

GCLMPO MTP

CHAPTER THREE

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CHAPTER 3: EXISTING CONDITIONS & FUTURE TRANSPORTATION AND LAND USE

The 2050 MTP defines the transportation network that will serve both present and projected volumes of vehicular traffic, public transportation use, bicycle, pedestrian, aviation and freight travel in and around the urban area through the year 2050. The first step in planning for the future is to assess the present. Transportation planning in the MPO cannot occur without understanding the number and distribution of people, jobs, and schools and where and how residents travel. Developing an inventory of what land uses, population, and travel patterns exist in a particular area is difficult enough; it is even more difficult to accurately project how that same area will behave over the next 30 years. From 2020 through 2050, the Charlotte region is forecasted to add over 1.6 million new residents, resulting in a total population of 4,325,000. This will require new homes, new jobs, new communities, and expanded mobility options to be developed.

METROLINA REGIONAL TRAVEL DEMAND MODEL

Travel demand models are tools that provide transportation planners and decision makers with information on the existing conditions of a transportation system, as well as anticipated future travel demand. The Metrolina Regional Travel Demand Model (MRM) has been developed to capture the travel characteristics unique to the Charlotte Metrolina area. The MRM forecasts future demand on existing and planned transportation facilities based on anticipated land use, demographic information, and travel patterns in the region. MRM20v1.0 was utilized for the 2050 MTP.

Socioeconomic projections are the basis for estimating future travel demand in an area. The local governments within each of the counties of the bi-state MRM worked to project county level growth utilizing CommunityViz. The Metrolina CommunityViz Model v. 2.0 (MCM) is the product of a

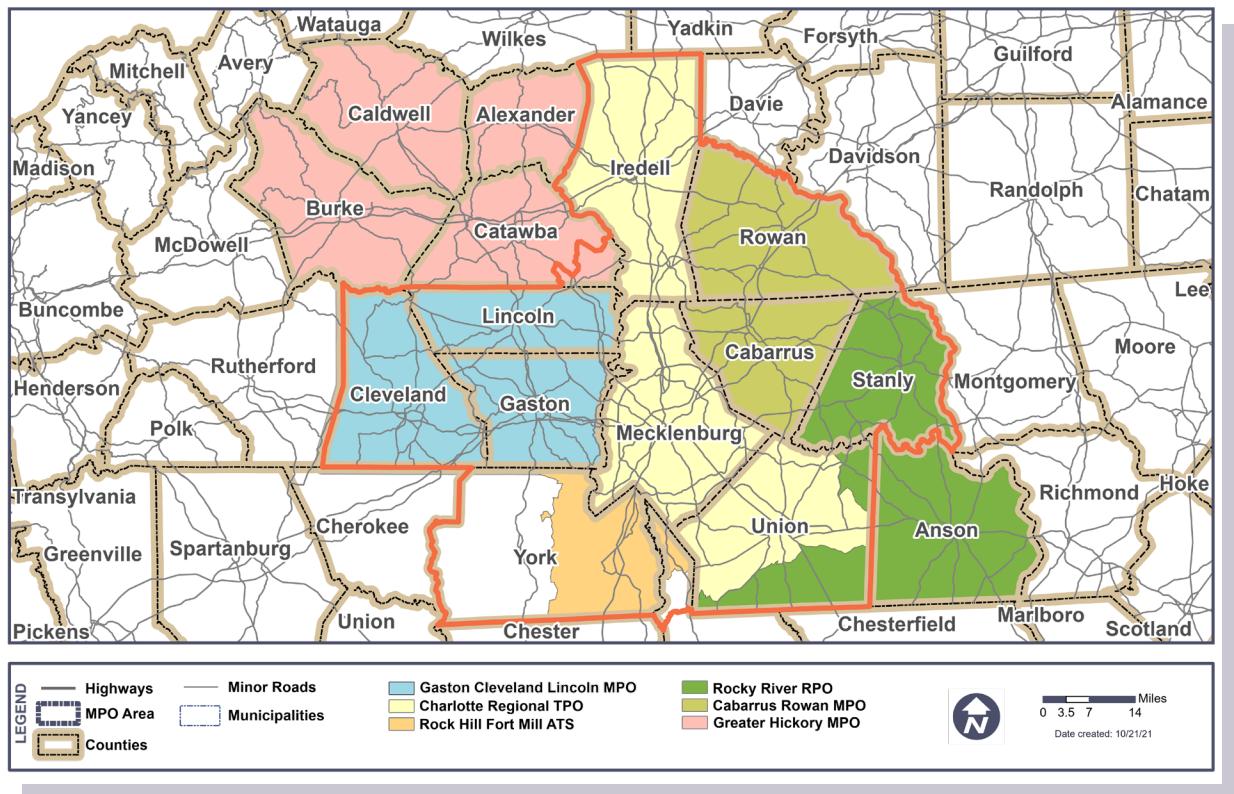


Figure 3-1: Metrolina Regional Model Area.

region-wide initiative to develop more consistent and replicable methods for allocating future year socioeconomic data to Traffic Analysis Zones (TAZ) used in the MRM. GCLMPO members worked to collectively determine how much growth would occur in each of the districts and individual TAZs throughout the three counties.

WHAT IS THE METROLINA COMMUNITYVIZ INITIATIVE?

The Metrolina Region CommunityViz Initiative developed a consistent method for creating population and employment data across the region in an effort to increase efficiencies and create more accurate data for the Regional Travel Demand Model. A multi-jurisdictional steering committee representing transportation agencies throughout the region developed methods to allocate population and employment across Traffic Analysis Zones (TAZs) to help approximate future year traffic volumes on the regional transportation system.

This chapter describes the development patterns, both in existing and future conditions, at the district level for each of the three counties in the MPO. The geographies for the nine districts, three in each of the three counties, were developed as a part of the MRM. These districts have distinct travel and development patterns, and so specific projections are made for each of the districts.

EXISTING LAND USES

The aggregated existing (MRM base year 2018) and future land use descriptions come from an ambitious coding of existing land uses, and depictions of build out patterns based on approved land use plans for municipalities and counties. As shown in Figures 3-2 and 3-3, suburban residential land uses are dominant. Gaston and Cleveland counties have a higher percentage in industrial uses, while Cleveland County has a significantly higher percentage of rural land uses. Based on adopted land use plans, the three counties have planned future land uses in a remarkably similar

