Atlanta to Athens: Connectivity and Mobility Study

Existing Conditions Map Book

Prepared for:

Georgia Department of Transportation

Prepared by:

ATKINS

In cooperation with

Jacobs Engineering
RS&H
Sycamore Consulting
Metropolitan Planning and Engineering

December 2012

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I. STUDY AREA

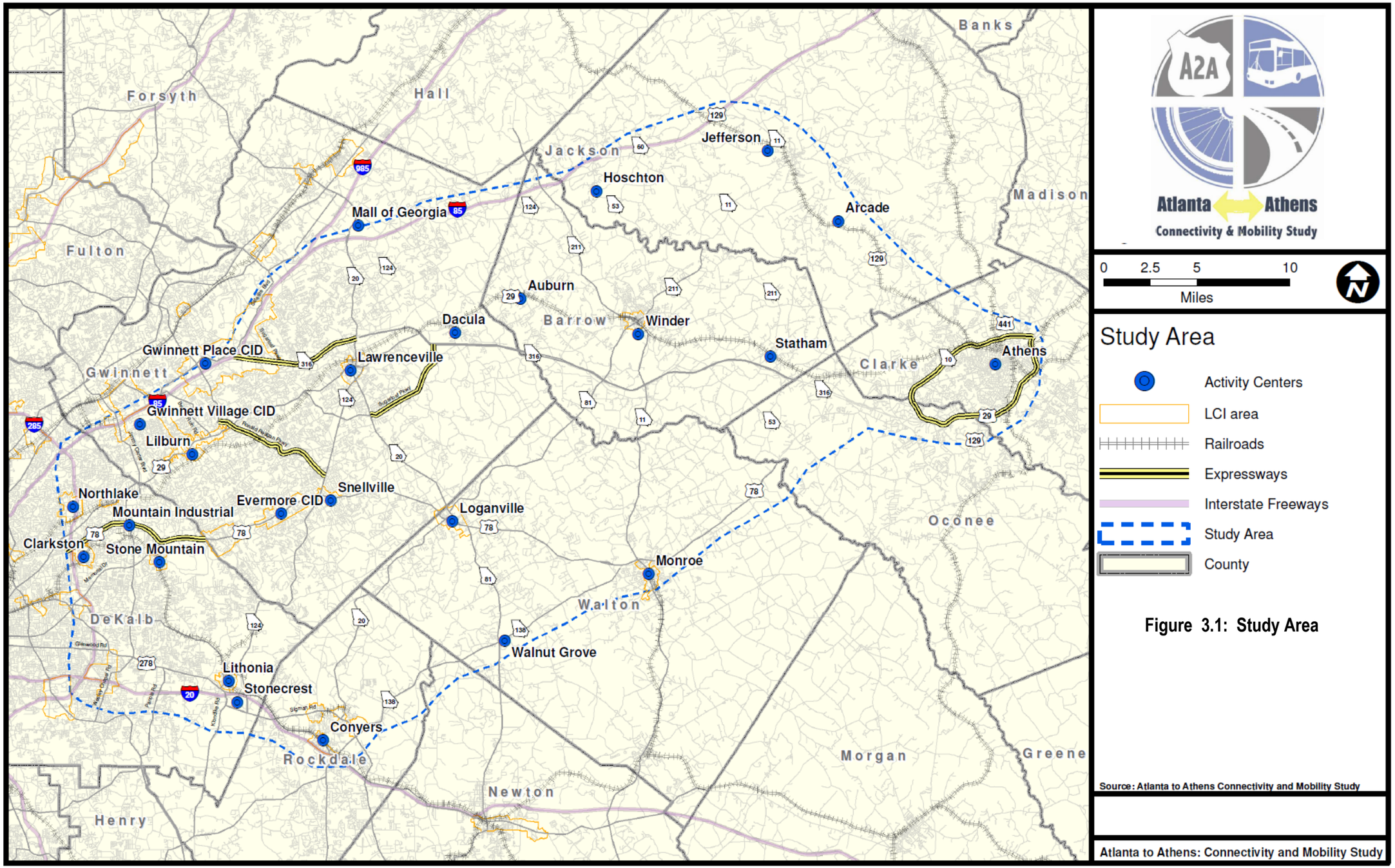


Figure 3.1: Study Area

II. DEMOGRAPHIC DATA

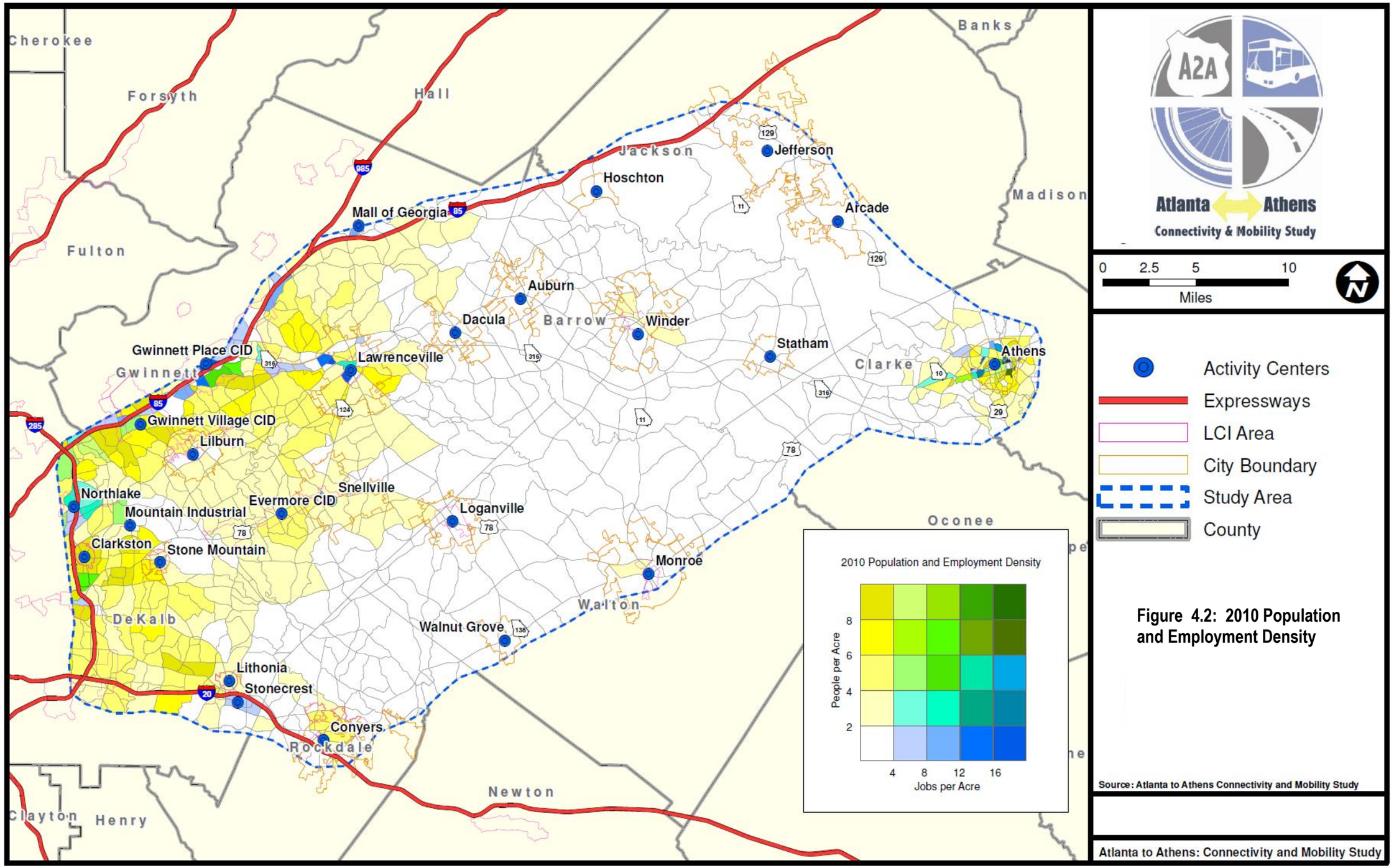
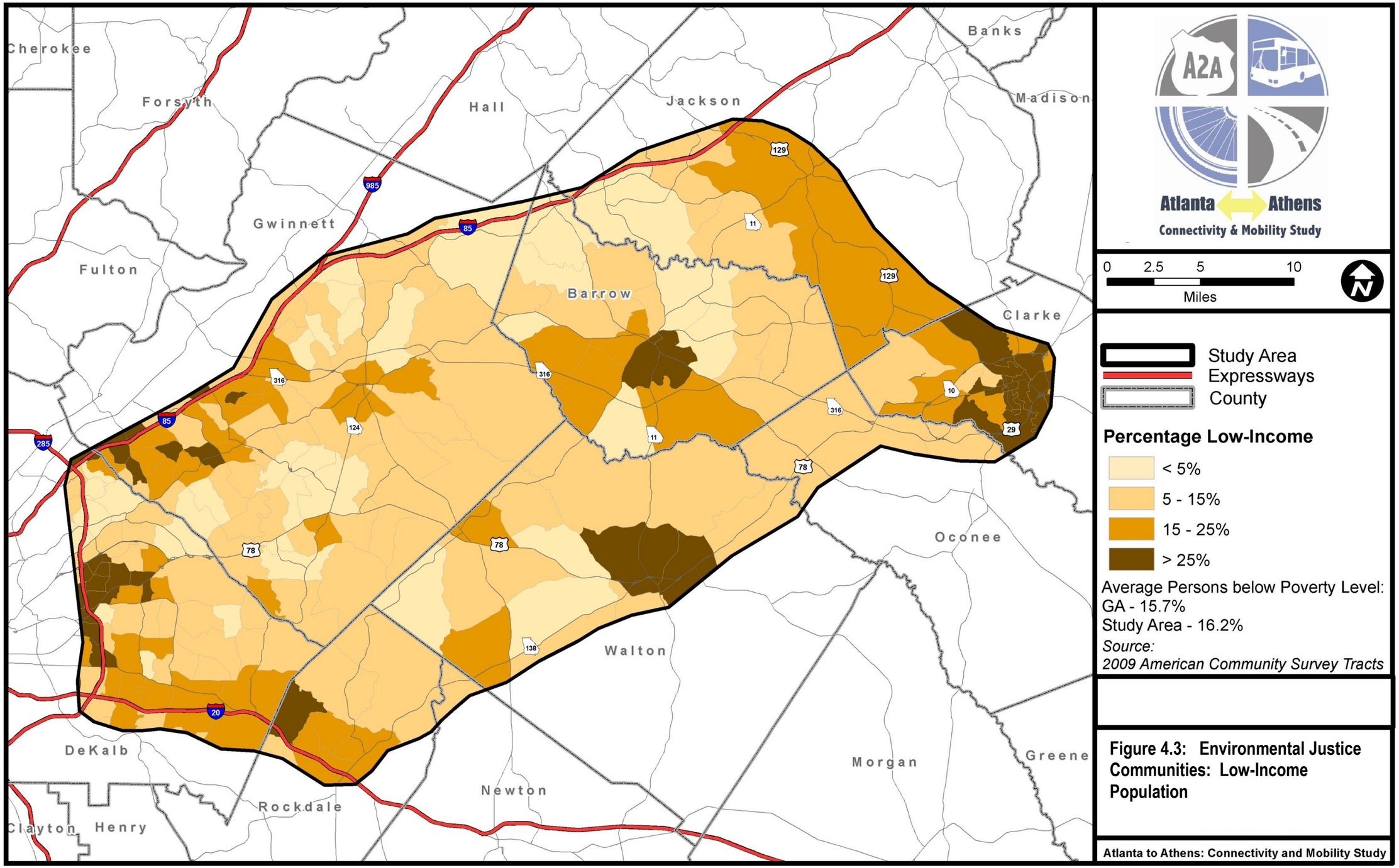


Figure 4.2: 2010 Population and Employment Density


Cherokee
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Jackson
Banks
Madison
Gwinnett
Fulton
Barrow
Clarke
Oconee
Walton
Morgan
Greene
Newton
Rockdale
DeKalb
Clayton
Henry
985
85
285
20
129
11
316
124
10
29
78
138
A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
Study Area
Expressways
County
Percentage Low-Income
< 5%
5 - 15%
15 - 25%
> 25%
Average Persons below Poverty Level:
GA - 15.7%
Study Area - 16.2%
Source:
2009 American Community Survey Tracts
Figure 4.3: Environmental Justice Communities: Low-Income Population
Atlanta to Athens: Connectivity and Mobility Study

