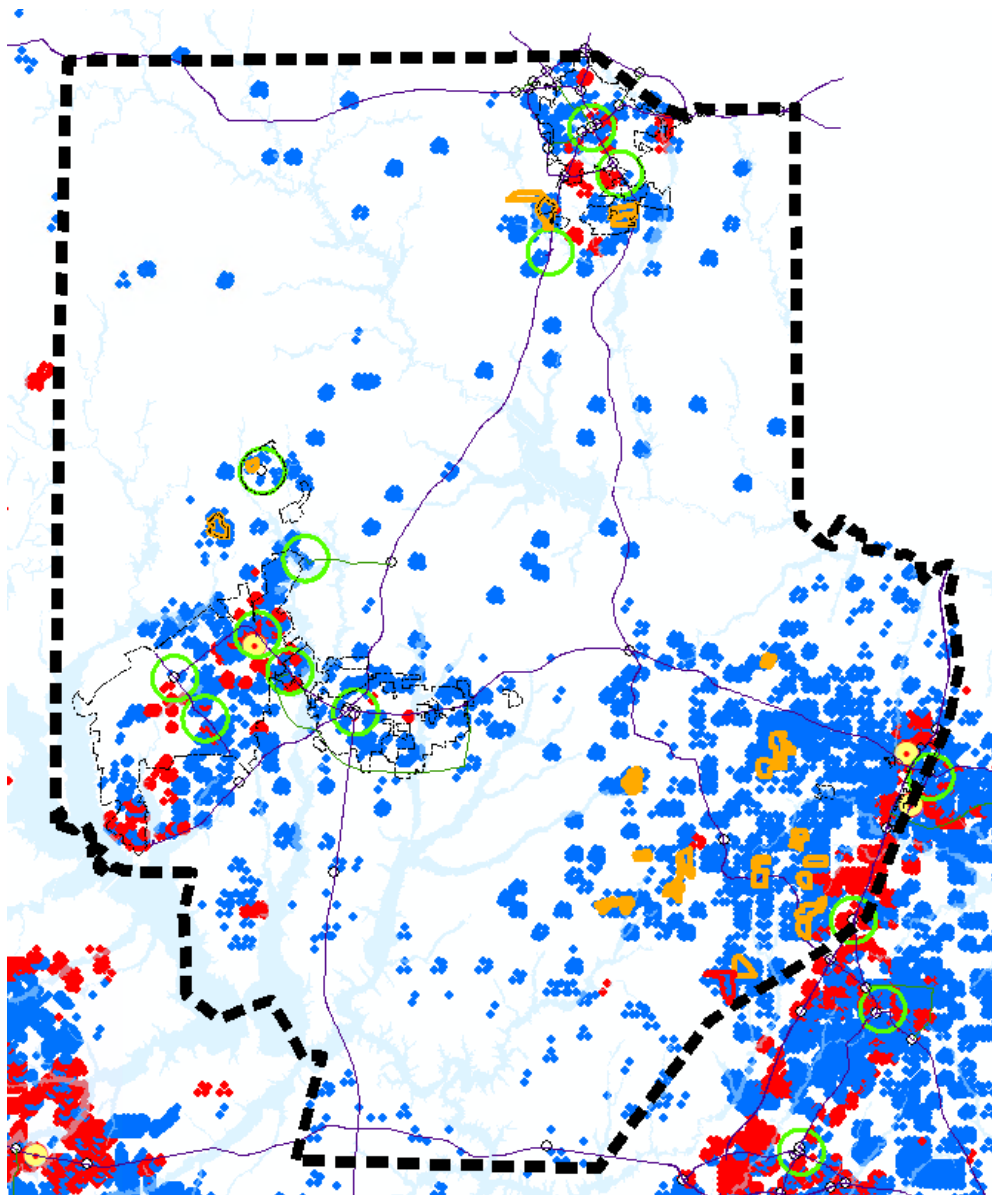
Large Lot Residential



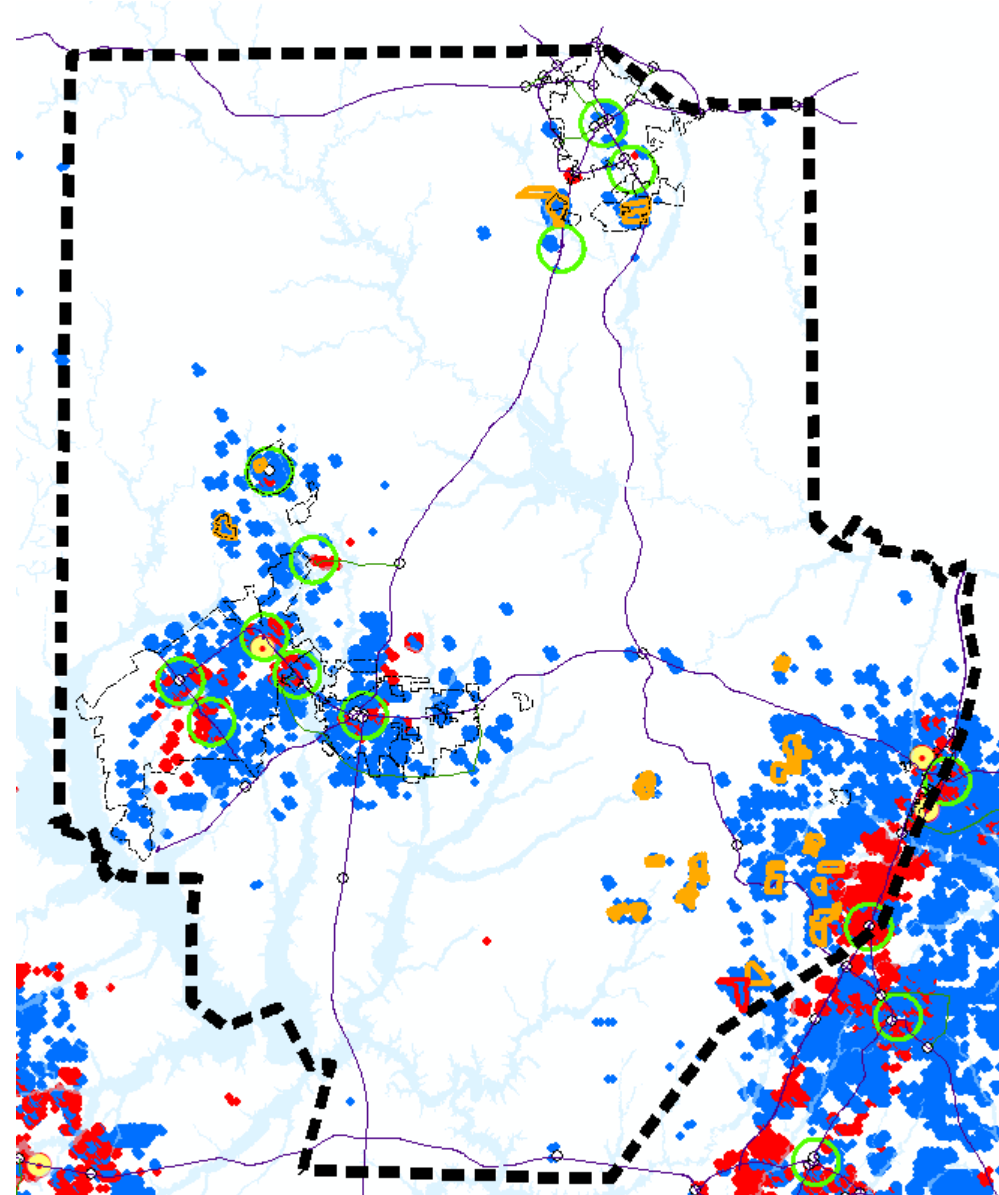
Rural Living

Growth Allocation

BAUv2

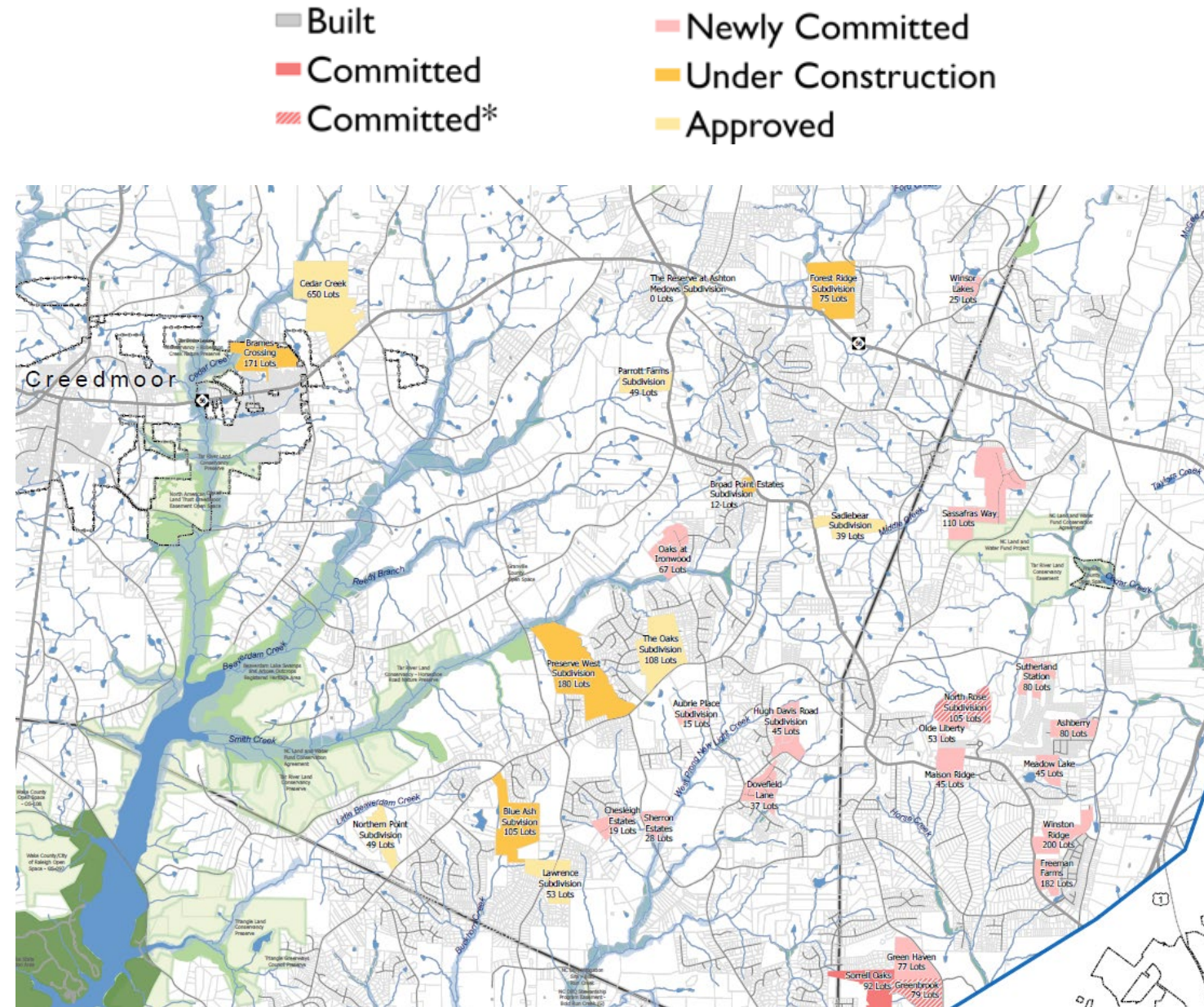


PS



Committed Development*

Area	Single Family Dwelling Units	Multi-Family Dwelling Units	Total
Franklin (in NFLAS Study Area Only)	1,210	0	1,210
Granville (NFLAS Study Area Only)	371	389	769
Total	1,581	398	1,979

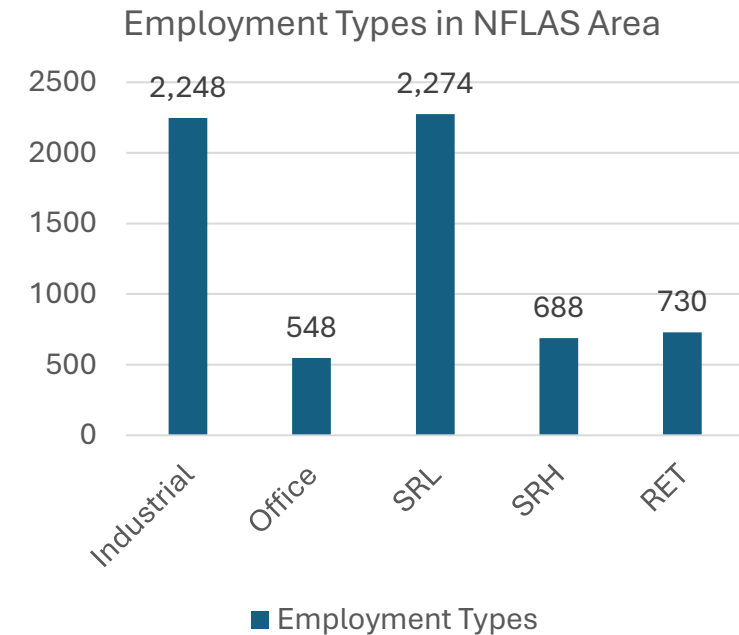
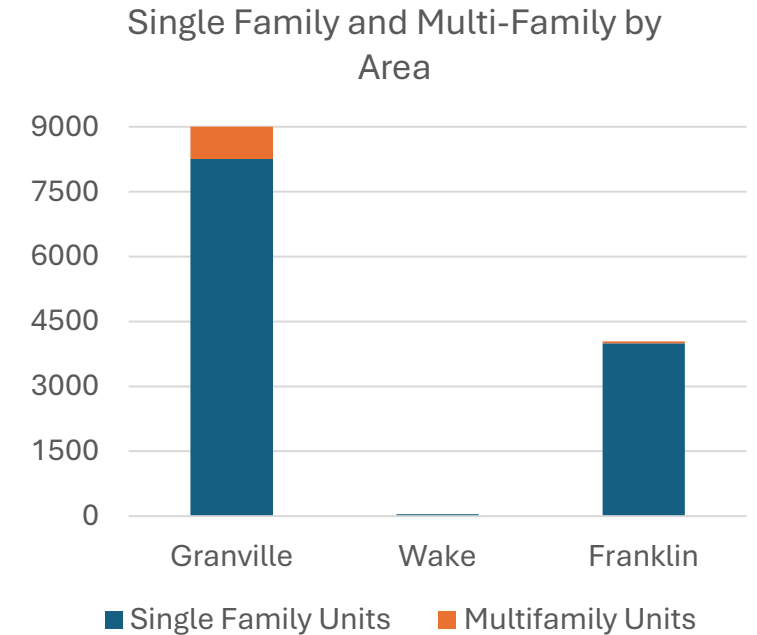


NFLAS Planning Area

Growth 2020-2055*

	DU	EMP	IND	OFF	SRL	SRH	RET	SF TOT	MF TOT
Granville	9,492	3,350	894	464	1,401	314	277	8,257	1,235
Franklin	4,040	3,130	1,346	84	873	374	453	3,998	42
Wake	48	8	8	0	0	0	0	48	0
Total	13,580	6,488	2,248	548	2,274	688	730	12,303	1,277

*For Preferred Scenario CV Model Run

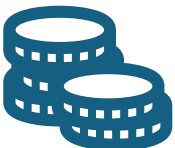


Draft Indicator Results

- Updated “Report Card” for the two final scenarios (revised Business as Usual (BAUv2) and the Preferred Scenario
- We’ll walk through performance in each category and take any questions

 North Falls Lake AREA STUDY				
Report Card Final Scenarios				
RESULTS KEY				
● = Worse than BAU scenario ● = Minor improvement (<33% change) from BAU scenario ● = Significant improvement compared to BAU scenario				
SCENARIO KEY				
BAUv2 = Business As Usual Revised PS = Preferred Scenario				
OBJECTIVES	BAUv2	PS	% Change	Result
ECONOMIC DEVELOPMENT				
Acres of Industrial Areas	5,809	7,153	+23%	●
Acres of New Commercial or Mixed-Use Development	3,977	4,594	+16%	●
Jobs in Municipalities	2,656	3,144	+18%	●
ENVIRONMENT AND OPENSOURCE				
Impervious Surface in Sensitive Watersheds (Acres)	39	33	-15%	●
Urban Footprint (Acres)	42,970	8,830	-79%	●
Preserved Open Space (Acres)	98,819	125,837	+27%	●
Growth in Sensitive Natural Areas (Homes)	1,331	389	-71%	●
LAND USE AND TRANSPORTATION				
Homes in Walkable Communities	3,920	8,260	+111%	●
Homes Near Parks and Greenways	3,500	5,370	+53%	●
Transit Propensity (Homes and Jobs Near Transit)	1,839	4,279	+133%	●
Total Vehicle Miles Traveled	2,502,611	TBD	TBD	TBD
Total Vehicle Hours Traveled	49,690	TBD	TBD	TBD
INFRASTRUCTURE AND COST OF SERVICES				
Homes in Municipalities	3,785	5,956	+57%	●
New Water/Sewer Demand (MGD)	952,364	1,497,463	+57%	●
Build-out Potential (Dwelling Units)	152,000	86,574	-46%	N/A

Draft Indicator Results



	BAU	EG	%Δ	ST	%Δ	WP	%Δ	BAU 2.0	PS	%Δ (from BAU 2.0)
ECONOMIC DEVELOPMENT										
Acres of Industrial Areas	6,020	8,779	+46%	5,886	-2%	6,043	+0.4%	5,809	7,153	+23%
Acres of New Commercial or Mixed-Use Development	3,676	5,101	+39%	4,555	+24%	4,530	+23%	3,977	4,594	+16%
Jobs in Municipalities	2,715	3,560	+31%	3,258	+20%	3,266	+20%	2,656	3,144	+18%
ENVIRONMENT AND OPEN SPACE										
Impervious Surface in Sensitive Watersheds (Acres)	71	87	+23%	95	+34%	67	-6%	39	33	-15%
Urban Footprint (Grids)	1,322	1,479	+12%	231	-83%	321	-76%	1,496	328	-78%
Urban Footprint (Acres)	TBD	TBD		TBD		TBD		42,970	8,830	-79%
New Preserved Open Space	TBD	TBD		TBD		TBD		98,819	125,837	+27%
Growth in Sensitive Natural Areas	996	1,541	+55%	551	-45%	805	-19%	1,331	389	-71%
LAND USE AND TRANSPORTATION										
Homes in Walkable Communities	6,623	8,512	+29%	8,276	+25%	6,960	+5%	3,920	8,260	+111%
Homes in Walking and/or Bicycling Distance to Parks and Greenways	5,048	6,745	+34%	6,299	+25%	5,606	+11%	3,500	5,370	+53%
Transit Propensity (Homes and Jobs Near Transit)	0	4,693	N/A	5,119	N/A	3,355	N/A	1,839	4,279	+133%
Total Vehicle Miles Traveled*	2,502,611	2,494,878	-0.3%	2,495,762	-0.3%	2,495,762	-0.3%	TBD	TBD	TBD
Total Vehicle Hours Traveled*	49,690	49,414	-0.6%	49,473	-0.4%	49,473	-0.4%	TBD	TBD	TBD
Travel Time in Congestion*	3,211	3,294	+2.6%	3,205	-0.2%	3,205	-0.2%	TBD	TBD	TBD
INFRASTRUCTURE AND COST OF SERVICES										
Homes in Municipalities	4,583	4,429	-3%	5,744	+25%	5,587	+22%	3,785	5,956	+57%
Homes Near Municipalities	8,647	7,794	-10%	9,908	+15%	9,144	+6%	6,324	9,409	+49%
New Water/Sewer Demand (MGD)	1,153,114	1,114,954	-3%	1,445,079	+25%	1,404,847	+22%	952,364	1,497,463	+57%
Build-out Potential (Dwelling Units)	152,981	165,868	+8%	73,435	-52%	83,120	-46%	158,018	86,574	-45%

*Note TRM results based on initial runs prior to final Control Totals

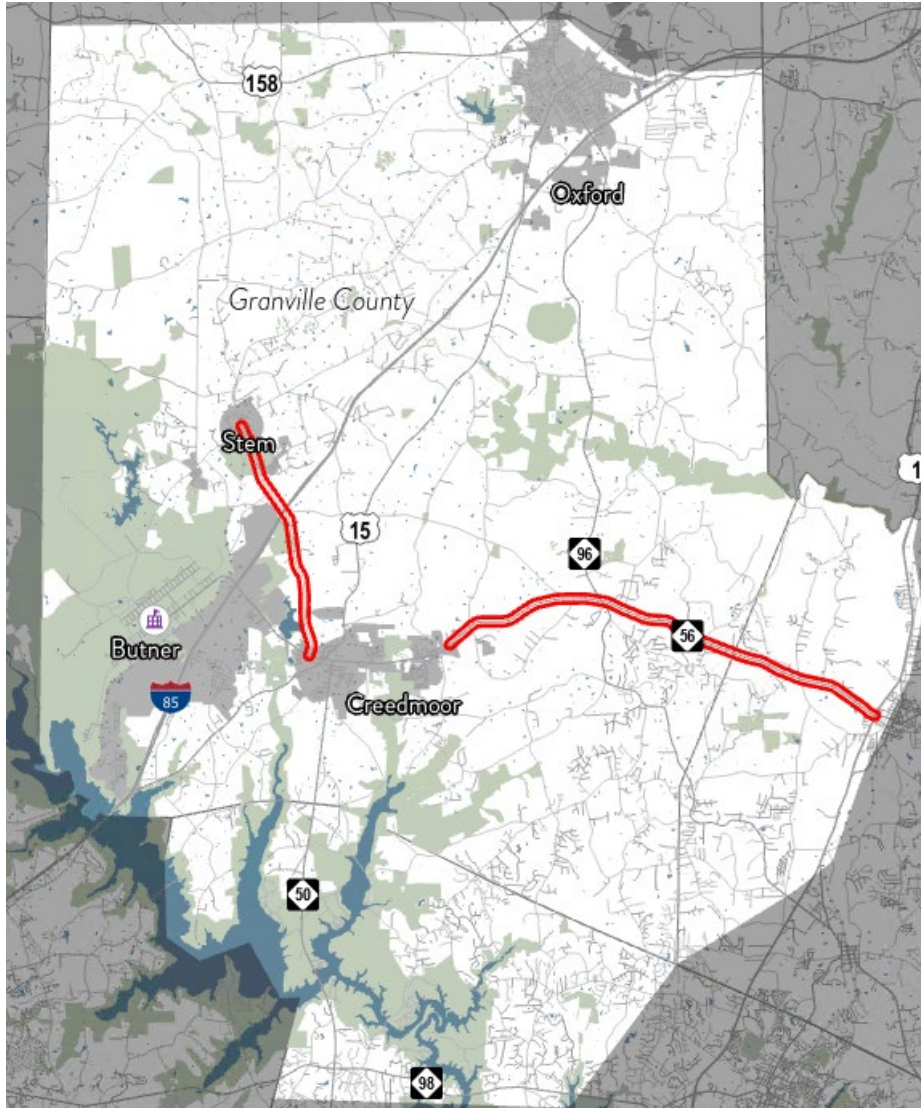
Corridor Studies Existing Conditions



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AREA STUDY



Background

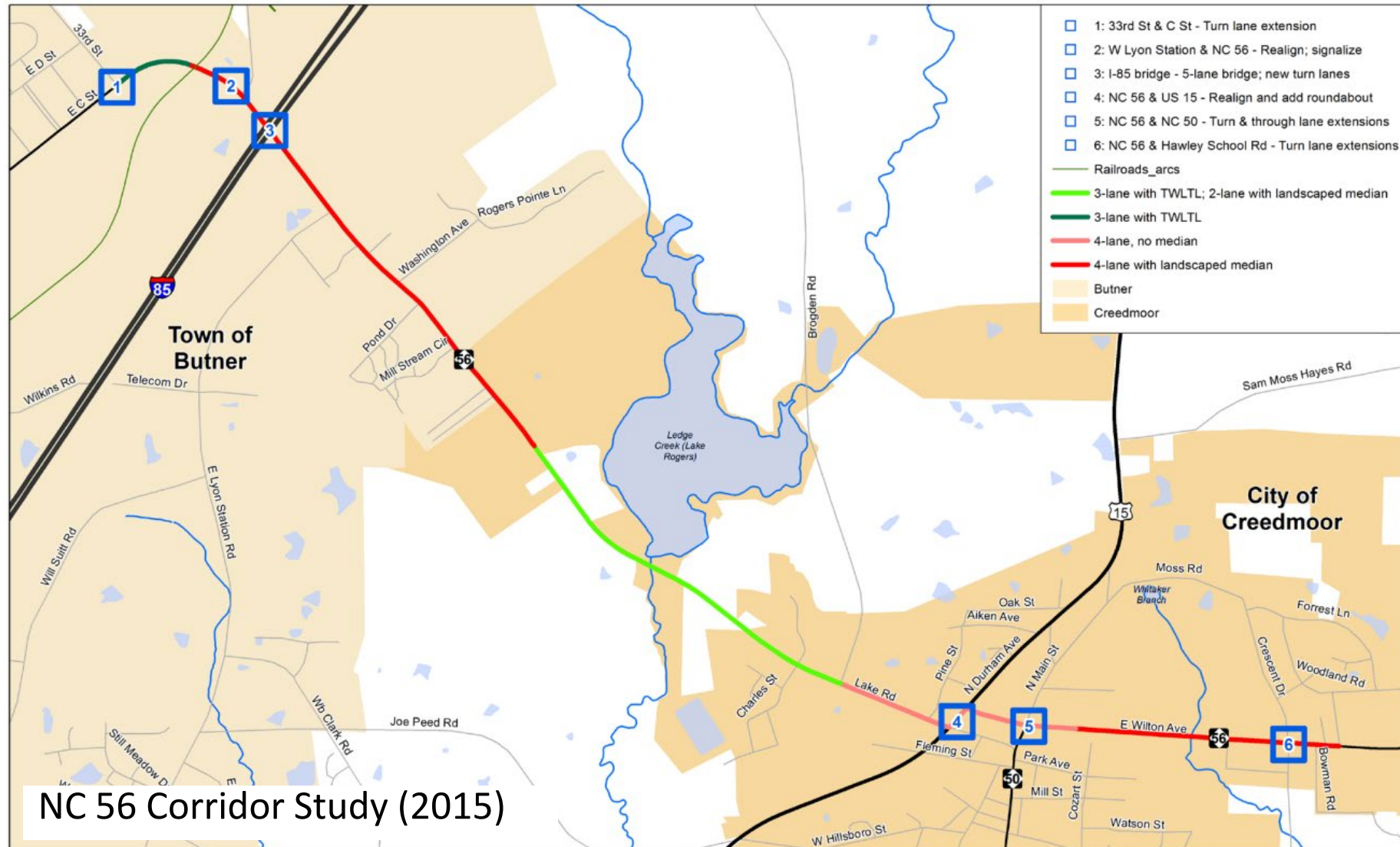


- Two Corridors Selected
- Brogden Road (from Stem to Creedmoor) – Granville County
- NC 56 (from eastern limits of Creedmoor to US 1) – Granville and Franklin Counties

Data Collection

- Annual Average Daily Traffic (AADT)
- Annual Average Daily Truck Traffic (AADTT)
- Volume and Capacity
- High Injury Network (HIN)
- Traffic Impact Analyses
- Development Activity
- Land Use (Place Types)
- Transportation Projects
- Environmental Features
- Utilities
- Stakeholder Input
- Relevant Studies

Relevant Studies



Relevant Studies

- I-85 Future Interchange Location Analysis (2013)
 - Looked at three interchange locations between Exit 191 and Exit 202 (currently 11 miles between interchanges)
 - Brogden Rd found to provide the most economic benefit
- US 1 Corridor Study (2012)
 - 9 miles from US 1 A (Park Ave) to the Vance County Line
 - Recommended Superstreet in interim and Freeway as ultimate preferred conceptual alternative
 - Interchange with NC 56 – partial cloverleaf with loops in NW and NE quadrants

Note: The U-5307 project stops south of NC 56 (at Purnell/Harris roads in Wake Forest - Wake County). The proposed project would convert US 1 from a four-lane, median divided roadway with partial access control to a six-lane controlled-access highway with interchanges.