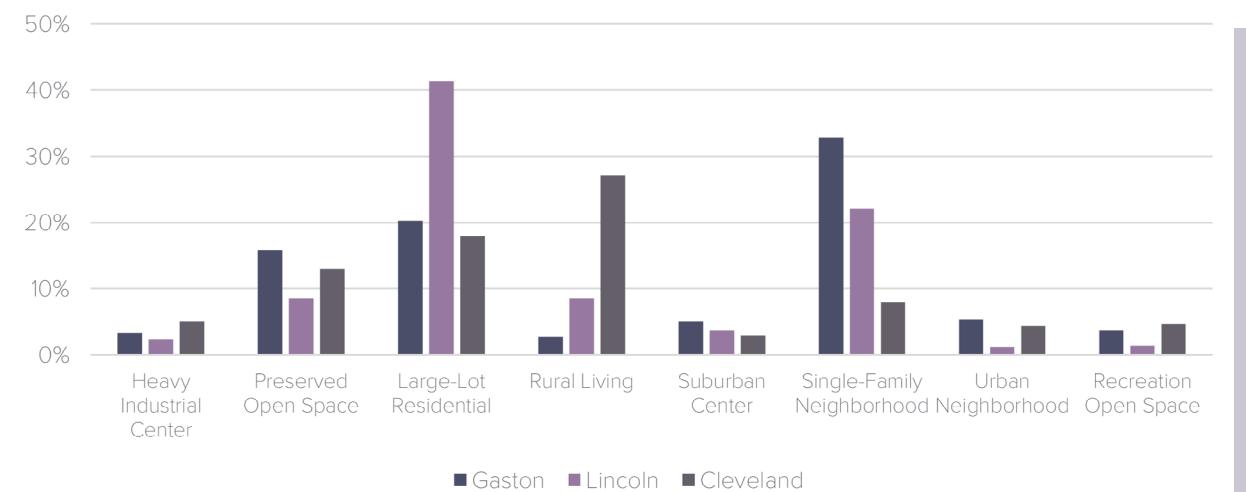


Figure 3-2: GCLMPO Developed Land Use Patterns

Source: Metrolina CommunityViz Model v. 2.0

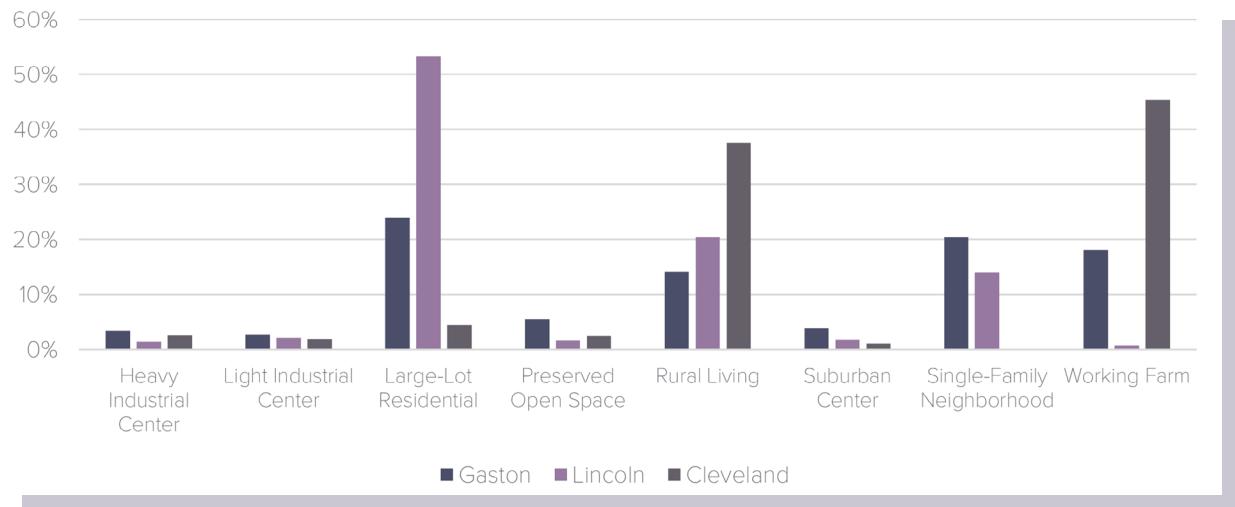


Figure 3-3: GCLMPO Build Out According to Land Use Plans

Source: Metrolina CommunityViz Model v. 2.0

pattern. Suburban residential development will still be the most common land use type, but rural residential land uses will become significantly more common.

The GCLMPO is separated into nine districts across the three counties for purposes of projecting growth. These districts form the basis for demographic projections through 2050. How are they currently developed? How are they expected to grow in comparison to the rest of their county? The following district descriptions help provide background on particular portions of the three counties and how they will grow in the coming decades.

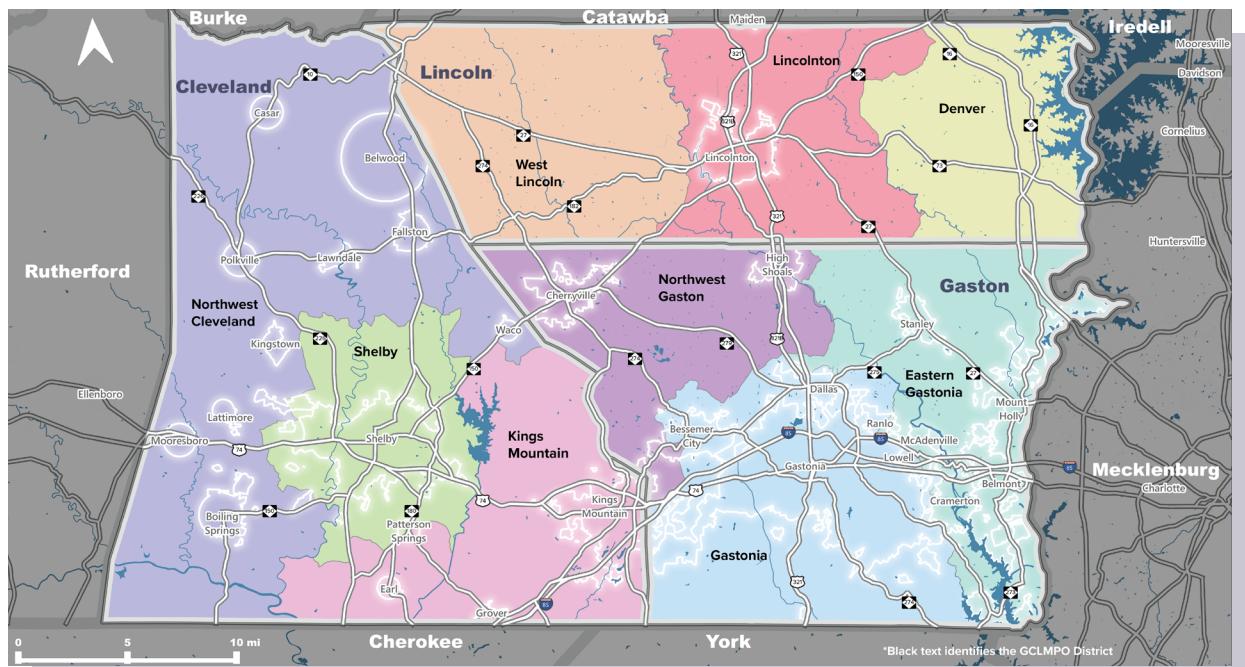


Figure 3-4: Nine GCLMPO Districts

CLEVELAND COUNTY

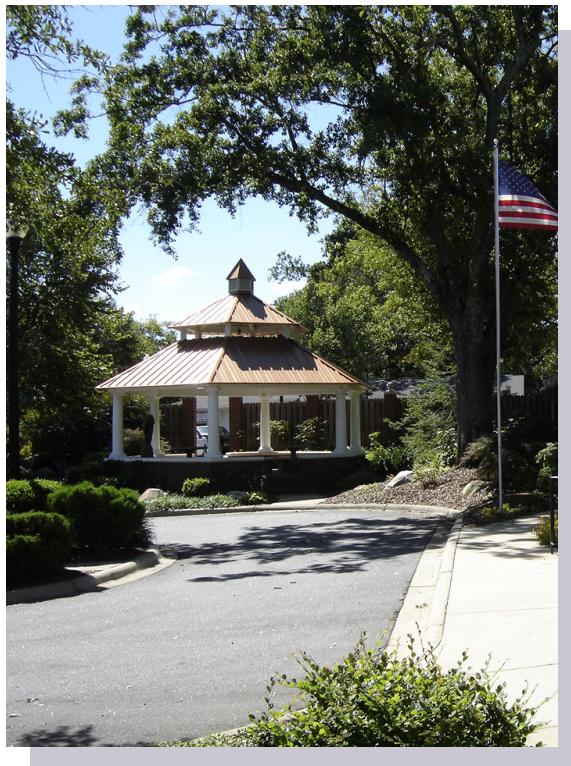
District name: Shelby (also includes a portion of Patterson Spring)

Shelby is the largest city and the county seat for Cleveland County. Shelby has an established downtown that is home to a range of public sector, professional, and retail sites. Shelby's residential pattern is a mix of multi-family and small-lot single family, with some larger lot single-family development located on the edges of the city. The majority of Shelby's retail and service jobs are located along the existing US 74 corridor, known as Dixon Blvd. Agricultural and large-lot residential land uses dominate the areas outside of Shelby. Apart from US 74, there are no multi-lane roads in the unincorporated areas, so most future growth will occur in a scattered pattern throughout the district, as well as at interchanges along the new Shelby Bypass, which is currently under construction with only the western segment now open to traffic.

District name: Kings Mountain (also includes Earl and Grover, and a portion of Patterson Springs)

Kings Mountain is the second largest city in Cleveland County, with a small portion of its geography in Gaston County. I-85 and US 74 intersect immediately east of the city. In July 2021, the Catawba Nation completed the first phase of the Two Kings Casino entertainment complex, located on Dixon School Road just north of I-85 (Exit 5). Upon completion, the casino is projected to create 2,600 jobs and generate 40,000 vehicle trips per day.