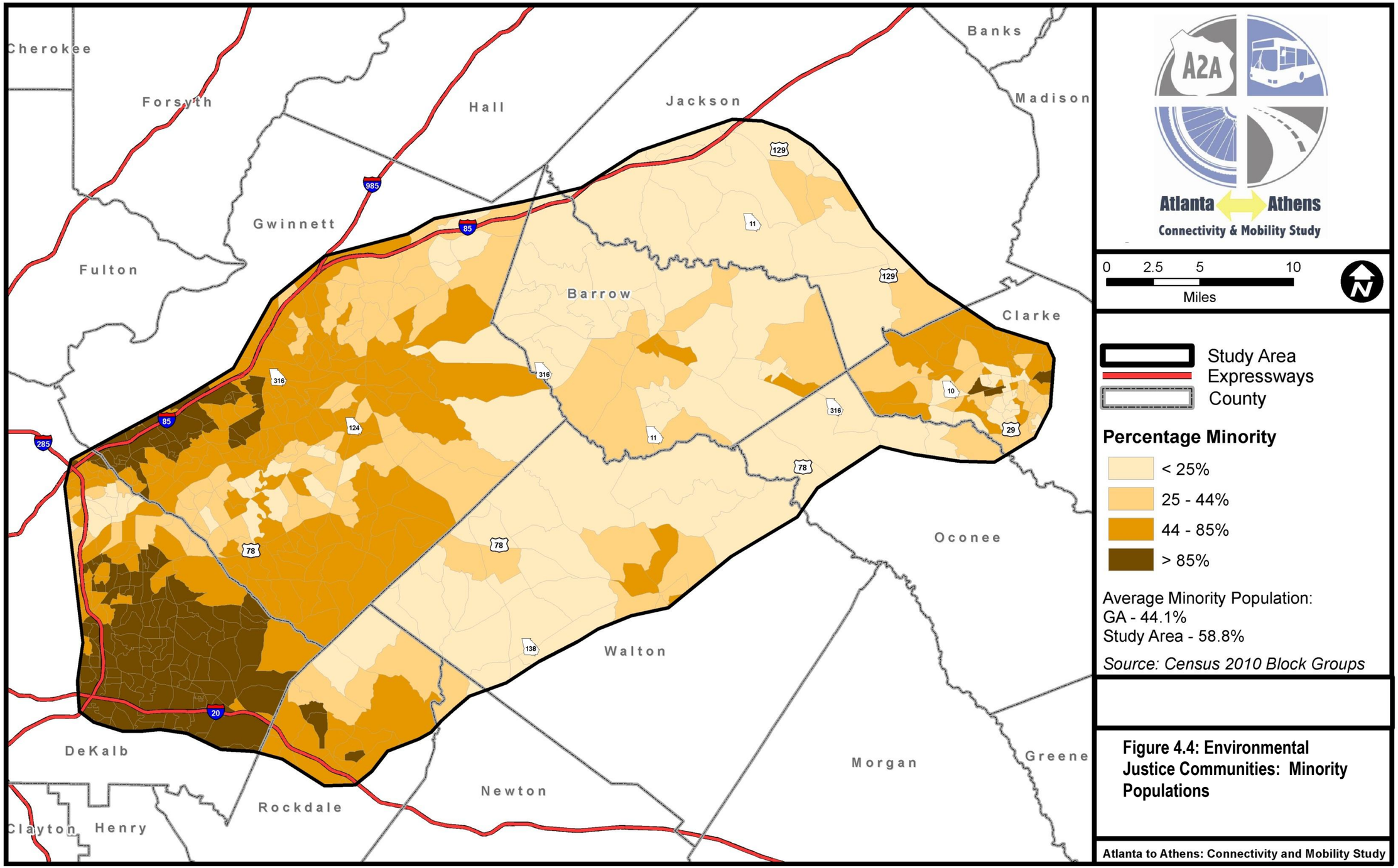


Figure 4.4: Environmental Justice Communities: Minority Populations

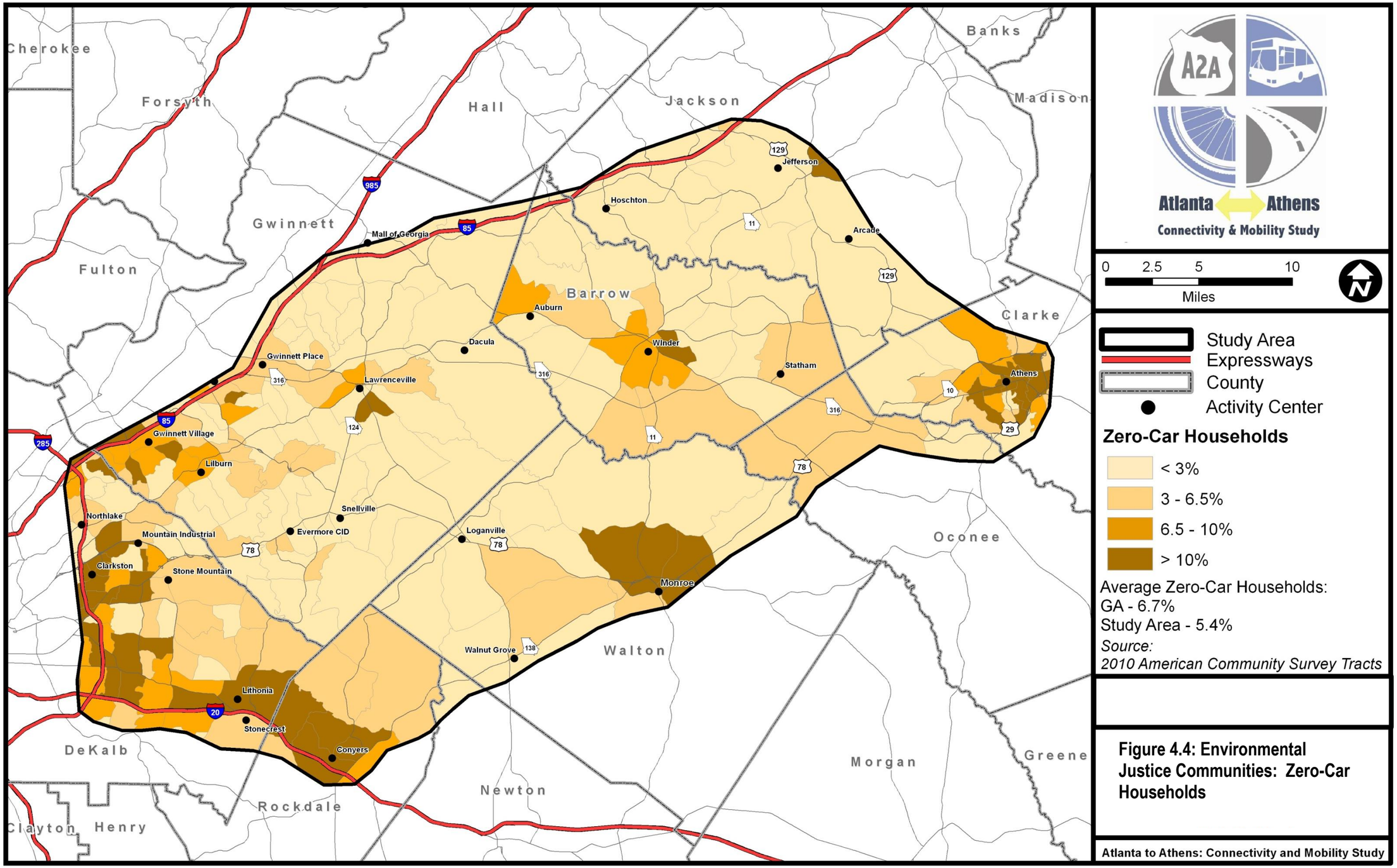


Figure 4.4: Environmental Justice Communities: Zero-Car Households

III. TRANSPORTATION FACILITIES AND TRAVEL PATTERNS