Stakeholder Input

- NFLAS Project Management Team (PMT)
- Granville Co. Public Schools (Director of Transportation)
- Granville Co. Emergency Management
- Granville Co. Fire Marshal
- County/City Staff (Town of Stem Administrator, Creedmoor City Planner, Franklin County Asst Planning & Inspections Director)
- Granville Co. Economic Development (Director)
- Transit Authority (KARTS)
- Blueprint for Safety (Sr. Transportation Planner)

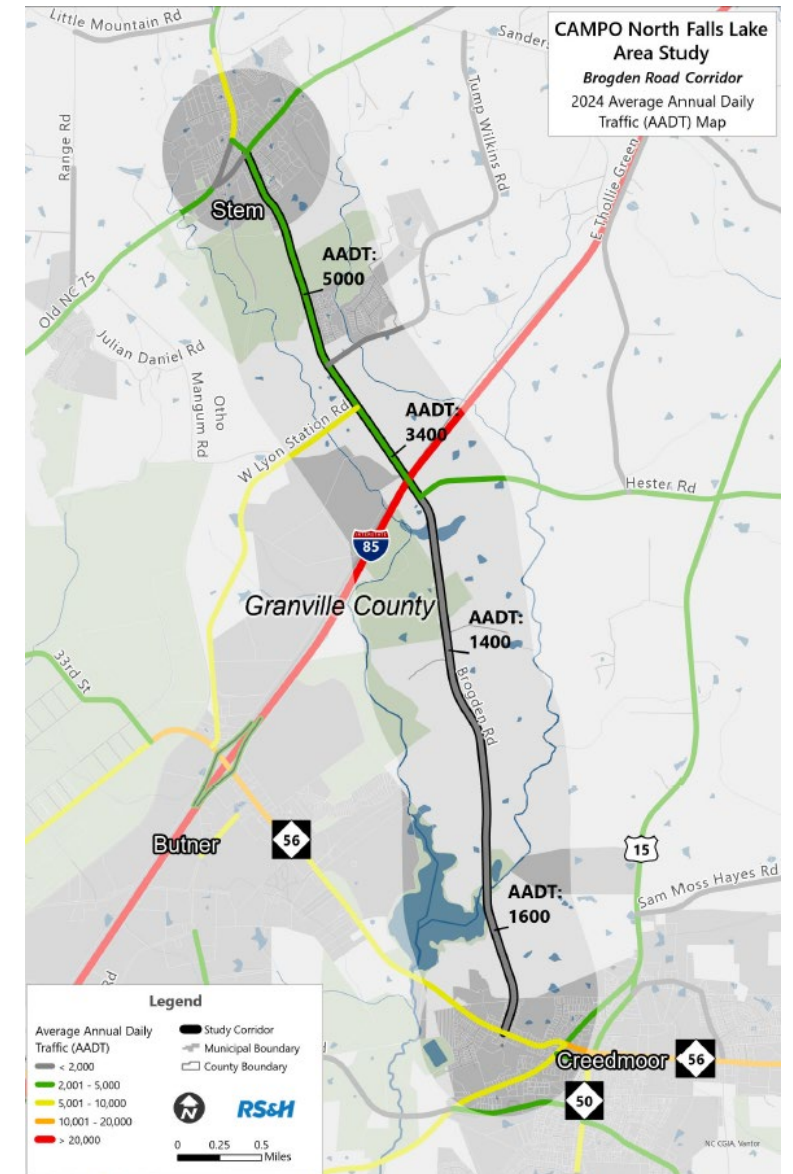
*Did not hear back from 911 Emergency Communications, Creedmoor Police Chief, Granville County Sherriff, or Granville Health System.

General Feedback

- Brogden Rd
 - I-85 interchange is priority
 - Narrow lanes
 - Significant development activity in area
- NC 56
 - Significant increase in traffic volumes
 - Speed and topography issues
 - Mount Energy Elementary School area is priority
 - Safety concerns

Existing Conditions Maps

- AADT
- Population Growth
- Transportation Projects by Mode (STIP, MTP, CTP)
- High Injury Network
- Development Activity/TIAs
- Stakeholder Input
- Environmental Features
- Land Use (Existing and Future) by Place Type



Questions

- Keep trying to reach stakeholders for interview that did not respond? Can someone nudge?
- Anything missing from maps?
- Anything that was unexpected that we should discuss?
- Would any other maps be helpful?

Note – We will be following up as we work through additional issues identified with further analysis

Transportation Metrics

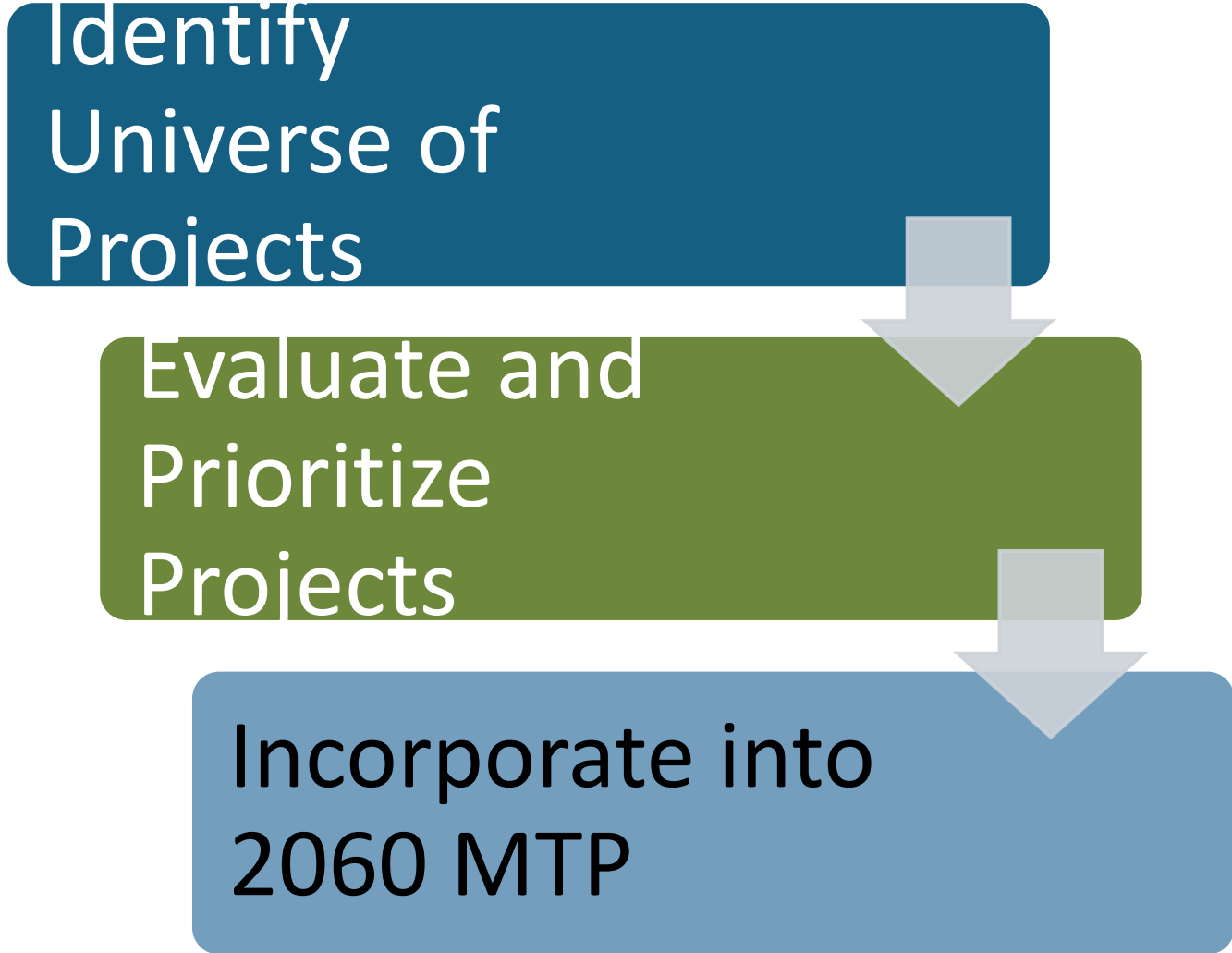


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Transportation Process

Identify
Universe of
Projects



```
graph TD; A[Identify Universe of Projects] --> B[Evaluate and Prioritize Projects]; B --> C[Incorporate into 2060 MTP];
```

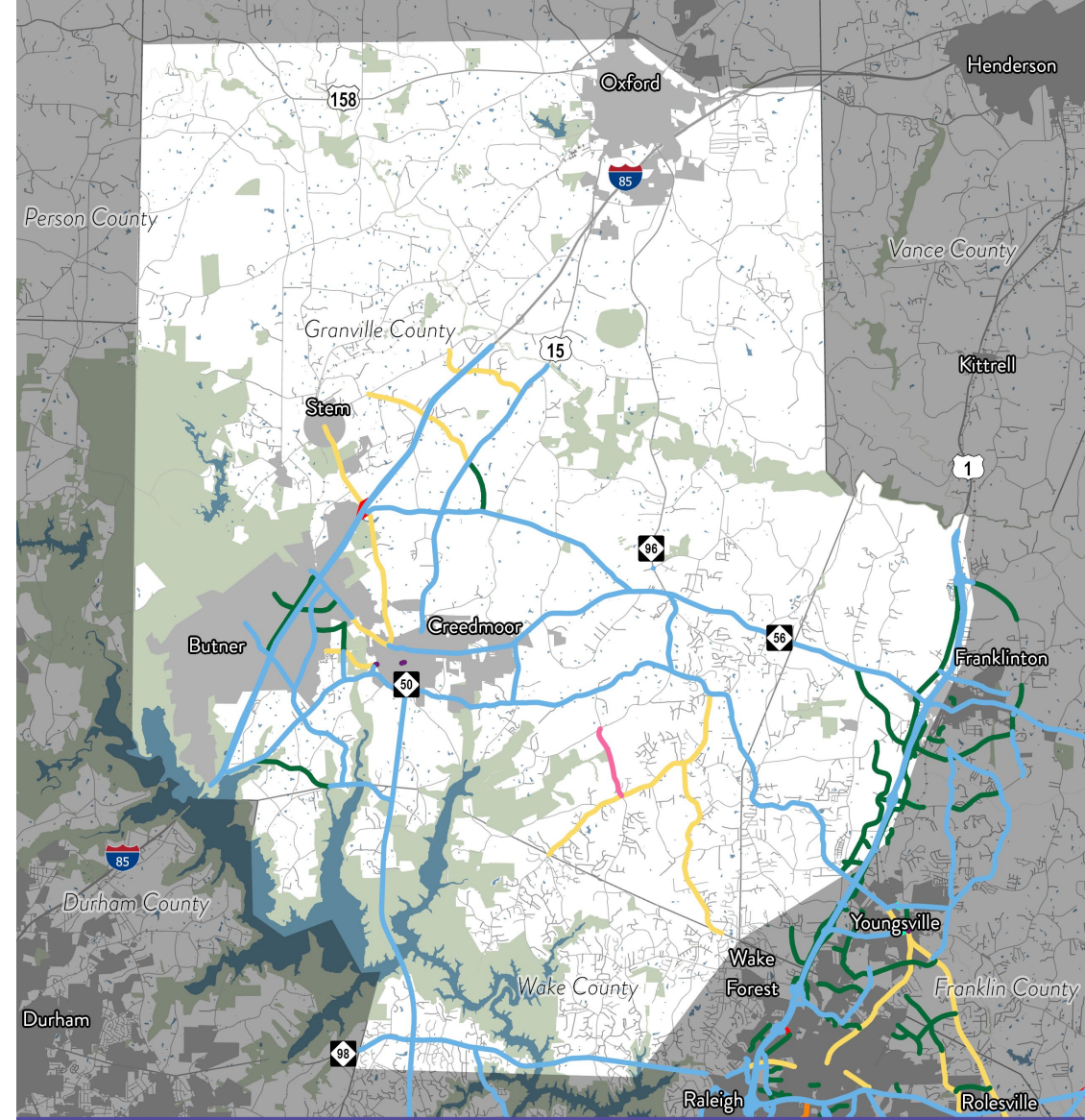
The diagram illustrates a three-step transportation process. It begins with a dark blue box labeled 'Identify Universe of Projects'. A grey arrow points down to a green box labeled 'Evaluate and Prioritize Projects'. Another grey arrow points down from the green box to a light blue box labeled 'Incorporate into 2060 MTP'.

Evaluate and
Prioritize
Projects

Incorporate into
2060 MTP

Universe of Projects

- Start with projects from existing MTP (including unfunded horizon years), and County/RPO CTPs
- Add projects on other roads/alignments based on:
 - Current and projected capacity constraints,
 - Walking, bicycling, and/or transit propensity,
 - Previous planning, and
 - Others



Metropolitan Transportation Plan

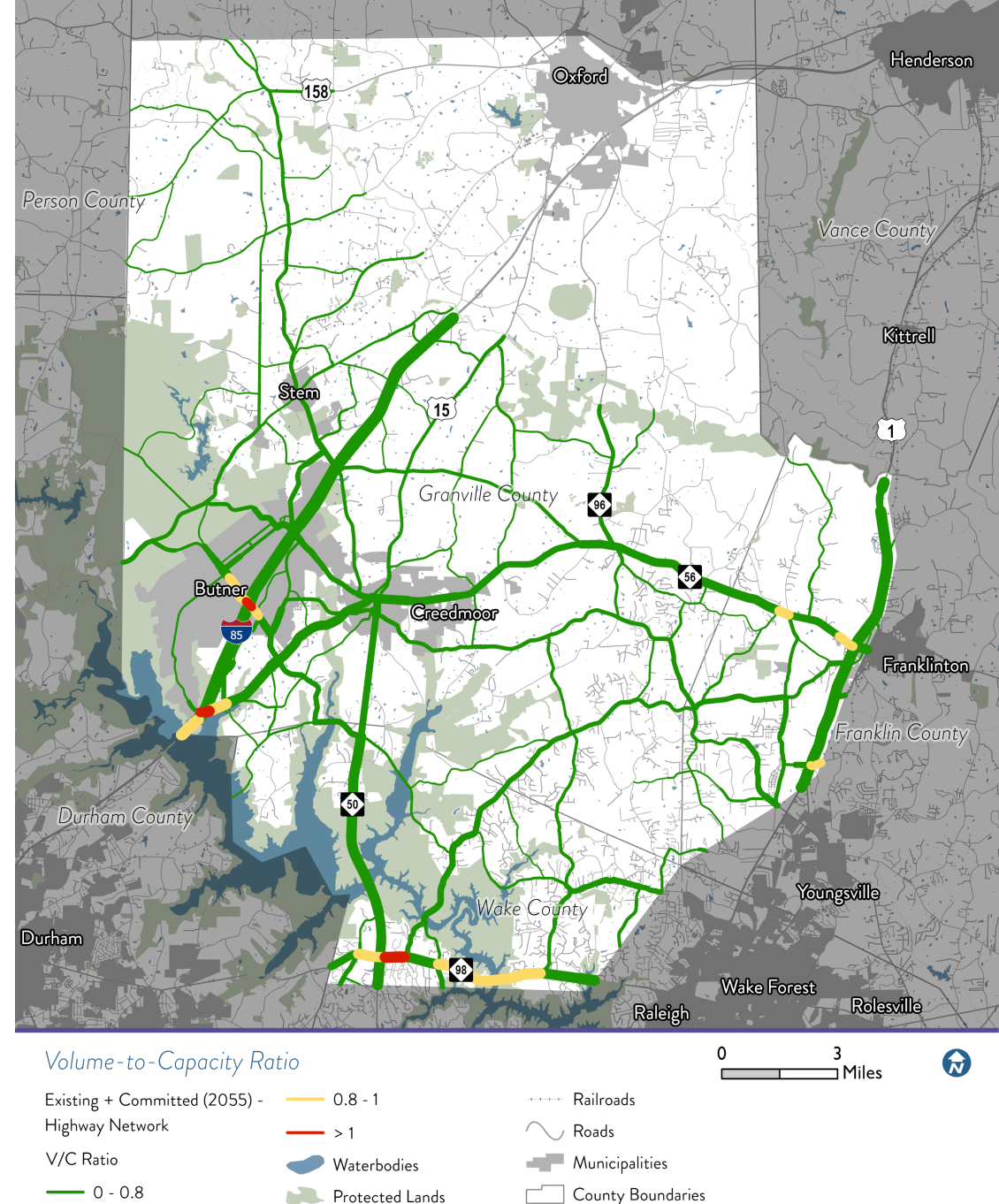
- | | |
|--------------------------|---------------|
| Proposed Improvement | Modernization |
| Center Turn Lane | New Location |
| Grade Separation | TSM |
| Interchange | Widening |
| Intersection Realignment | Waterbodies |

- Protected Lands
- Railroads
- Roads
- Municipalities
- County Boundaries

Source: ESRI, NCDOT, NCDNR, USFW, CAMPO

Universe of Projects

- Aggregate projects from existing MTP (including unfunded horizon years), and County/RPO CTPs
- Add projects on other roads/alignments based on:
 - Current and projected capacity constraints,
 - Walking, bicycling, and/or transit propensity,
 - Previous planning, and
 - Others



Project Evaluation and Prioritization

- The ultimate goal of the NFLAS is to create a refined project list to support the 2060 MTP
- The NFLAS will score all projects of all modes, to prioritize them to create this list with a new prioritization tool/system
- This prioritization tool/system could include the following:

Project Evaluation and Prioritization

- The ultimate goal of the NFLAS is to create a refined project list to support the 2060 MTP
- The NFLAS will score all projects of all modes, to prioritize them to create this list with a new prioritization tool/system
- This prioritization tool/system could include the following:

New Road and Capacity Projects

- Existing volume/congestion
Based on NCDOT AADTs
- Projected volume/congestion
Based on TRM outputs within model area; based on other forecasting in Kerr-Tarr area
- Historic safety record
Based on NCDOT or Blueprint for Safety metrics

Project Evaluation and Prioritization

- The ultimate goal of the NFLAS is to create a refined project list to support the 2060 MTP
- The NFLAS will score all projects of all modes, to prioritize them to create this list with a new prioritization tool/system
- This prioritization tool/system could include the following:

Bicycle, Pedestrian, and Transit Projects

- Existing and projected volume
- Proximity to population and jobs
Based on existing socioeconomic data and/or Preferred Scenario forecast
- Proximity to community resources
Schools, parks, downtowns, others

Project Evaluation and Prioritization

- The ultimate goal of the NFLAS is to create a refined project list to support the 2060 MTP
- The NFLAS will score all projects of all modes, to prioritize them to create this list with a new prioritization tool/system
- This prioritization tool/system could include the following:

All Projects

- Cost
- Proximity to environmental resources
- Consistency with public input
Part of upcoming public meeting planned for May
- Proximity to certain priority land uses/placetypes

New Road and Capacity Projects

- Existing volume/congestion
Based on NCDOT AADTs
- Projected volume/congestion
Based on TRM outputs within model area; based on other forecasting in Kerr-Tarr area
- Historic safety record
Based on NCDOT or Blueprint for Safety metrics

Bicycle, Pedestrian, and Transit Projects

- Existing and projected volume
- Proximity to residents and jobs
Based on existing socioeconomic data and/or Preferred Scenario forecast
- Proximity to community resources
Schools, parks, downtowns, others

All Projects

- Cost
- Proximity to environmental resources
- Consistency with public input
Part of upcoming public meeting planned for May
- Proximity to certain priority land uses/placetypes



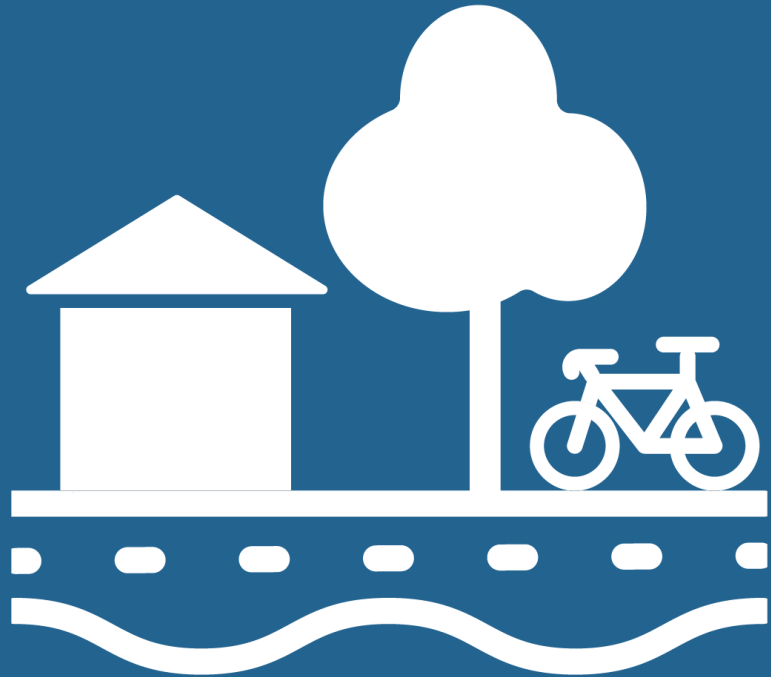
What's missing from these lists?

What should be removed?

What's most important?

Next Steps

- Creation of draft recommendations for the two corridor studies
- Development of transportation recommendations and a prioritization approach
- RSA workshop (March 27)
- Reconvene the CTT in late April/early May to discuss:
 - Transportation recommendations
 - Initial prioritization results
 - Public engagement plans



North Falls Lake AREA STUDY

Core Technical Team Meeting

April 28, 2026, 1:00pm

Agenda

- Process Check-In
- Transportation Universe of Projects
- Prioritization Approach
- Upcoming Public Meeting
- Next Steps

Process Check-In



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Since our last meeting (March)

- Developed corridor study recommendations
- Conducted Roadway Safety Audit Workshop at Butner-Stem Elementary School
- Developed preliminary transportation “universe of projects”
- Identified draft outline prioritization approach



Ongoing and Up Next

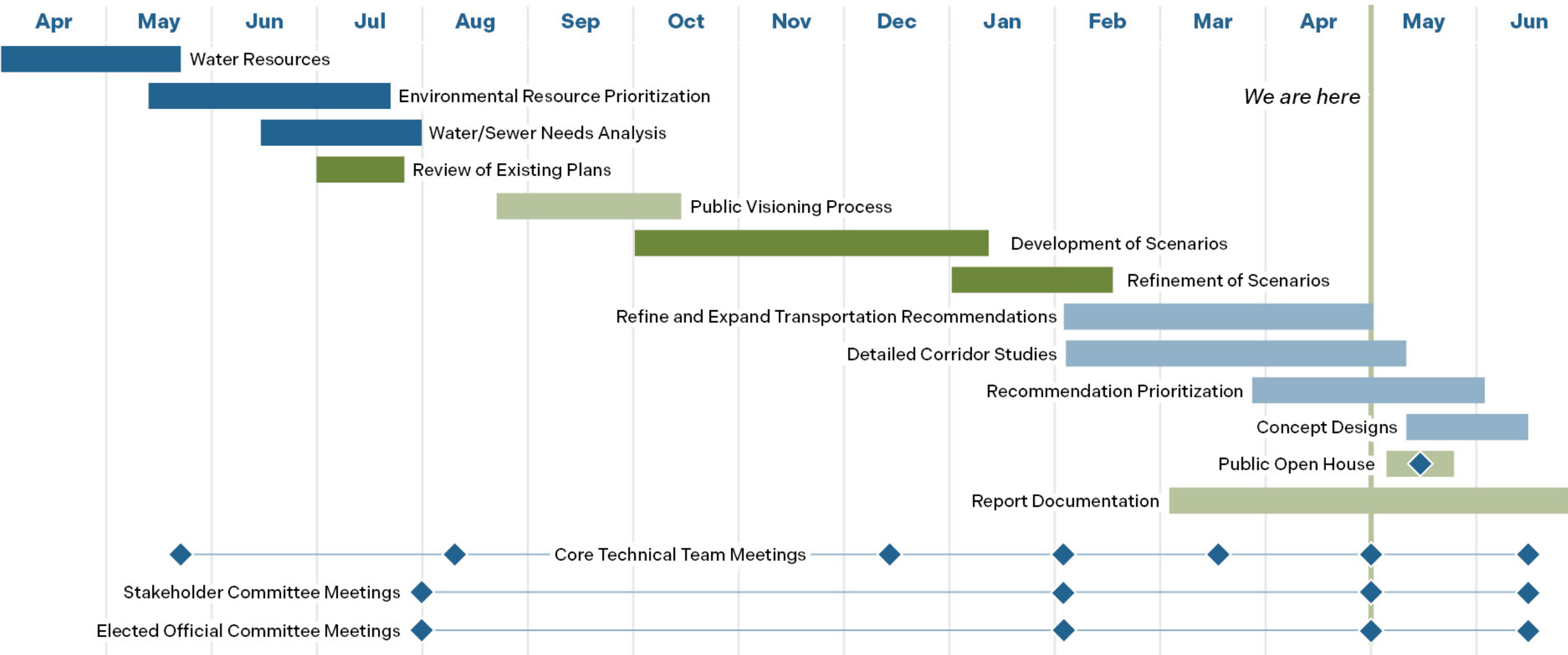
Ongoing

- Transportation needs analysis/ project identification
- Prioritization process development
- Preparation for upcoming public open house

Up Next

- Joint meeting of Elected and Stakeholder Committees this Friday, May 1
- Public open house (May 19) and associated online engagement period
- Development of report document and other deliverables

Detailed Schedule



Transportation Universe of Projects

- **Roadway Projects**
- **Corridor Studies**
- **Bike, Ped, and Transit**
- **Tabletop Discussion**



Regional Roadway Projects

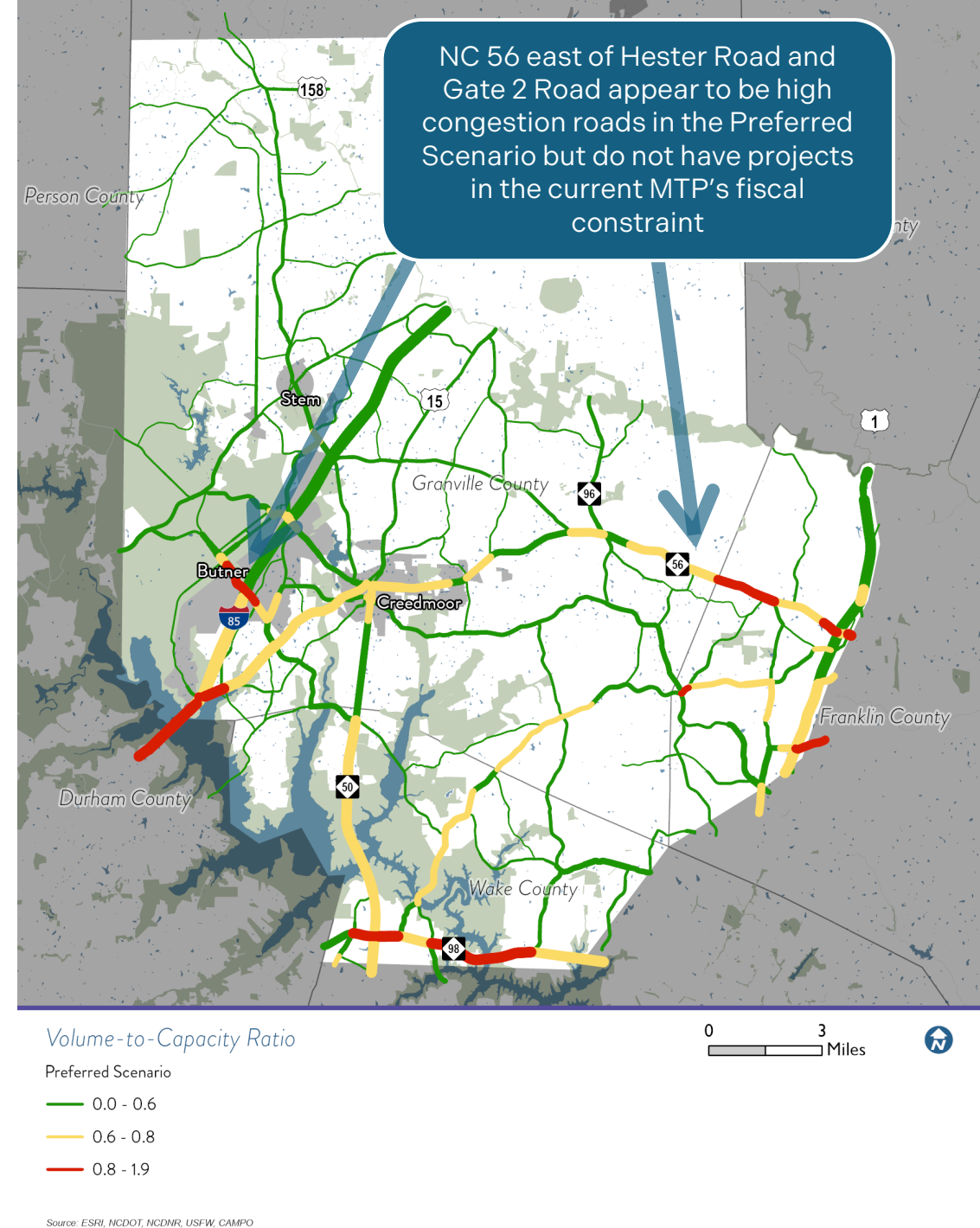


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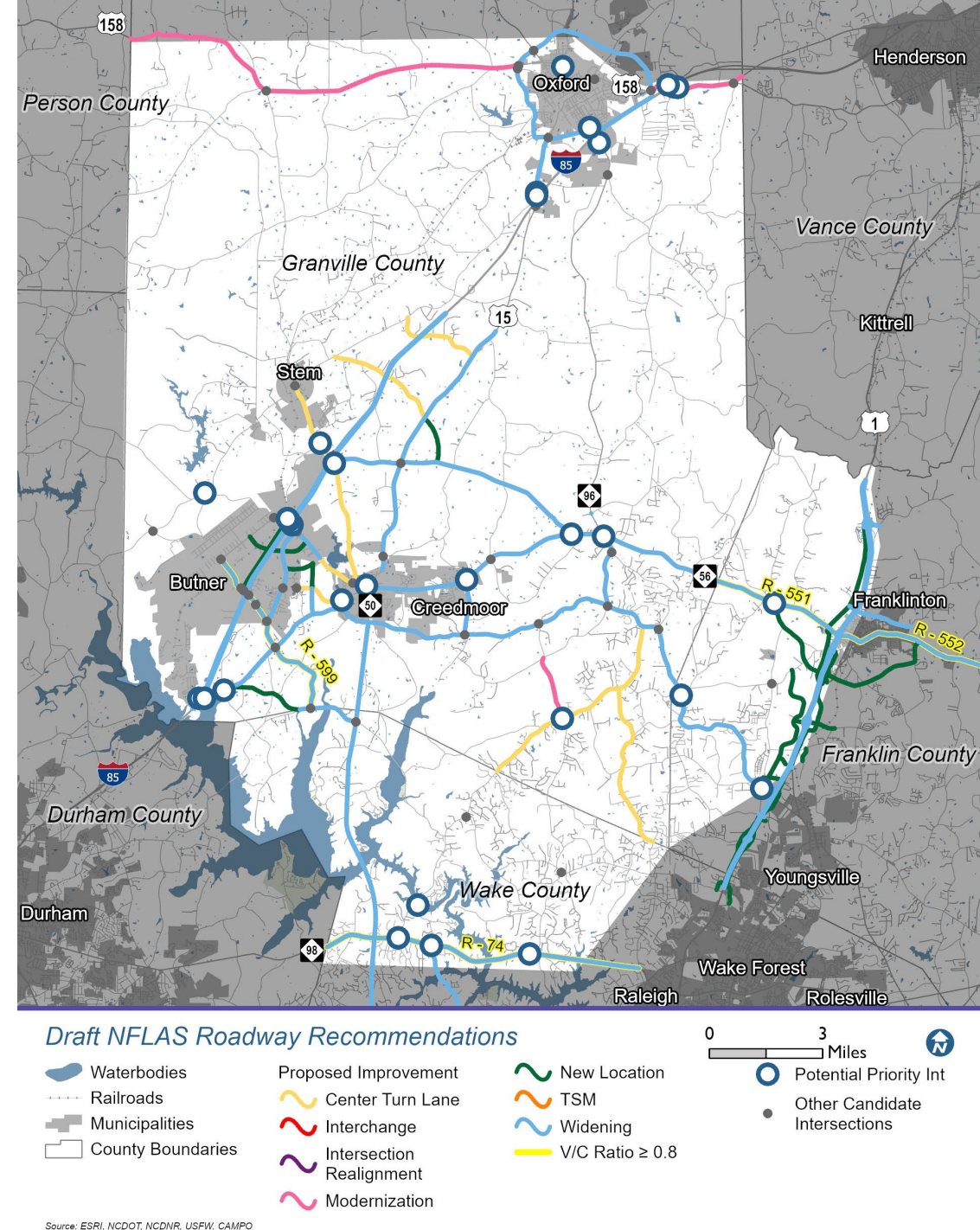
Roadway Needs