Population growth is expected to be moderate through 2050, with most growth occurring in the unincorporated parts of the district through large-lot single-family housing.



District name: Northwest Cleveland County (includes Casar, Belwood, Polkville, Lawndale, Fallston, Waco, Kingstown, Lattimore, Mooresboro, and Boiling Springs)

Northwest Cleveland County encompasses the areas north and west of Shelby. It is characterized by extremely low density residential patterns, with several small municipalities, primarily at the intersections of NC routes. There has been little subdivision-style growth in the area in recent years, which is not expected to change through 2050. The area is agricultural in nature, along with significant forested portions in the northern areas near the South Mountain State Park. Apart from US 74, there are no multi-lane roads in the district. Most workers commute to Shelby for work, although a rising number of professionals live in the area and telecommute or work non-traditional schedules, such as working in the aviation industry at Charlotte-Douglas Airport. The projected population

and commercial growth is projected to be accommodated in smaller individual developments and large-lot single family housing, as opposed to master planned developments.

GASTON COUNTY

District Name: Eastern Gaston (includes Belmont, Cramerton, McAdenville, Mount Holly, Stanley, and portions of Lowell and Ranlo)

Eastern Gaston County has experienced a significant increase in development pressures from Charlotte over the past decade, primarily due to its proximity, access, and lower housing costs (in comparison to Mecklenburg County). This area has for decades been characterized by small town development around textile and other manufacturing plants. Although many of these plants have closed over the past few decades, the sites are being redeveloped as residential, which has changed commuting patterns on some local roads.

The residents of Eastern Gaston County do not have a predominant commuting pattern. Many do commute to Mecklenburg County, as well as to Gastonia, but a significant number also work nearby. The area is home to a range of retail, manufacturing, professional, and service job centers. The long-term projections for employment show the number of jobs growing slightly faster than the population, which should reduce commuting pressures for some residents. The growth in residential and non-residential development will be a mix of downtown redevelopment and greenfield development. This continues the trend from the past few years which have seen revitalization of several of the downtowns in the area.

District Name: Gastonia (also includes Dallas and portions of Lowell, Ranlo, and Bessemer City)

Gastonia has been the economic heart of the county for many years. It is the County seat and largest of the county's 15 municipalities. Growth continues along its edges as undeveloped land is built upon and annexed in exchange for municipal services. Gastonia is home to many current and former textile mills and factories, with a corresponding "mill village" residential development pattern around them. This small lot pattern has recently become attractive for residential renovation.



Gastonia is bisected by US 321, I-85, and US 74 (Franklin Boulevard) and these multi-lane facilities give city residents direct access to adjacent counties. Much of the retail and service employment for the district is located at interchanges on these three routes. Workers in Gastonia travel from the surrounding counties, while some live nearby. Gastonia is expected to grow in population and jobs in equal proportions, with growth being a mix of downtown and neighborhood revitalization, and new development along the city's edges and nearby municipalities. The City of Gastonia has worked hard to redevelop former mills as residential and employment centers, and this hard work is starting to pay dividends in new infill activity.

District Name: Northwest Gaston (includes Cherryville, High Shoals, and a portion of Bessemer City)

The largest municipality in this district is Cherryville, which is located at the intersection of NC 279 and NC 150. The city has seen a decline in employment over the past decade due to manufacturing

and distribution firm closures and relocations. Despite these challenges, the area has maintained its population, and is expected to grow slightly over the coming decades, although employment will grow faster than the population. The population outside of Cherryville primarily lives in single-family homes built along existing roads, as opposed to subdivision development patterns. The area has a strong agricultural base, with a significant number of horse farms.

This area is likely to remain primarily rural and experience a continual low density growth rate as public water and sewer systems do not currently exist in this district, and may not occur in the foreseeable future. This may change, however, if the County's Public Water and Sewer Plan is implemented or the cities of Cherryville or Bessemer City, or the Town of High Shoals, extend water and sewer lines. With sewer capacity being increased in High Shoals, this will attract growth in the future and impact its rate of growth as well as give the town more command over the type of growth that occurs within its boundary.

Cherryville prioritizes having both NC 279 and NC 150 widened in order to provide increased access to I-85, US 74, and US 321, particularly for manufacturing and transportation operations. Construction is underway to widen sections of NC 279 to create passing zones in four locations between St. Marks Church Road near Cherryville to just west of where NC 275 meets NC 279 in Dallas. This project will improve safety and mobility along this corridor, but is not expected to change the projected development pattern.

LINCOLN COUNTY

District Name: Denver

The eastern third of Lincoln County is commonly referred to as "Denver." This area has historically been comprised of lakefront homes and low density residential development, but over the past decade has experienced significant growth pressures, similar to other portions of Lake Norman in Iredell and Mecklenburg counties. Compared to the I-77 corridor serving Charlotte's northern suburbs and southern Iredell County, the Denver portion of Lincoln County, or the NC 16 corridor, has not developed as intensely. However, with the new multi-lane NC 16, actual travel time from Uptown Charlotte to Denver is now the same as it is to Mooresville. The next thirty years are projected to see growth in the area at rates similar to Davidson, Cornelius, Huntersville, or Mooresville of the past decade. Eastern Lincoln County's population growth from now through 2050 will primarily occur as single-family subdivision developments on undeveloped land, although multi-family housing in the form of townhouses along the Business NC 16 corridor will occur more frequently as a reflection of market demands. The Denver area will continue to not only be the fastest-growing part of Lincoln County, but also the fastest growing area in the entire GCLMPO planning area.

Employment growth between 2018 and 2050 will be concentrated along the NC 16 Corridor and will continue to outpace employment growth in Lincolnton and western Lincoln County. Since 2010, the Denver area has witnessed high employment numbers in



the retail sector. In the next thirty years, employment in the food and beverage and convenience store industries in particular is expected to increase. Another industry that is expected to grow is the high-traffic industrial and service jobs as the area matures and the county looks to increase employment opportunities through office park development.

District Name: Lincolnton (includes unincorporated areas in the central area of the county)

Lincolnton serves as the county seat of Lincoln County and is the only incorporated municipality in the county. The urban form of the city's historic core bears strong similarity to that of Shelby, but at a scale approximately half the size. The downtown is anchored by legal and public sector jobs, with limited retail in proximity. Most retail establishments are located on the eastern side of the city. The majority of city residents live in small-lot single-family housing, although nearly all multi-family housing in Lincoln County is also located in Lincolnton. There is little residential redevelopment occurring, with the majority of the population growth being accommodated in new housing on the edge of the city. Major road corridors, such as NC 150 and NC 27, are seeing very little non-residential redevelopment.

Lincolnton is projected to grow through 2050, but at a much slower rate than Denver. Due to the availability of land surrounding the city, the vast majority of new development will occur along the edges, particularly residential development in the form of smaller subdivisions with moderate lot sizes of one-half to one-acre lots.

District Name: West Lincoln (includes the unincorporated area west of Lincolnton)

Western Lincoln County is overwhelmingly agricultural, with no multi-lane road access and little public water or sanitary sewer service. There are no new roads proposed in the area to affect development patterns. This portion of the county is projected to experience negative absolute growth through 2050.

Table 3-1 shows the GCLMPO population growth by county, and Table 3-2 shows the GCLMPO population growth by district.

POPULATION	2018	2050	ABSOLUTE GROWTH	PERCENT GROWTH
Gaston County	219,196	266,415	47,219	22%
Lincoln County	81,190	112,340	31,150	38%
Cleveland County	96,753	112,431	15,678	16%
TOTAL	399,157	493,236	94,047	24%

Table 3-1: GCLMPO Area Population Growth by County

Source: Metrolina CommunityViz Model v. 2.0

SOCIOECONOMIC PROJECTION PROCESS

The modeled study area includes three counties, close to 400,000 people and 183,000 jobs in 1,140 square miles. To effectively analyze this large area for travel behavior, future transportation needs, and air pollutants emitted by the motor vehicles used in the region, the study area is broken into Transportation Analysis Zones. Each of these TAZs includes over a dozen independent pieces of information about the travel behavior of that particular geography.