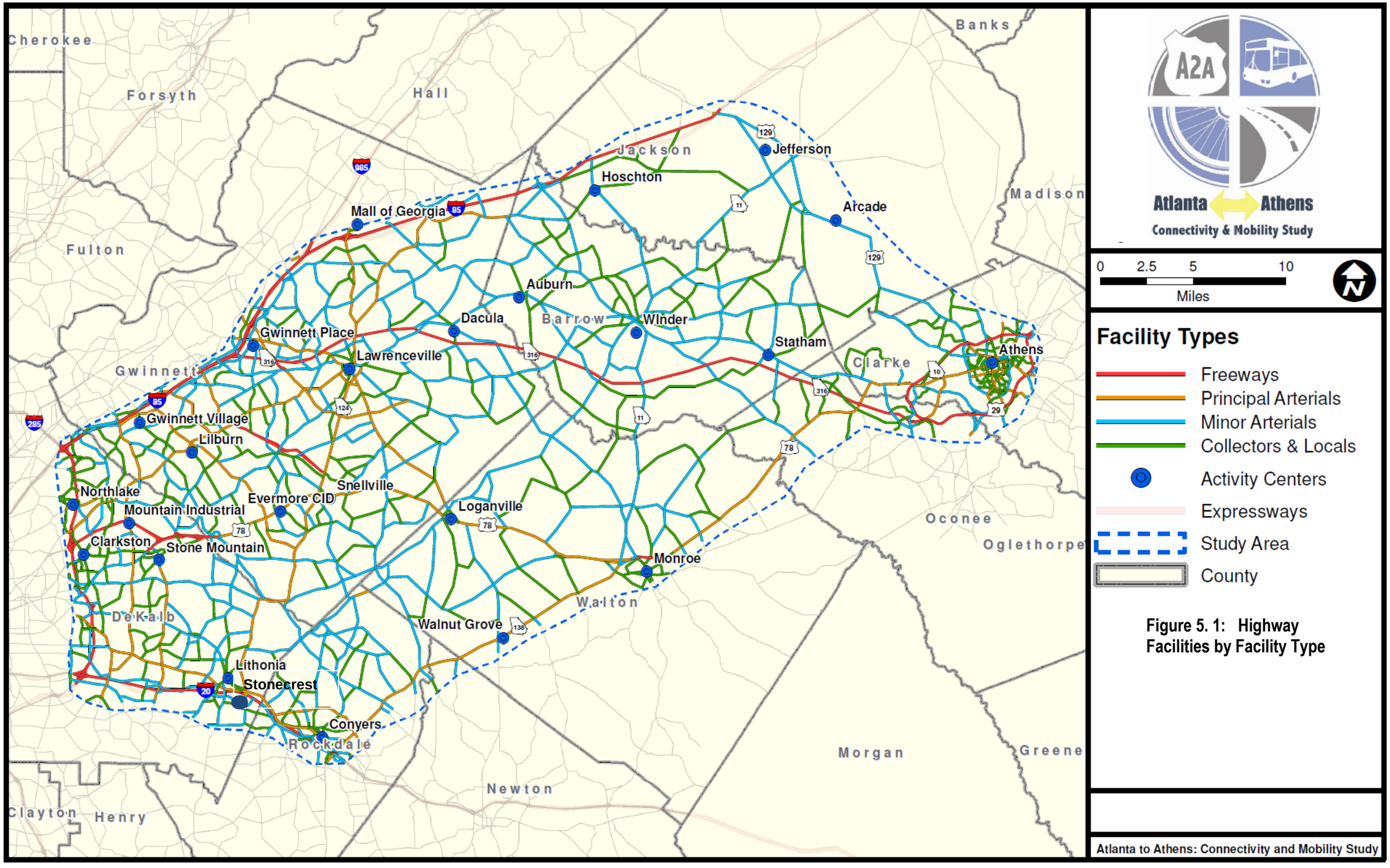


Figure 5. 1: Highway Facilities by Facility Type

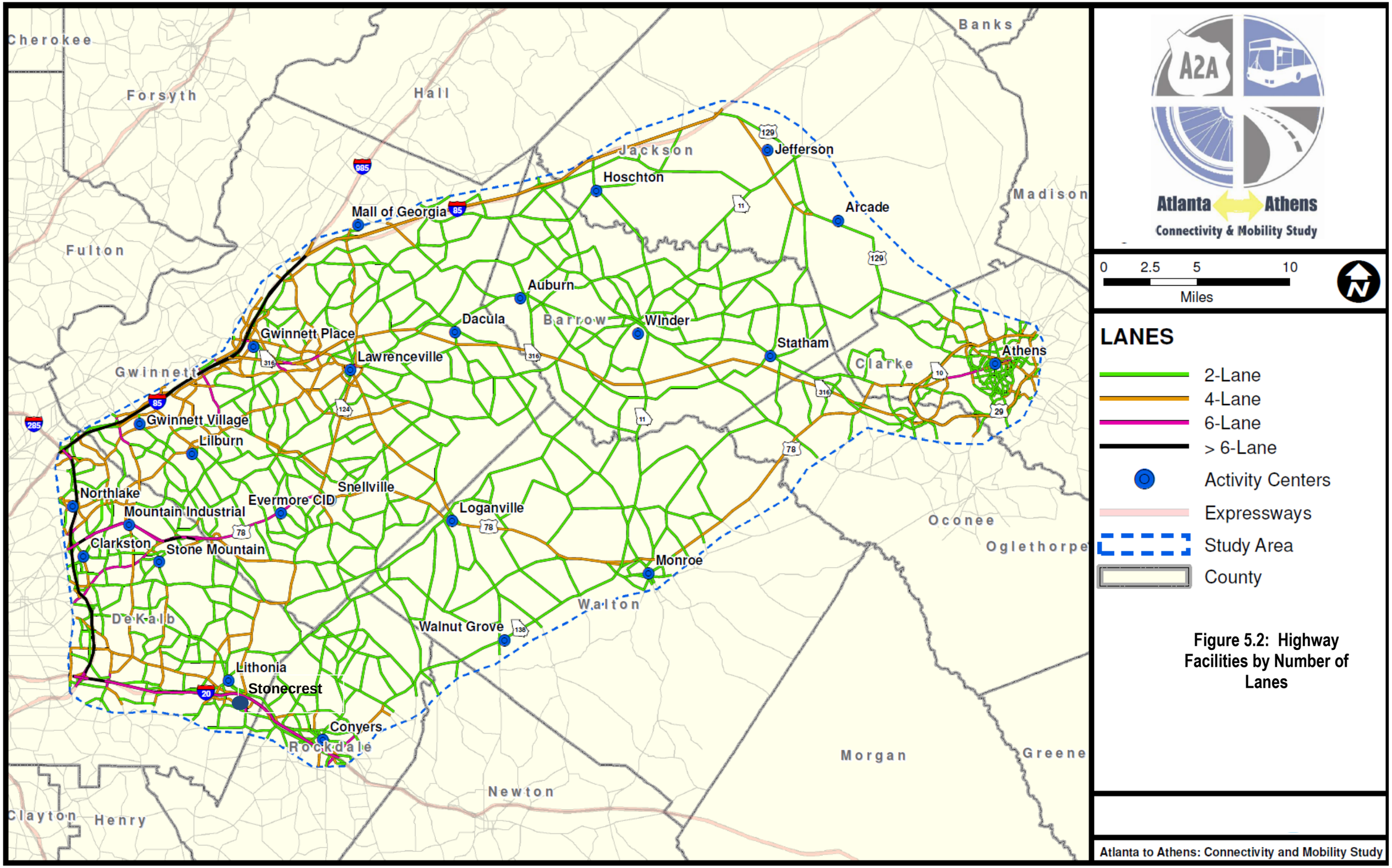


Figure 5.2: Highway Facilities by Number of Lanes

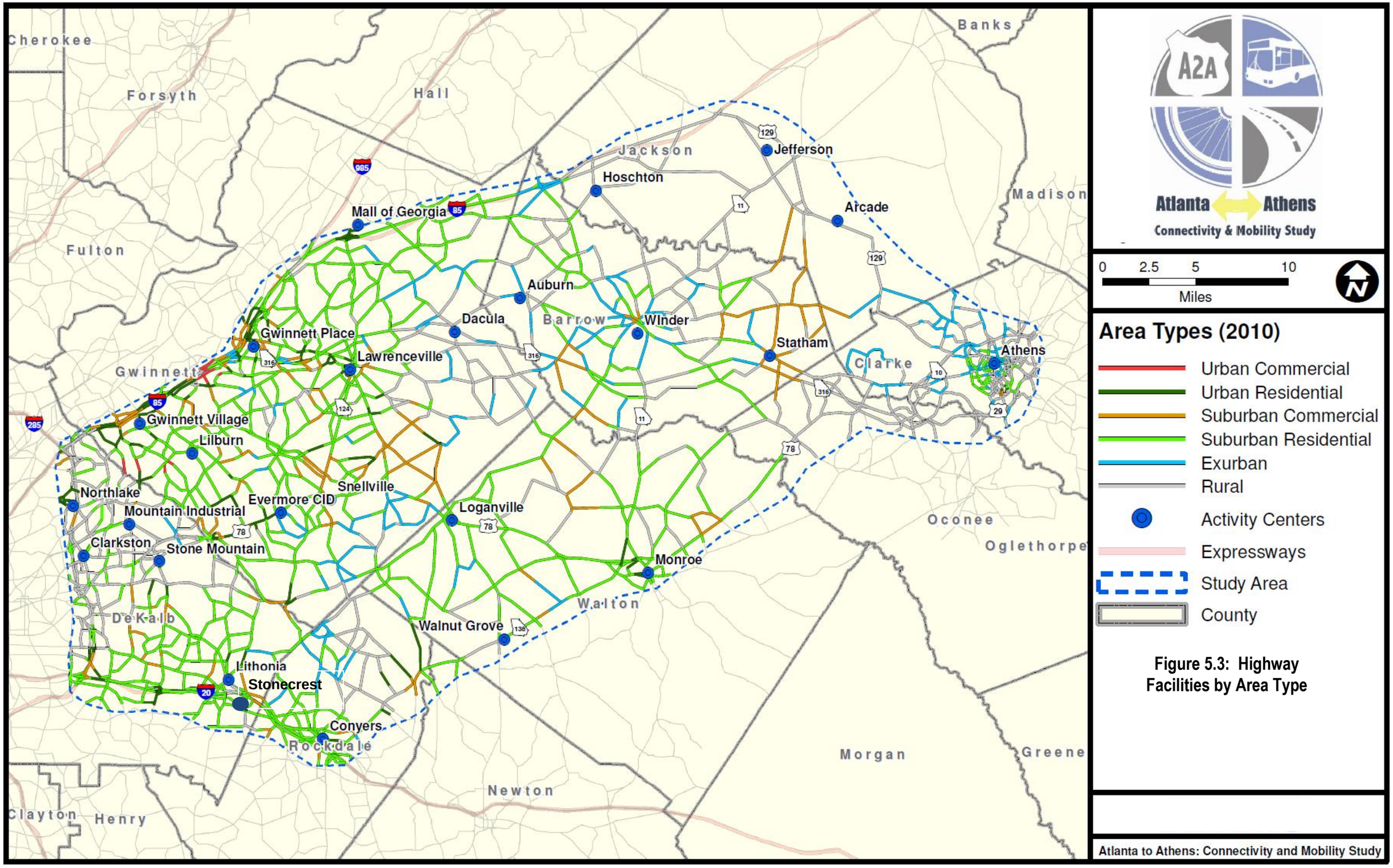