- Existing or future congestion issues
 - Based on Preferred Scenario TRM runs
 - Based on existing and projected AADTs in Oxford area, including review of Granville County CTP
- Reviewed other existing plans, like Granville County CTP and Blueprint for Safety



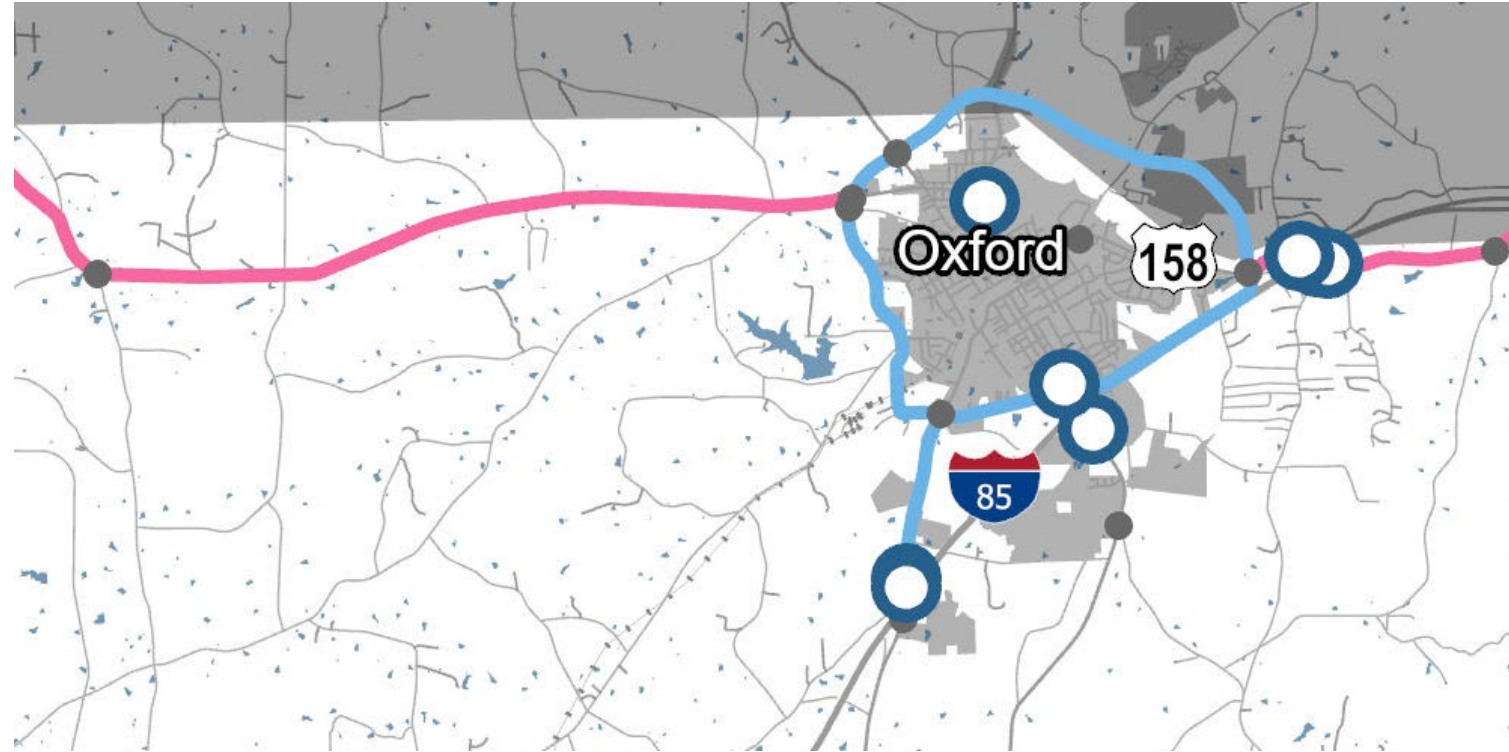
Roadway Projects

- MTP projects (nothing removed)
 - Updated land use inputs and prioritization process is expected to shift rankings of projects
- New projects based on needs and previous planning
 - New intersection projects identified throughout the region
 - New widenings and corridor improvements in/near Oxford
 - Corridor study recommendations



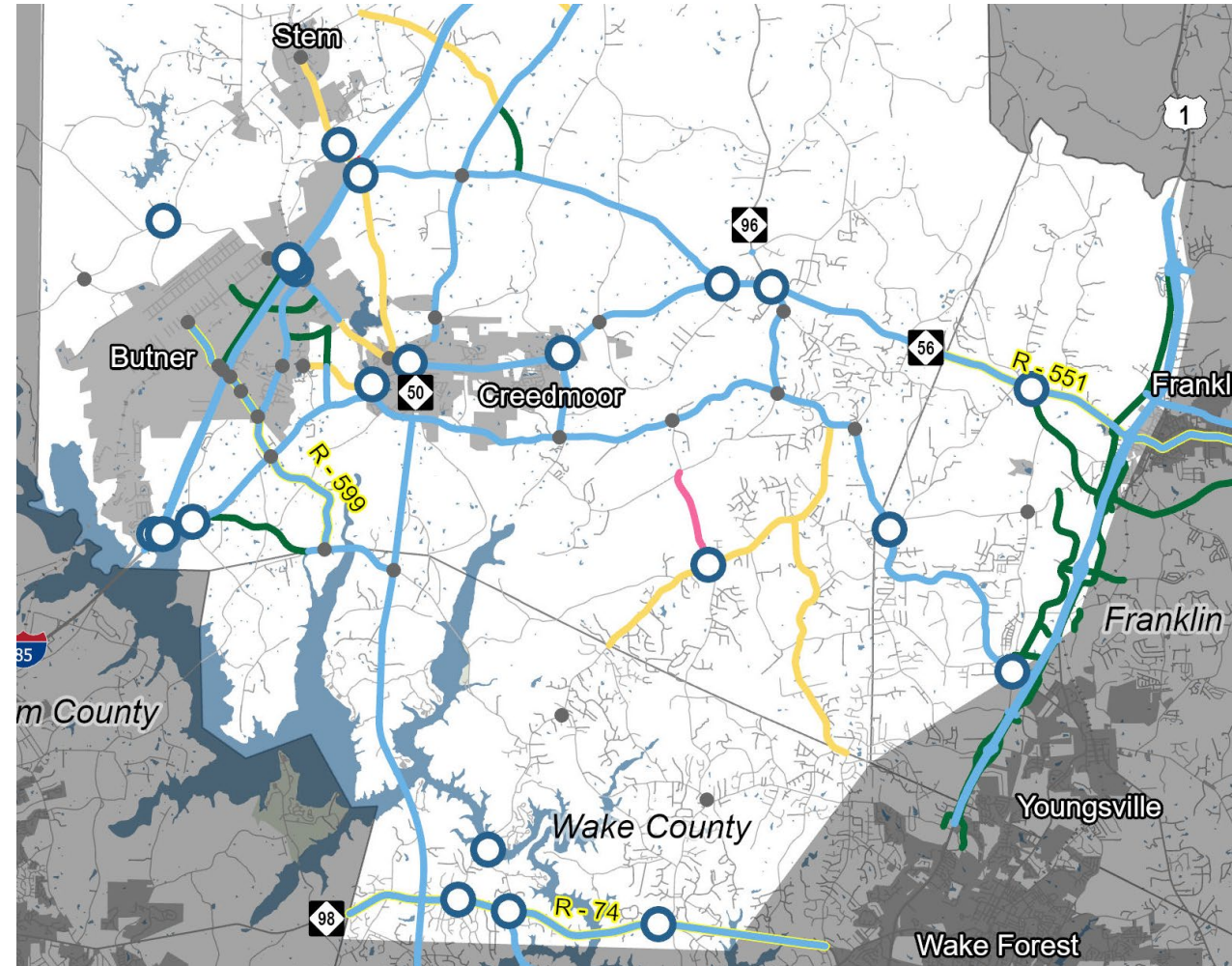
Oxford Area

- US 158 Modernization and Intersection Improvements
- US 15 widening *I-85 to Industry Drive*
- Oxford Loop widening
- Intersection improvements
- Consideration of other corridors through Oxford based on CTP



CAMPO/TRM Areas

- Intersection improvements at locations of existing or expected congestion
- Adjustment of MTP projects
 - Split I-85 widening at NC 56 or Hester Road
 - Extension of Gate 2 Road widening to C Street
 - Potential revision of center turn lane projects to modernization and intersection improvements
- Incorporation of corridor studies recommendations



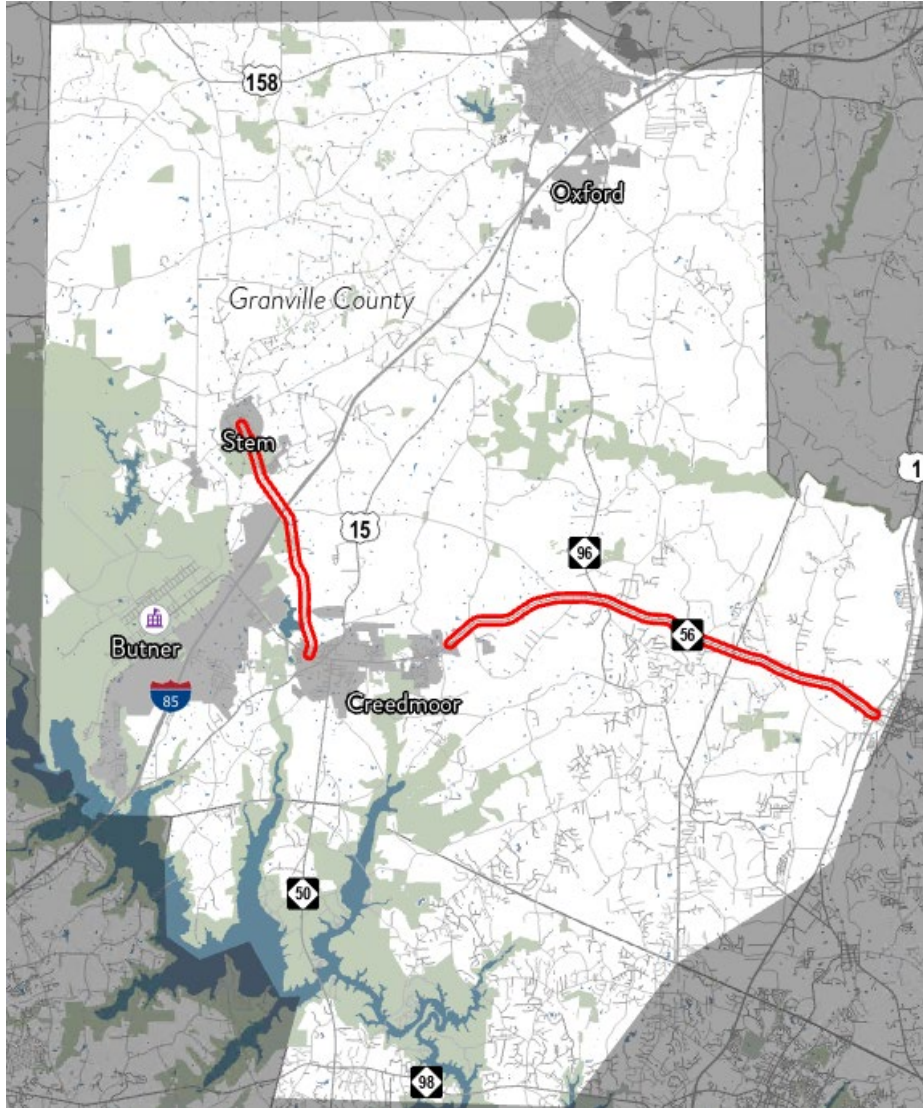
Corridor Studies



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Background

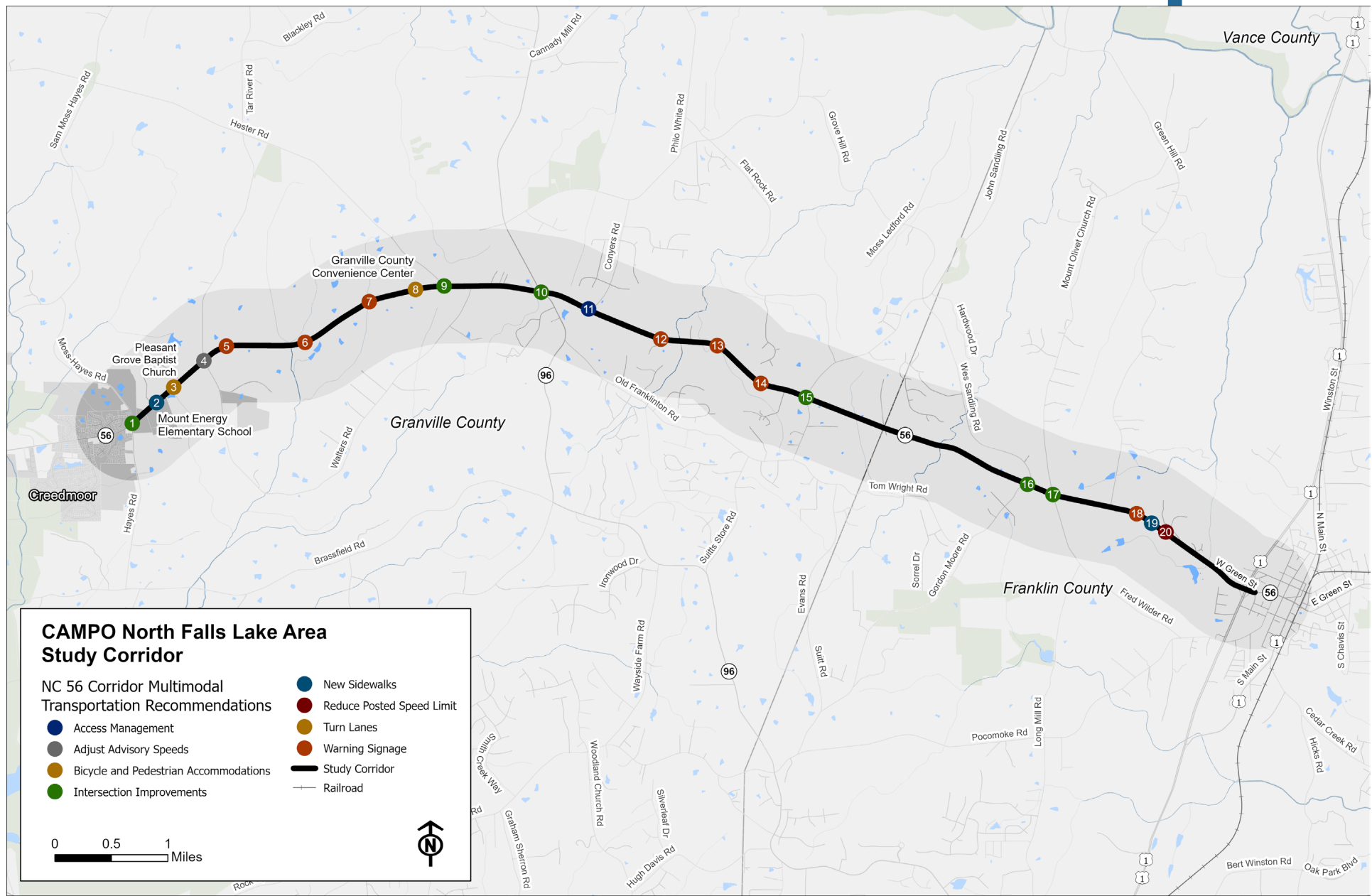


- Two Corridors Selected
- Brogden Road (from Stem to Creedmoor) – Granville County
- NC 56 (from eastern limits of Creedmoor to US 1) – Granville and Franklin Counties

Stakeholder Input

- NFLAS Project Management Team (PMT)
- Granville Co. Public Schools (Director of Transportation)
- Granville Co. Emergency Management
- Granville Co. Fire Marshal
- County/City Staff (Town of Stem Administrator, Creedmoor City Planner, Franklin County Asst Planning & Inspections Director)
- Granville Co. Economic Development (Director)
- Transit Authority (KARTS)
- Blueprint for Safety (Sr. Transportation Planner)
- Granville County Emergency Communications (Director)
- Granville Health System (Chief Executive Officer)
- Creedmoor Police Department (Chief of Police)

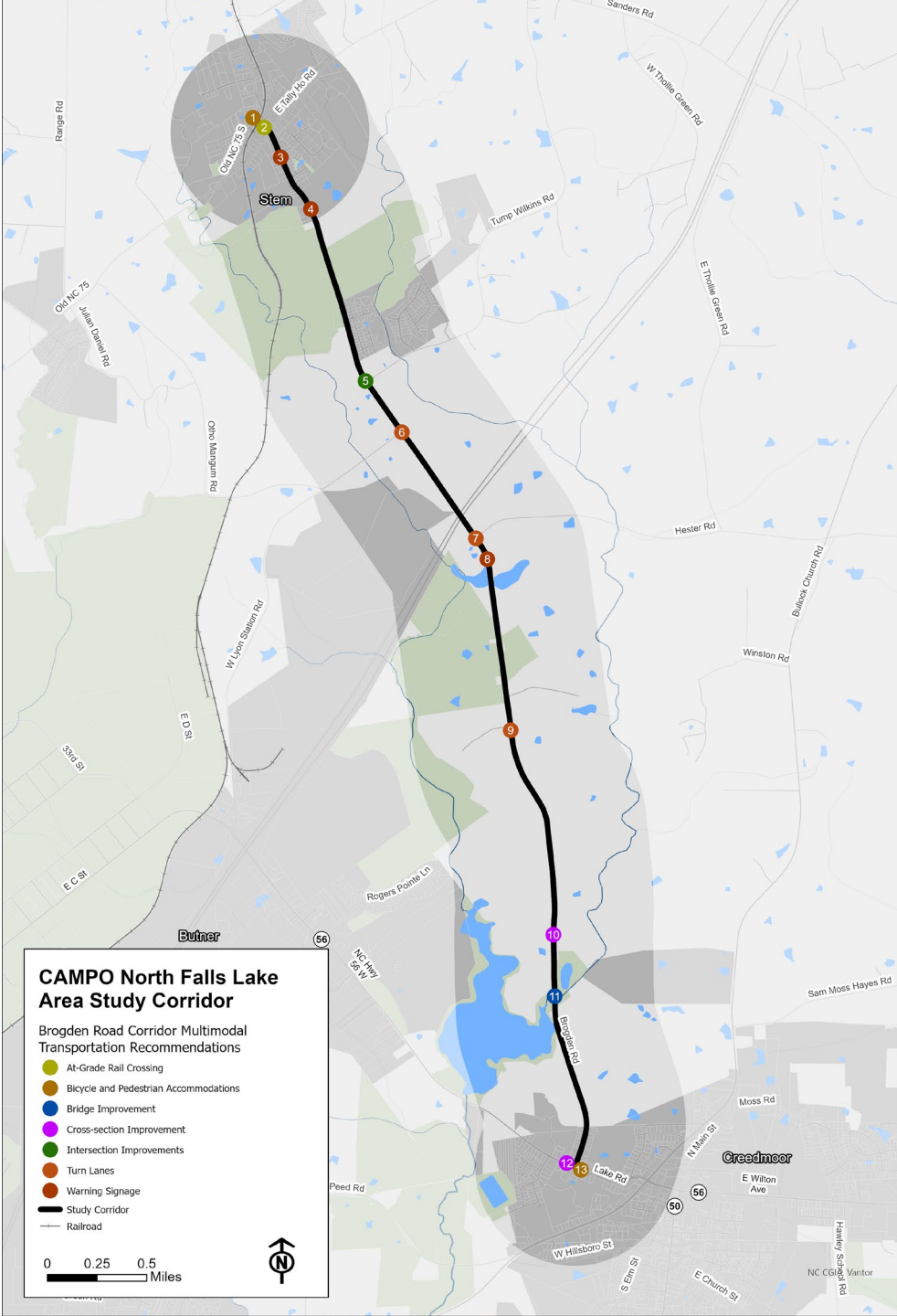
NC 56 Recommendations Map



NC 56 Recommendations Table

Map ID No.	Issue	Recommendation Type	Recommendation	Benefit
1	Potential sight distance issue for vehicles looking west on NC 56 from Moss Hayes Rd (SR 1636) & Hayes Rd (SR 1702).	Intersection Improvements	Consider removing/relocating abandoned structure (obstruction) in NW quadrant of intersection. ²	Improves side road vehicle visibility at intersection.
2	Lack of pedestrian facilities in proximity to the Mount Energy Elementary School.	New Sidewalks	Add sidewalks and pedestrian crossings from Amberleaf Dr / Westbourne Dr and from planned developments to Mount Energy Elementary School.	Improves safety and accessibility by separating pedestrian and vehicular traffic and providing a dedicated space for walking.
3	Congestion along NC 56 as a result of Mount Energy Elementary School traffic/parking during pick-up and drop-off and Pleasant Grove Baptist Church traffic on Sundays.	Turn Lanes	Add turn lanes on NC 56 between Moss Hayes Rd/Hayes Rd (SR 1636/SR 1702) and SR Tar River Rd/Walters Rd (SR 1635/SR 1704). ²	Removes turning vehicles from travel lane, keeping traffic moving and may reduce rear-end crashes.

Brogden Rd Recommendations Map



Brogden Rd Recommendations Table

Map ID No.	Issue	Recommendation Type	Recommendation	Benefit
1	Lack of connection to planned regional bicycle and pedestrian facilities (East Coast Greenway).	Bicycle and Pedestrian Accommodations	Add bicycle and pedestrian accommodations to the intersection of Brodgen Rd (SR 1127) and Old North Carolina 75 (SR 1004).	Improves bicycle and pedestrian visibility through use of dedicated facilities at intersection.
2	At-grade railroad crossing with lack of pedestrian and bicycle facilities and limited warning signage to the north of the crossing	At-Grade Rail Crossing	Add pedestrian and bicycle facilities on Main St (SR 1127) at the railroad crossing and improve railroad warning signage on both approaches.	Advanced warning signage helps drivers adjust speed and prepare to stop and improves bicycle and pedestrian accessibility through the crossing facility.
3	Limited visibility approaching a four-way stop.	Warning Signage	Consider installing "STOP AHEAD" pavement markings on Brodgen Rd (SR 1127). ¹	Advanced warning signage helps drivers adjust speed and prepare to stop.

Questions

- Do you want planned projects and projects recommended outside of this study to be shown on the map/documentated in the table?
- Are you interested in access management strategies?
- Any comments on how information is organized?
- Any comments on the recommendations themselves?