POPULATION BY DISTRICT	2018	2050	ABSOLUTE GROWTH	PERCENT GROWTH
Northwest Cleveland	30,095	32,418	2,323	7.17%
Shelby	34,063	42,043	7,980	18.98%
Kings Mountain	32,595	37,970	5,375	14.16%
West Lincoln	15,018	14,168	-850	-6.00%
Lincolnton	38,036	40,241	2,205	5.48%
Denver	28,136	57,931	29,795	51.43%
Northwest Gaston	26,357	28,094	1,737	6.18%
Gastonia	120,285	149,353	29,068	19.46%
Eastern Gaston	72,554	88,968	16,414	18.45%

Table 3-2: GCLMPO Area Population Growth by District

Source: Metrolina CommunityViz Model v. 2.0

The GCLMPO is required to develop projections for the following variables:

Total Population

- Population in households
- Population in group quarters (dormitories, group homes, etc.)

Total Jobs

- Industrial jobs
- High-traffic Industrial jobs
- Retail jobs
- High-Traffic Retail jobs
- Low-Traffic Service jobs
- High-Traffic Service jobs
- Education jobs
- Office and Government jobs



Student Enrollment

- K-8
- 9-12
- College

The GCLMPO must develop projections for each of these variables by decade (2025, 2035, 2045, and 2050) for each of the individual TAZs. In order to establish the baseline 2018 county-level socioeconomic control totals, GCLMPO staff worked closely with the member jurisdictions to collect residential demolition and certificates of occupancy data for the three counties to calculate housing units. An average person per household and occupancy rate was then applied to the

housing unit control totals to obtain a population estimate for 2018. Employment control totals were derived by taking the full-time and part-time employees in the respective counties as determined by the US Bureau of Economic Analysis (BEA) 2017 employment data, and applying a 2% increase to obtain baseline employment totals for 2018. In addition, the MPO purchased 2018 employment data from InfoUSA and verified employment centers with employee allocations greater than 100.

To project population and employment, the GCLMPO utilized projections from the NC Statewide Model. Household projections used data from Woods and Poole due to its validity and historical records. These projections were approved in December 2019 by the GCLMPO Board, and are maintained by Charlotte Department of Transportation staff, who serve as model custodian for the Metrolina Model.

POPULATION PROJECTIONS

Although the GCLMPO's population will grow by 24 percent between 2018 and 2050, this growth is not evenly distributed throughout the GCLMPO area. In absolute terms, the central and eastern portions of Gaston County, as well as eastern Lincoln County, will see the most growth, with much of that development in the form of single-family suburban and exurban development. Lincolnton, Kings Mountain, and Shelby will see moderate growth, primarily on the edges of their developed areas, while the remaining portions of the three counties will see little population growth apart from scattered individual single-family construction.

Figure 3-5 shows the 2018-2050 district level population projections.

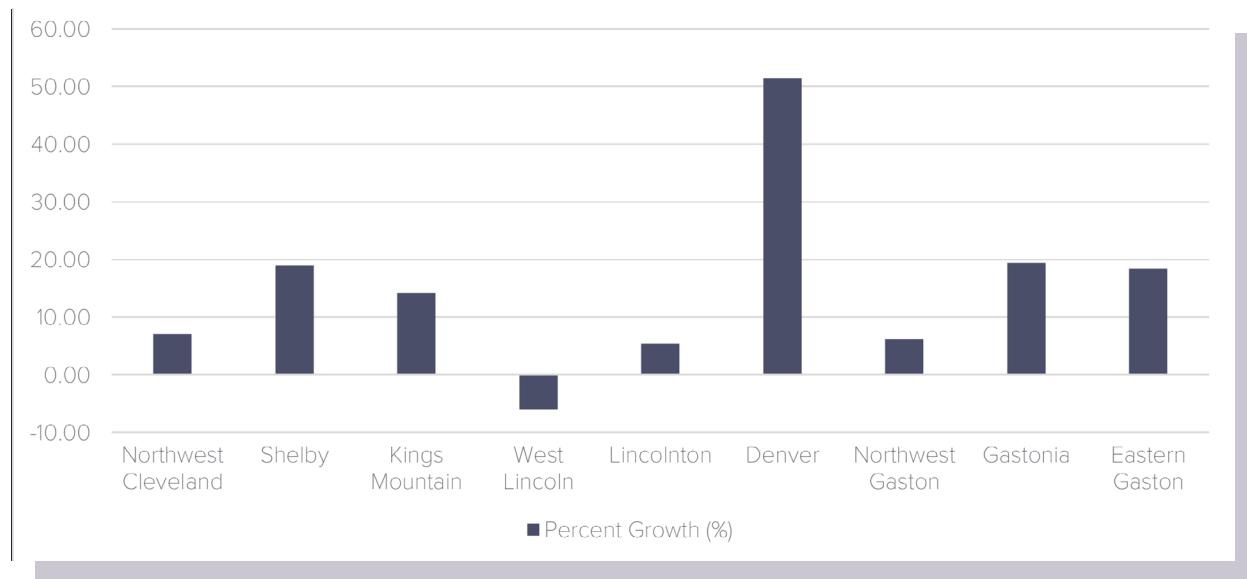


Figure 3-5: 2018-2050 District Level Population Projections - Percent Change

Source: Metrolina CommunityViz Model v. 2.0

JOB PROJECTIONS

The three counties have seen significant changes over the past few decades, with factory closings and shifts in commercial centers. New employment growth has occurred along I-85, NC 16, US 74, and US 321, and this trend is expected to continue into the future. The GCLMPO area will see job growth through 2050, with the addition of close to 56,000 new jobs. Employment in all districts is

expected to grow, but central and eastern Gaston County, as well as eastern Lincoln County and Shelby, will experience the highest absolute increases in jobs. Growth across all industry types is fairly even, although low traffic industrial and low service will add the highest number of new jobs. The increase in jobs will outpace the increase in population as new industries and corporations move into the area.

Table 3-3 shows the GCLMPO job growth by county, and Table 3-4 shows the job growth by district.

JOBs	2018	2050	ABSOLUTE GROWTH	PERCENT GROWTH
Lincoln County	31,077	46,500	15,423	50%
Gaston County	104,436	132,700	28,264	27%
Cleveland County	45,120	59,100	13,980	31%
TOTAL	180,633	238,300	57,667	32%

Table 3-3: GCLMPO Area Job Growth by County

Source: Metrolina CommunityViz Model v. 2.0

JOBs BY DISTRICT	2018	2050	ABSOLUTE GROWTH	PERCENT GROWTH
Northwest Cleveland	8,493	9,043	550	6%
Shelby	25,640	34,987	9,347	36%
Kings Mountain	10,987	15,070	4,083	37%
West Lincoln	1,981	2,387	406	20%
Lincolnton	17,387	19,462	2,075	12%
Denver	11,709	24,651	12,942	111%
Northwest Gaston	6,302	6,897	595	9%
Gastonia	71,282	87,384	16,102	23%
Eastern Gaston	26,852	38,419	11,567	43%

Table 3-4: GCLMPO Area Job Growth by District

Source: Metrolina CommunityViz Model v. 2.0

Figure 3-6 shows the 2018-2050 district level job projections.

K-12 STUDENT PROJECTIONS

K-12 grade student enrollment projections typically correlate with household population growth. Knowing where student growth will occur is important in projecting future travel patterns, as education-related travel rivals commuting to work as a cause of peak-hour congestion.

The assumptions for student growth vary by county, but in the case of both Gaston and Cleveland counties, the projected percentage increase of K-12 student enrollment and overall population growth are approximately the same. Lincoln County's projected student enrollment increase of 50 percent exceeds its 38 percent population growth rate, reflecting a higher population growth rate for persons under 18 years of age.

Figures 3-8 through 3-11 illustrate the population growth, employment growth, and existing and future land use patterns in the GCLMPO planning area (see pages 58 through 65).