Figure 5.3: Highway Facilities by Area Type

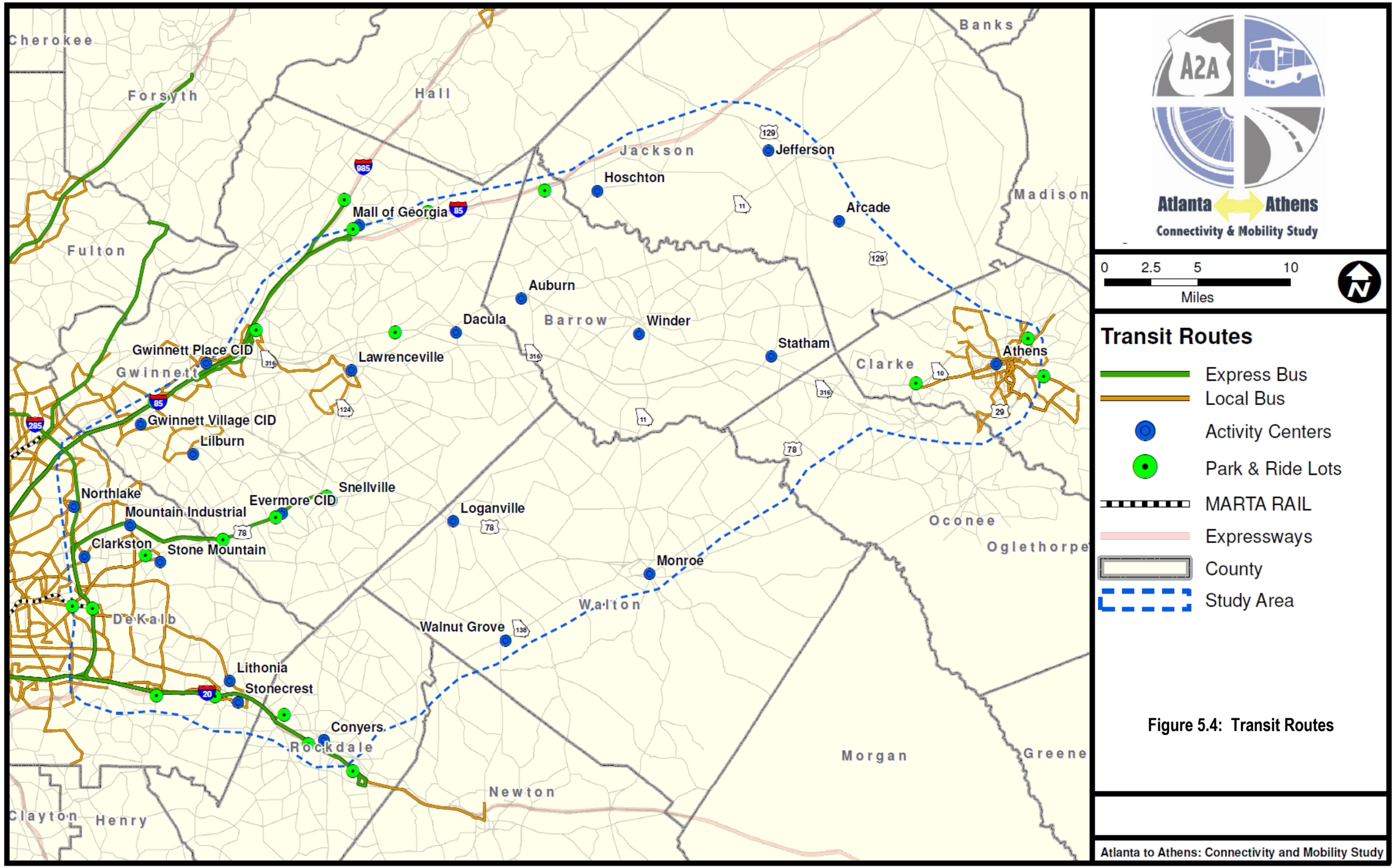


Figure 5.4: Transit Routes

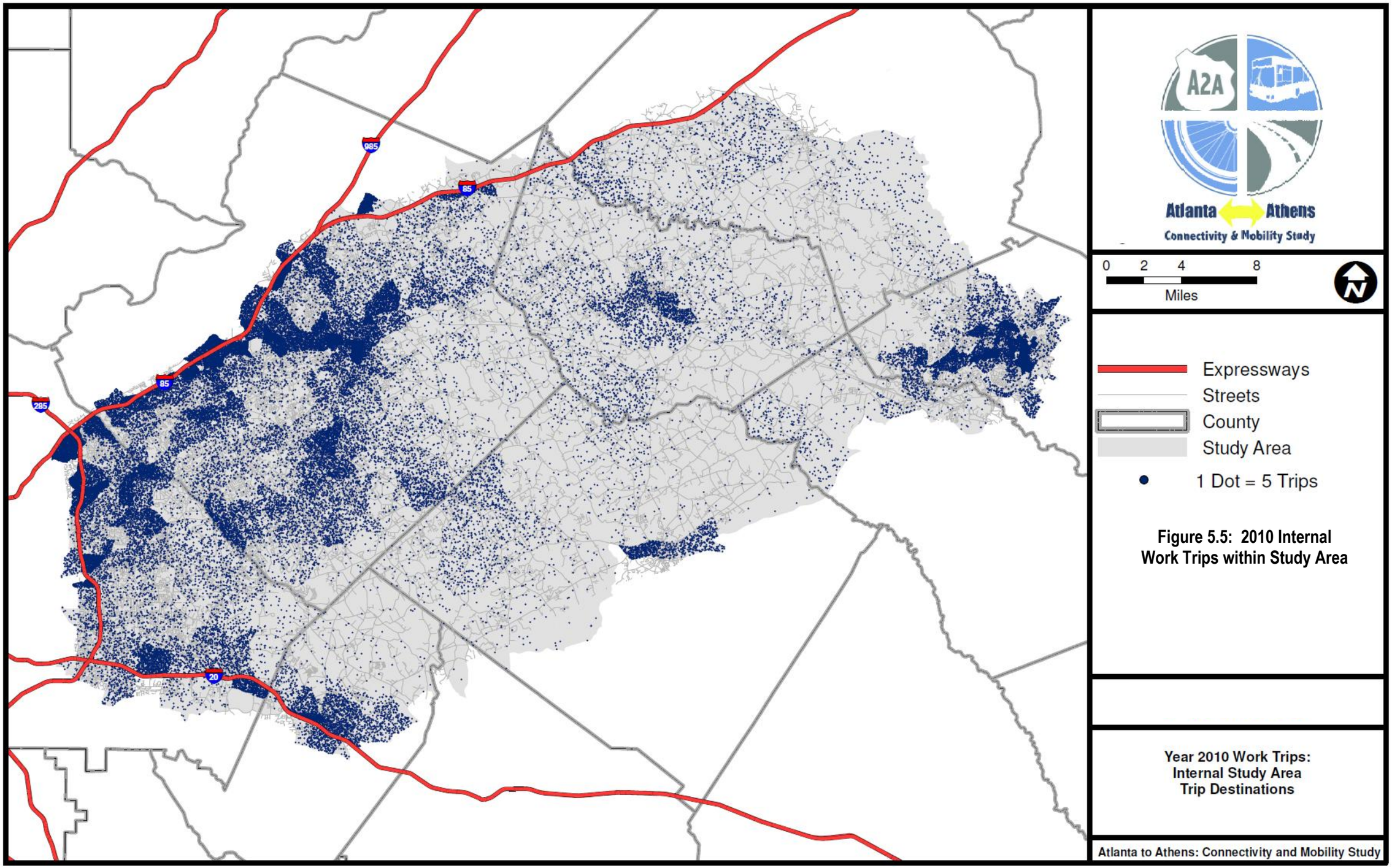
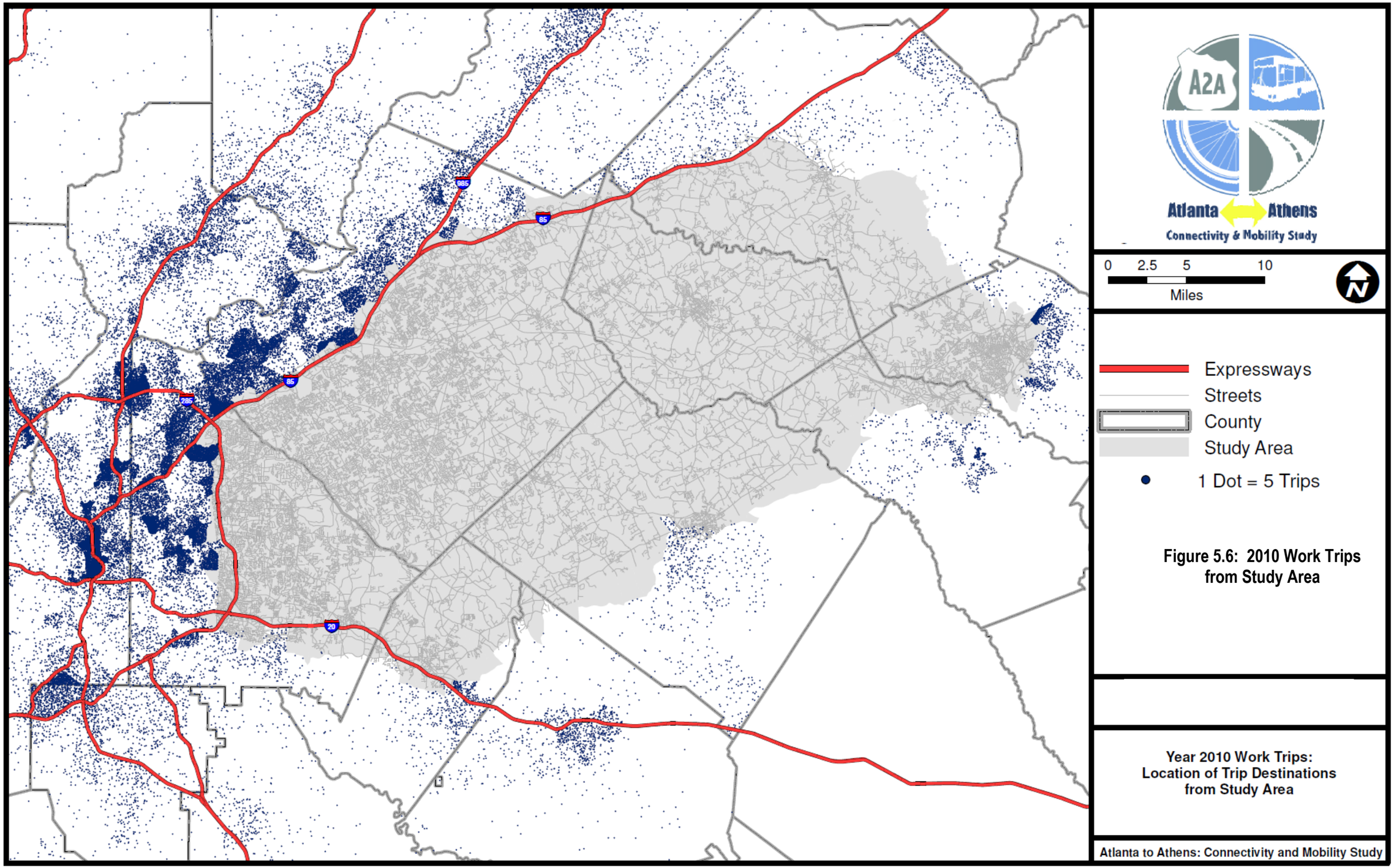
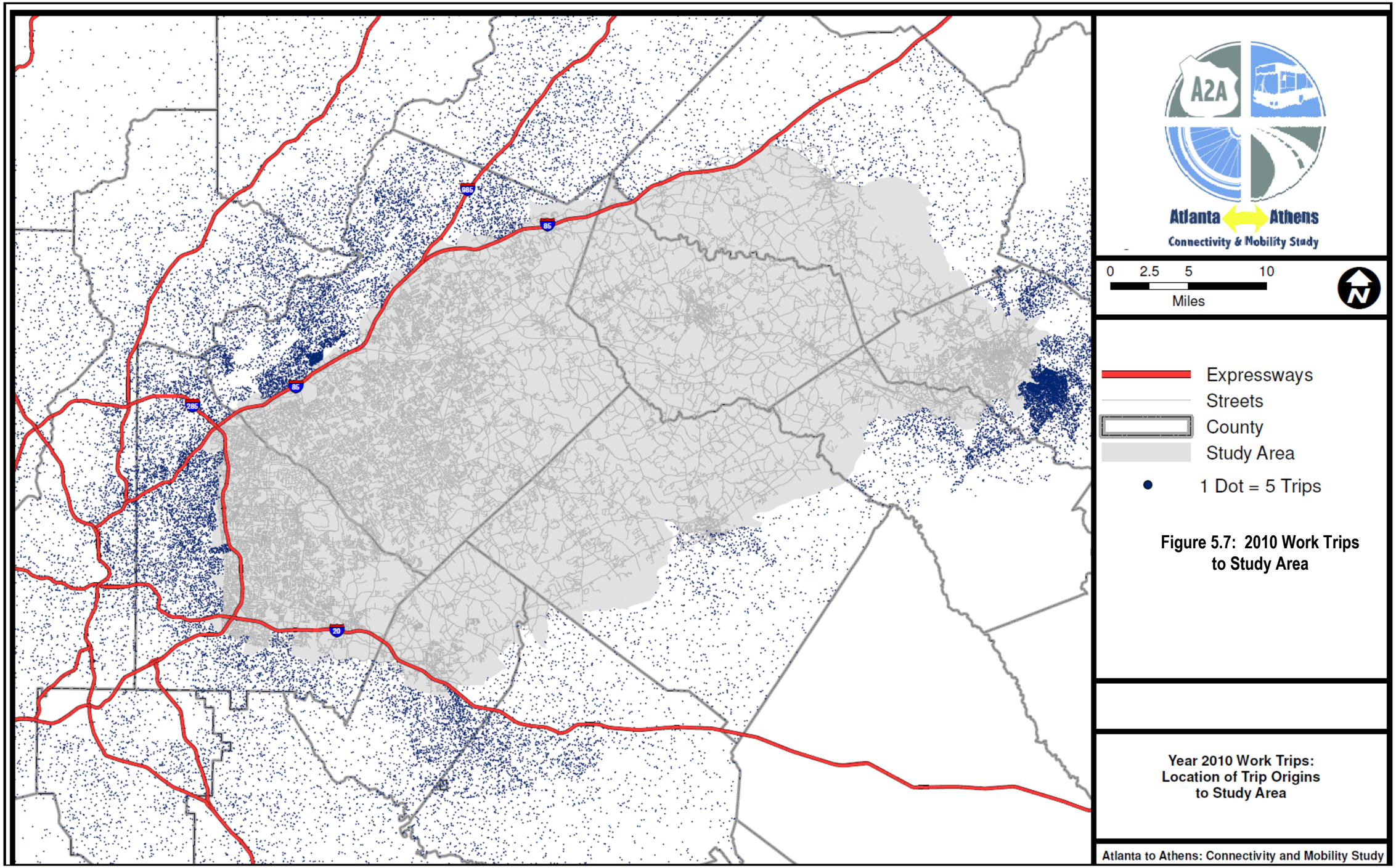
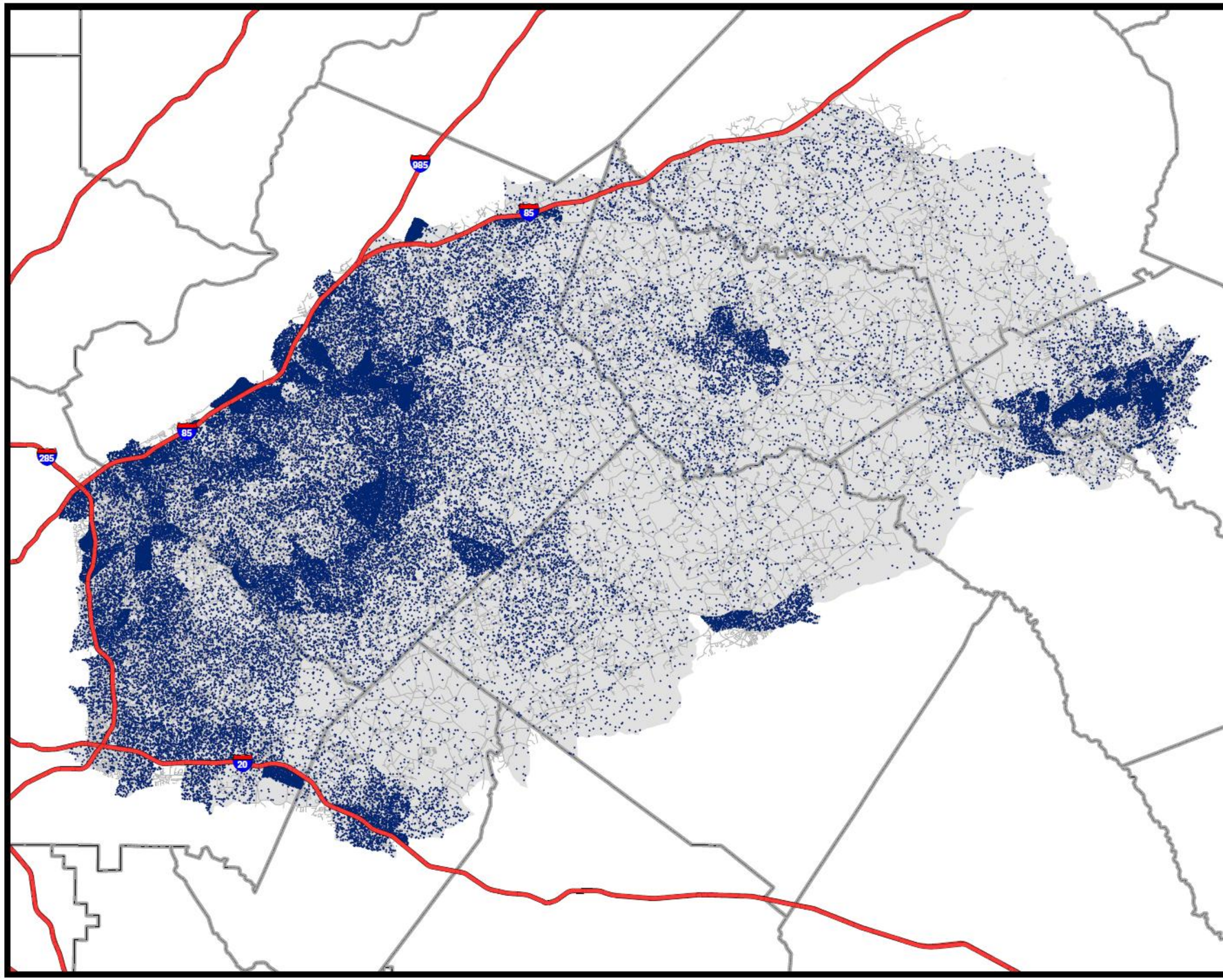