Trails and Transit



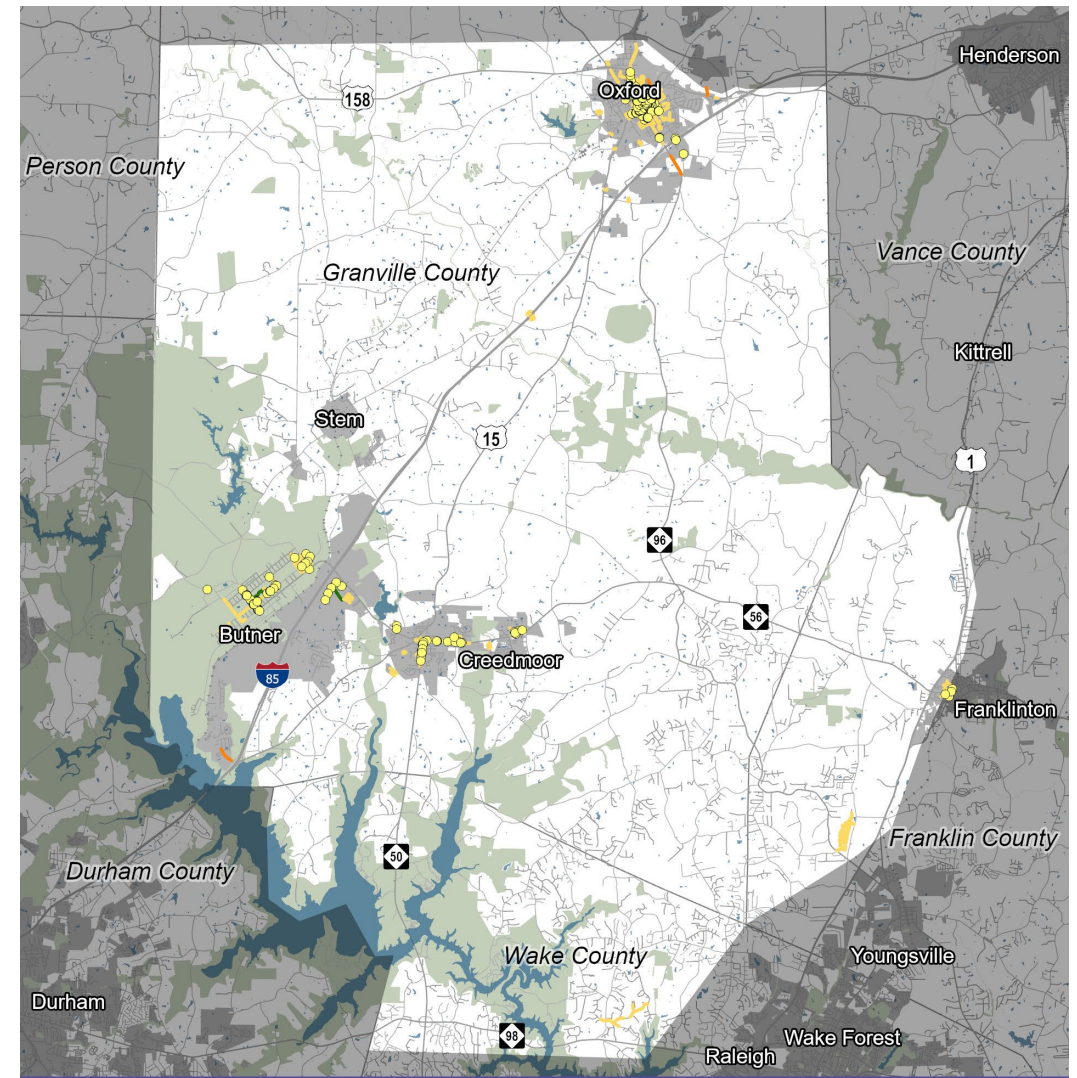
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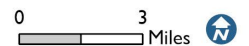
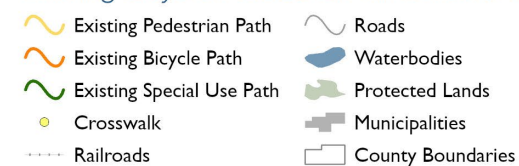
Bicycle and Pedestrian Facilities

Existing Conditions

- 45 Miles of Sidewalks and Greenway / Shared Use Paths
- Many miles of natural surface trails
- Most paved facilities located in Butner, Creedmoor, and Oxford
- Highlights:
 - Creedmoor Cross City Trail

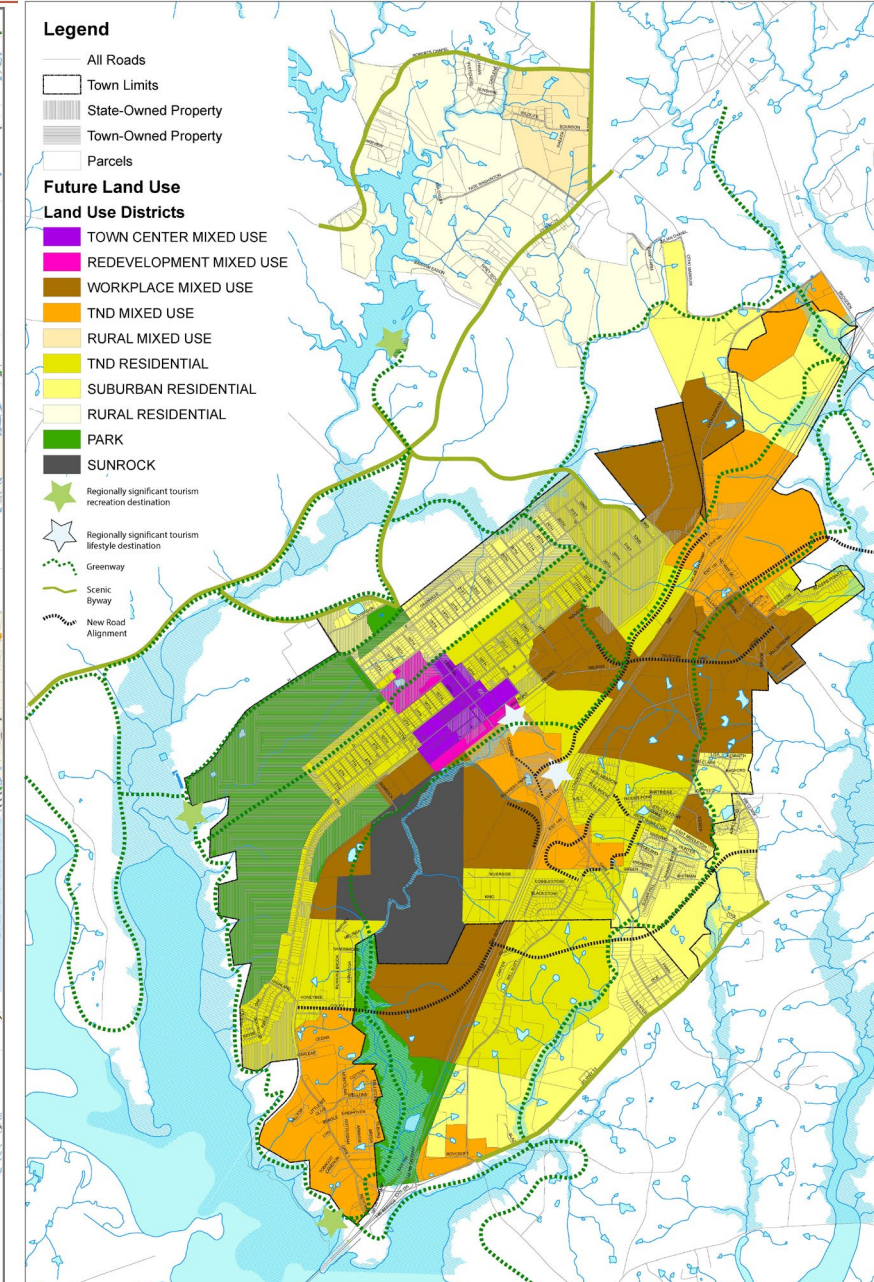
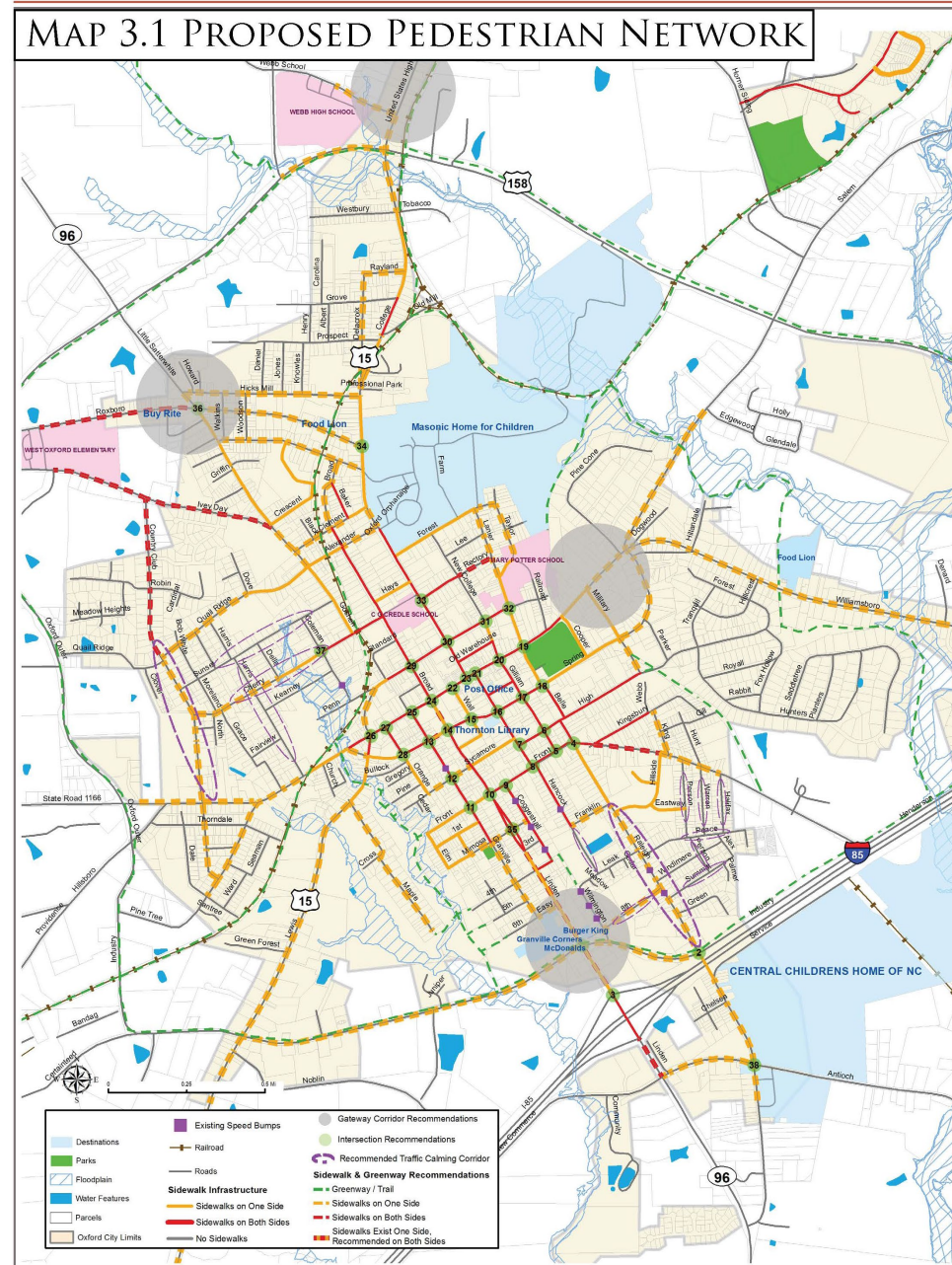


Existing Bicycle/Pedestrian Infrastructure

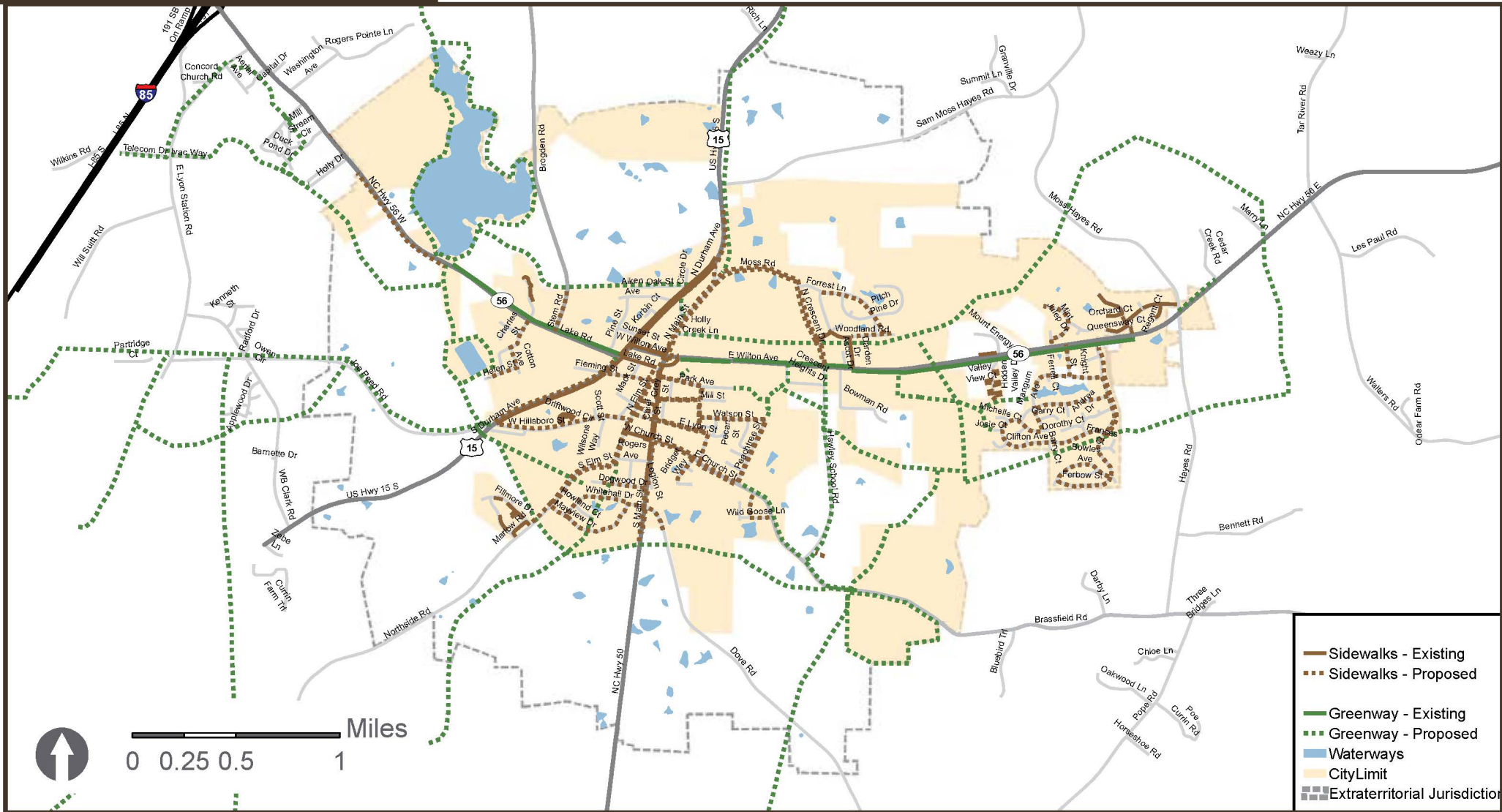


Local Plans

- Oxford Ped Plan
- Butner FLU / Greenway Map
- Creedmoor Comp Plan
- Granville County Greenway Plan



MAP 10. SIDEWALKS AND GREENWAYS



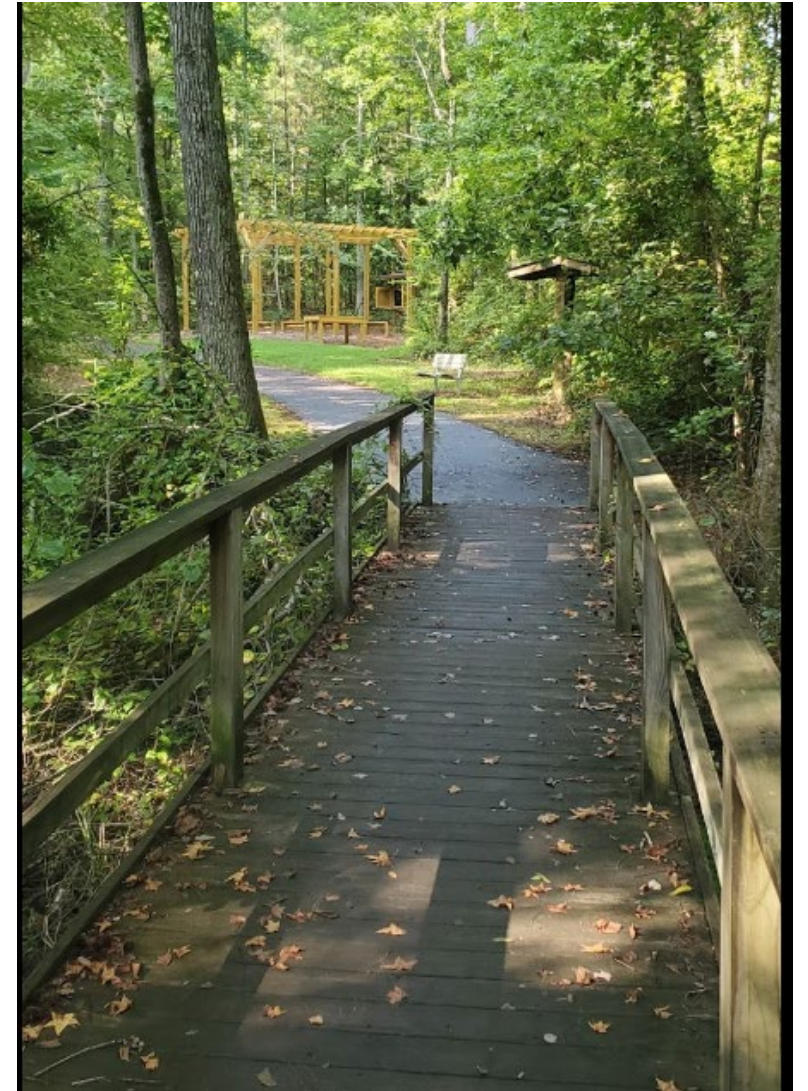
Regional Plans and Connections

- ECG
- Great Trails State Plan
- Durham County
- Wake County



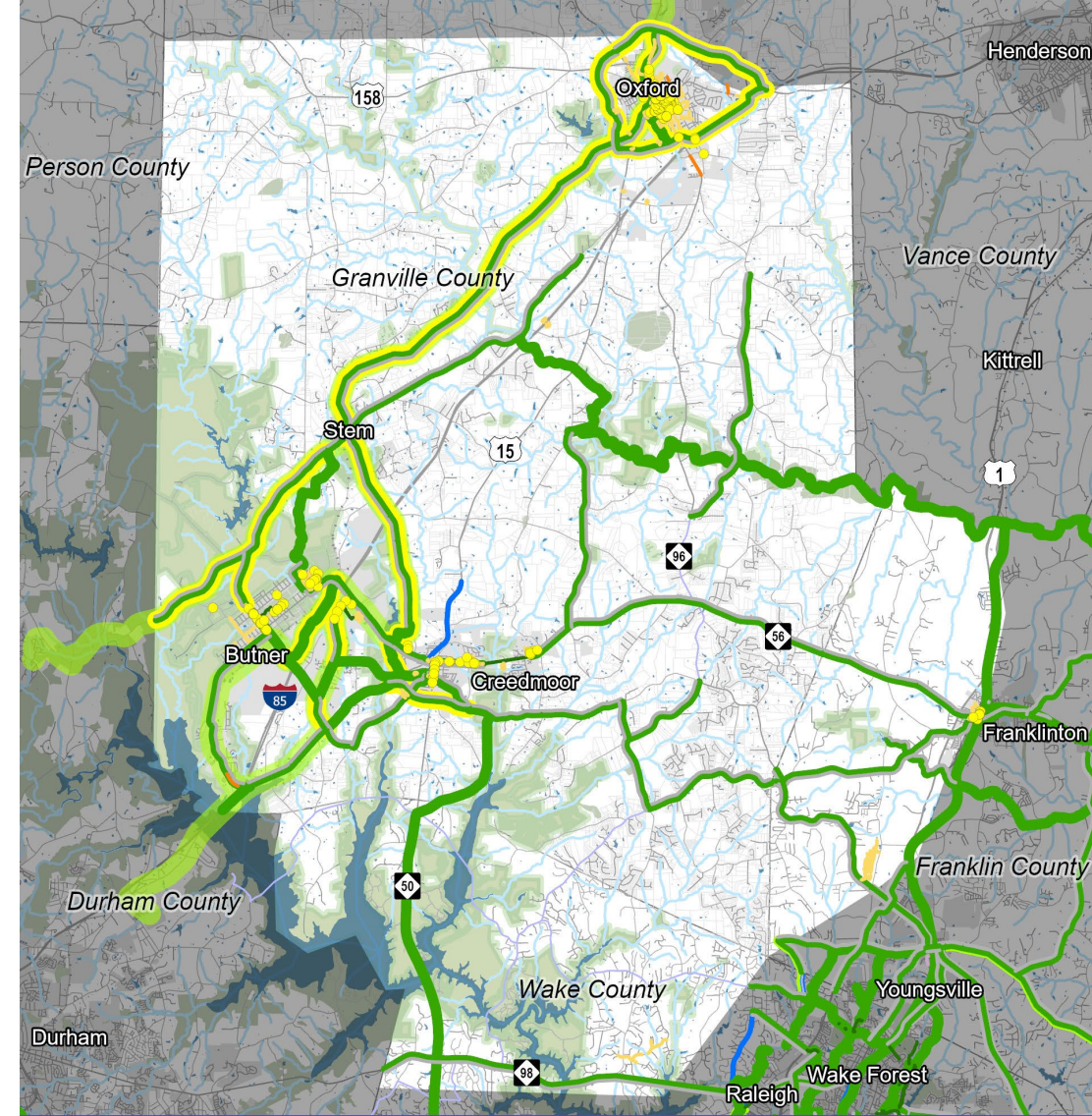
Bike/Ped Issues and Opportunities

- East Coast Greenway Route (North / South Routes)
- I-85 Crossing
- East / West Routes
- Durham County and Wake County connections



Bike/Ped Recommendations

- Roadway upgrades and bicycle and pedestrian enhancements / MTP Additions
 - ECG Stem to Durham
 - East Lyon Station from existing greenway to Joe Peed Road
 - Gate #2 Road (E Lyon Station to US 15)
 - Creedmoor Southern Bypass / US 15 Sidepath
 - Brogden Road Interchange to Lake Rogers
 - Hawley School Road or Beaverdam Creek connection to Planned Granville County Rec Center



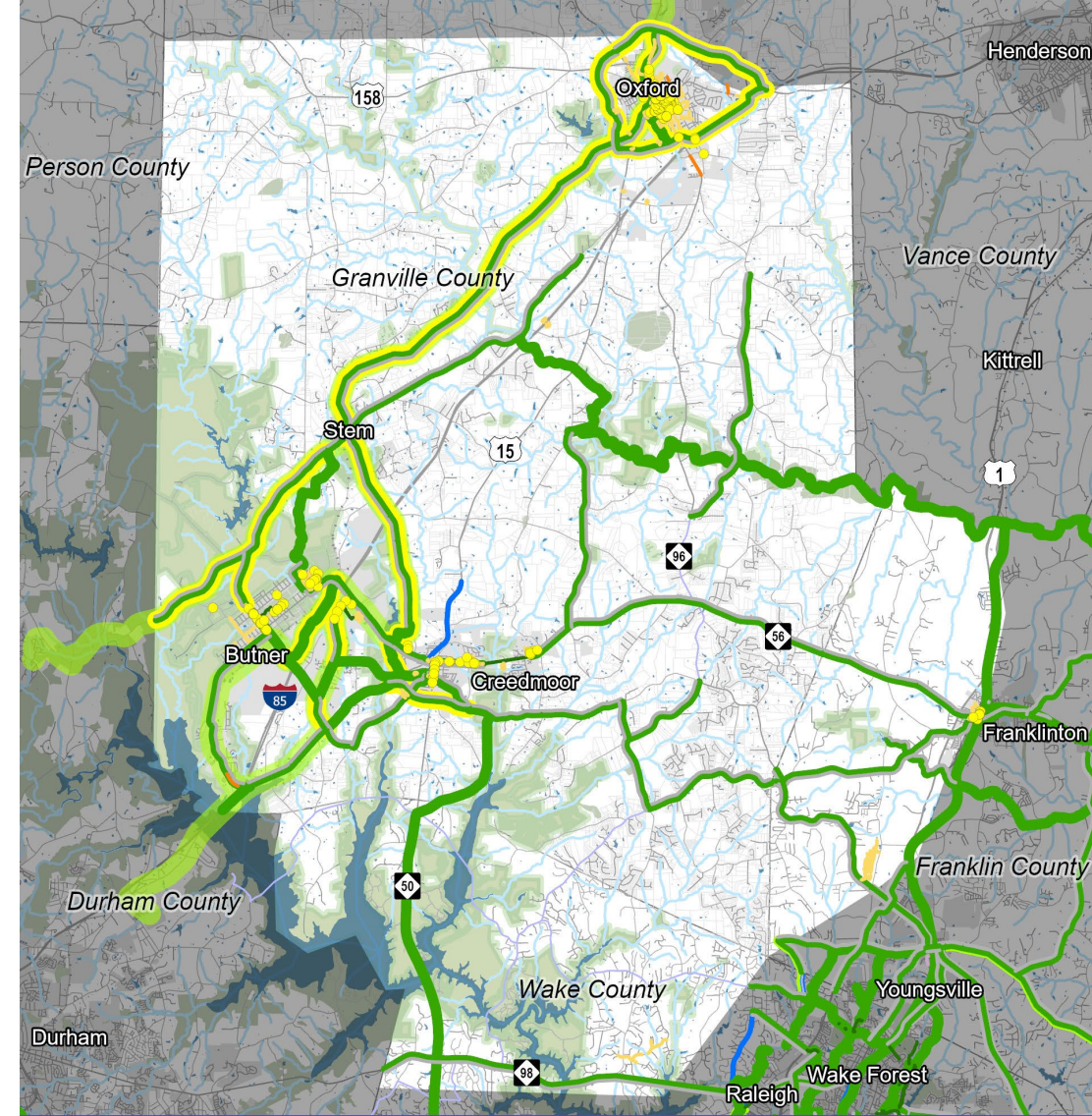
15 MTP Bicycle/Pedestrian Projects



Source: ESRI, NCDOT, NCDNR, USFW, CAMPO

Bike/Ped Recommendations

- Off Street Additions
 - Butner Planned Greenway(s)
 - Lake Rogers to Joe Peed Road Connection
- Potential Removals
 - Northside Rd - Is US 15 Sidepath more feasible?
 - Belltown Road – Factor in future ECG and update alignment
 - Tar River – May be natural surface, so might not meet requirements for MTP
 - US 15 North Bike Lane – Not a priority, road project not likely



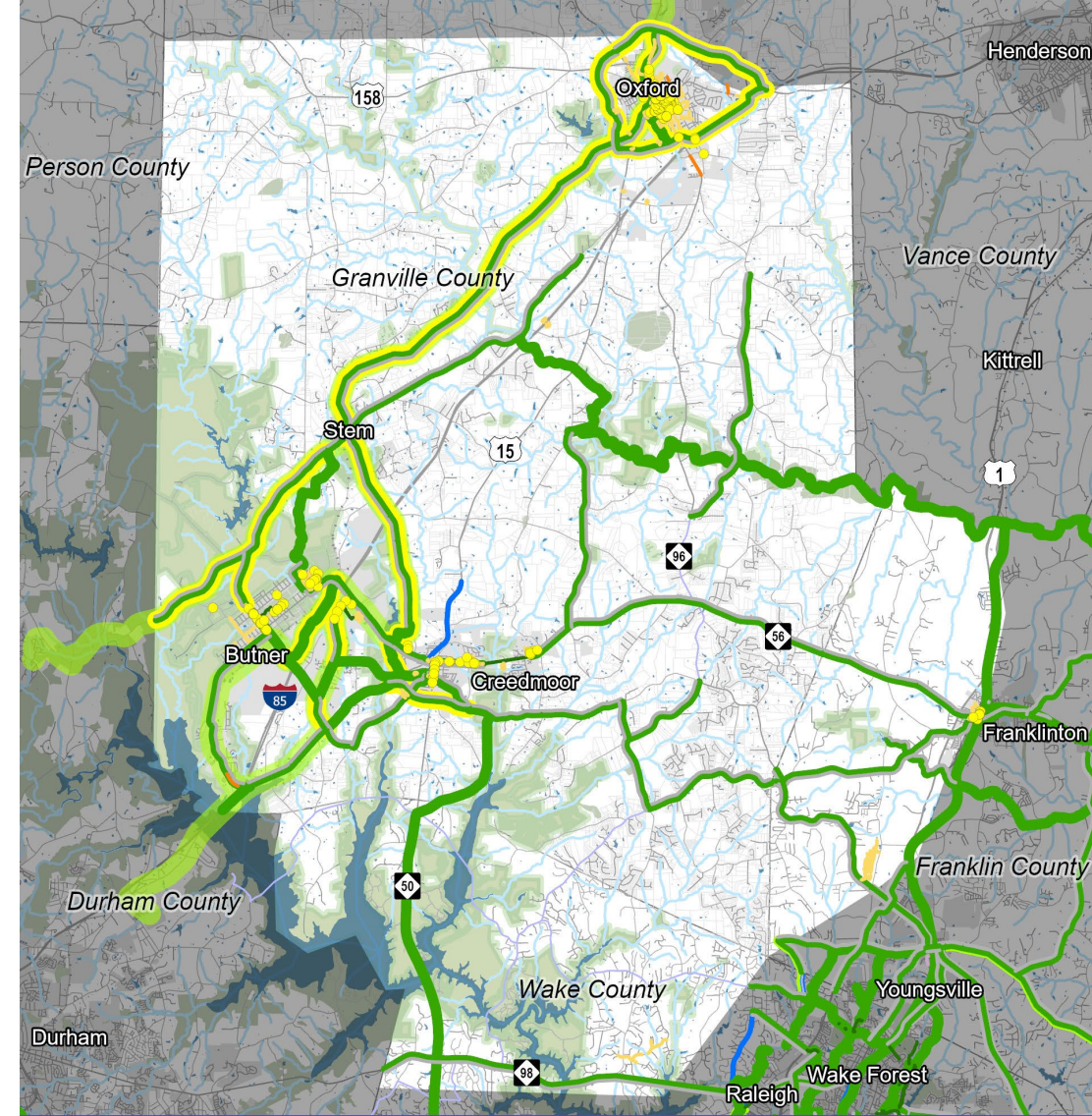
15 MTP Bicycle/Pedestrian Projects



Source: ESRI, NCDOT, NCDNR, USFW, CAMPO

Bike/Ped Recommendations

- North Granville / Oxford Area
 - ECG from Stem to Oxford to Stovall
 - Oxford Loop Shared Use Path
 - Greenway southwest of Downtown
- Policies
 - Open space requirements
 - Development reservation / construction of trails
 - Pedestrian connectivity