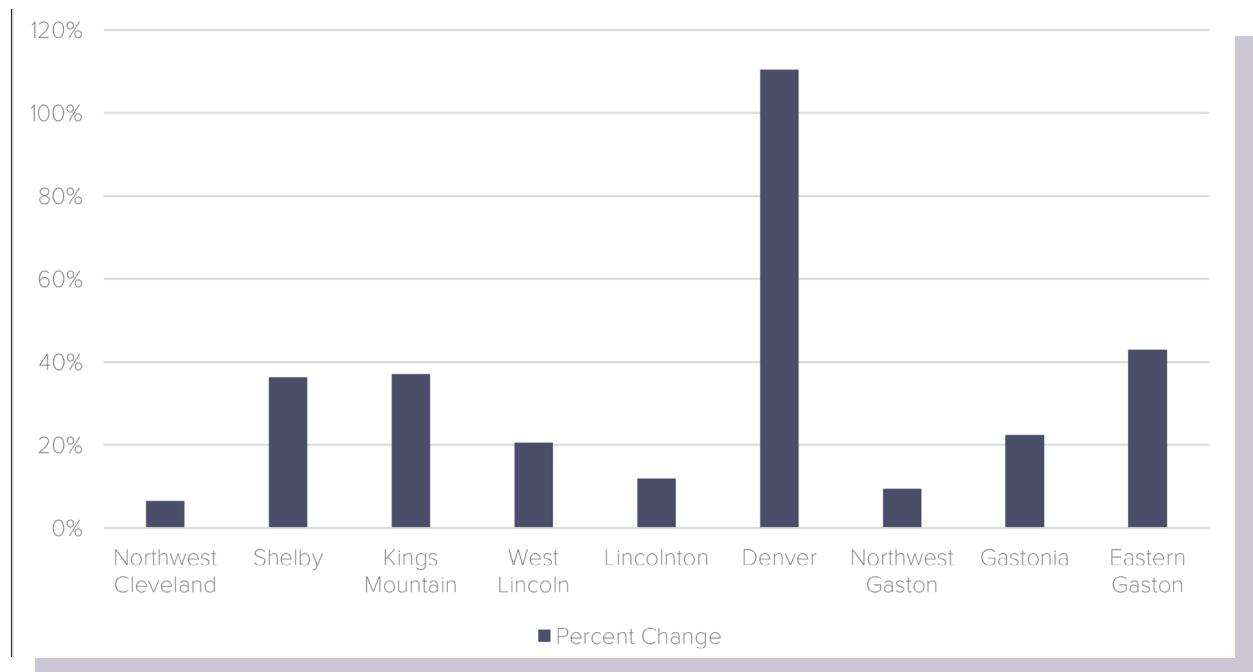


Figure 3-6: 2018-2050 District Level Job Projections - Percent Change

Source: Metrolina CommunityViz Model v. 2.0

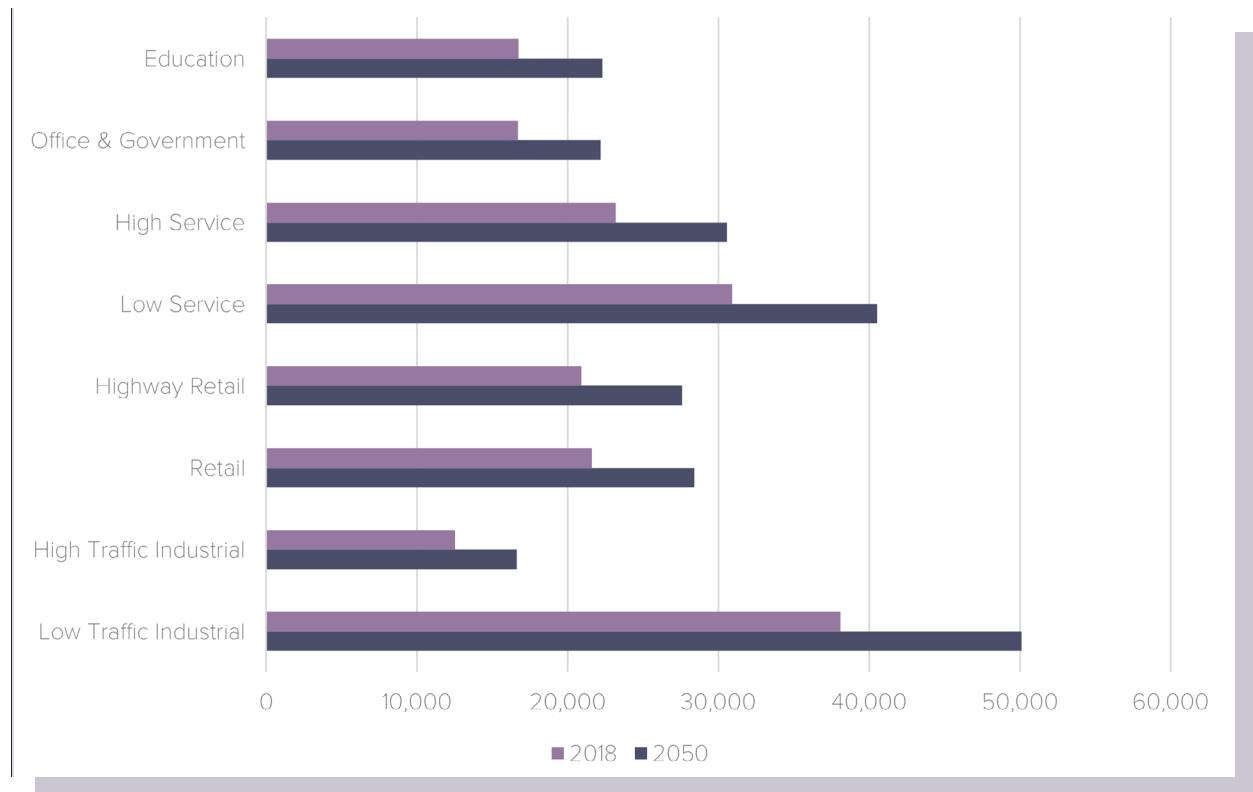


Figure 3-7: Projected Employment Change from 2018-2050 by Industry

Source: Metrolina CommunityViz Model v. 2.0

TRAVEL PATTERNS

A key component to transportation planning is to understand where and how residents travel in and through the area. The GCLMPO is concerned with properly evaluating travel modes, as well as travel patterns, so the MPO analyzes highway, transit, bicycle, pedestrian, and carpooling behaviors in order to help meet the needs of residents using all of these modes.

As discussed on page 43, the MRM has been developed to capture the travel characteristics unique to the Charlotte Metrolina area. The MRM forecasts future demand on existing and planned transportation facilities based on anticipated land use, demographic information, and travel patterns in the region.

VEHICLE MILES TRAVELED

Vehicle miles traveled (VMT) is a measure used in transportation planning for a variety of purposes. It measures the amount of travel for all vehicles in a geographic region over a given period of time. VMT is calculated as the sum of the number of miles traveled by each vehicle. VMT is often used to measure regional travel patterns. Table 3-5 shows the daily VMT by county.

COUNTY	2018	2050	PERCENT CHANGE (2018-2050)
Cleveland	3,400,760	4,487,629	32%
Gaston	6,901,910	9,035,924	31%
Lincoln	2,676,786	3,935,858	47%
TOTAL	12,979,455	17,459,411	35%

Table 3-5: Daily Vehicle Miles Traveled (VMT) by County

Source: MRM20v1.0

TRIP TYPES

In the MRM, projected trips are classified by trip type. Trips can be made by vehicle, transit, biking, or walking and are broken down into the main categories:

- Home-Based Work: Commuting trips between home and work occurring mainly during peak hours.
- Home-Based Other: Trips that begin or end at home for purposes other than commuting, including, but not limited to school, medical appointments, and shopping.
- At-Work Trips: Trips made while at work, including, but not limited to running errands, or trips made from work to another destination.
- Commercial/Truck: All trips made by freight, delivery, and commercial vehicles.
- Internal-External: Trips that begin within a county and end outside of that region.

It is important to note that the Model data includes tours. Tours string together trips that are typically done in sequence.

Table 3-6 shows the trip type originating in each county, with expected growth over the horizon of the MTP.

CLEVELAND COUNTY			
TRIP TYPE	2018	2050	PERCENT CHANGE
Home-Based Work	24,800	29,100	17%
Home-Based Other	98,500	117,600	19%
At Work Tours	2,400	3,500	46%
Commercial / Truck	42,800	54,000	26%
Internal-External	11,100	13,000	17%
TOTAL TRIPS	179,600	217,200	21%
GASTON COUNTY			
TRIP TYPE	2018	2050	PERCENT CHANGE
Home-Based Work	72,400	88,100	22%
Home-Based Other	259,500	321,700	24%
At Work Tours	5,900	8,500	44%
Commercial / Truck	98,500	123,800	26%
Internal-External	6,200	7,900	27%
TOTAL TRIPS	442,500	550,000	24%
LINCOLN COUNTY			
TRIP TYPE	2018	2050	PERCENT CHANGE
Home-Based Work	22,800	34,200	50%
Home-Based Other	82,800	124,100	50%
At Work Tours	1,700	3,000	76%
Commercial / Truck	31,700	48,000	51%
Internal-External	10,000	14,100	41%
TOTAL TRIPS	149,000	223,400	50%

Table 3-6: Trip Type by County

Source: MRM20v1.0

Note: The numbers in this table are rounded to the nearest 100.