Figure 5.5: 2010 Internal Work Trips within Study Area


A2A
Atlanta
Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
Expressways
Streets
County
Study Area
1 Dot = 5 Trips
Figure 5.6: 2010 Work Trips from Study Area
Year 2010 Work Trips: Location of Trip Destinations from Study Area
Atlanta to Athens: Connectivity and Mobility Study


A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
Expressways
Streets
County
Study Area
1 Dot = 5 Trips
Figure 5.7: 2010 Work Trips to Study Area
Year 2010 Work Trips: Location of Trip Origins to Study Area
Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

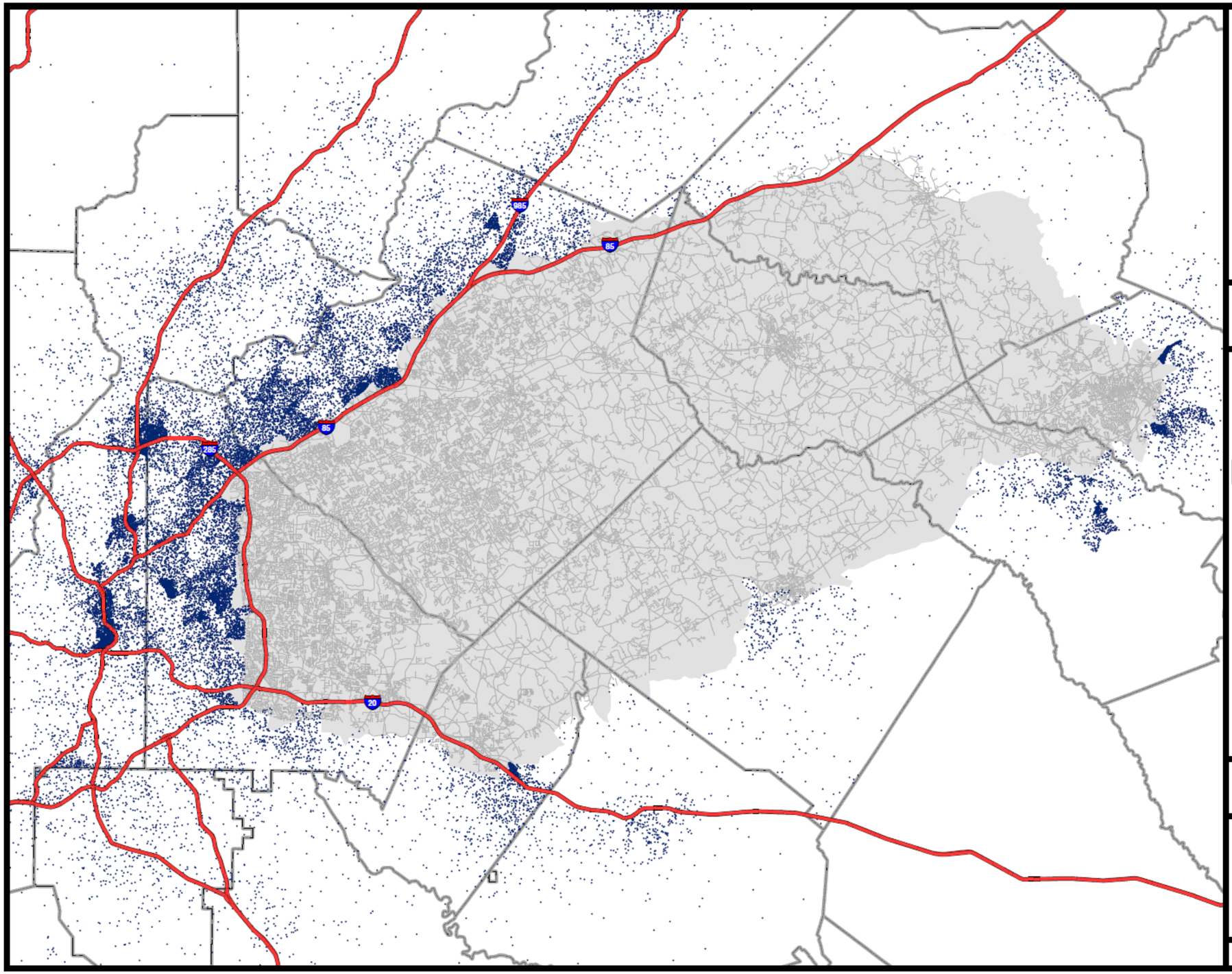
0 2 4 8
Miles

Expressways
Streets
County
Study Area
1 Dot = 30 Trips

Figure 5.8: 2010 Total Internal Trips within Study Area

Year 2010 Total Trips: Internal Study Area Trip Destinations

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

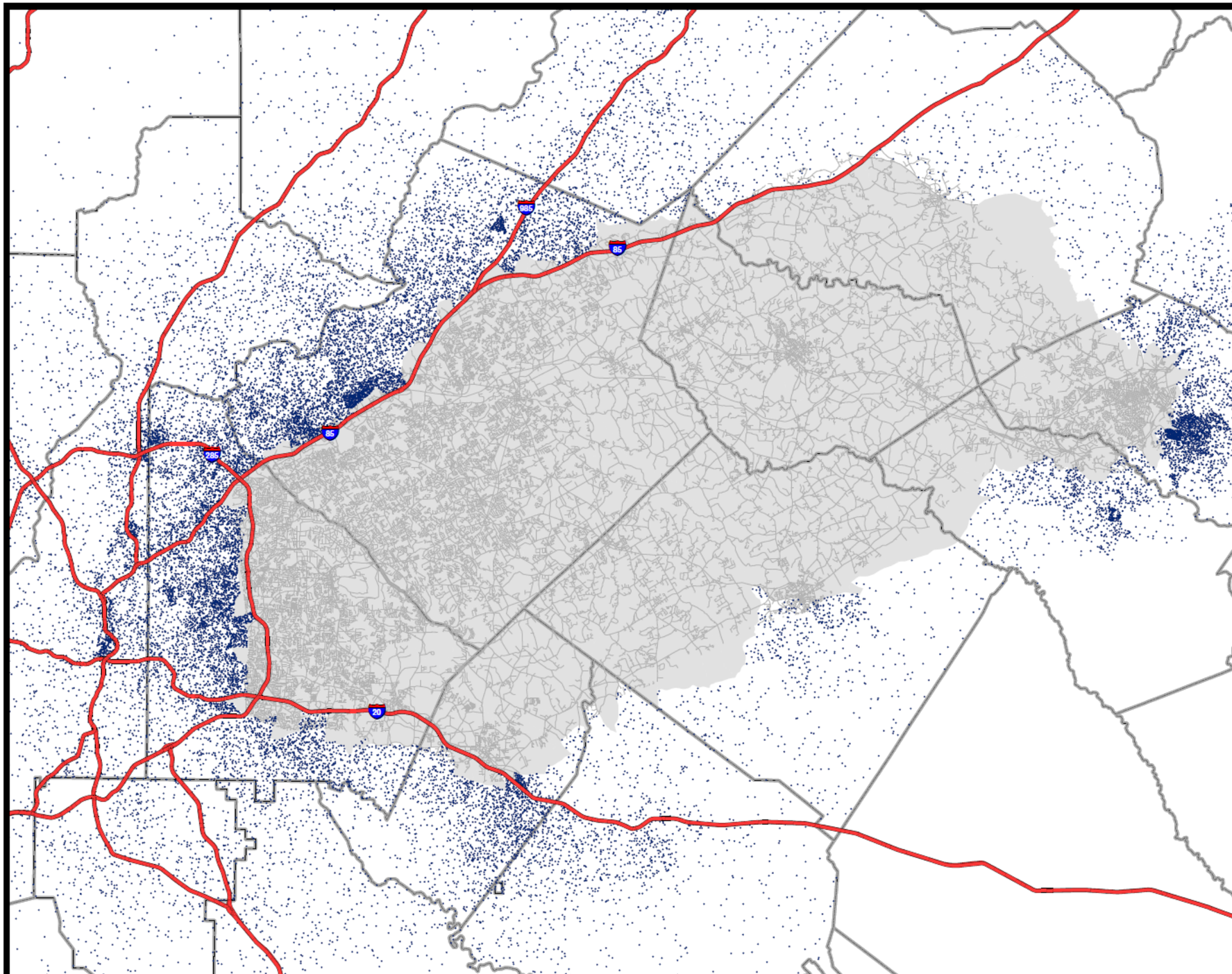
0 2.5 5 10
Miles

Expressways
Streets
County
Study Area
1 Dot = 30 Trips

Figure 5.9: 2010 Total Trips from Study Area

Year 2010 Total Trips: Location of Trip Destinations from Study Area

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

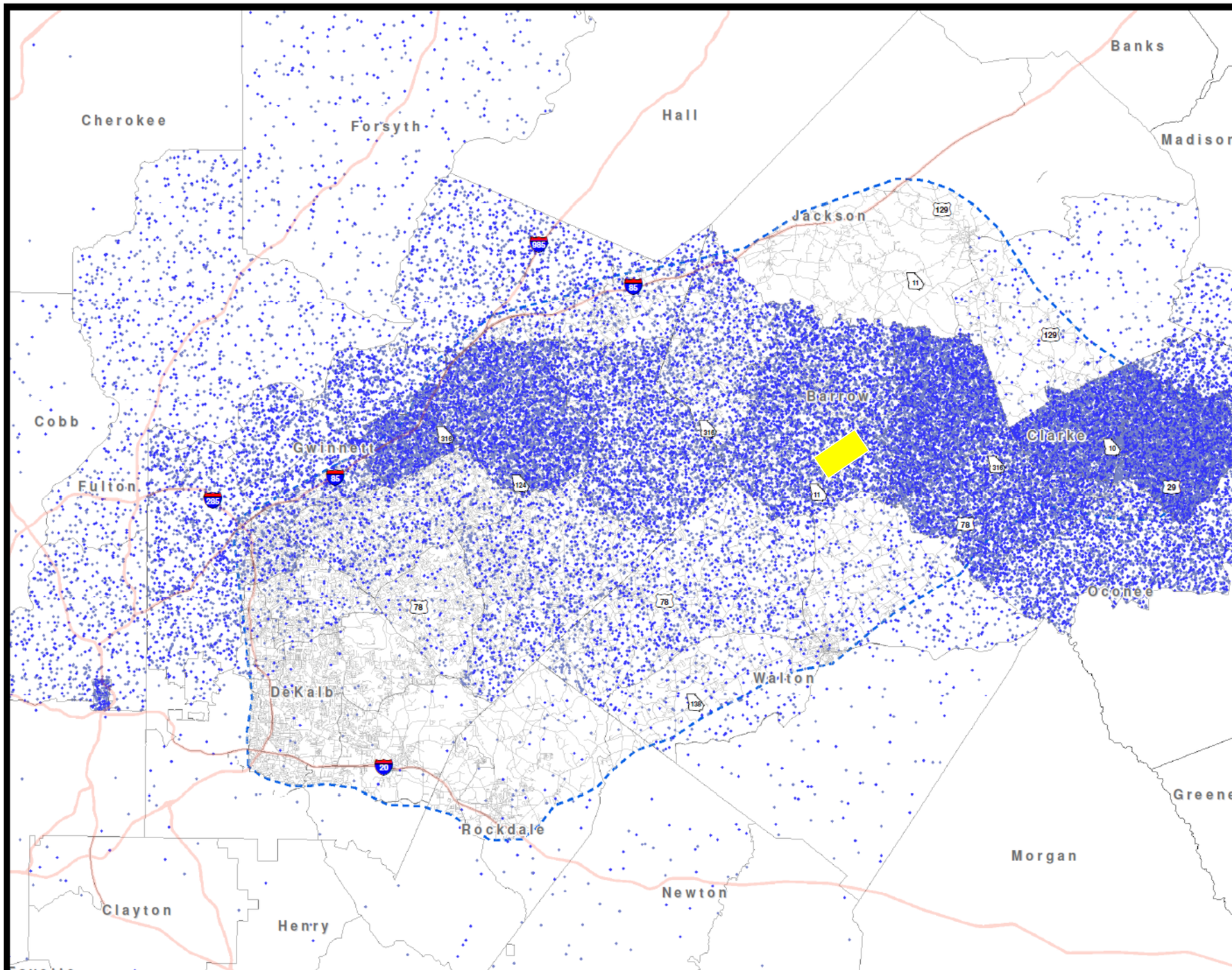
0 2.5 5 10
Miles

Expressways
Streets
County
Study Area
1 Dot = 30 Trips

Figure 5.10: 2010 Total Trips to Study Area

Year 2010 Total Trips: Location of Trip Origins to Study Area

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

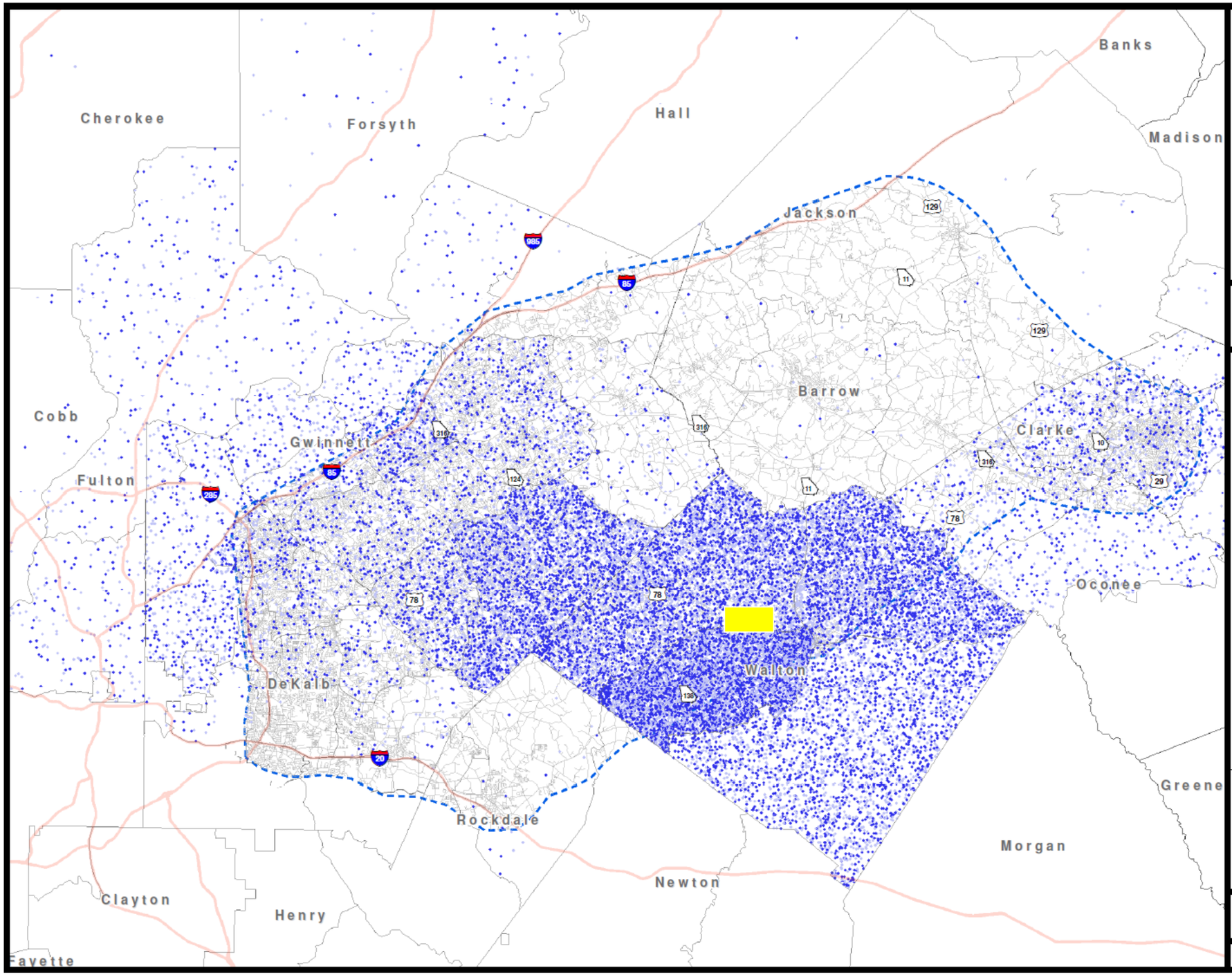
0 3 6 12
Miles

Expressways
1 Dot = 1
Origins
Destinations
Streets

Figure 5.11: Select Link Analysis for SR 316

2010 Select Link Analysis Daily Trips Using SR 316 (Location just East of Winder)

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

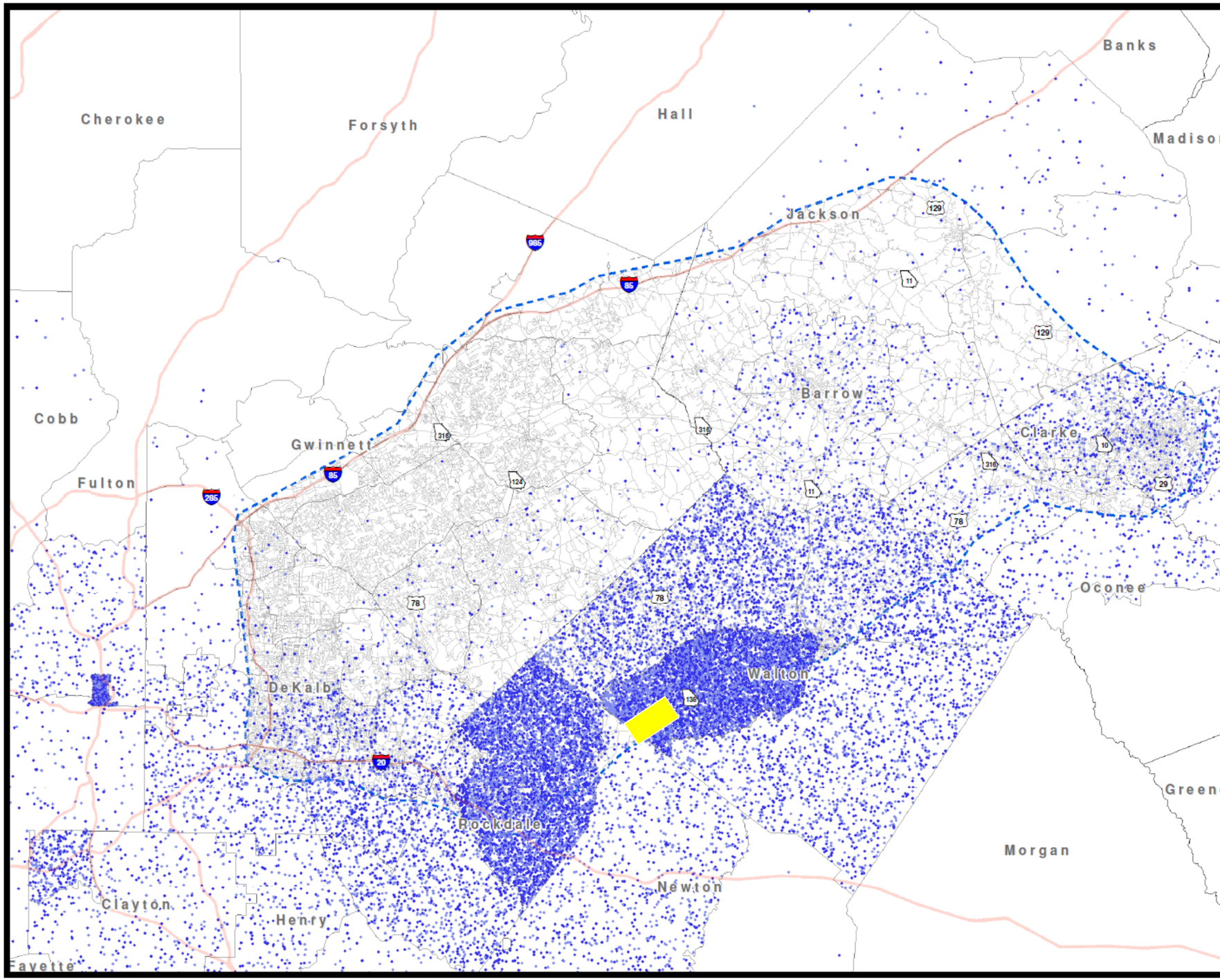
0 3 6 12
Miles

Expressways
1 Dot = 1
Origins
Destinations
Streets

Figure 5.12: Select Link Analysis for US 78

2010 Select Link Analysis Daily Trips Using US 78 (Location just East of Loganville)

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens Connectivity & Mobility Study