15 MTP Bicycle/Pedestrian Projects



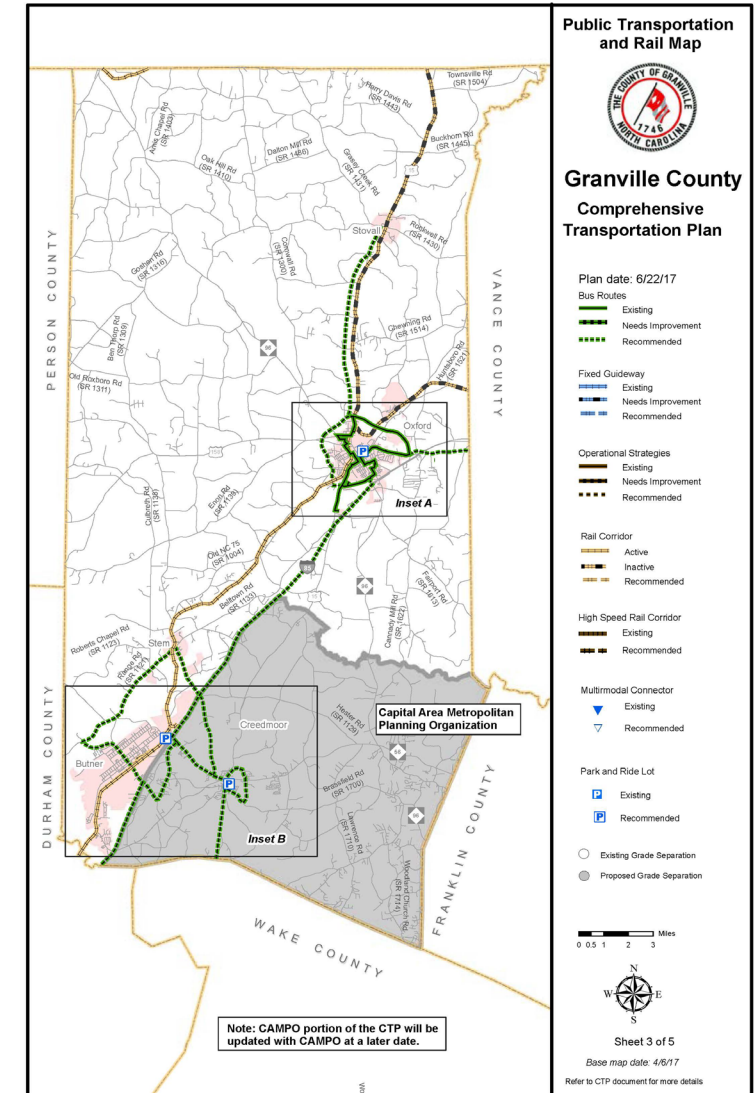
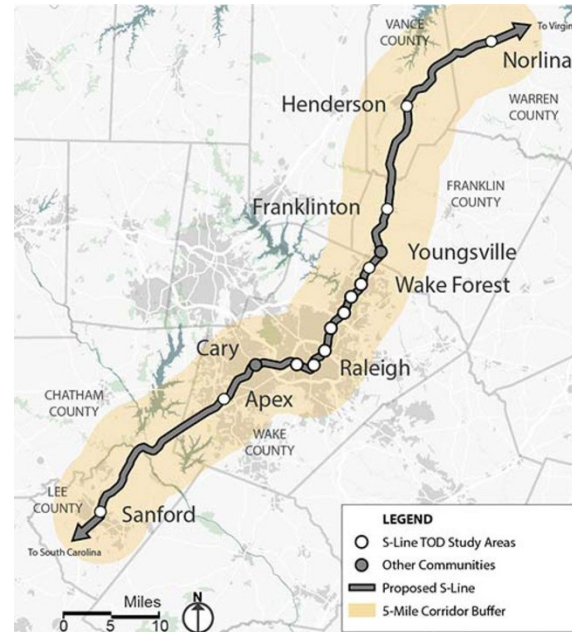
Transit Services – Existing

- KARTS currently serves Franklin, Granville, Vance, and Warren counties - weekdays only, 8-5
- Oxford Shuttle Loop

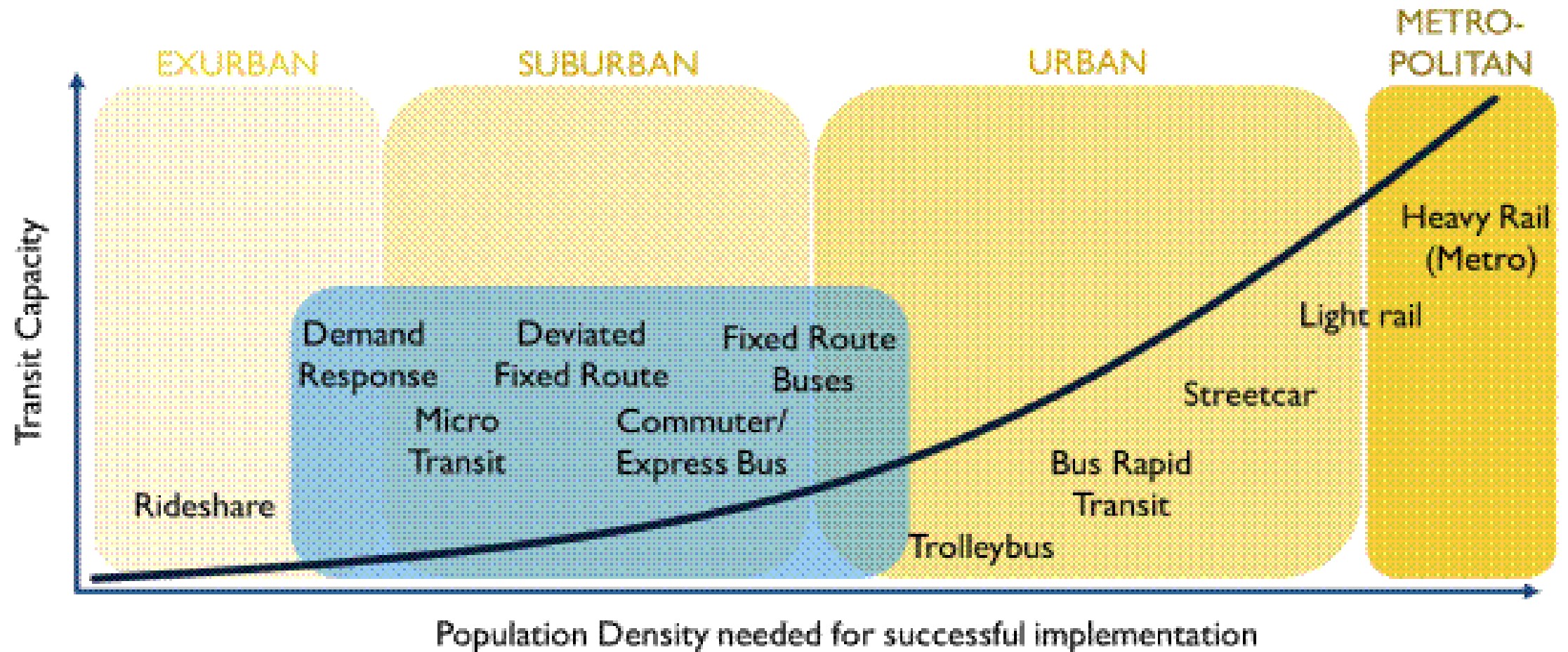


Transit Services – Planned

- S-Line planned to connect Franklinton and Youngsville to Raleigh and beyond
- Franklin and Granville CTPs call for bus routes and park and rides

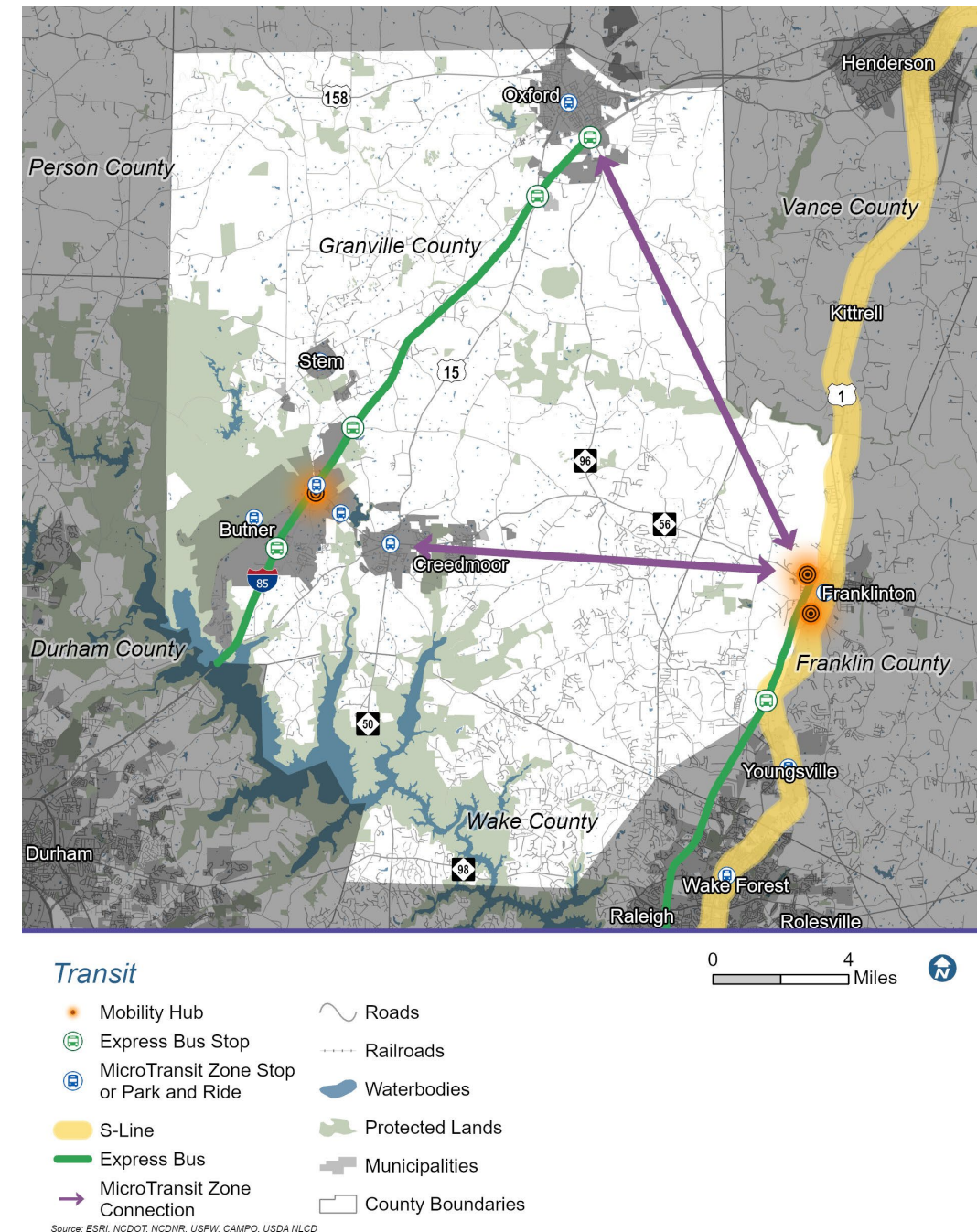


Transit Services – Considerations



Transit Services – Options

- **Phase I**
 - Express bus to Butner/Creedmoor,
 - Microtransit within Butner, Creedmoor, and Stem
- **Phase II**
 - Express bus extension to Oxford,
 - Microtransit expansion to provide connections within Oxford and Franklinton
- **Either Phase**
 - Express bus to Franklinton (until S-Line, further analysis to determine)
- **Mobility Hubs**
- Further, detailed transit study



Mobility Hubs

What is a Mobility Hub?

A mobility hub is a **centralized location** where **multiple transportation options** converge to support **seamless travel and community connection**. These hubs typically combine public transit (such as buses and trains), shared mobility services (including bikes, scooters, and carshare), and pedestrian-friendly infrastructure. Their purpose is to simplify transfers between modes while promoting sustainable, equitable, and efficient travel.

Mobility hubs are envisioned not only as transit nodes but also as **vibrant community destinations**. They can feature amenities like real-time transit information displays, EV charging stations, secure bike parking, and public spaces that foster social interaction and economic activity. These hubs also play a critical role in **bridging first/last mile gaps**, making it easier for residents to connect to transit from their homes or workplaces.

Mobility hubs vary in scale, ranging from **small neighborhood access points** to **major regional connectors**. The design should be tailored to the specific needs and context of each community they serve.



Discussion: Universe of Projects

What's missing from these projects?

What should be removed, if anything?

Where do we need to dig deeper?



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Prioritization Approach

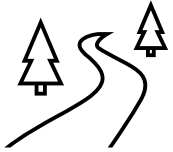


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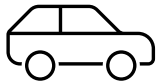
Prioritization Approach

Roadway



Connect People and Places

- # of future jobs and households near facility / project



Manage Congestion and System Reliability

- Travel time/congestion metric from 2055 / 2020 travel model runs**

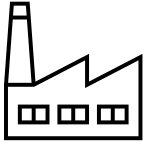


Promote Safety, Health, and Well-Being

- Number of fatal or serious injury crashes (or total crash cost) in the last 5 years vs expected

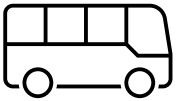
Prioritization Approach

Roadway



Stimulate Economic Vitality and Opportunity

- Connections to economic development centers (based on placetypes)



Promote and Expand Multimodal and Affordable Transportation (projects with bike/ped elements)

- Proximity to existing bike/ped network
- Connectivity to regional destinations (placetypes)
- Trail Hierarchy (regional, cross-border, others)



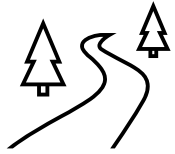
Ensure Equity and Participation*

- Number of CAMPO Communities of Concern (and equiv. outside of CAMPO area) within distance of project

**Calculated but not used in prioritization*

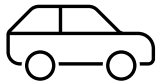
Prioritization Approach

Bike / Ped



Connect People and Places

- # of jobs and households within 1 mile walkshed of facility / project



Manage Congestion and System Reliability

- Proximity to congested roadway / parallel route*

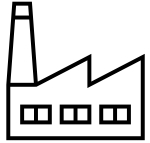


Promote Safety, Health, and Well-Being

- Number of fatalities/serious injuries/crashes involving bicyclists or pedestrians*

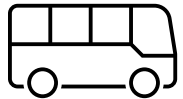
Prioritization Approach

Bike / Ped



Stimulate Economic Vitality and Opportunity

- Connections to economic development centers (based on placetypes)



Promote and Expand Multimodal and Affordable Transportation

- Proximity to existing bike/ped network
- Connectivity to regional destinations (placetypes)
- Trail Hierarchy (regional, cross-border, others)



Ensure Equity and Participation*

- Number of CAMPO Communities of Concern (and equiv. outside of CAMPO area) within distance of project

**Calculated but not used in prioritization*

Prioritization Approach

Weightings

Roadway

- Generally follow weightings in CAMPO's Roadway Prioritization Tool
- Greatest emphasis on **safety** and **congestion** metrics

Bike/Ped

- Not included in previous CAMPO prioritization
- Greatest emphasis on **multimodal** aspects (proximity to existing network, destinations, hierarchy), followed by **safety**, then all others

Upcoming Engagement



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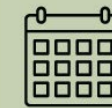


Upcoming Engagemen t

- Tuesday, May 19th, 4-7pm
- Creedmoor Community Center
- Paired with online engagement May 12-26
- We need **your** help advertising this meeting!
 - Social media calendar
 - Flyers
 - Other marketing materials



Talk with the team at our upcoming event!



May 19, 2026 | 4-7PM

Creedmoor Community Center
108 E Wilton Avenue
Creedmoor, NC 27522

Learn more, get involved, and subscribe for updates!



PublicInput.com/NFallsLake

The public comment period is open until May 26. Visit the project webpage to learn more and share your input.

Meeting Contents

Project Overview and What We've Heard

- Sign-in table
- Project Overview
- “What We’ve Heard”
summary of previous engagement
- “How did we get here”
previous plans

Project Overview

This region is expected to grow by **over 20,000 people by 2050**. You can help plan for it!

What do you want your community to be?

How can we review recommendations?
Scan the QR code or go to PublicInput.com/NFallsLakeRecommendations to review the results from the study thus far!

What We've Heard

What will this study do?
It will create a vision for how the area will be built out over the next thirty years. This includes an **emphasis on the transportation** system needed to support future residents and jobs.

What areas will the study cover?
The study covers **southern Granville County**, including **Oxford, Stem, Butner, and Creedmoor**, along with adjacent portions of **Wake and Franklin Counties**.

Who is leading this study?
The study is being led by the **Capital Area Metropolitan Planning Organization (CAMPO)**, which does transportation planning for the greater Raleigh region, which includes all of Wake County and portions of the five surrounding counties. **Granville County** is a major partner of this study.

Where We Went
Pop-Up Events at:
• Granville Live! in Stem
• National Night Out in Butner
• Wilton Grill
• Oxford Senior Center
• Creedmoor Music Festival
Online Activities from late September - late October

Who We Heard From
• Over 500 participants to the online survey
• Over 700 pins placed on map activities
• At least 85 people participated in in-person pop-up activities

Common Themes We Heard
• Concerns with the **availability of water** and the quality of the current water supply
• Open space should be **protected**
• Concerns that the **current infrastructure is not adequately** supporting current residents
• Residents want to **preserve the small-town feel** while having **new/more amenities**
• Concerns about not being able to **age in place** due to rising costs
• Desire for **public transportation** into and out of the region

Online Transportation and Land Use Map Activity
Wide geographic of pins placed
Rural/Preservation and Intersection/Road Improvements were most popular on their respective maps

Residential Placetype Preference (Top 3)
*Pop-Up Event Results
Rural Living 39
Mixed-Use Neighborhood 38
Mid-sized Lot Residential 36
*Virtual Engagement Results
Rural Living 72
Mid-sized Lot Residential 57
Conservation Neighborhood 42

Non-Residential Placetype Preference (Top 3)
*Pop-Up Event Results
Protected Open Space 85
Town Center 46
Agriculture and Rural Business 38
*Virtual Engagement Results
Protected Open Space 88
Town Center 60
Agriculture and Rural Business 60

Meeting Contents

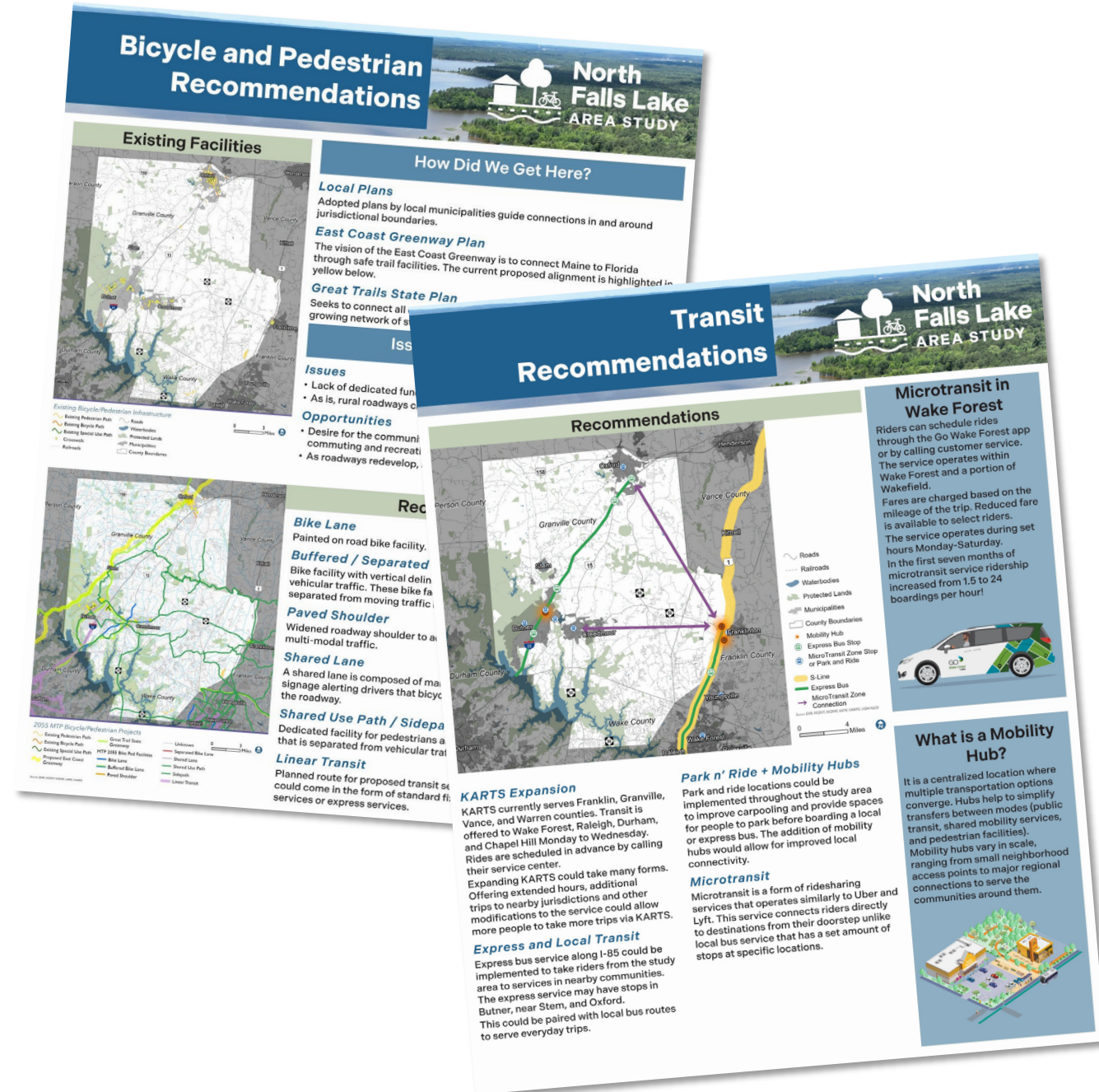
Land Use Planning Process

- Existing land use considerations (BAU2 and environmental/utility information)
- Alternative land use scenarios considered
- Preferred scenario and narrative/recommendations



- Roadway needs and projects
- Trails and transit needs and projects
- Corridor studies + RSA

- Roadway needs and projects
- Trails and transit needs and projects
- Corridor studies + RSA



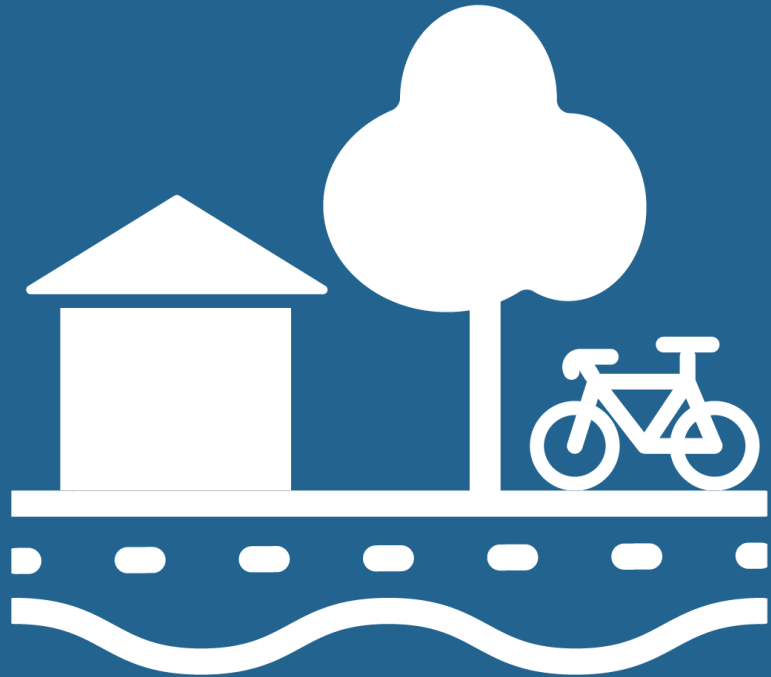
Next Steps

- Final development of prioritization approach
- Will share prioritized project list with CTT offline before public meeting
- Public open house May 19th (online activities planned May 11-26)
- Reconvene the CTT in mid-June to discuss:
 - Public input received
 - Final plan document

**The North Falls Lake Area Study
needs your input on proposed
recommendations!**

**Share your comments at our Open House
on May 19th and learn more at
<https://publicinput.com/NFallsLake>**

**The comment period will end on
Tuesday, May 26, 2026**



North Falls Lake AREA STUDY

Core Technical Team Meeting

June 10, 1:30pm

Agenda

- Process Check-In/Summary
- Public Engagement Results
- Prioritization Results
- Document and Recommendations Overview
- Final Steps

Process Check-In



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Since our last meeting (late April)

- In-person and online public open houses with study recommendations
- Updated/finalized corridor study recommendations
- Completed draft prioritization and made adjustments
- Began work on final documentation



Ongoing and Up Next

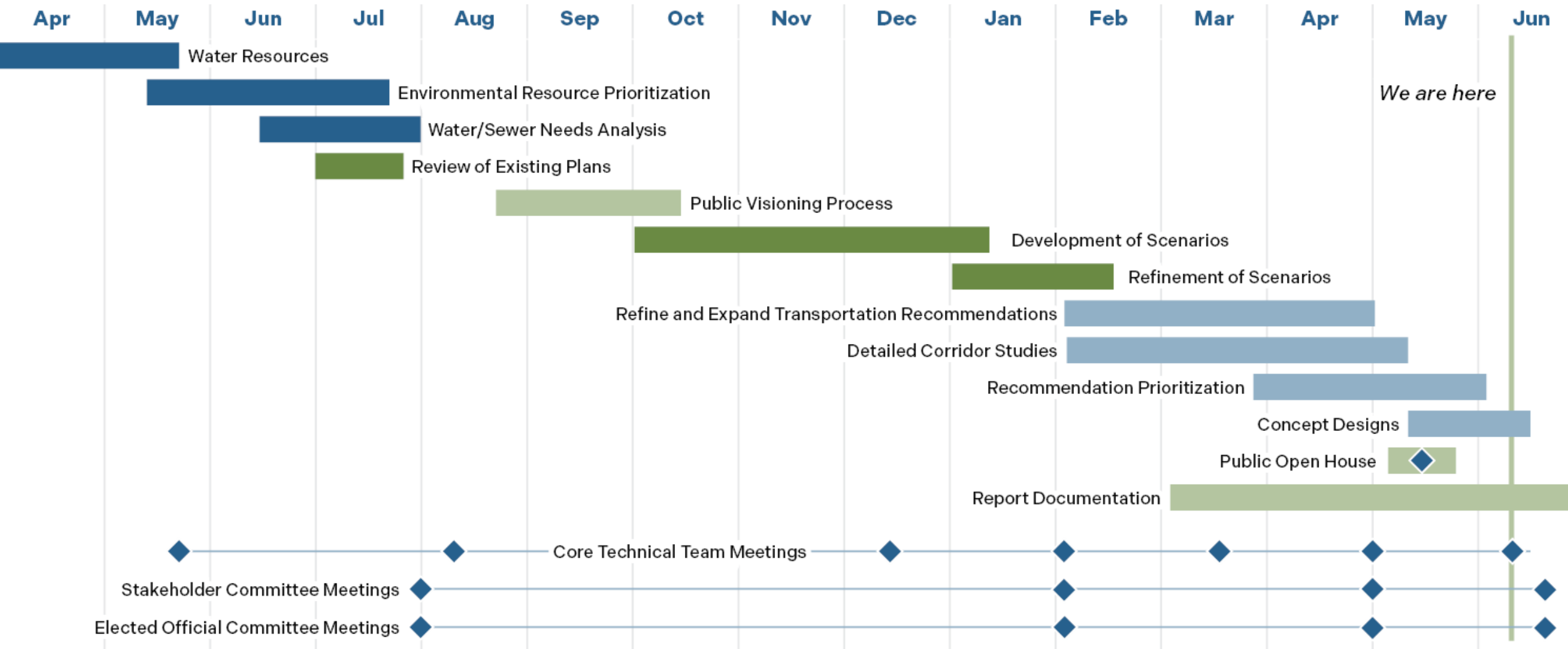
Ongoing

- Prioritization tweaks and finalization
- Document preparation

Up Next

- Joint meeting of Elected and Stakeholder Committees next Tuesday, June 16
- Development of report document and other deliverables
- Presentations and endorsement to leadership

Detailed Schedule



Public Engagement Responses



**North
Falls Lake**
AREA STUDY



Where We Went

Virtual Engagement

- Project website with recommendations and guided questions
 - 42 participants
- Website survey was available Monday, May 11 to Tuesday, May 26