COMMUTING PATTERNS

Commuting trips are a distinct minority of all trips generated, but do represent the focus of data collection through the Census Bureau, which reports a wide range of information on origins and destinations, mode, time, and demographics of commuters. What is most important for the GCLMPO to consider is, “how and where are workers travelling for work?” From Table 3-7 and 3-8, the answer is, “mainly by themselves and either within their own county for Cleveland County or to Mecklenburg County for Lincoln and Gaston counties.” Over 52,000 residents in Lincoln and Gaston counties are traveling to Mecklenburg County for work. Travel time is typically highest for those areas near the edge of feasible commutes to the jobs centers in Mecklenburg County. Cleveland County has the lowest average commute time at 24.7 minutes, and is also furthest from Mecklenburg County, with only 3,793 residents working in Mecklenburg County. Table 3-9 below shows the average travel time to work.

COUNTY	PERCENT DROVE ALONE	PERCENT CARPOOLING	PERCENT WALK OR BICYCLE	PERCENT USING TRANSIT	PERCENT WORKING AT HOME
Cleveland	85.1%	10.0%	2.3%	0.3%	1.8%
Gaston	84.3%	9.1%	1.0%	0.4%	3.2%
Lincoln	88.7%	7.5%	0.2%	0.2%	4.4%

Table 3-7: Work Commuting

Source: US Census Bureau, American Community Survey 2019 5 Year Estimate Subject Tables

WHERE THEY LIVE		WHERE THEY WORK					
COUNTY RESIDENTS	CLEVELAND	GASTON	IREDELL	LINCOLN	MECKLENBURG	CATAWBA	ALL OTHER LOCATIONS
Cleveland	16,528	5,849	N/A	848	3,793	1,212	8,079
Gaston	3,710	38,895	1,686	2,904	39,980	2,508	14,123
Lincoln	952	3,926	1,244	8,696	12,275	4,526	4,940

Table 3-8: County Where Residents Work

Source: US Census Bureau 2019

COUNTY	MEAN TRAVEL TIME (MINS)
Cleveland	24.7
Gaston	26.5
Lincoln	30.3
North Carolina	24.8
United States	26.9

Table 3-9: Average Travel Time to Work

Source: US Census Bureau, American Community Survey 2019 5 Year Estimate Subject Tables

It is important to note that COVID-19 has had a drastic impact on the number of workers telecommuting and could permanently change the way many of our residents work.

The results of these travel demands are apparent on the following congestion map. Figure 3-12 depicts 2019-2020 congestion levels in the three counties on all secondary (SR), NC, US, and Interstate routes. In total, 7.7%, or 115.1 miles, of the 1,490-mile network is considered extremely congested. 4.6%, or 67.9 miles, of the network is considered moderately congested. Approximately 19.5% of this traffic takes place on I-85, US 321 north of I-85, and US 74 west of I-85. The remaining 87.7%, or 1,307 miles, of the network is considered uncongested. These percentages are slightly higher than for the state as a whole, as only 6.4% of roads are considered extremely congested, and 3.6% considered moderately congested.

The most congested corridors are I-85 through Gaston County, US 74 through Shelby, NC 27 through Lincolnton, and NC 73 and NC 16 Business in eastern Lincoln County. The most congested sections are each identified for capacity improvements through 2050, with the Shelby Bypass (R-2707) in Cleveland County already underway. Congestion along the I-85 corridor is to be

addressed by widening the I-85 corridor between Belmont and the SC state line in Cleveland County. The congestion along NC 73 east of NC 16 is to be addressed with the widening of NC 73 into Mecklenburg County, including a widened bridge across the Catawba River.

Although only showing as congested in small segments, US 29/74 (Wilkinson Boulevard) gets extremely congested during peak travel times. The congestion along Wilkinson Boulevard between Gastonia and Mecklenburg County is being addressed in the short-term by the implementation of an improved signal system from NC 7 (Catawba Street) in Belmont to Wesleyan Drive in Cramerton/McAdenville (U-6038), as well as through the replacement and widening of the US 29/74 bridge over the Catawba River into Mecklenburg County (B-6051) and widening between Market Street and Alberta Drive in Cramerton (U-6146). Intersection improvements to US 29/74 and Park Street (U-5959) are funded in a later horizon year and will further help to ease congestion along this heavily traveled corridor.