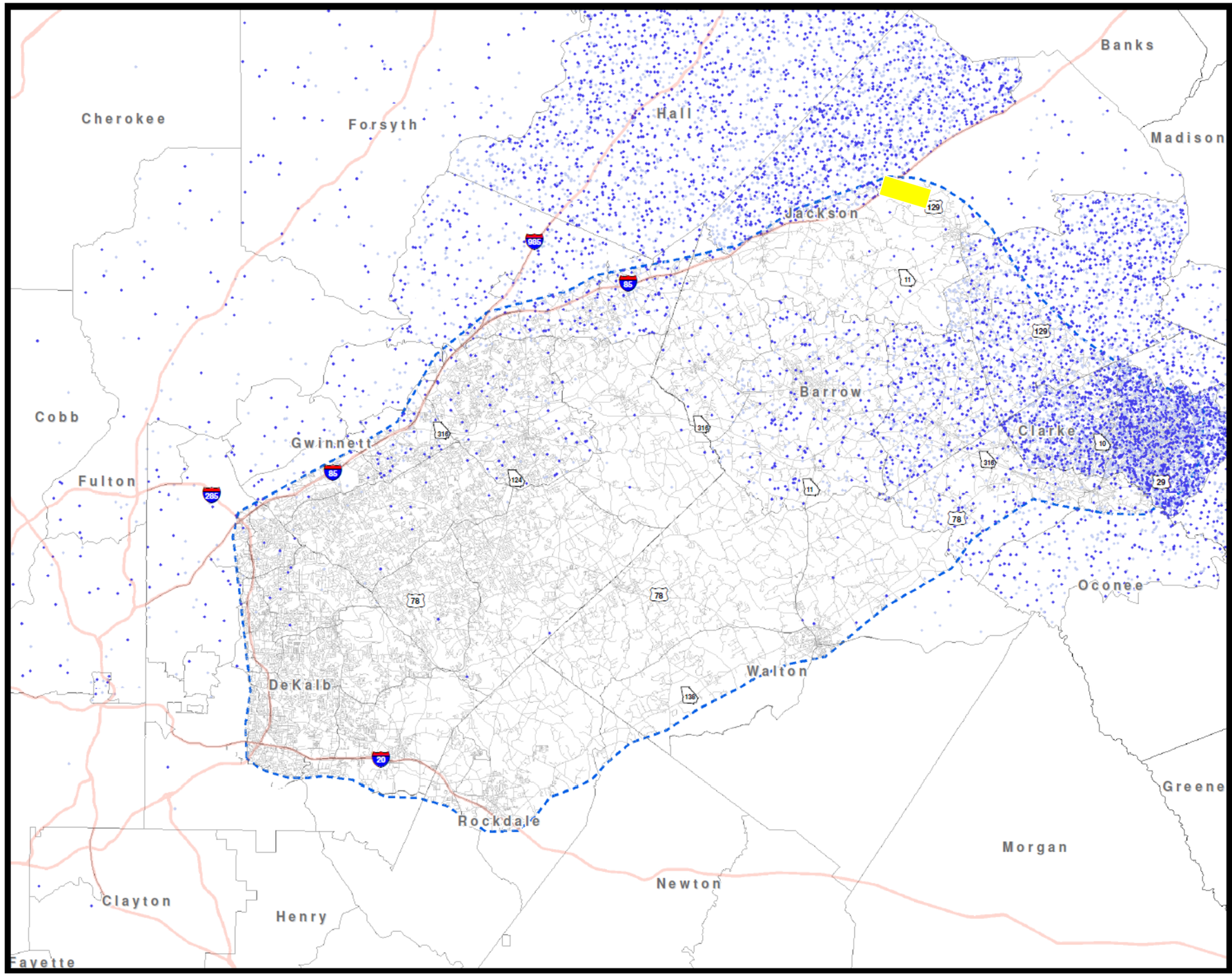
0 3 6 12
Miles

Expressways
1 Dot = 1
Origins
Destinations
Streets

Figure 5.13: Select Link Analysis for SR 138

2010 Select Link Analysis Daily Trips Using SR 138 (Location between Conyers and Monroe)

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

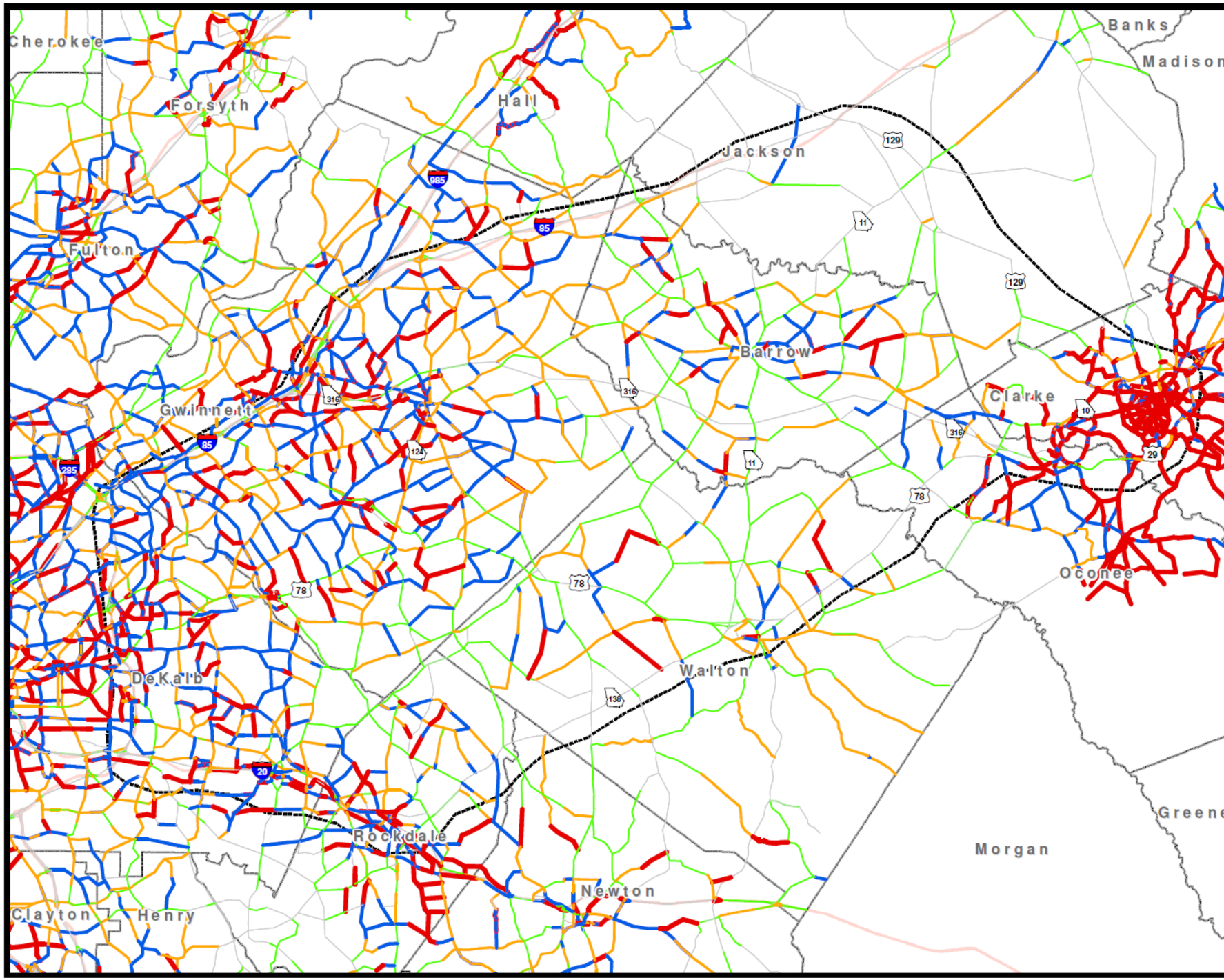
0 3 6 12
Miles

Expressways
1 Dot = 1
Origins
Destinations
Streets

Figure 5.14: Select Link Analysis for US 129

2010 Select Link Analysis Daily Trips Using US 129 (Location just East of I-85)

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

0 2.5 5 10
Miles

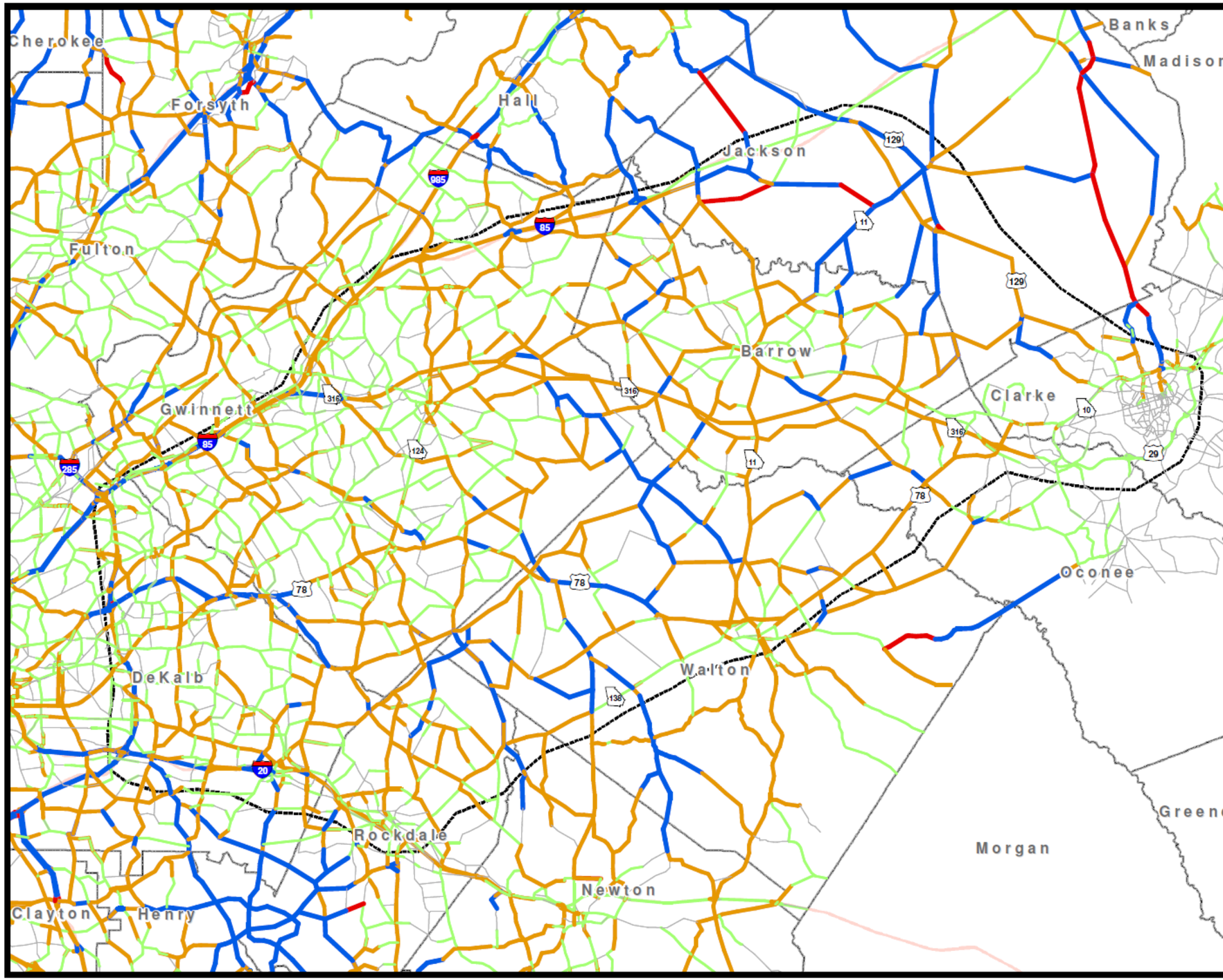
Percent

- 0 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- Study Area

Figure 5.15: Percent Trip Length Distribution for Short Trips

2010 Trip Length Distribution by Link Percent Trips 0-15 Miles

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

0 2.5 5 10
Miles

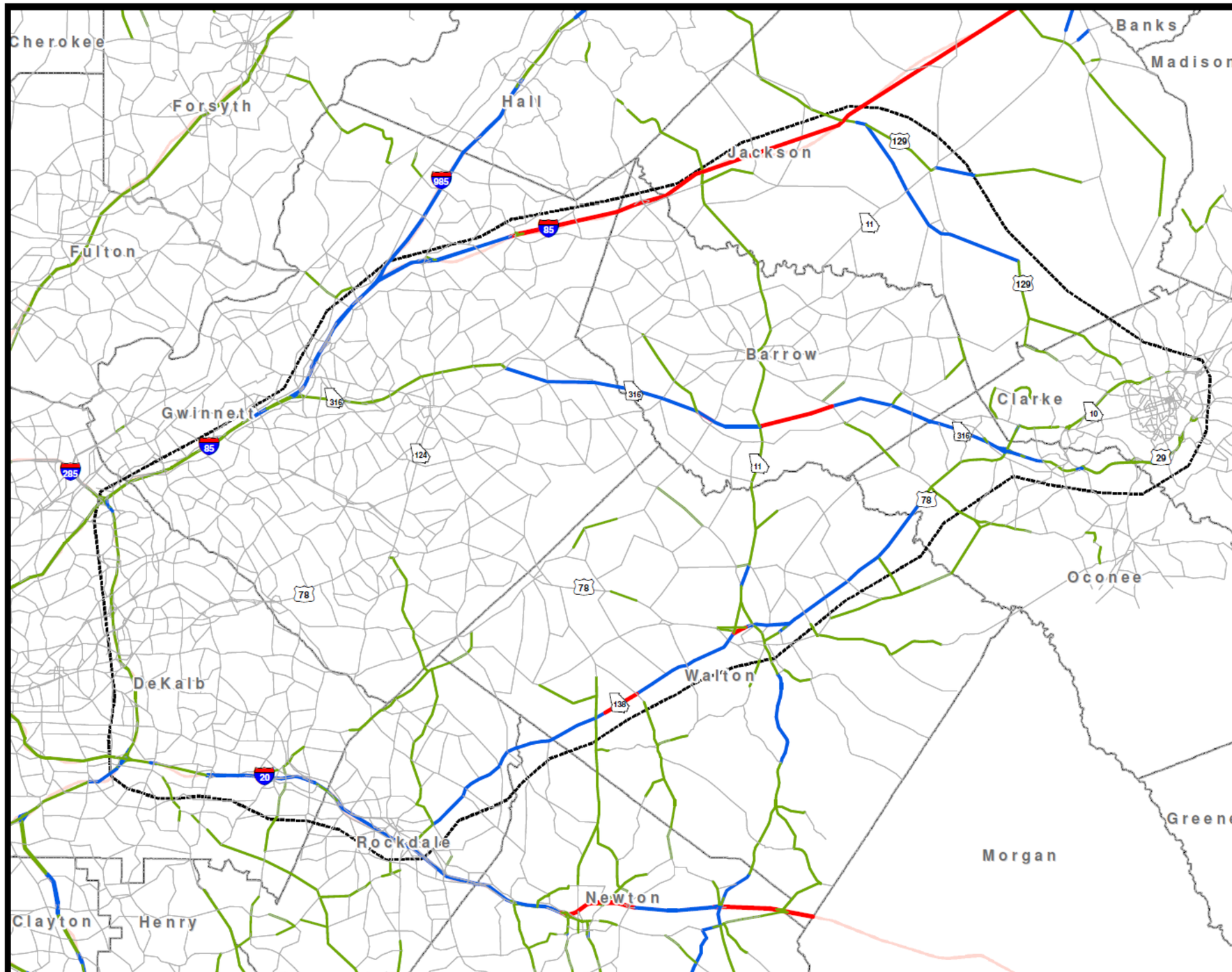
Percent

- 0 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- Study Area

Figure 5.16: Percent Trip Length Distribution for Medium Trips

2010 Trip Length Distribution by Link Percent Trips 15-40 Miles

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens Connectivity & Mobility Study

0 2.5 5 10
Miles

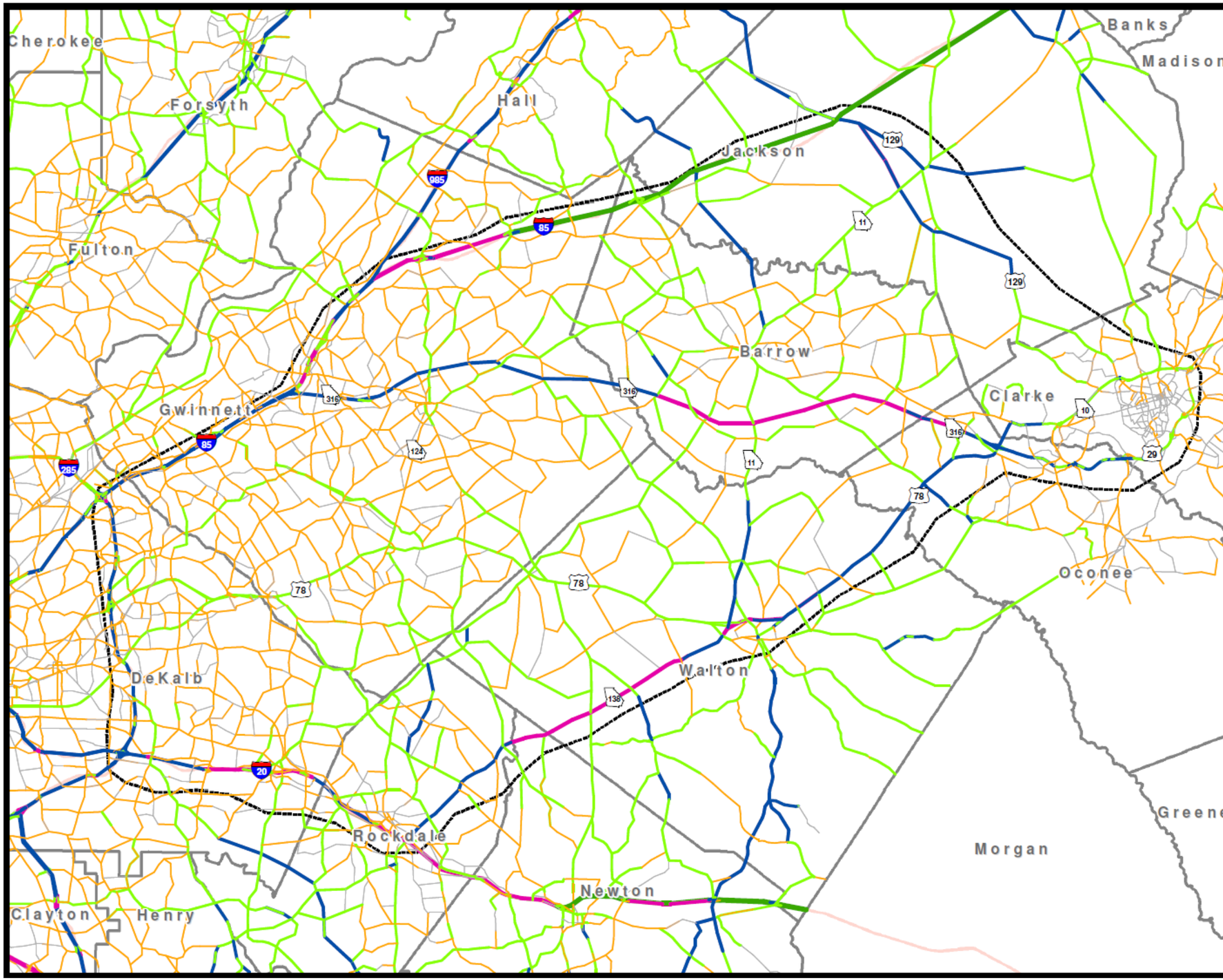
Percent

- 0 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- Study Area

Figure 5.17: Percent Trip Length Distribution for Long Trips

2010 Trip Length Distribution by Link Percent Trips >40 Miles

Atlanta to Athens: Connectivity and Mobility Study



Atlanta Athens
Connectivity & Mobility Study

0 2.5 5 10
Miles

Legend

- 0.0 - 10.0 miles
- 10.1 - 20.0 miles
- 20.1 - 30.0 miles
- 30.1 - 40.0 miles
- 40.1 - 50.0 miles
- > 50.0 miles
- Study Area