In-Person Engagement

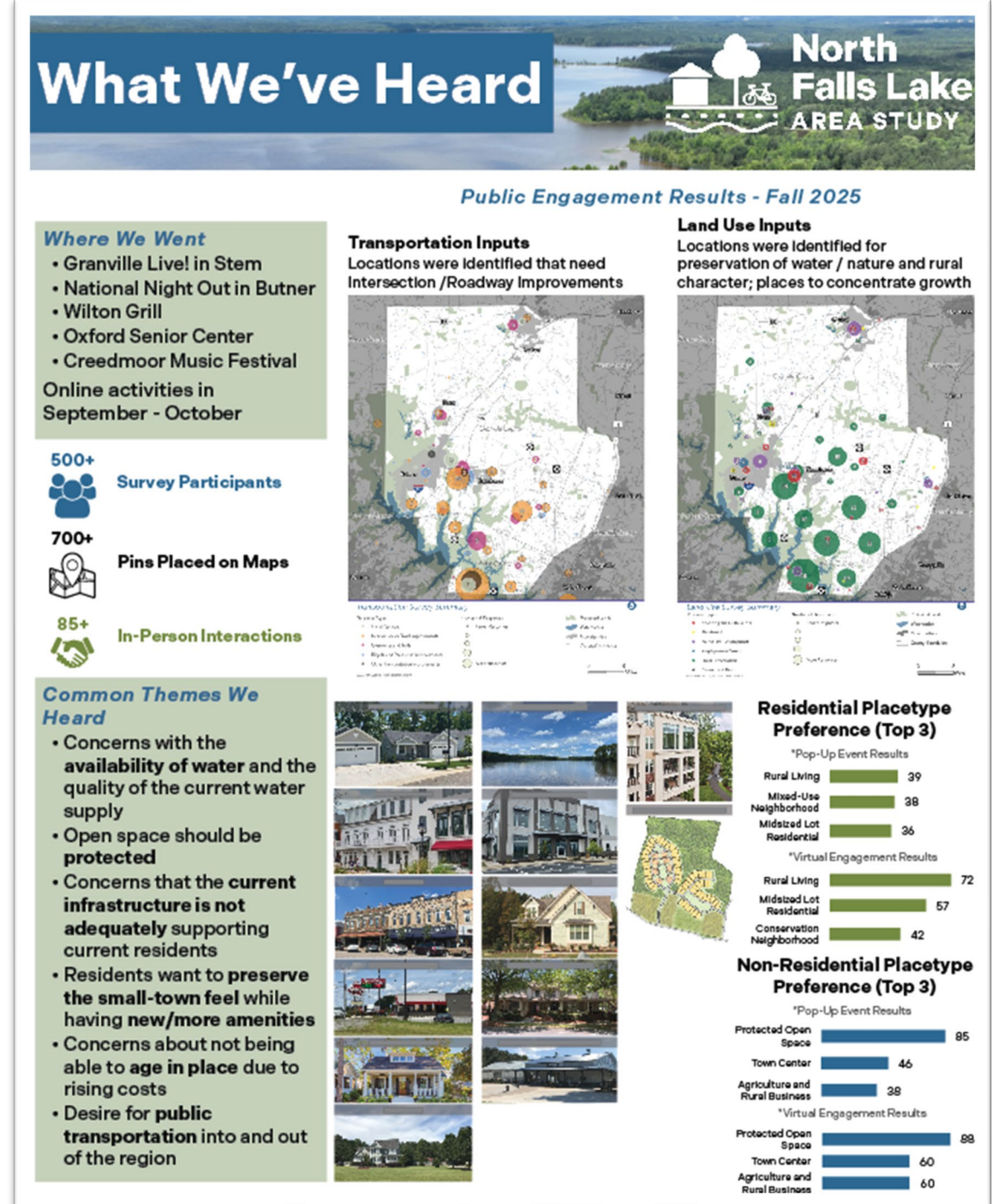
- Creedmoor Community Center on May 19th, 2026
 - 42 recorded sign-ins (actual attendance was higher)



What We Presented

Overview and Previous Engagement

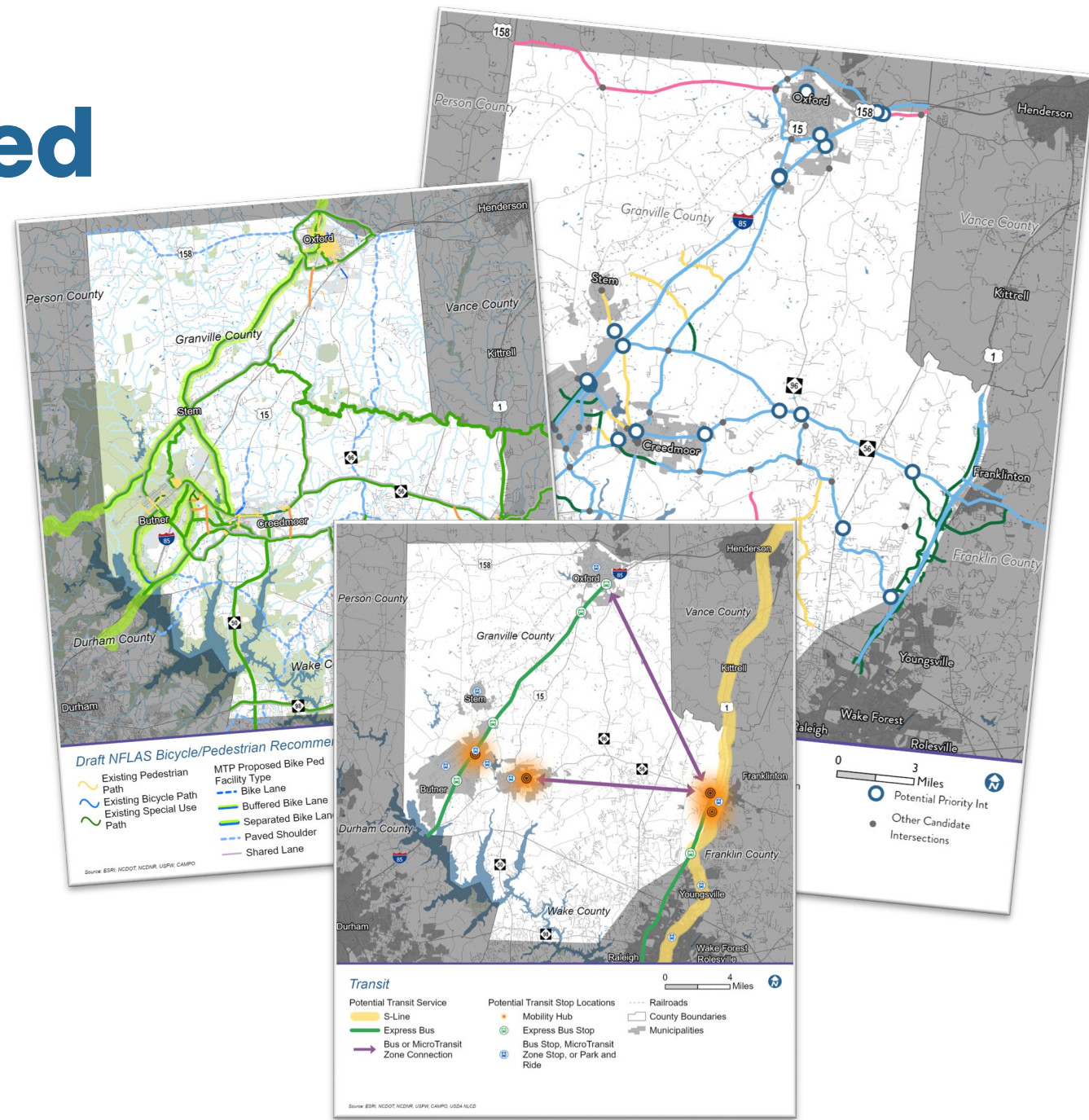
- Introduced the Study's purpose, location, and timeline
- Recapped what was heard during Fall 2025
 - Online engagement
 - Virtual survey and mapping activities



What We Presented

Mobility Recommendations

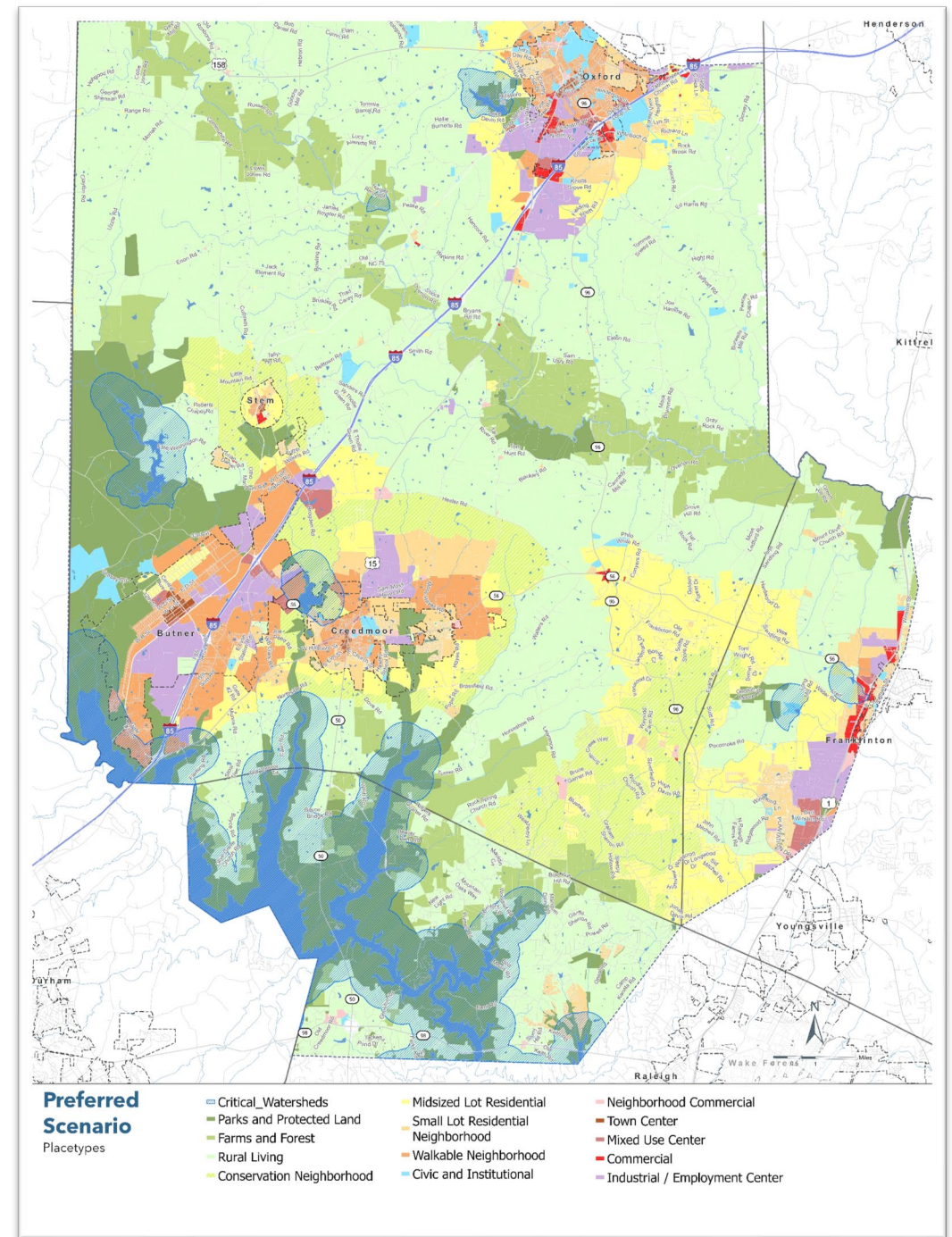
- Roadway Recommendations
- Bicycle and Pedestrian Recommendations
- Transit Recommendations



What We Presented

Land Use Recommendations

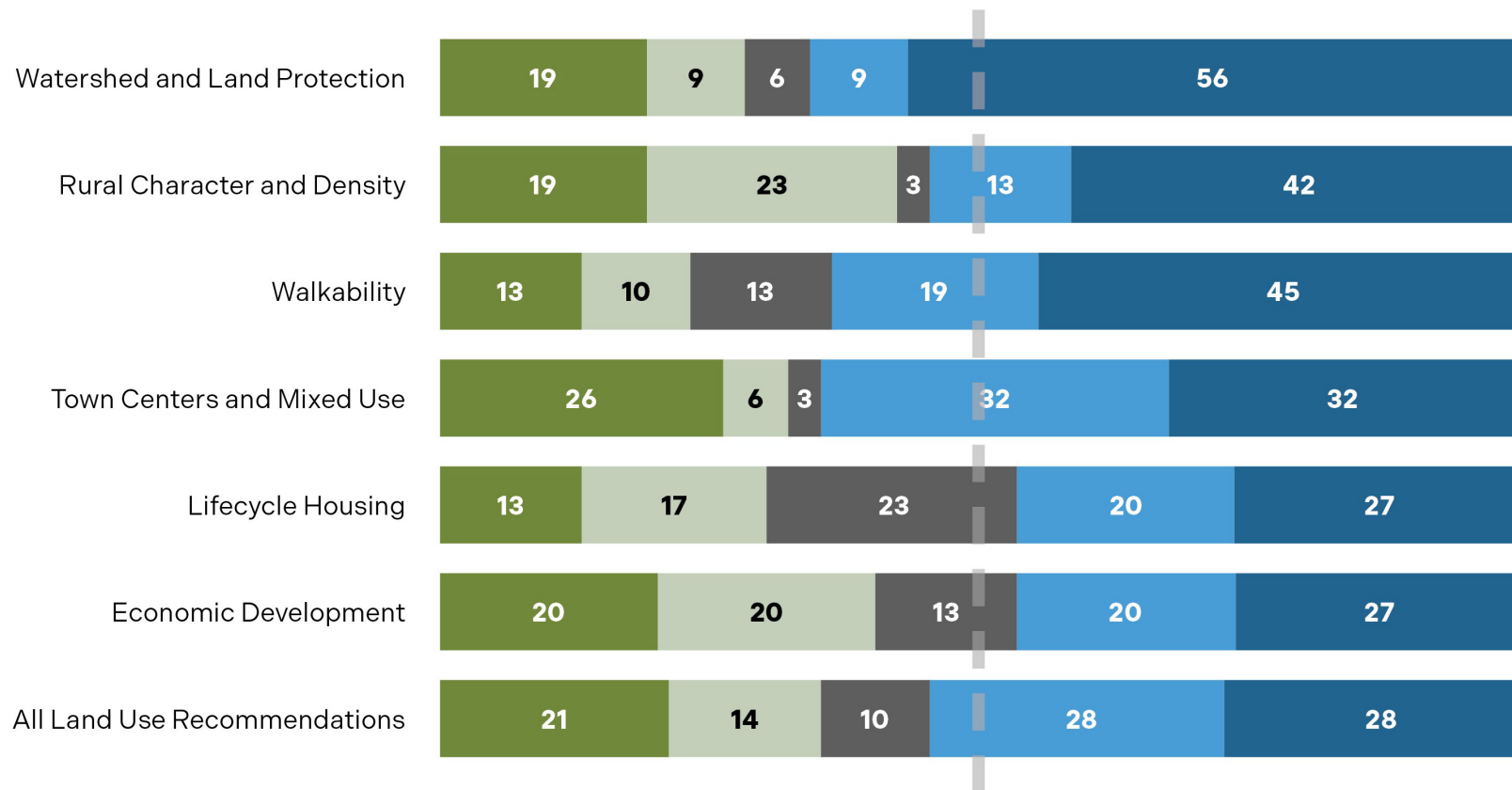
- Where We Are (Business as Usual)
- What We Analyzed (Four Scenarios)
- Preferred Scenario
 - What Placetypes are included?
 - How does it compare to Business as Usual?
 - What are the associated land use recommendations?



What We Heard

Land Use Recommendations Survey

What land use recommendations, if any, raise concerns for you, and which do you view most positively?



Highly Concerned Somewhat Concerns Neutral/No Opinion Somewhat Positive Highly Positive

What We Heard

Open Response

- Suburban/Urban Sprawl (6 Comments)
- Positive View on Development (3 Comments)
- Negative View on Development (6 Comments)
- Enhancing and Increasing Bike/Ped Infrastructure (7 Comments)
- Less Bike/Pedestrian Infrastructure or Reduced on Major Roadways (3 Comments)

Prioritization Process and Results



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Prioritization Overview

Prioritization is...

- A way to understand which projects should be pursued most urgently
- Based on objective data describing existing and projected conditions
- Specific to NFLAS

Prioritization is not...

- A true, perfect list of projects from most important down to the least important
- Reflective of how implementation is most likely to occur
- A guarantee of how projects will be scored in the next MTP

Prioritization Approach

- For purposes of prioritization, projects are split into three categories:
 - Linear Roadway Projects
 - Intersection Roadway Projects
 - Bicycle and Pedestrian Projects
- Based on categories from CAMPO's Roadway Prioritization Tool (RPT) and goals from Destination 2055 MTP
- Based on needs rather than benefits due to data availability

Category	Linear Road.	Intersection Roadway	Bike/ Ped.
Congestion	50%	40%	10%
Safety	20%	25%	20%
Multimodal	15%	15%	35%
Connectivity	10%	10%	10%
Economic	5%	5%	10%
Equity	0%	0%	0%



Prioritization Approach

Congestion

- Existing Congestion and Volume
- Future Congestion and Volume

Safety

- Historic Fatal and Serious Injury Crash Cost

Multimodal

- Inclusion of Bike/Ped Element
(for roadway projects only)
- Proximity to Bike/Ped Facilities
- Connectivity to Regional Land Use Destinations
- Regional Trail Connections
(for bike/ped projects only)

Connectivity

- Future Jobs and Population
- Nearby Network Connectivity
(linear roadway projects only)

Economic

- Connections to Economic Development Centers

Equity

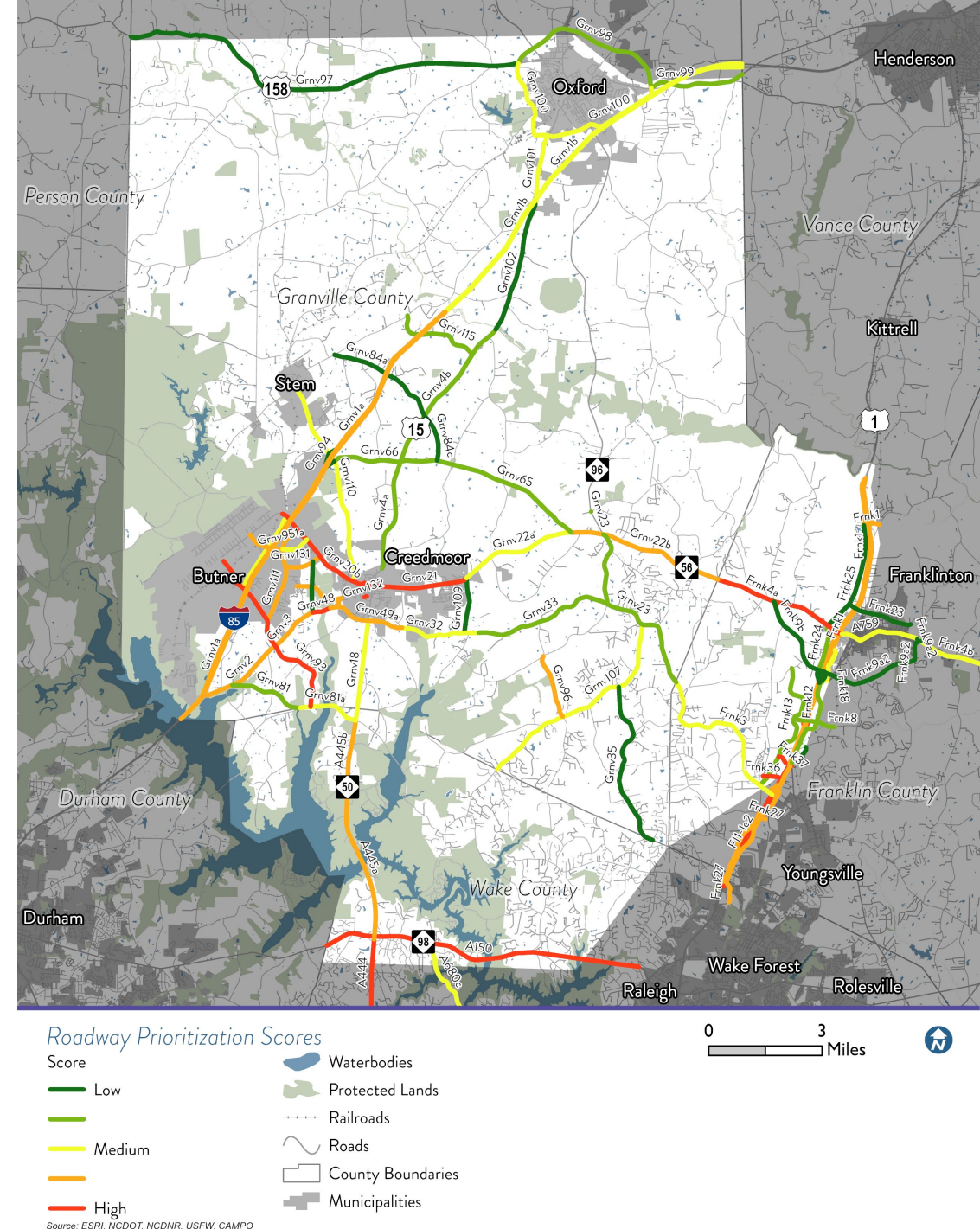
- Proximity to Communities of Concern

Prioritization Results

Linear Roadway Projects

Top 25% of Projects Includes:

- NC 56 Widening (mult. segments from W Lyon Station to US 15)
- I-85 Widening
- Western Portion of Creedmoor Loop
- NC 98 Widening (Durham County to Thomson Mill Rd)
- Portions of US 1 Freeway Conversion (widening and access roads)

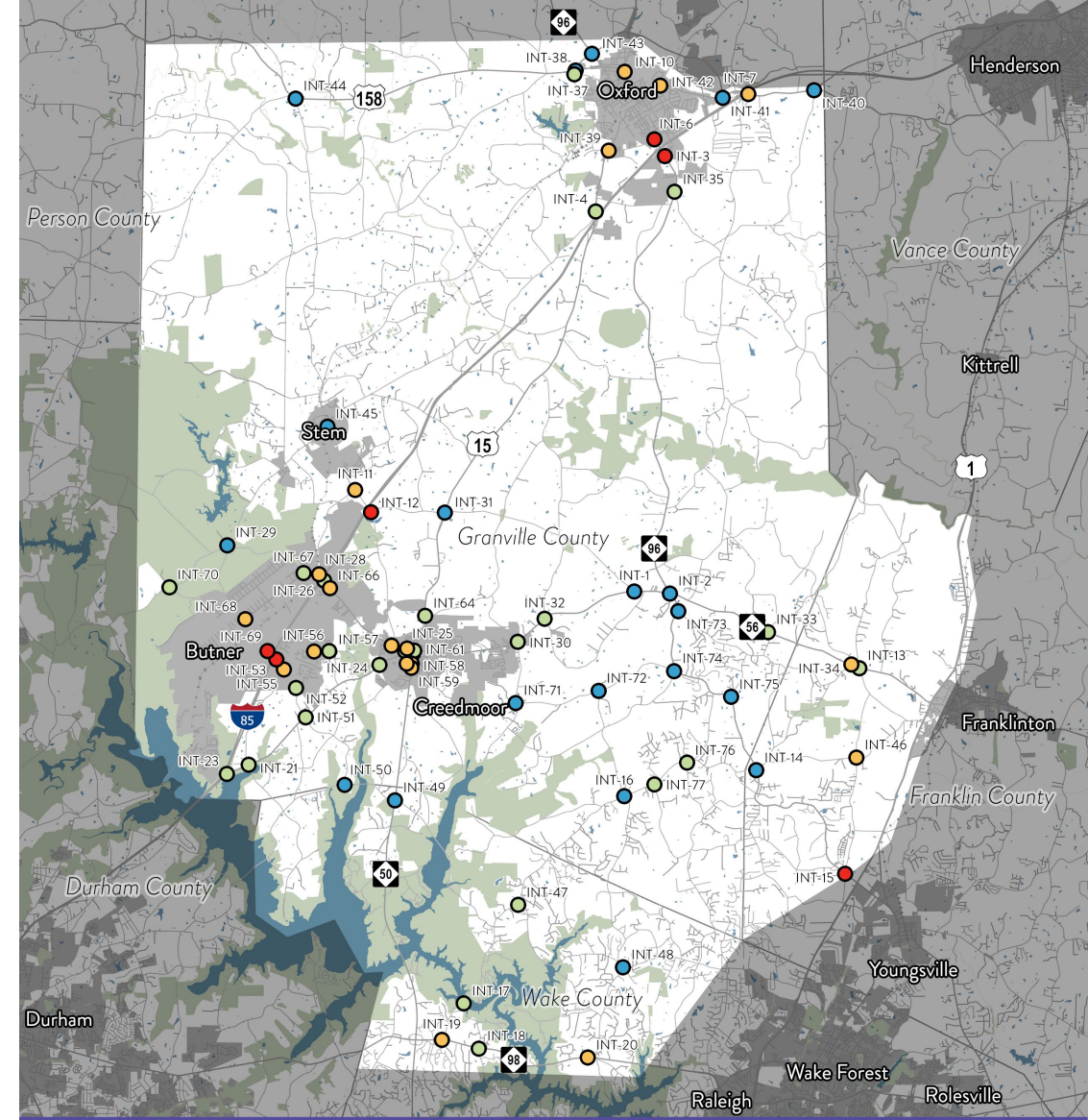


Prioritization Results

Intersection Roadway Projects

Top 25% of Projects Includes:

- Brogden and Hester Road
- I-85/Gate 2 Road Interchange
- Linden Ave and Industry Drive
- NC 96 and Antioch Drive
- NC 50 and Wes Sandling Road
- US 15 and Industry Drive
- US 158 and College Street
- NC 56 and W Lyon Station



Intersection Prioritization Scores



0 3 Miles

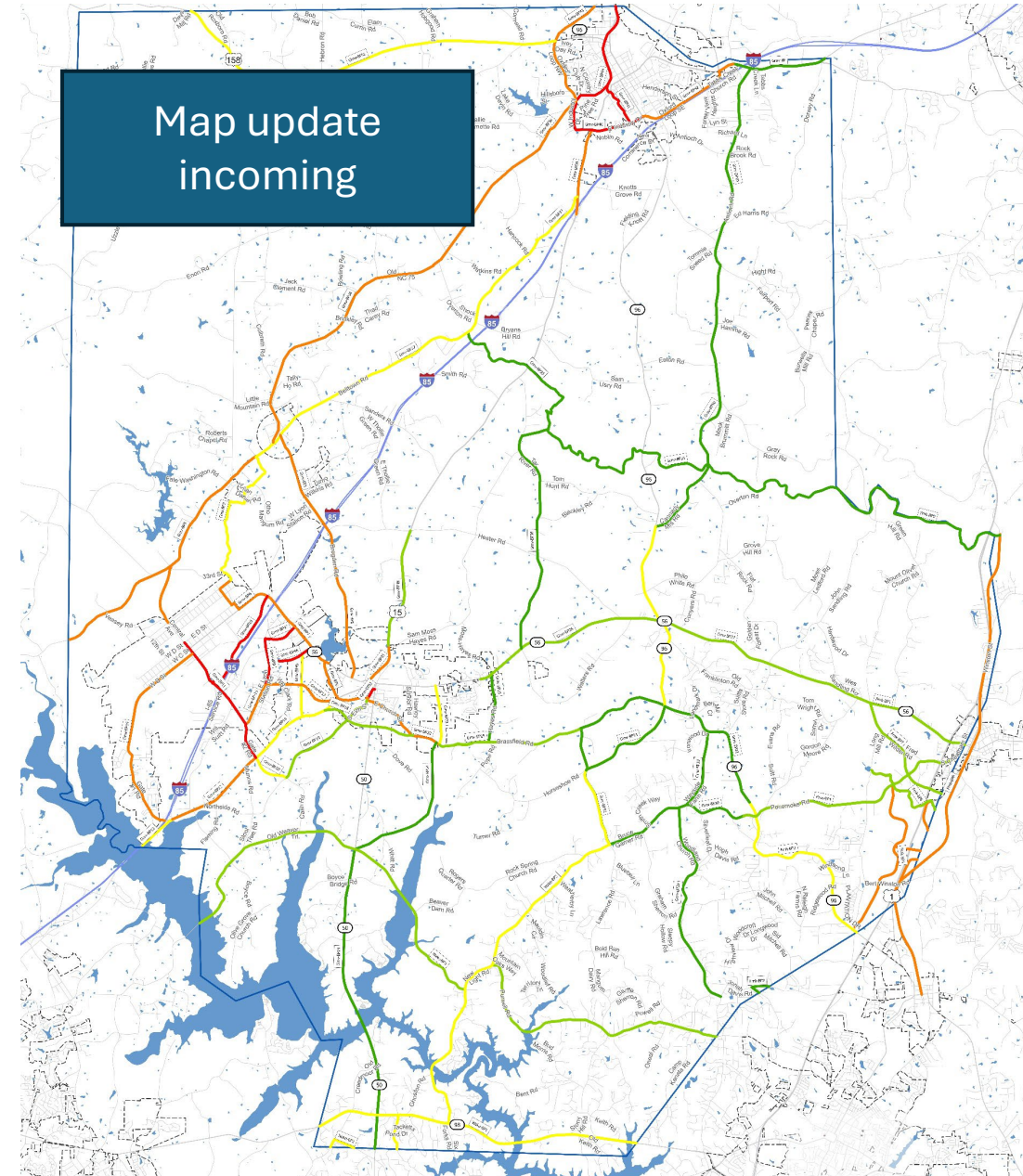


Prioritization Results

Bicycle and Pedestrian Projects

Top 25% of Projects Includes:

- Gate 2 Road sidepath
- Portions of East Coast Greenway in/near Oxford
- Other greenways and sidepaths near Butner/Creedmoor