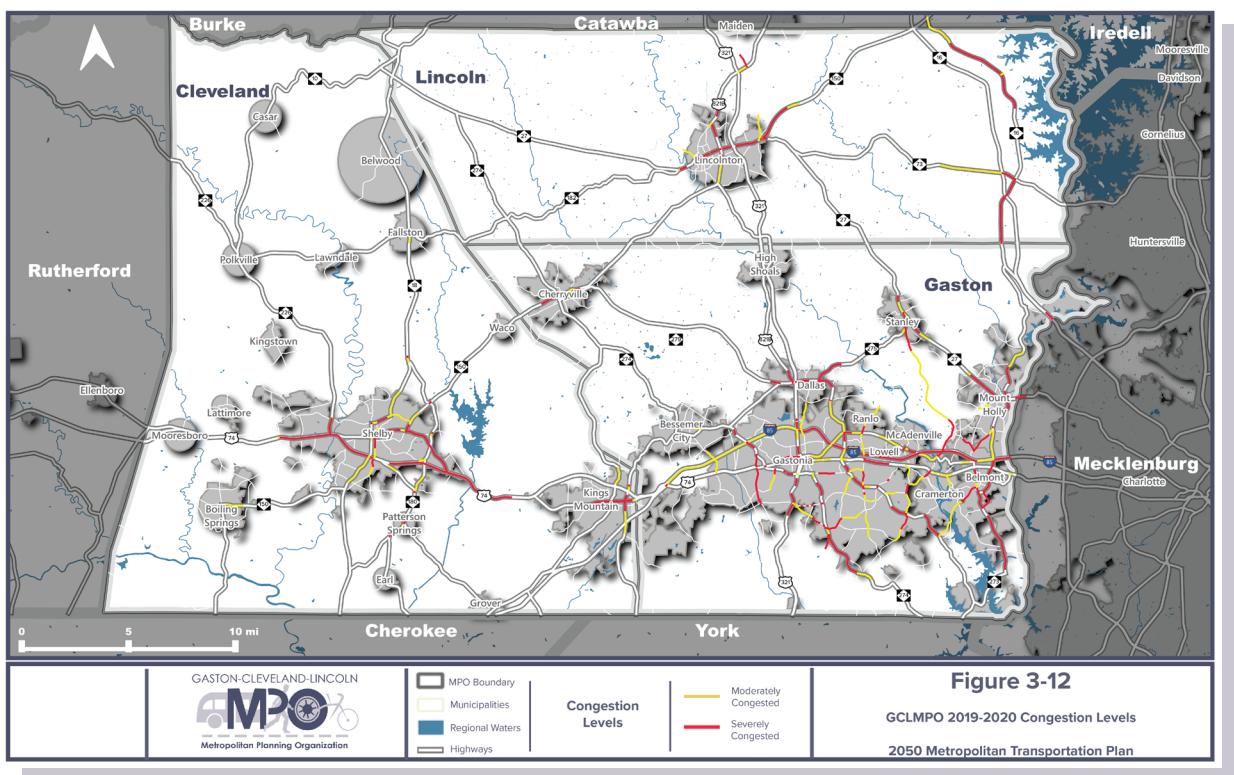
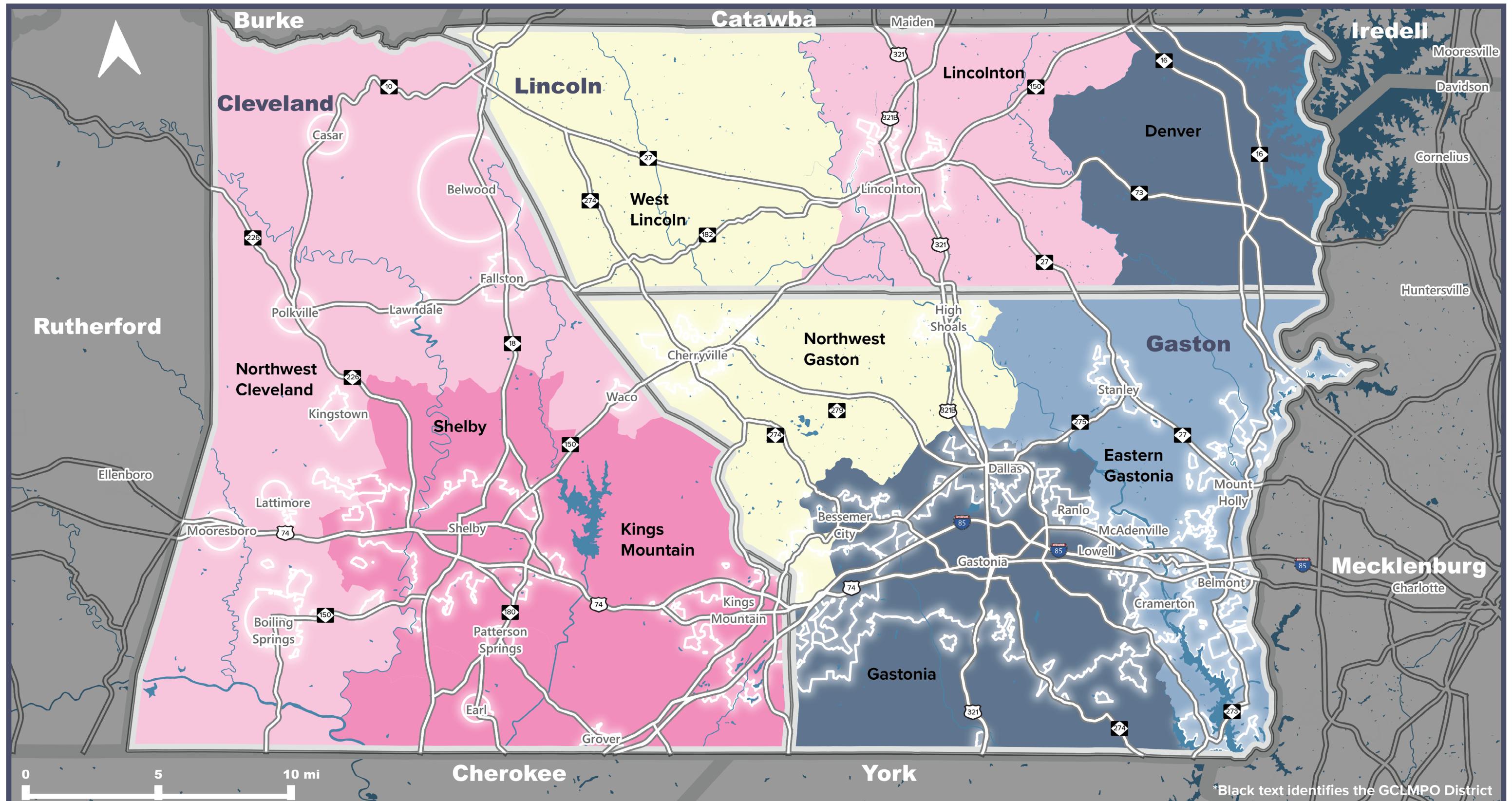


Figure 3-12: Congestion Levels

TOTAL TRAVEL

Vehicles traveling in and through the three counties add up to nearly 13 million miles per day. The MRM does project increasing VMT in the MPO through 2050, with approximately 34% more VMT per day from 2018 to 2050.

The impact of having an interstate in a county dramatically impacts where travel occurs. In Gaston County approximately 1/3 of all travel occurs on I-85, while approximately 1/6 occurs on local roads (arterials and collectors). Lincoln County, which does not have an interstate, has a larger amount of travel occurring on local roads. Cleveland County, by virtue of having US 74 coded as partial expressway and arterial, has a much higher percent of its traffic on expressway and principal arterial roads.