Figure 5.18: Average Weighted Trip Distance

2010 Average Weighted Distance

Atlanta to Athens: Connectivity and Mobility Study

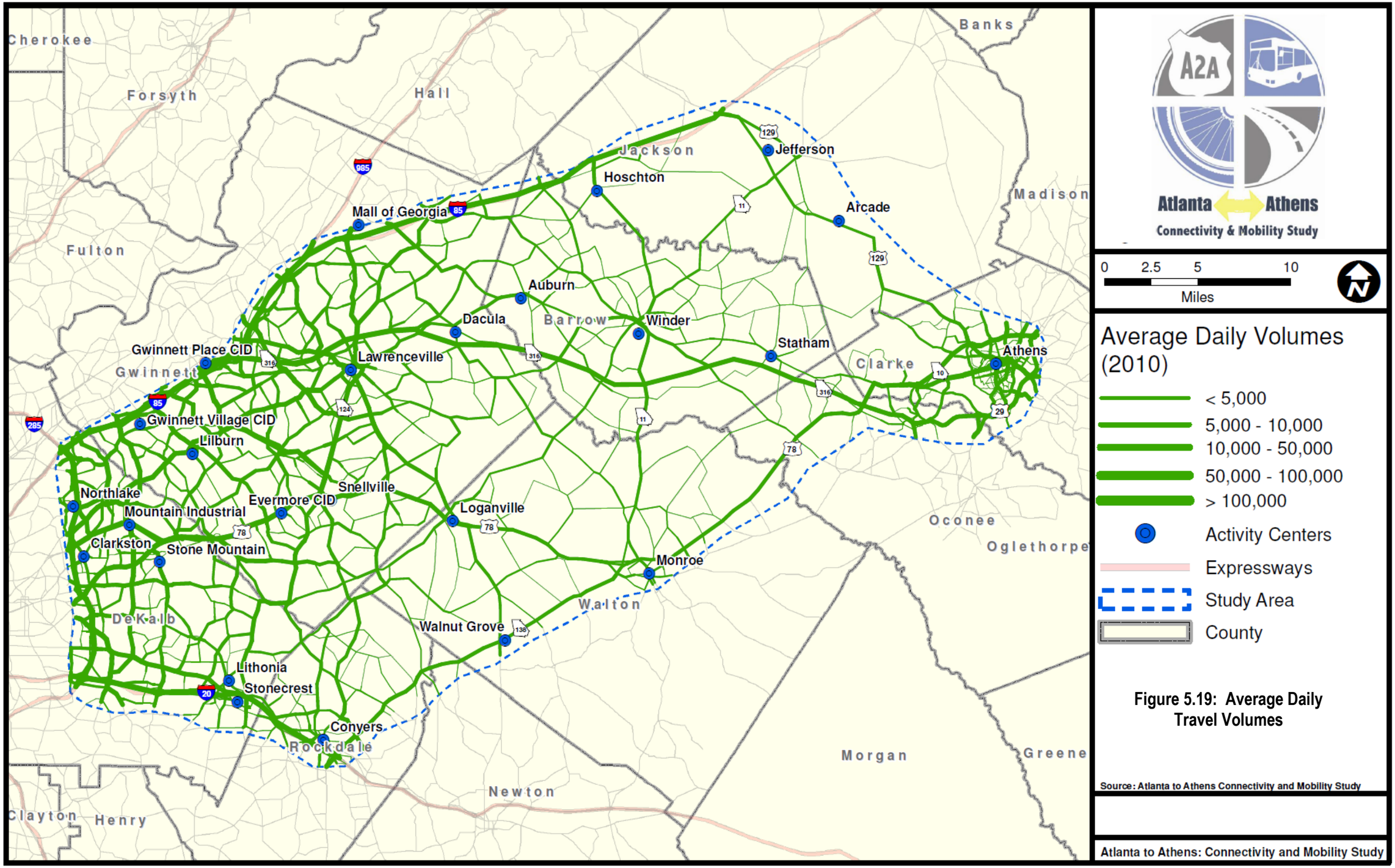
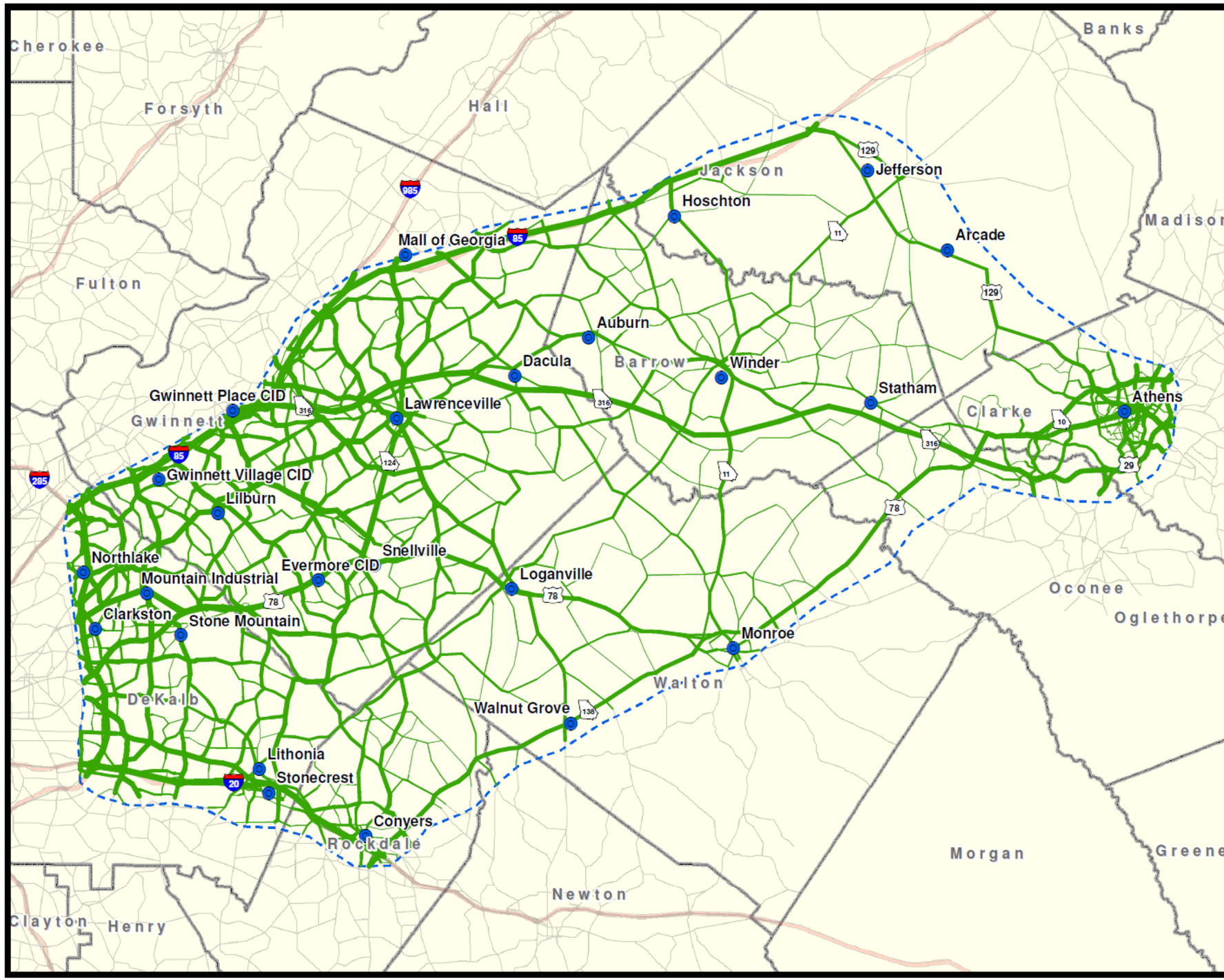


Figure 5.19: Average Daily Travel Volumes



Atlanta Athens
Connectivity & Mobility Study

0 2.5 5 10
Miles

Average Daily Volumes (2010)

- < 5,000
- 5,000 - 10,000
- 10,000 - 50,000
- 50,000 - 100,000
- > 100,000
- Activity Centers
- Expressways
- Study Area
- County

Figure 5.20: Average Daily Truck Travel Volumes

Source: Atlanta to Athens Connectivity and Mobility Study

Atlanta to Athens: Connectivity and Mobility Study

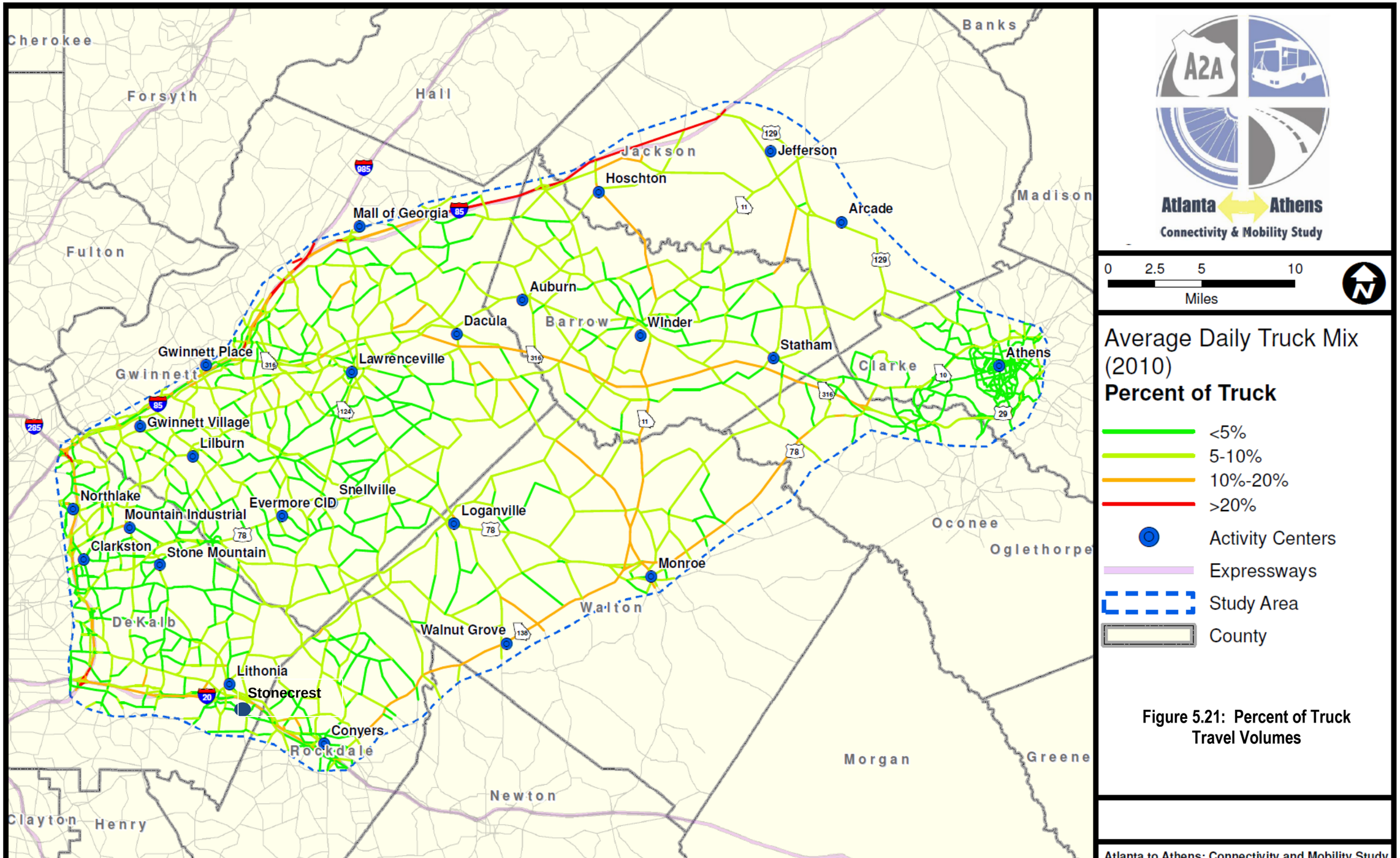
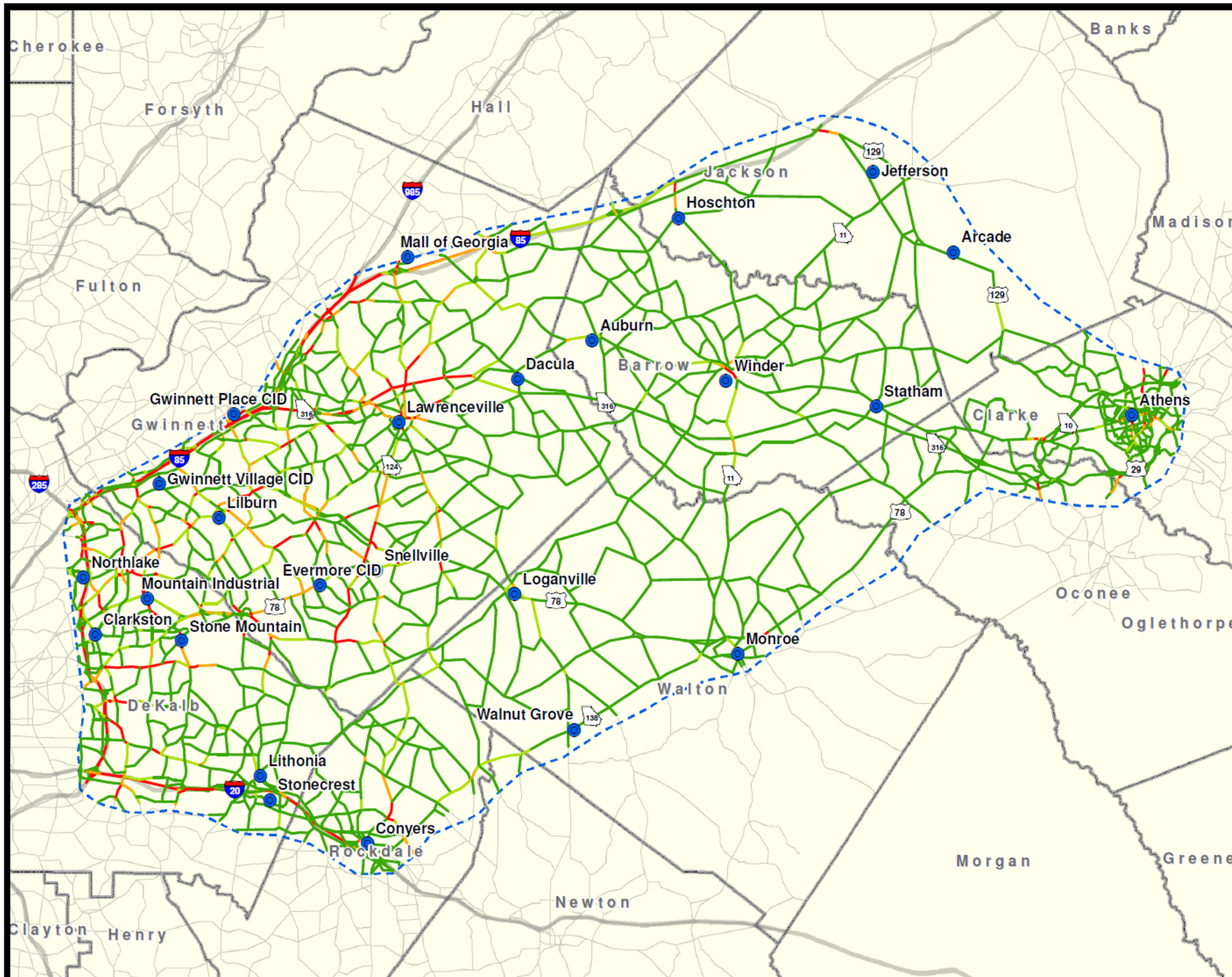