Draft Bike Ped Prioritization

Composite Scores

- Low
- Medium
- High



0 0.5 1 2 Miles

Implementation Realities

Implementation of all transportation recommendations is ultimately dependent on securing funding



NCDOT

- STIP/SPOT Process
- Other Smaller Programs

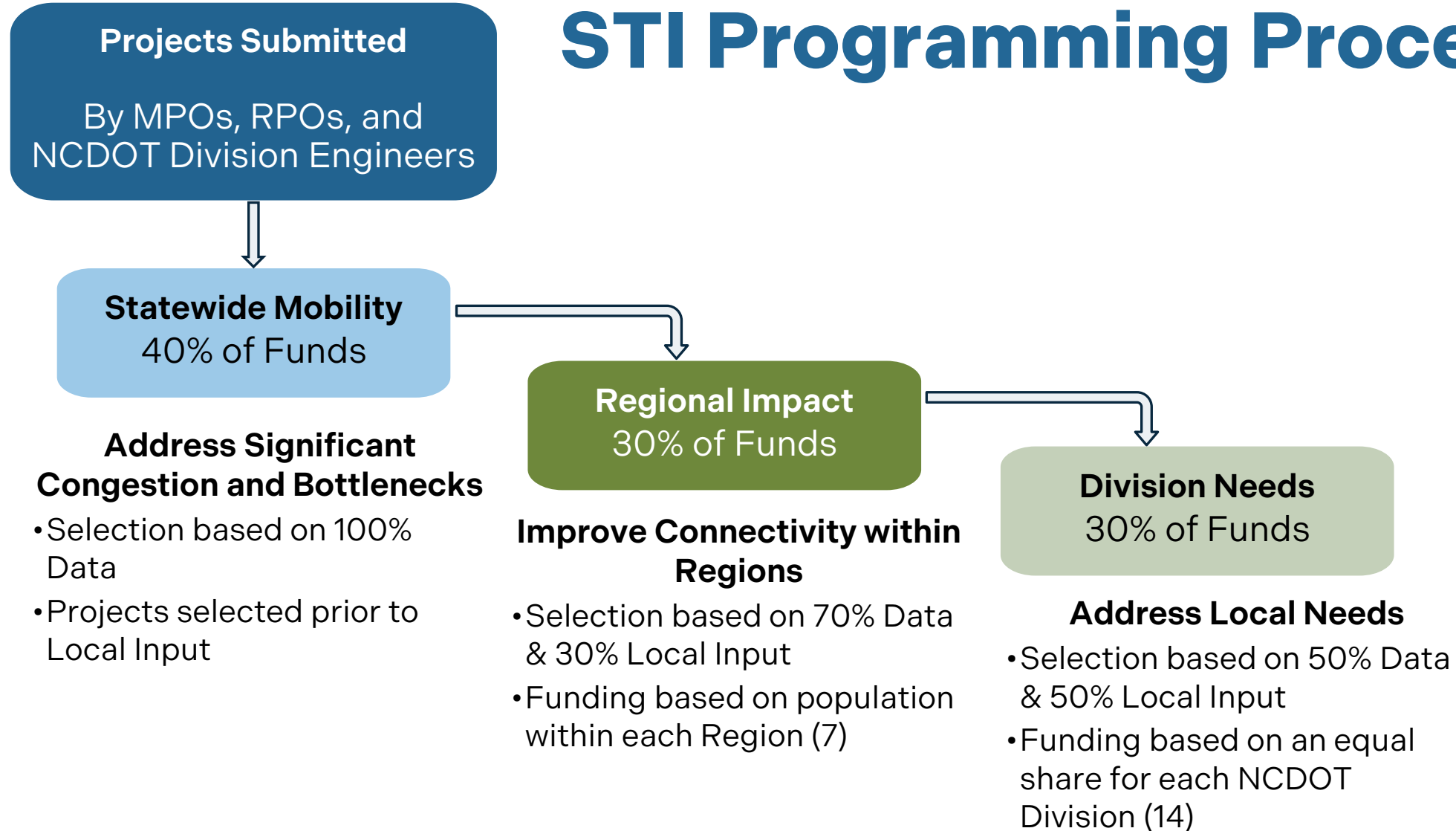


- Locally Administered Projects Program (LAPP)

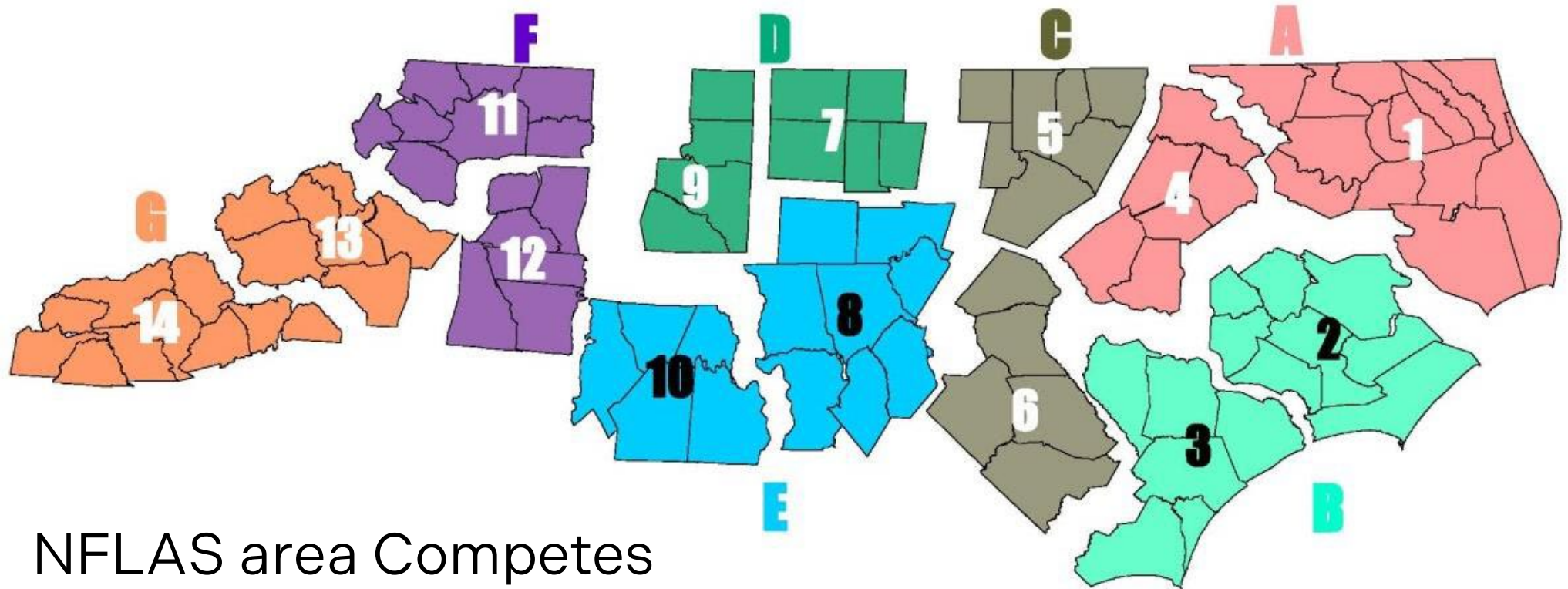
Municipalities

- General Funds
- Developer Obligations (through local regs, planning, and/or TIAs)
- Federal Funding

STI Programming Process



Division & Funding Region Map



NFLAS area Competes
in **Region C** and
Division 5

STIP Funding Distribution

■ Where NFLAS Competes

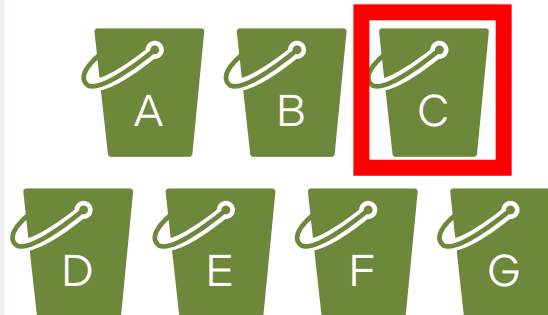
Statewide Mobility



Programmed First

Interstate Maintenance
Bridge Replacement
Bridge Rehabilitation
Highway Safety

Regional Impact



Programmed First

Bridge Replacement
Bridge Rehabilitation
Highway Safety

Division Needs

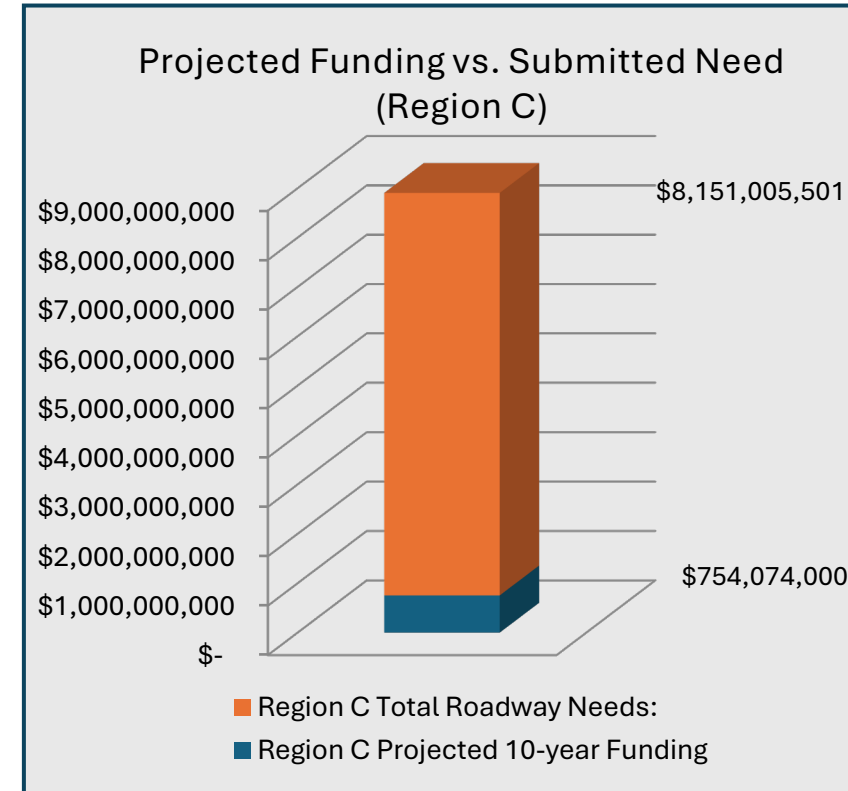
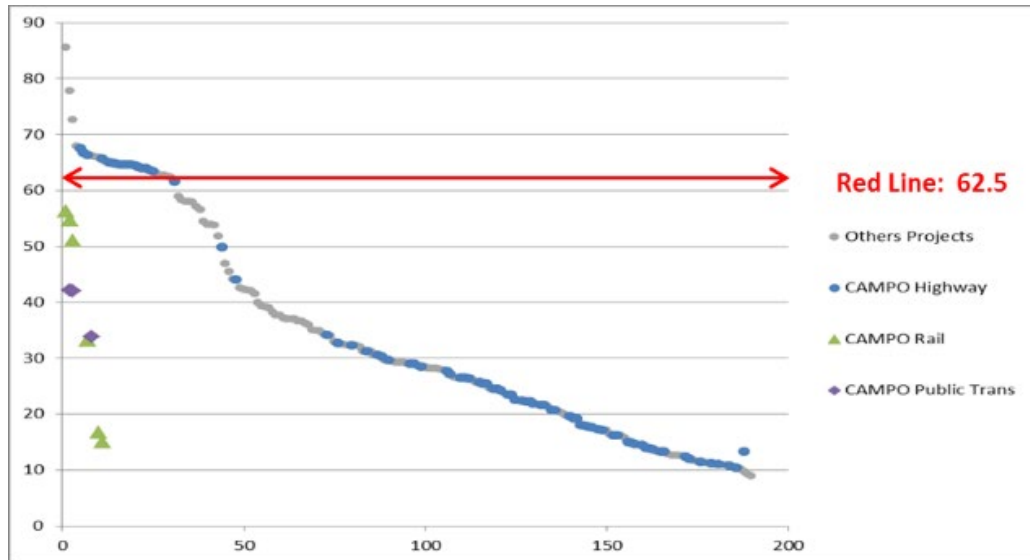


Programmed First

Bridge Replacement
Bridge Rehabilitation
Highway Safety
MPO Direct Attributable
Transportation Alternatives
Highway-Rail Crossing
Economic Development

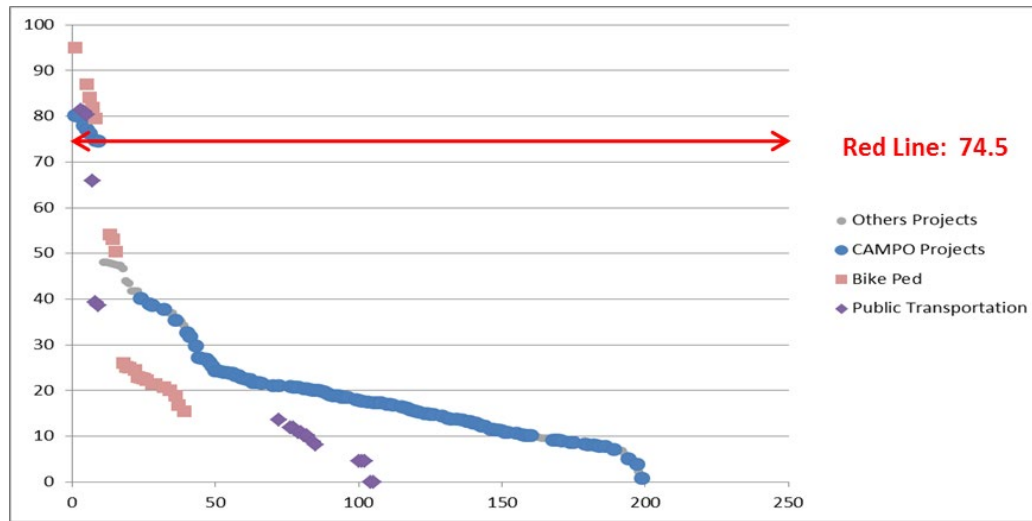
STI – Region C

Projected 10-yr Funding: \$754,074,000
Roadway Projects: 190
CAMPO Projects: 79
Potentially Competitive Projects: 21



STI – Division 5

Projected 10-yr Funding: \$102,258,000
Roadway Projects: 177
CAMPO Projects: 99
Potentially Competitive Projects: 9



Local and Regional Funding/ Implementation Avenues

- **CAMPO's LAPP** funds locally-sponsored phases of federal-eligible MTP projects every year
- **Federal grants** like BUILD and SS4A can be secured by municipalities
- Counties have begun to pass **dedicated sales taxes** for transportation
- Municipalities are **reserving funds to use as local match** for grant programs and in some cases providing funding from general funds
- Municipalities and Counties can leverage their **development ordinances** and the **TIA process** to get **developer investment**

Case Study – Youngsville Bypass

- Youngsville Bypass is included in **CAMPO's MTP**
- CAMPO completed a **Hot Spot** study
- The Town used **general funds** for more detailed design and NEPA work completed for a segment
- The Town received construction funding for that segment through **CAMPO's LAPP**
- A portion of the bypass is being built by a **developer**
- NCDOT is now completing an Express Design on the remaining portions of the bypass for **future STIP consideration**

Document and Recommendations Overview

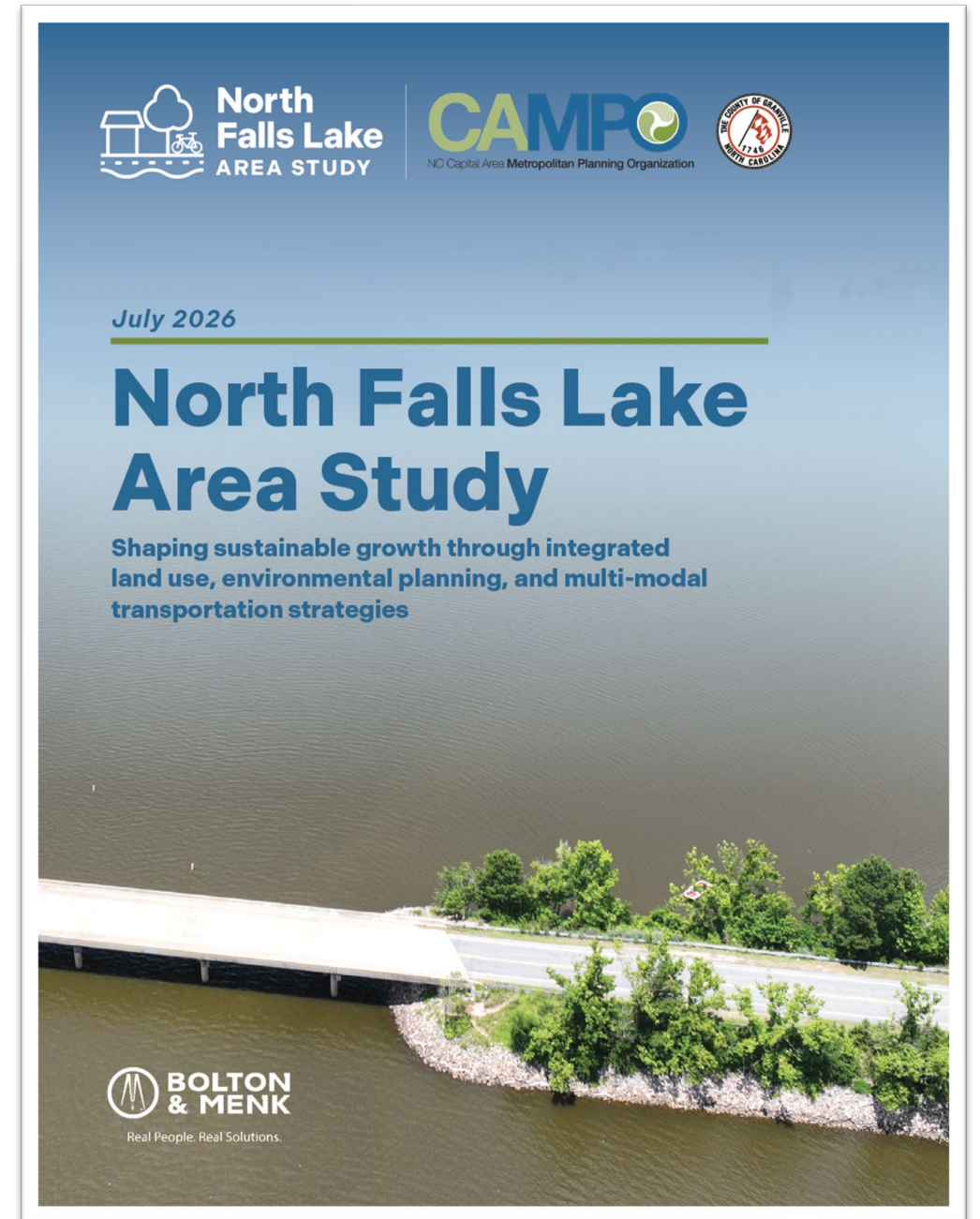


**North
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Document Outline

1. Introduction and Process
2. Engagement
 1. Public
 2. Core Technical Team, Elected Officials, Stakeholders
3. Environmental Considerations
4. Land Use
5. Transportation



Introduction and Process

- Background and Timeline
- Plan Expectations
 - What is the plan expected to do?
 - What is the plan not expected to do?
- Who was Involved
- Who Lives in the Study Area
(Demographic Analysis)

Engagement

- Phase 1 (Fall 2025)
 - Five In-Person Pop-Up Activities
 - Online Website with Survey and Interactive Map
 - General questions related to preferences (land use and transportation)
 - Specific questions related to community concerns
- Phase 2 (Spring 2026)
 - In-Person Open House
 - Online Website with Survey
 - Specific questions related to recommendations
- Meeting Recap
 - Elected Officials, Core Technical Team, Stakeholders, Project Management Team



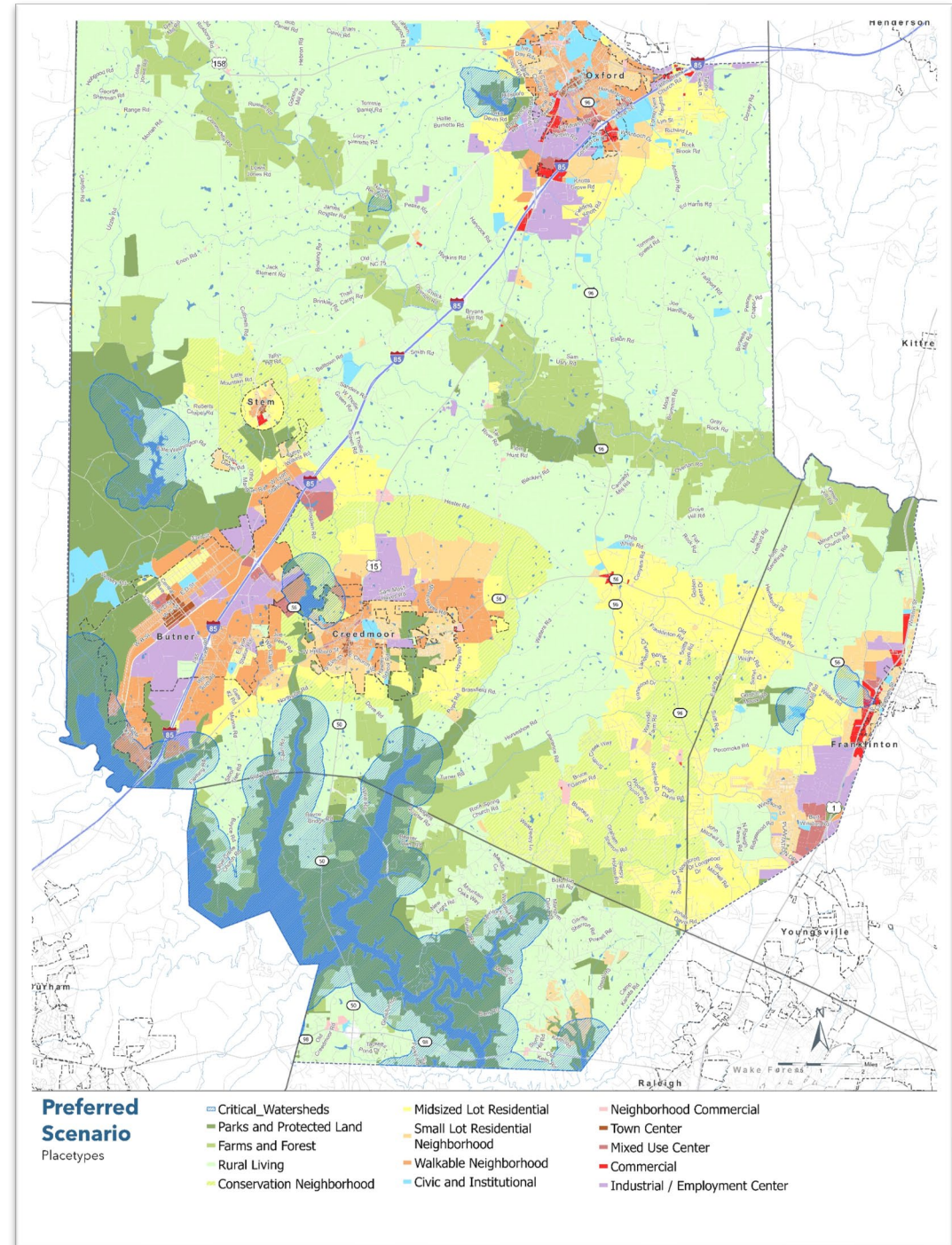
Environmental Considerations

- Details environmental regulation rules for the area
 - Falls Lake Nutrient Strategy and Tar-Pamlico Nutrient Strategy
- Development Standards
- Development Limitations
 - Floodplains
 - Triassic Basin soils
 - Availability and capacity of public water and sewer infrastructure



Land Use

- Development of a Preferred Scenario
- Recommendations
 - Watershed Protection and Rural Character
 - Walkable Neighborhoods, Town Centers, and Mixed-Use Areas
 - Economic Development and Housing



Land Use Recommendations

Public input results indicated that protection of water quality and open space were very important. The rural character of many areas in Wake, Granville, and Franklin counties in this region are a defining feature. Falls Lake and other water supply sources provide drinking water for more than half a million people. Over 27,000 people have moved to the study area since the year 2000. New growth and development pressure has led to concerns about water quality, water availability, and loss of greenspace and natural areas. In addition, engagement highlighted support for downtowns, walkable neighborhoods, lifecycle housing and more jobs in the study area. Recommendations below include strategies to address priorities that surfaced during the planning process.

Watershed Protection and Rural Character

LU-1: Limit impervious surfaces and encourage green stormwater infrastructure to protect water quality.

Falls Lake Rules regulate stormwater management for development in the watershed. These rules must be enforced by local governments. Flexibility is encouraged for projects that employ Low Impact Development techniques. For more information see the North Carolina Low Impact Development Guidebook (2009).

LU-2: Encourage conservation easements and land acquisition for working agricultural lands and in sensitive natural areas.

- LU-2.a. Coordinate with the City of Raleigh and the Tar River Land Conservancy to continue conservation efforts to protect water quality, sensitive habitats, and working lands in the North Falls Lake Area.

The City of Raleigh and the Tar River Land Conservancy have been active conserving land through voluntary acquisition and conservation easements around Falls Lake and near the Tar River. These efforts support the goals of the Preferred Scenario developed during this study.

- LU-2.a. Consider the creation of a Farmland Preservation Program.

Local farmland preservation programs can help augment state funds to protect agricultural lands. For example a new program in Johnston County has preserved hundreds of acres of land in the last few years.



250 Acres Per Year

of conserved land is a goal for the North Falls Lake Area between 2026 and 2055. This would result in over 7,000 acres of newly conserved land and support the preferred scenario.

LU-3: Build capacity for open space and trails planning at the county level.

Other counties including Alamance County and Chatham County have demonstrated the effectiveness of a dedicated position devoted to open space and trails planning. A similar investment by Granville or Franklin County could assist and coordinate efforts to preserve and connect open space and trails in the region.

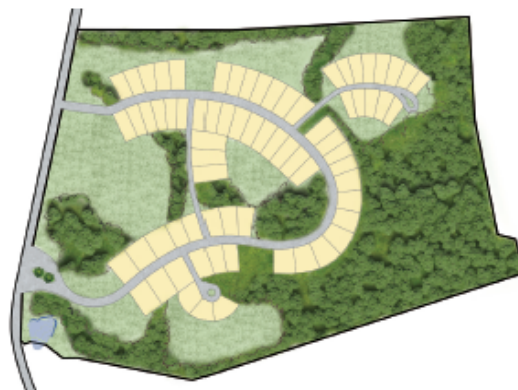
LU-4: Protect rural character and encourage only low-density development in areas of county jurisdiction without utility service.

- LU-4.a. Update land use plans and policies for rural areas.
- LU-4.b. Revise processes to result in overall reduce density and/or more context-sensitive design of new developments in rural areas.

Large-scale subdivisions in rural areas such as southeast Granville County and southwest Franklin County have led to increased traffic on rural roads and concerns about water availability due to wells. Reducing overall density of new development is recommended, though current state law restrictions on downzoning may limit direct rezonings, changes to approval processes, site design, and incentives that encourage voluntary reduction in densities should be explored.

LU-5: Update site or infrastructure design standards or incentives to encourage open space reservation.

- LU-5.a. Consider an option and potential incentives for conservation subdivisions in local zoning ordinances.
- LU-5.b. Update open space requirements and consider measures to preserve tree canopy and/or heritage trees.
- LU-5.c. Review and revise tree planting requirements to require native shade trees where appropriate.



Conservation Design

Conservation Subdivisions are designed to preserve large blocks of open space while accommodating some residential development. Ideally a low allowable "by-right" density or lot size would be accompanied by an option that allows some flexibility in lot size, dimensional standards, or housing type in exchange for substantial open space commitments.

Walkable Neighborhoods, Town Centers, and Mixed-Use Areas

LU-6: Encourage walkability through the provision of facilities, land use decisions, and design standards.

- LU-6.a. Require sidewalks and greenway connections in new development.

Many communities in the area require sidewalks in new development however ordinances should be updated to address existing and planned greenways.

- LU-6.b. Update street and development standards to include comfortable pedestrian facilities with adequate width, separation from traffic, and street or yard trees to provide shade.
- LU-6.c. Establish guidance on when alley loading and/or space for on-street parking is required in new development based on lot size, zoning district or development type.
- LU-6.d. Emphasize facade and frontage design in commercial, mixed-use, and multifamily building and site design.

The design of buildings and frontages of sites can have significant impacts walkability.