MPO Boundary
Municipalities
Regional Waters
Highways

Population Growth

0 - 2,000
2,001 - 5,000
5,001 - 10,000
10,001 - 18,000
18,001 +

Figure 3-8

Figure 3-8

2018 - 2050 Population Growth

2050 Metropolitan Transportation Plan

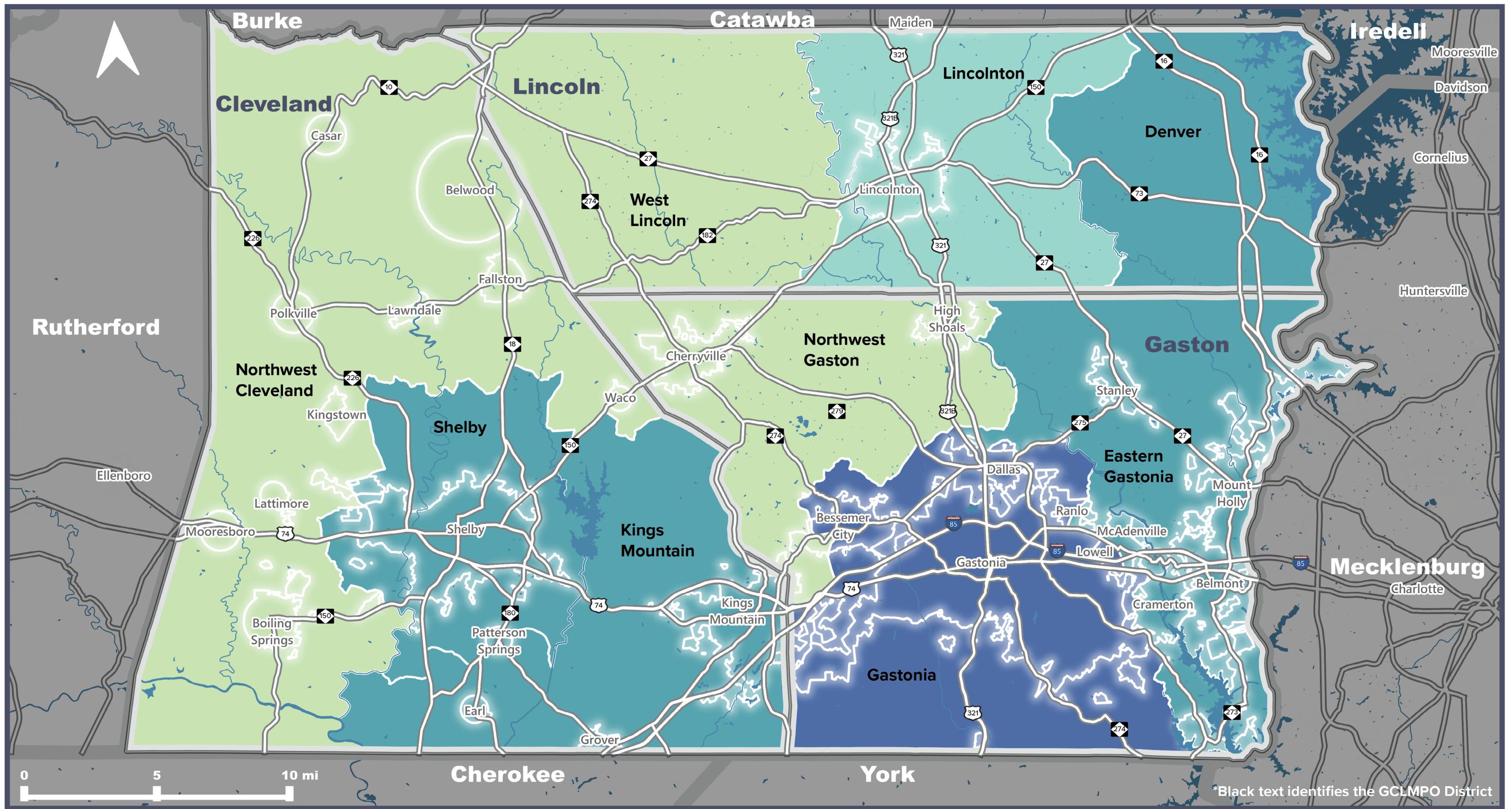


Figure 3-9



Figure 3-9

2018 - 2050 Employment Growth

2050 Metropolitan Transportation Plan

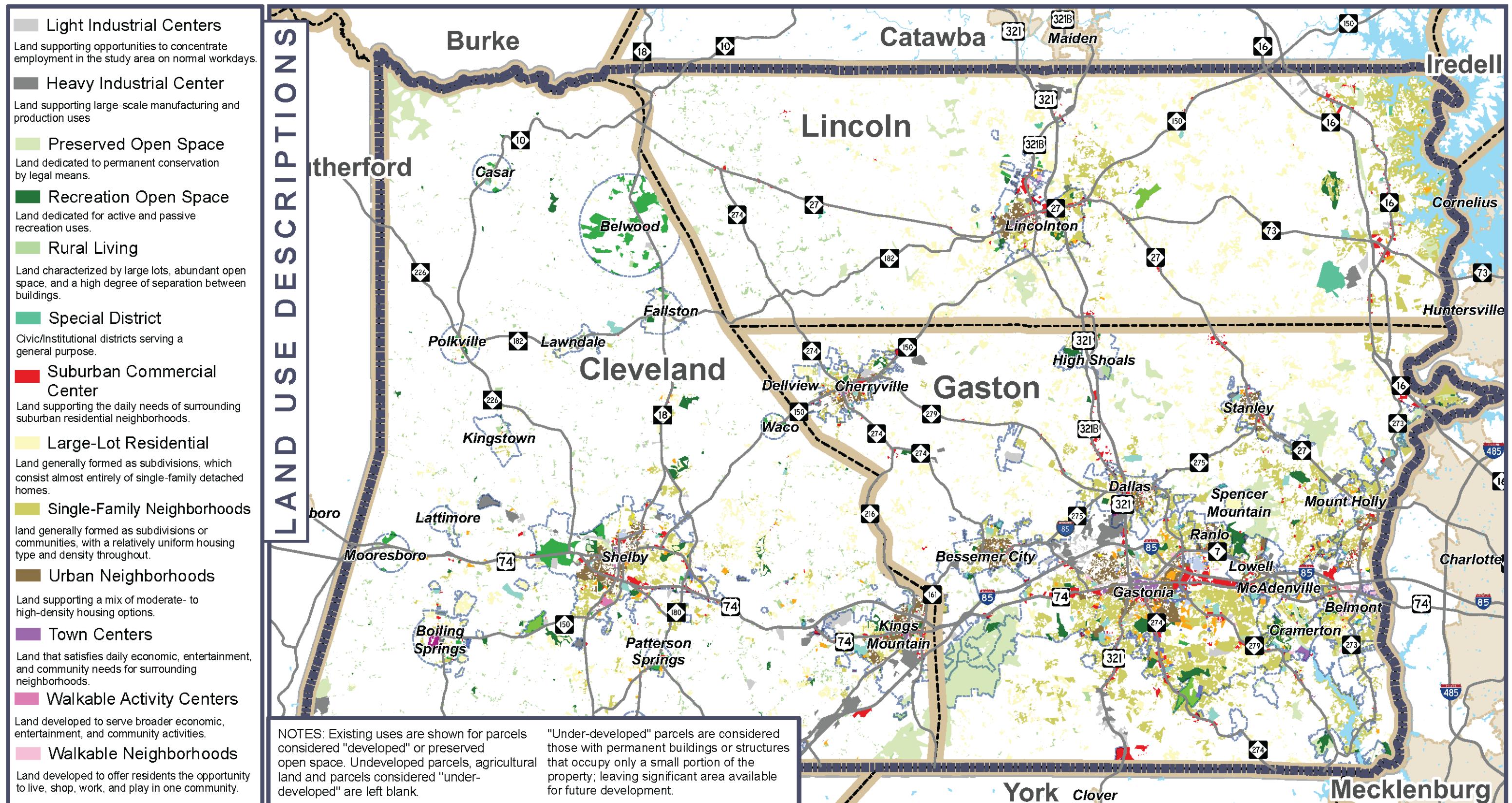


Figure 3-10



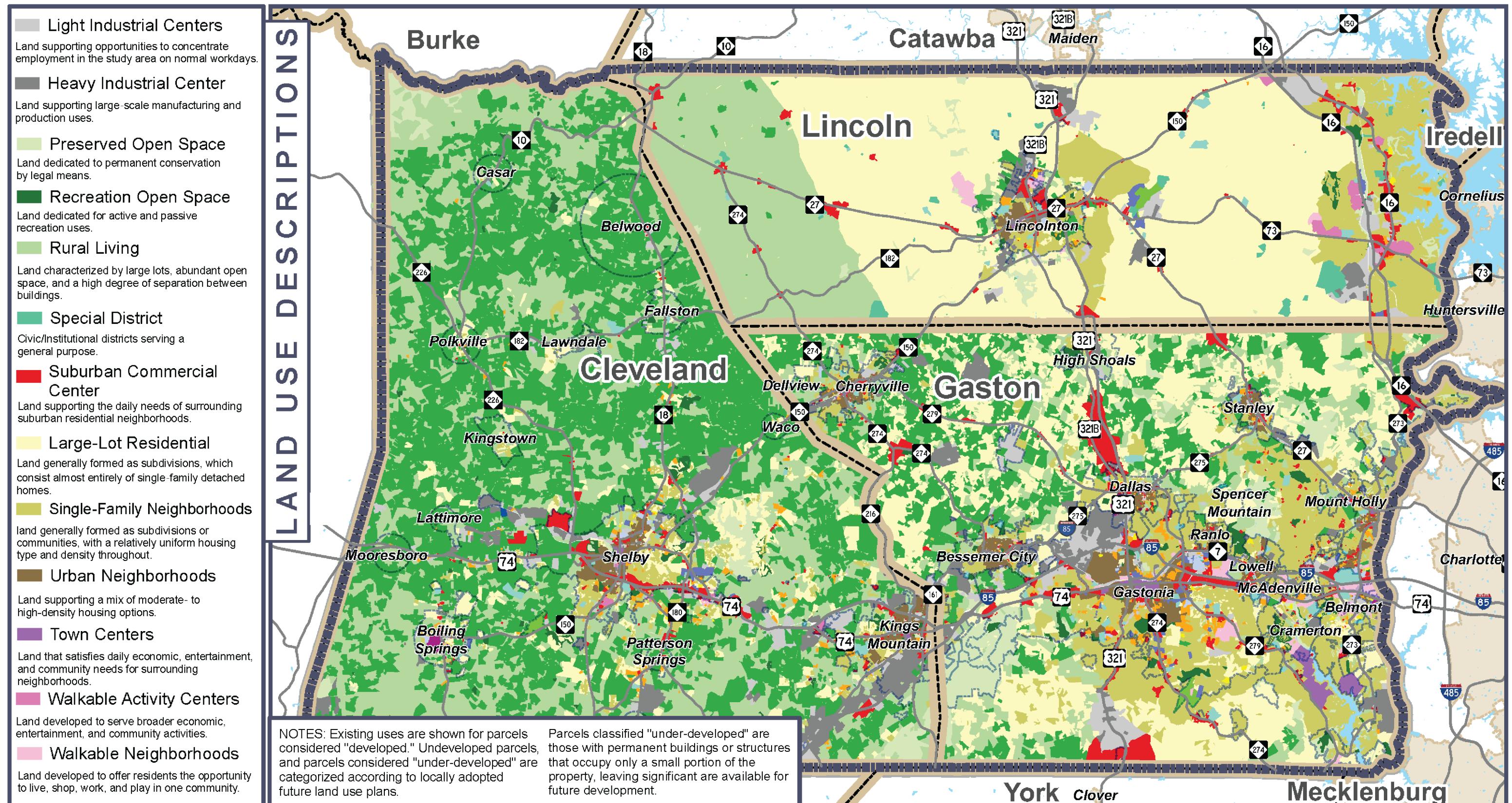
- MPO Boundary
- Counties
- Municipalities
- Regional Waters
- Highways

0 1 2 4 Miles

Figure 3-10

Existing Land Use Patterns

2050 Metropolitan Transportation Plan





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