3 "D"s of Walkability

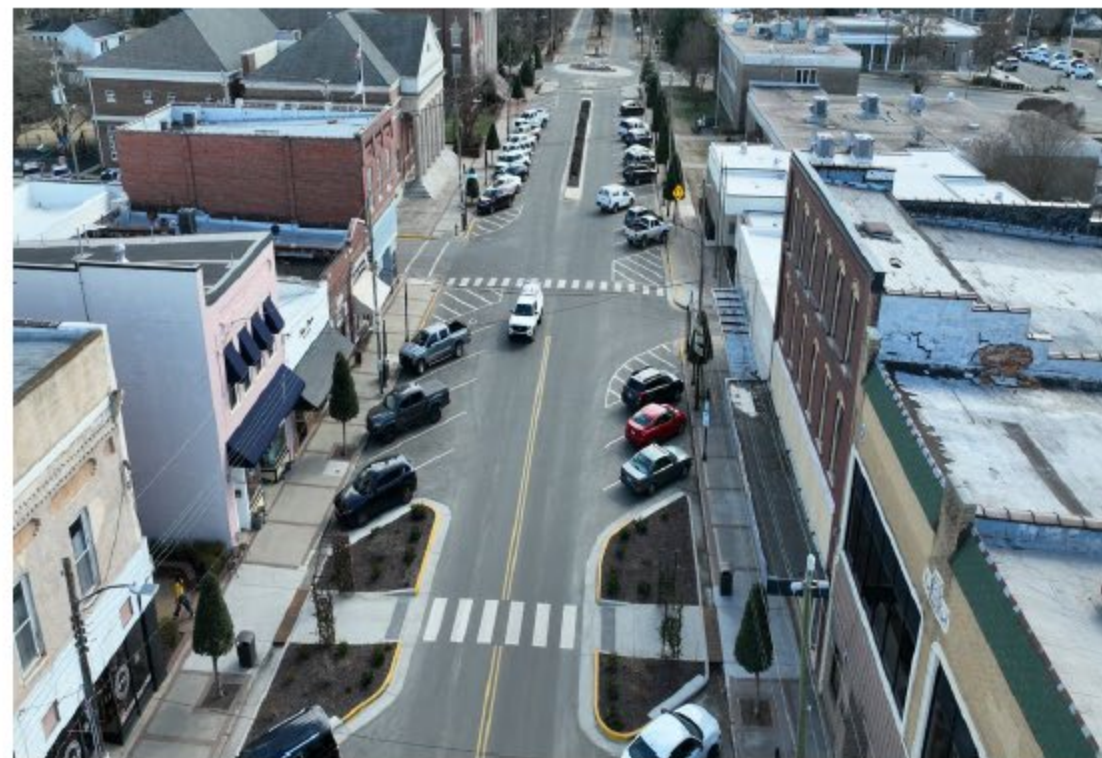
Design, density and diversity all help determine if an area is walkable. Design refers to the overall design of an area including if there are connected streets and sidewalks. It also refers to the detailed design of the built environment including the design of buildings and if there are visually interesting facades, attractive landscaping, or if pedestrian facilities are safe and comfortable. The provision of sidewalks is not necessarily enough to make an area walkable, its also if they make a pedestrian feel safe from traffic and if there is shade that makes a walk trip tolerable on a hot day. Density contributes to whether an area is conducive to walking as well. Compact development is generally more walkable than development that is more spread out. If there are more homes and jobs in an area it is likely that distances between uses or destinations are shorter and shorter distances are more conducive to walking. Diversity of land uses including types of residential uses, commercial destinations, parks, schools, jobs, etc. also contributes to walking trips if they are within close proximity to one another. Land use diversity increases the propensity for walking as more types of uses lead to more reasons for walking.

LU-7: Support compact, mixed-use development in downtowns and new centers.

- LU-7.a. Allow for a horizontal and vertical mix of uses in key areas.
- LU-7.b. Encourage multi-story development (a minimum of two stories) on key sites including downtown infill sites and key gateways.
- LU-7.c. Review existing ordinances and identify barriers to infill development. Review and modernize ordinances and approaches to parking requirements and buffers where walkability is desired.

In some cases a new district or overlay may be needed to customize standards to allow for infill and redevelopment. Typical approaches to setbacks, buffers, and parking that are appropriate for suburban commercial areas may not be appropriate in areas where walkable downtowns are desired.

- LU-7.d. Pursue local street connections, streetscape improvements, and public parking in downtown areas.



Economic Development and Housing

LU-8: Plan for utility infrastructure and service improvements in southern Granville and Franklin counties.

Lack of sewer capacity and availability in parts of the study area, particularly near Creedmoor and Butner have led to increased development pressure in the southeastern Granville and Franklin counties leading to growth in areas without adequate transportation infrastructure. Additionally poor soils severely limit development potential of many lands near towns without public utilities.

- LU-8.a. Support planned SGWASA utility upgrades including sewer transmission and treatment capacity.
- LU-8.b. Define utility service areas and provide public utilities to these areas to limit wells and septic tanks in areas with poor soils and concerns about ground water availability.

Joint land use and utility planning should occur during updates to local comprehensive plans and land use plans.

- LU-8.c. Manage growth in the near-term until planned utility upgrades are complete.



LU-9: Consider infrastructure capacity, economic development opportunities, and housing needs during updates to local plans and ordinances.

- LU-9.a. Consider policies that set aside reserved utility capacity for economic development opportunities.
- LU-9.b. Continue and expand job recruitment activities and protect prime industrial lands.
- LU-9.c. Update land use plans to be supportive of the Preferred Scenario.

More detailed study is needed to determine exact locations for mixed-use, commercial, and industrial or employment areas shown on the Preferred Scenario.

- LU-9.d. Modernize zoning ordinances including district structure, approval processes, use tables, and standards.

Land Use Plan Updates

The Preferred Scenario made broad recommendations related to land use and development in the North Falls Lake Area. More detailed planning should be undertaken by local governments to evaluate the appropriateness of recommended placetypes in a given area. In addition, updates to zoning ordinances may be beneficial to assist in implementation of ideas from this study.

LU-10: Encourage “lifecycle housing” that includes housing options for different stages of life.

- LU-10.a. Define and allow missing middle housing types in more areas.

Missing middle housing is housing types that are much smaller than large apartment buildings, but with attached structures or much smaller lots than typical suburban single family homes.

- LU-10.b. Review and revise allowances for accessory dwelling units.
- LU-10.c. Encourage senior housing in and near town centers.
- LU-10.d. Encourage trail-oriented development (TrOD) near planned regional greenways.



Lifecycle Housing

Input from committees during the process identified a need for more diverse housing types in towns in the study area.

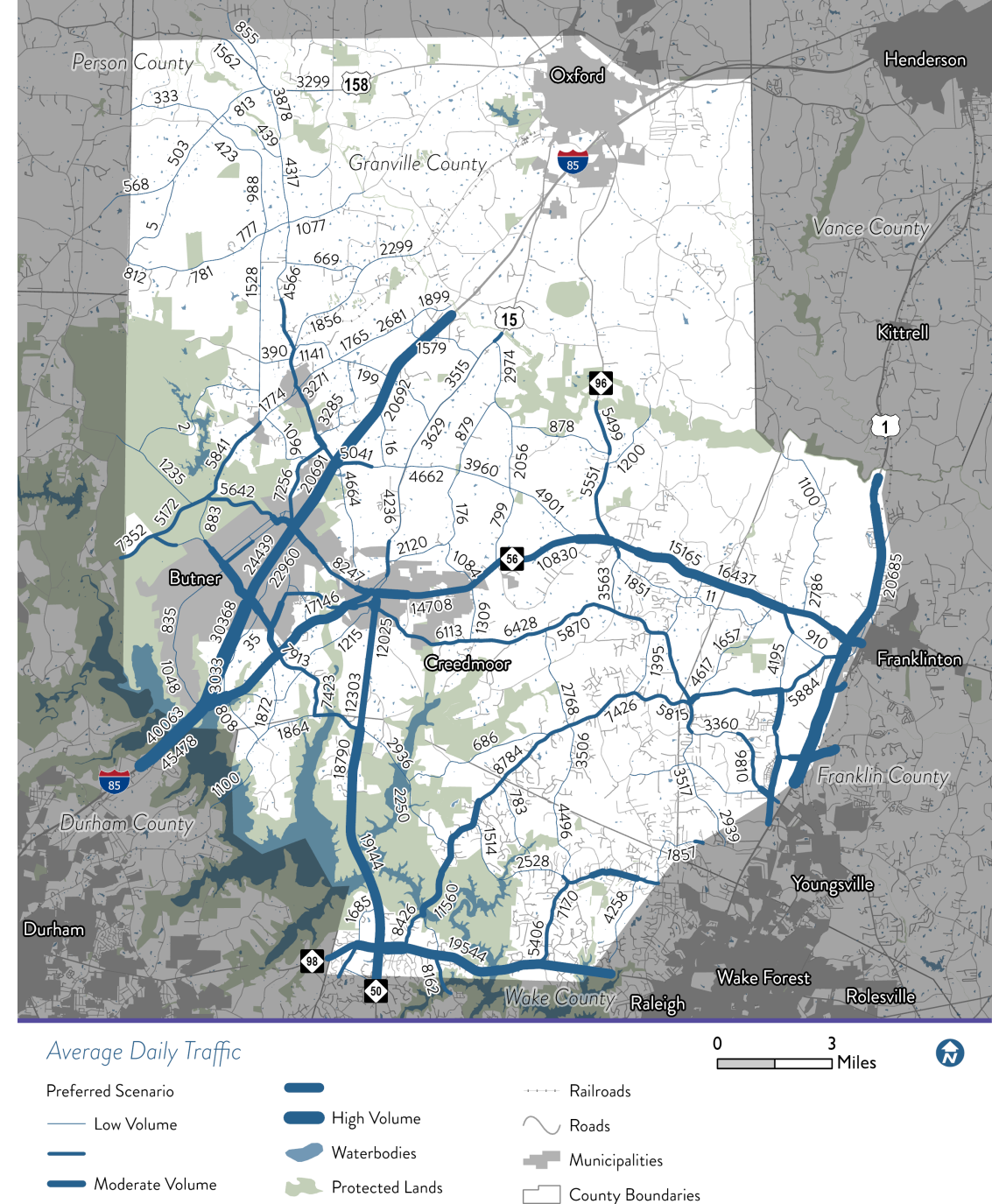
Trail Oriented Development

Trail oriented development is similar to transit-oriented development in that it capitalizes on proximity of transportation infrastructure. The East Coast Greenway is planned to traverse the study area in the future and local governments could proactively plan for development along the greenway corridor. Policies could include incentives for residential and/or specific design requirements to help activate the trail.



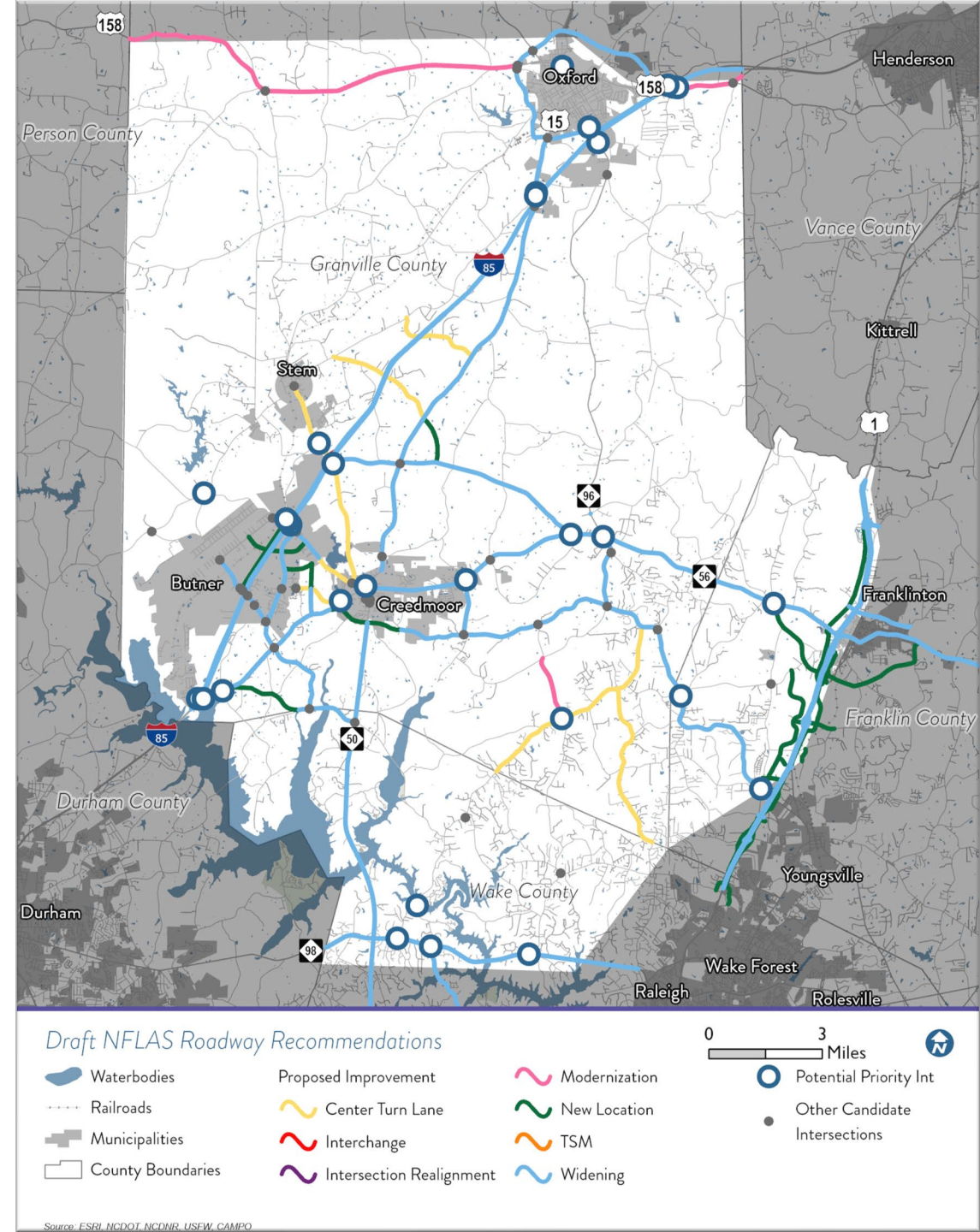
Transportation **Existing and Forecast Conditions**

- Existing travel patterns
- Previously planned projects (STIP, CTP/MTP)
- Land use – transportation connection
- Identified needs and projected volumes/congestion



Transportation **Physical Improvement Recommendations**

- Roadway
 - Widenings
 - Modernizations
 - New location
 - Intersection improvements
- Bike/Ped
 - Trails/greenways
 - On-street facilities
 - Sidepaths
- Including those from corridor studies, RSA, and others



Transportation **Policy and Other Recommendations**

Roadway

- Regional coordination on collector street planning
- Refine new location roadway alignments/designs
- Policies to reserve ROW
- Updates to TIA policies

Bike/Ped

- Updates to street, sidewalk, and greenway standards
- Regional greenway connection refinement
- Increased coordination on regional trails

Transit

- Transit study to determine appropriate service type and stop locations

Final Steps



**North
Falls Lake**
AREA STUDY



Final Steps

- Draft document undergoing CAMPO review now, anticipate CTT review late next week
- Final joint meeting of the Elected Official Committee and Stakeholder Committee next week on June 16 at 3pm
- We will create materials that each jurisdiction can use to present to their elected and appointed bodies
- CAMPO intends to endorse the plan in fall

North Falls Lake Area Study Prioritization

Draft 4

Below is a description of the proposed approach for prioritization of the projects within the North Falls Lake Area Study. The overall approach is tied to many of the goals highlighted in Destination 2055, with specific metrics and supporting methodologies that are unique to NFLAS. These metrics and methodologies have been chosen to make it feasible for projects to be prioritized regardless of inclusion or exclusion in TRM outputs.

This methodology attempts to approximate the need served by each project across multiple metrics, as appropriate to the project type, and then to normalize that need by anticipated project cost. This is done using similar metrics for both roadway and bike/ped projects, but the two categories use slightly different metrics/methodologies in some areas, use different weightings of the metrics included, and scores will be normalized and compared within each of the categories, not between them.

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Goal 1: Connect People and Places

Metric 1A: Future jobs and population near facility/project

Data sources: 2055 Preferred Scenario Socioeconomic Data and baseyear data from TAZdata for TRM area and Census data for unmodeled area.

Methodology (all projects):

- Buffer project by 1 mile
- Calculate total jobs and population based on base year data and CommunityViz outputs (assuming proportional population/jobs within TAZs or grids that are split)
- Normalize projects proportionately to a score between 0 and 100 (value/max X 100)

Metric 4B: Areas with Network Connectivity

Data source: Roadway network (Composite roadway file for study area)

Methodology (all roadway projects)

- A street density grid (line density raster) will be created, reclassified, and then Zonal Stats tool can be used to calculate average score.
- Buffer each project approximately 500 feet and take average street density score within the buffer
- Normalize avg. density scores to a score between 0 and 100 ((value-min)/(max-min) X 100)

Goal 2: Manage Congestion and System Reliability

Metric 2A: Existing Daily Volume*Volume-to-Capacity Ratio

Data sources: 2025 base TRM outputs, [2024 NCDOT AADT Segments](#)

Methodology (linear roadway projects in TRM):

- Use weighted average of max V/C (highest V/C for all four periods of the model day) for model segments, weighted based on segment daily volumes
- Divide by aggregate daily volume from all TRM segments
- Scores normalized to be between 0 and 100 (value/total X 100)
- Note: New location roadways will use calculation from a parallel route or route expected to be relieved by the new facility

Methodology (intersection roadway projects in TRM):

- Use weighted average of max V/C (highest V/C for all four periods of the model day) for model segments at intersection, weighted based on segment daily volumes
- Divide by aggregate daily volume from all TRM segments within intersection
- Process iterated for all segments per intersection project and calculates a weighted average.
- Scores normalized to be between 0 and 100 (value/total X 100)

Methodology (linear roadway projects outside of TRM):

- Utilized capacity methodology defined in HCM 6th Edition, Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual, and FHWA Road Diet Info Guide. Determined by functional class, number of lanes, area type, cross-section.
- Calculate V/C for each point and average,
- (V/C of project / V/C of all projects) to a score between 0 and 100 (value/total X 100)

Methodology (intersection projects outside of TRM):

- Identify nearest NCDOT AADTs on each leg and estimate V/C, for both major and minor streets, using AADT and identified capacity of the major and minor streets.
- For major streets, (V/C * AADT of major street / AADT of major and minor streets). Process was iterated for minor streets.
- Weighted score for both streets was added to reflect contribution of all intersection legs.
- Scores normalized to be between 0 and 100 (value/total X 100)

Metric 2B: Future Volume-to-Capacity Ratio

Methodology (roadway projects in TRM): Identical to previous, but uses 2055 E+C model runs as data source

Methodology (roadway projects outside of TRM): Identical to previous but uses NCDOT AADTs increased by assigned growth rate.

- 2025 AADT was assumed to be similar to 2024 AADT.
- Anticipated jobs and household growth in the area outside of the TRM (10-15%). It is assumed that this growth encompasses for the 30-year period (2025 – 2055).
- Based on NCDOT data, historic AADT growth on roadways located along NFLAS projects in unmodeled areas range between 0.0% (inside Oxford) to 2.51%.
- External nodes of TRM were accounted for two projects: Grnv 102 (US 15 Widening) and Grnv 97 (US 158 Modernization from Oxford to Person Co). The former had negative 35-year growth (-10.15%). Therefore, a minimum annual growth of 0.50% was used. The latter had parts of the project running inside the TRM. The Tar River was located on an internal segment. Nevertheless, 35-year growth was calculated and from that, the annual growth was calculated to be 0.97% per year. This helps to assess TRM-related traffic traveling along US 158 to Oxford.
- Cumulative growth rate was calculated as the product of all these growth rates.
- Forecasted 2055 AADT = 2024 AADT * cumulative growth rate.
- The remaining steps are similar to Roadway Projects outside TRM (Existing).

Methodology (intersection roadway projects outside of TRM):

- Anticipated jobs and household growth in the area outside of the TRM (5-15%). It is assumed that this growth encompasses for the 30-year period (2025 – 2055). For areas within the core interior of Oxford, 15% was assumed. For areas along northern Oxford Loop, 10% was assumed. All other areas, 5% was utilized.
- Utilized capacity methodology defined in HCM 6th Edition, Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual, and FHWA Road Diet Info Guide. Determined by functional class, number of lanes, area type, cross-section.
- Identify nearest NCDOT AADTs on each leg and estimate V/C, for both major and minor streets, using AADT and identified capacity of the major and minor streets.

- Cumulative growth rate considered both historical AADT growth, compounded over 30 years, and factored with the assumed household/population growth. Future volume calculated by using AADT and factored with this growth rate.
- For major streets, $(V/C * \text{AADT of major street} / \text{AADT of major and minor streets})$. Process was iterated for minor streets.
- Weighted score for both streets was added to reflect contribution of all intersection legs.
- Scores normalized to be between 0 and 100 ($\text{value}/\text{total} \times 100$)

Metric 2C: Proximity to Existing and Future Congested Roadway/Parallel Route

Methodology (bike/ped projects):

- Manually identify parallel routes and use same approach as prescribed for roadway projects to determine $\text{Volume} * V/C$
- 0 points if no proximate/parallel route within one mile

Goal 3: Promote Safety, Health, and Well-Being

Metric 3A: Fatal and Serious Injury Crash Cost

Data source: NCDOT fatal and serious injury crash history for the most recent 5-year period (2021-2025), 2024 Standardized Crash Cost Estimates for North Carolina

Methodology (all projects):

- 500' buffer applied for all projects – capture crashes within the buffer net.
- Costs were calculated per project using Tables 1b – 1i from the cost estimates documentation. For those crash types which do not fall under the guidelines of these tables, their area type, crash severity, and satellite imagery to assess the surrounding land use were utilized to calculate the cost from Table 2 – which uses severity type and area type.
- Total costs of all crashes per project were calculated.
- Score for roadway projects was weighted as total costs of each project against total costs of all roadway projects. Intersection projects implemented the same methodology.
- Normalize K/A crash costs to a score between 0 and 100 ($\text{value}/\text{total} \times 100$).

Goal 4: Promote and Expand Multimodal and Affordable Transportation

Metric 4A: Roadway projects with a Bike/Ped Element

Data source: Road Project GIS File

Methodology (all roadway projects)

- Points for having a bike/ped facility.
- 100 with bike/ped facility, 0 without.

Metric 4B: Proximity to Existing Bike/Ped Facilities

Data source: Existing Bike/Ped Facilities (create composite based on edited PBIN/Atlas linework)

Methodology (all roadway projects with bike/ped facility, all bike/ped projects):

- Calculate a 2 mile buffer
- Summarize length of existing bicycle and pedestrian features within the buffer
- Normalize scores 0 to 100
- For roadway projects without a bike/ped facility assign 0

Metric 4C: Connectivity to Regional Land Use Destinations

Data source: Schools and Local Parks GIS Points

Methodology (all bike/ped projects and roadway projects):

- Count existing schools and local parks within 1 mile buffer
- Normalize each score between 0 and 100 (value/max X 100), average each score for composite metric

Metric 4D: Regional Trail Connections

Data Source: Regional Trail connections (updated from ECG and GTS)

Methodology (all roadway projects with bike/ped facility, all bike/ped projects)

Take highest of below:

- 100 points to Great Trails State and East Coast Greenway trails
- 50 points to facilities that connect directly to one of these regional trails
- 25 points to other connections that travel between municipalities or counties

Recall the “Future Jobs and Population metric” from Connect People and Places not replicated here to avoid double-counting

Goal 5: Stimulate Economic Vitality and Opportunity

Metric 5A: Connections to economic development centers

Data source: 2055 Preferred Scenario Placetypes

Methodology (all projects):

- Within a 1 mile buffer, calculate the acres of the following placetypes: Community Commercial, Light Industrial Center, Heavy Industrial Center, Civic and Institutional, Town Center, Mixed Use Center, TOD
- Normalize to score between 0 and 100 (value/max X 100)

Goals 6: Ensure Equity and Participation

Metric 6A: Proximity to Communities of Concern

Data source: CAMPO Communities of Concern

- Within a 1 mile buffer, count total number of communities of concern in areas (two different zones with the same communities of concern counts as 4 communities)
- Normalize to score between 0 and 100 (value/max X 100)

Weighted Score

The above metrics will be aggregated into a combined needs score based on the following factors. For roadway projects, these factors were identified to be as similar to the RPT as is reasonable given the limited consistent datasets available for the study area. Adjustments were made to Roadway Weighting to total 100% instead of 85% as in RPT due to the addition of a secondary Cost Effectiveness measure (see below).

MTP Goal	Metric	RPT Category Equiv.	Roadway Weighting	Intersection Weighting	Bike/Ped Weighting
Connect People and Places	Future Jobs and Population Near Project	Connectivity	5%	10%	10%
	Areas with Network Connectivity	Connectivity	5%	0%	0%
Manage Congestion and System Reliability	Existing Daily Volume x V/C Ratio	Congestion	30%	25%	0%
	Future Daily Volume x V/C Ratio	Congestion	20%	15%	0%
	Proximity to Existing and Future Congested Routes	Congestion	0%	0%	10%
Promote Safety, Health, and Well-being	Aggregate Fatal and Severe Crash Cost	Safety	20%	25%	20%
Promote and Expand Multimodal and Affordable Transportation	Roadway Projects with a Bike/Ped Element	Multimodal	5%	0%	0%
	Proximity to Existing Bike/Ped Facilities	Multimodal	5%	10%	15%
	Connectivity to Regional Land Use Destinations	Multimodal	5%	5%	20%
	Regional Trail Connections	Multimodal	0%	0%	15%
Stimulate Economic Vitality and Opportunity	Connections to Economic Development Centers	Economic	5%	10%	10%
Ensure Equity and Participation	Proximity to Communities of Concern	Equity	0%	0%	0%

Cost Effectiveness

Cost Effectiveness will be calculated by dividing the Weighted Score of projects by estimate project cost in millions. This will be normalized to 100 and combined with the Weighted Score to get to a Final Composite Score.

Methodology:

- Divide weighted score by estimate project cost in millions
- Normalize to 100

Final Composite Score

Composite score calculated to factor in Weighted Score (a measure of need) and Cost Effectiveness Score (a measure of cost effectiveness). This final score is calculate by adding Weighted Score (x 0.5) and the Cost Effectiveness Score (x 0.5).

Prioritization by Project Type

Projects are ranked within the Roadway universe of projects, Intersection projects and within the Bike/Ped universe of projects, but generally not between groups due to different funding sources/limitations.

Potential Performance Measures

Land Use

- Acres of Industrial Development
- Acres of Commercial Development
- Jobs at Build-out
- Preserved Open Space in New Development
- Urban Footprint
- Homes in Municipalities
- New Property or Sales Tax Revenue from Growth

Potential Performance Measures

Transportation + Environmental/Utility

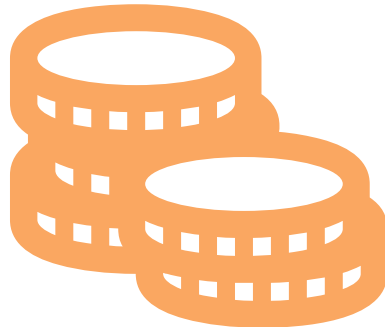
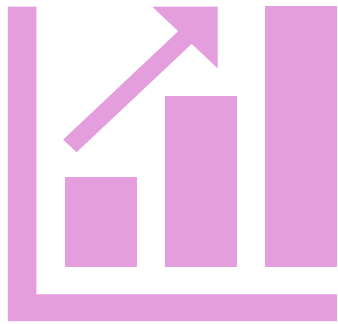
Transportation

- Total Vehicle Miles Traveled
- Total Vehicle Hours Traveled
- Congested VMT
- Homes in Walkable Communities
- Homes in Walking and/or Bicycling Distance to Parks, Greenways, etc.
- Transit Propensity (micro, etc.)

Environmental/Utility

- New Homes and Jobs within Existing and Planned Water/Sewer Service Regions
- New Water/Sewer Demand (Compared to Existing and Planned Infrastructure Capacity)
- Impervious Surface in Sensitive Watersheds

Report Card Mock up



REPORT CARD

SCENARIO KEY

BAU	= Business As Usual
EG	= Economic Growth
ST	= Strong Towns
WP	= Watershed Protection

RESULTS KEY

- = Worse than CP scenario
- ◐ = Less than 5% change from CP scenario
- ◑ = Significant improvement compared to CP scenario
- = Best improvement compared to CP scenario

BAU	EG	ST	WP
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INFRASTRUCTURE AND JOBS

Acres of Office and Industrial Areas				
Acres of New Commercial or Mixed-use Development				
Sewer Demand inside Utility Service Area (MGD)				

PARKS AND OPEN SPACE

Households Close to Parks				
Preserved Open Space in New Development				
Urban Footprint				
New Homes Near Conserved Lands or Sensitive Areas				

TRANSPORTATION

Total Vehicle Miles Traveled				
Total Vehicle Hours Traveled				
Travel Time in Congestion				

INFRASTRUCTURE AND COST OF SERVICES

Homes in Municipalities or Walkable Communities				
New households near Fire Stations				
Sewer Demand inside Utility Service Area (MGD)				