Figure 5.21: Percent of Truck Travel Volumes



Atlanta Athens
Connectivity & Mobility Study

0 2.5 5 10
Miles

Daily V/C Ratio

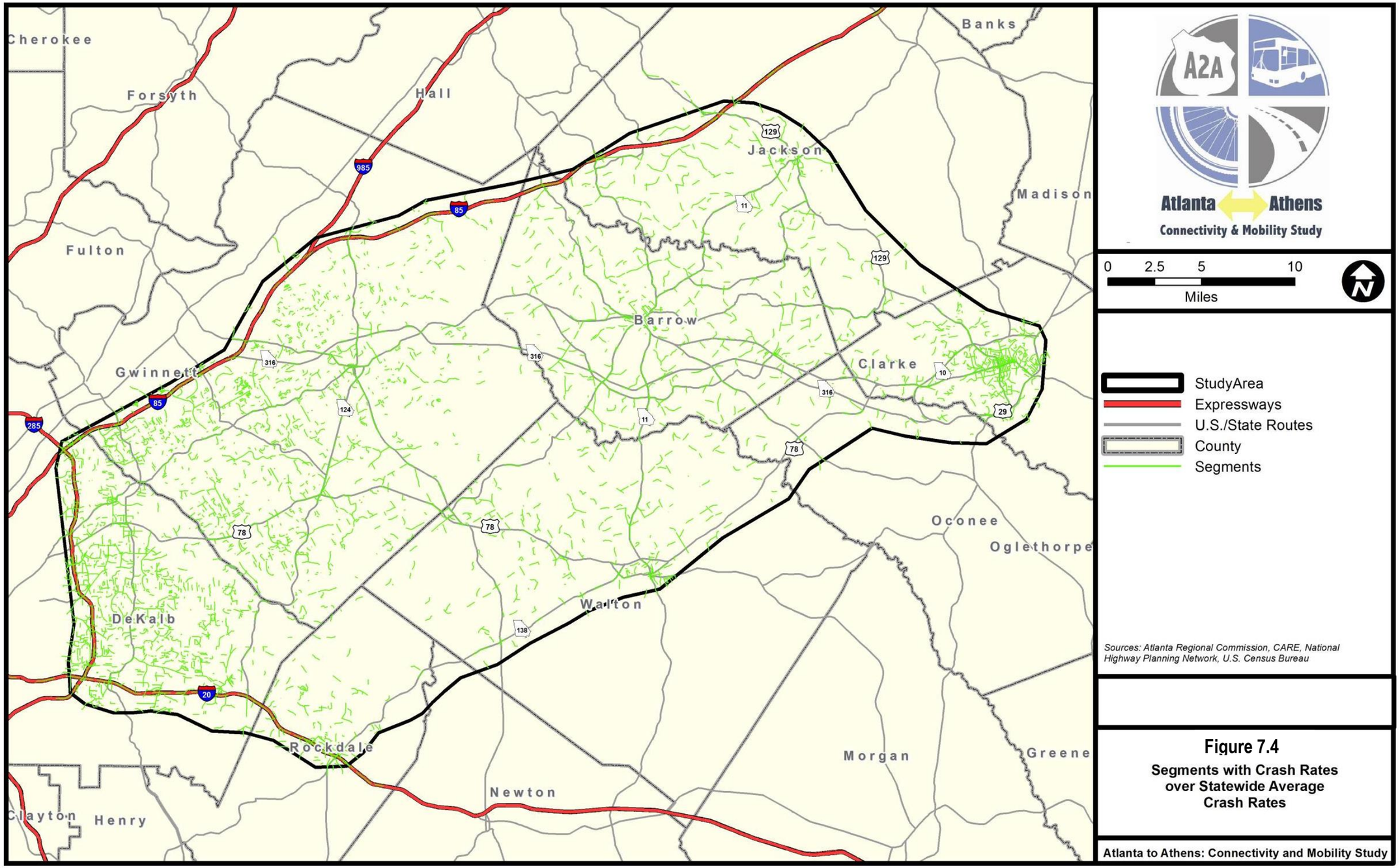
- A - C
- D
- E
- F
- Activity Centers
- Expressways
- Study Area
- County

Figure 5.22: Daily V/C Ratio

Source: Atlanta to Athens Connectivity and Mobility Study

Atlanta to Athens: Connectivity and Mobility Study

IV. CRASH DATA


Cherokee
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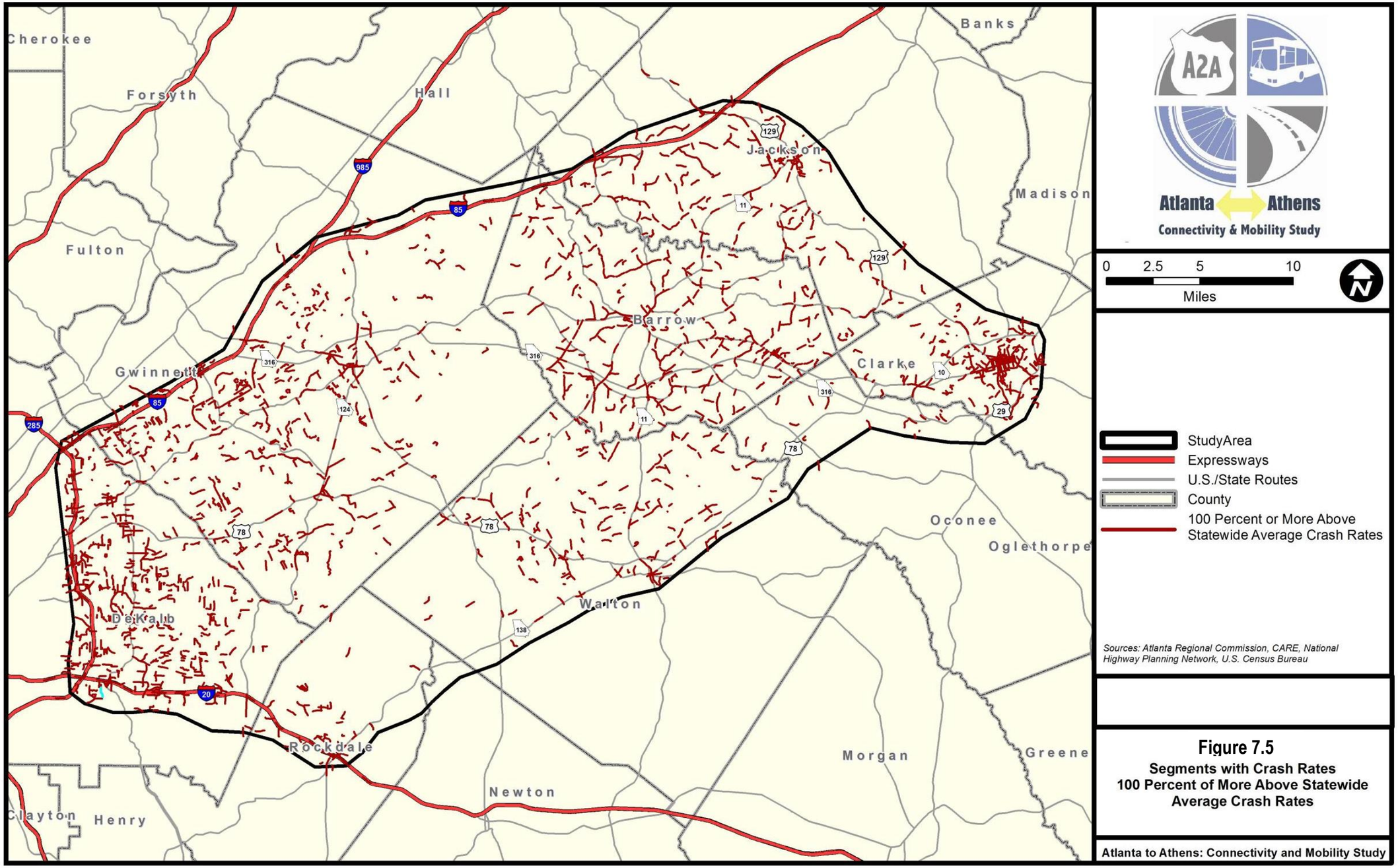
A2A
Atlanta
Athens
Connectivity & Mobility Study
0
2.5
5
10
Miles
N
StudyArea
Expressways
U.S./State Routes
County
Segments
Sources: Atlanta Regional Commission, CARE, National Highway Planning Network, U.S. Census Bureau
Figure 7.4
Segments with Crash Rates over Statewide Average Crash Rates
Atlanta to Athens: Connectivity and Mobility Study


Cherokee
Forsyth
Hall
Banks
Jackson
Madison
Fulton
Barrow
Gwinnett
Clarke
Oconee
Oglethorpe
Walton
DeKalb
Rockdale
Morgan
Greene
Newton
Clayton
Henry
A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
StudyArea
Expressways
U.S./State Routes
County
100 Percent or More Above Statewide Average Crash Rates
Sources: Atlanta Regional Commission, CARE, National Highway Planning Network, U.S. Census Bureau
Figure 7.5
Segments with Crash Rates 100 Percent of More Above Statewide Average Crash Rates
Atlanta to Athens: Connectivity and Mobility Study

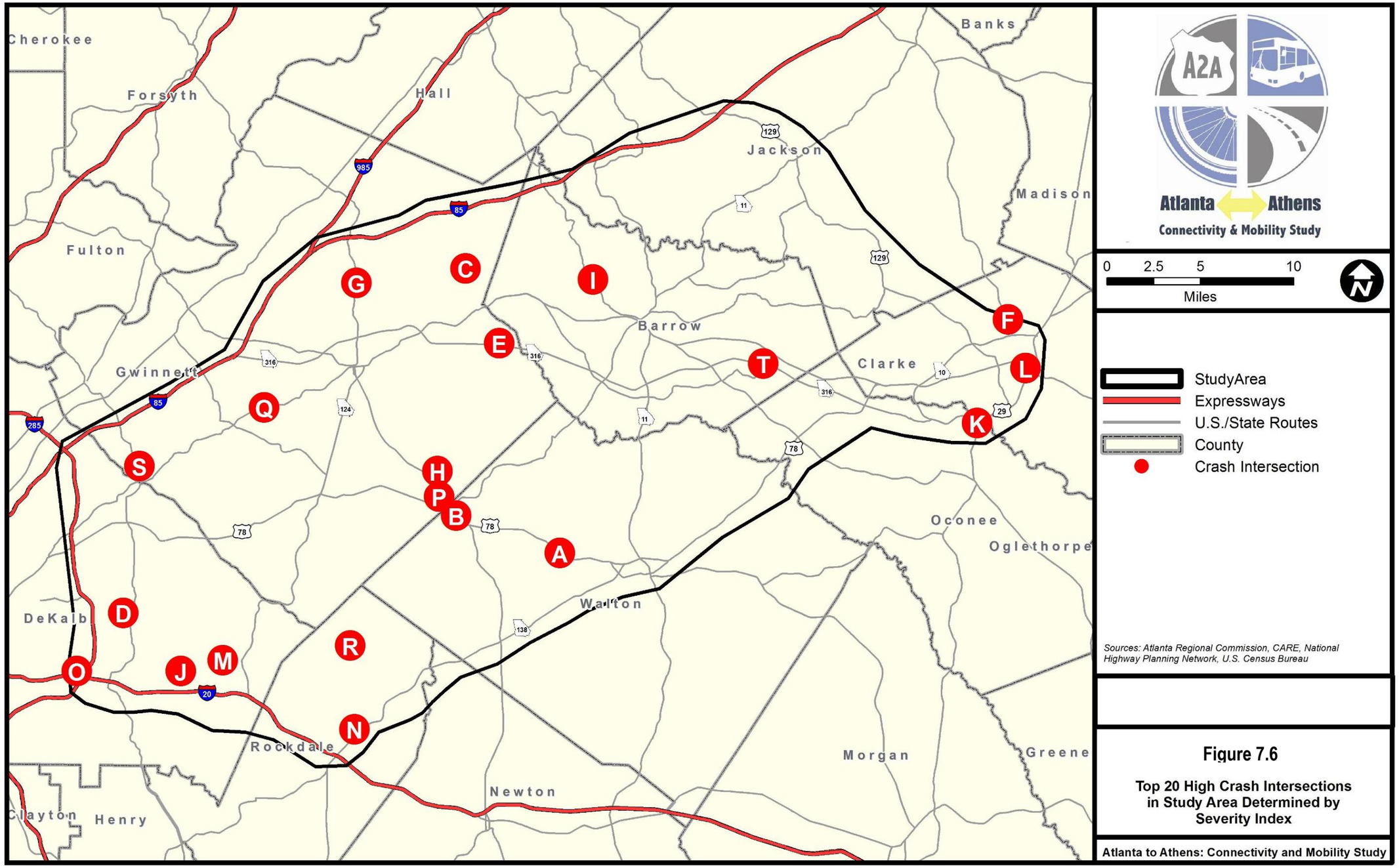
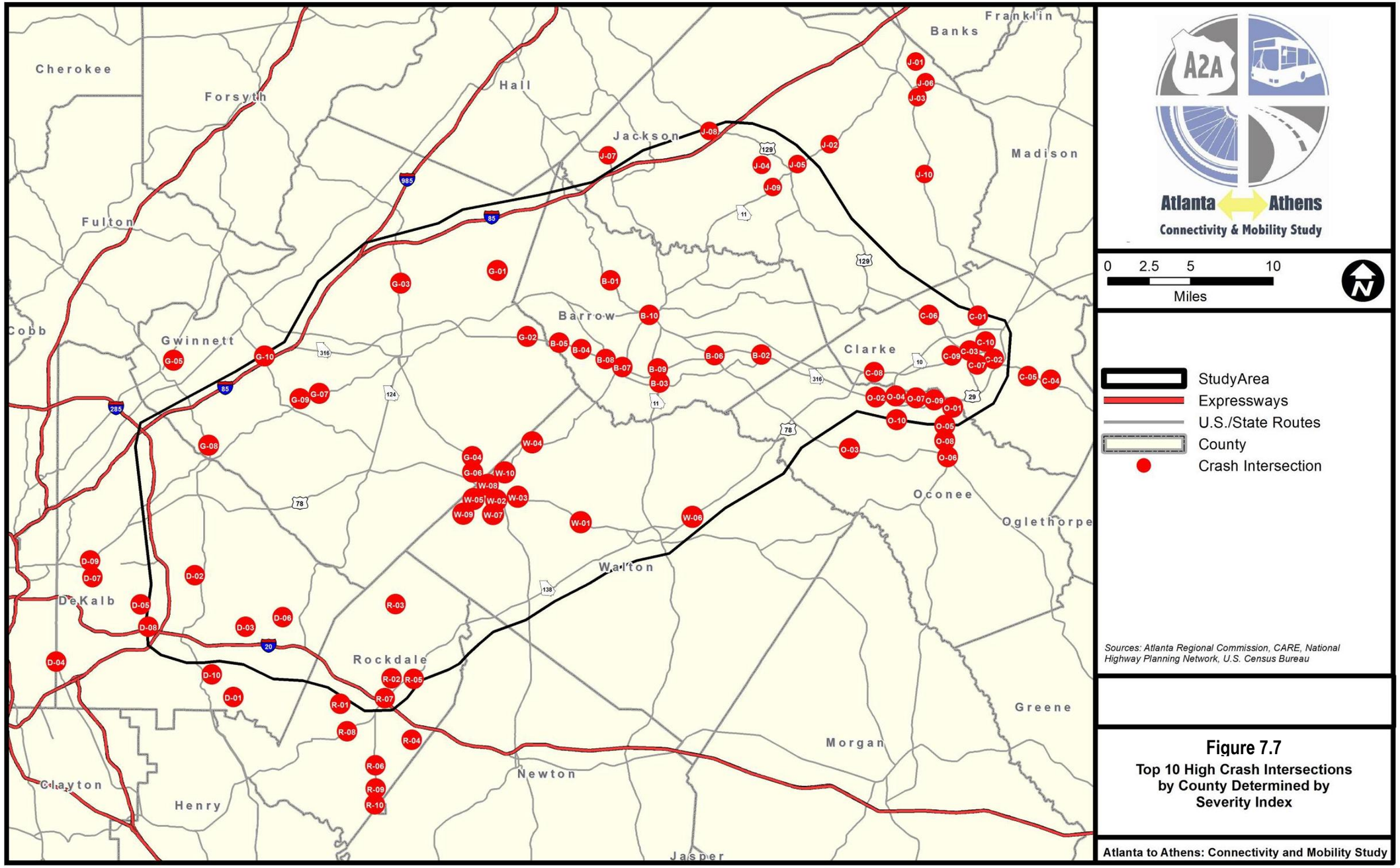
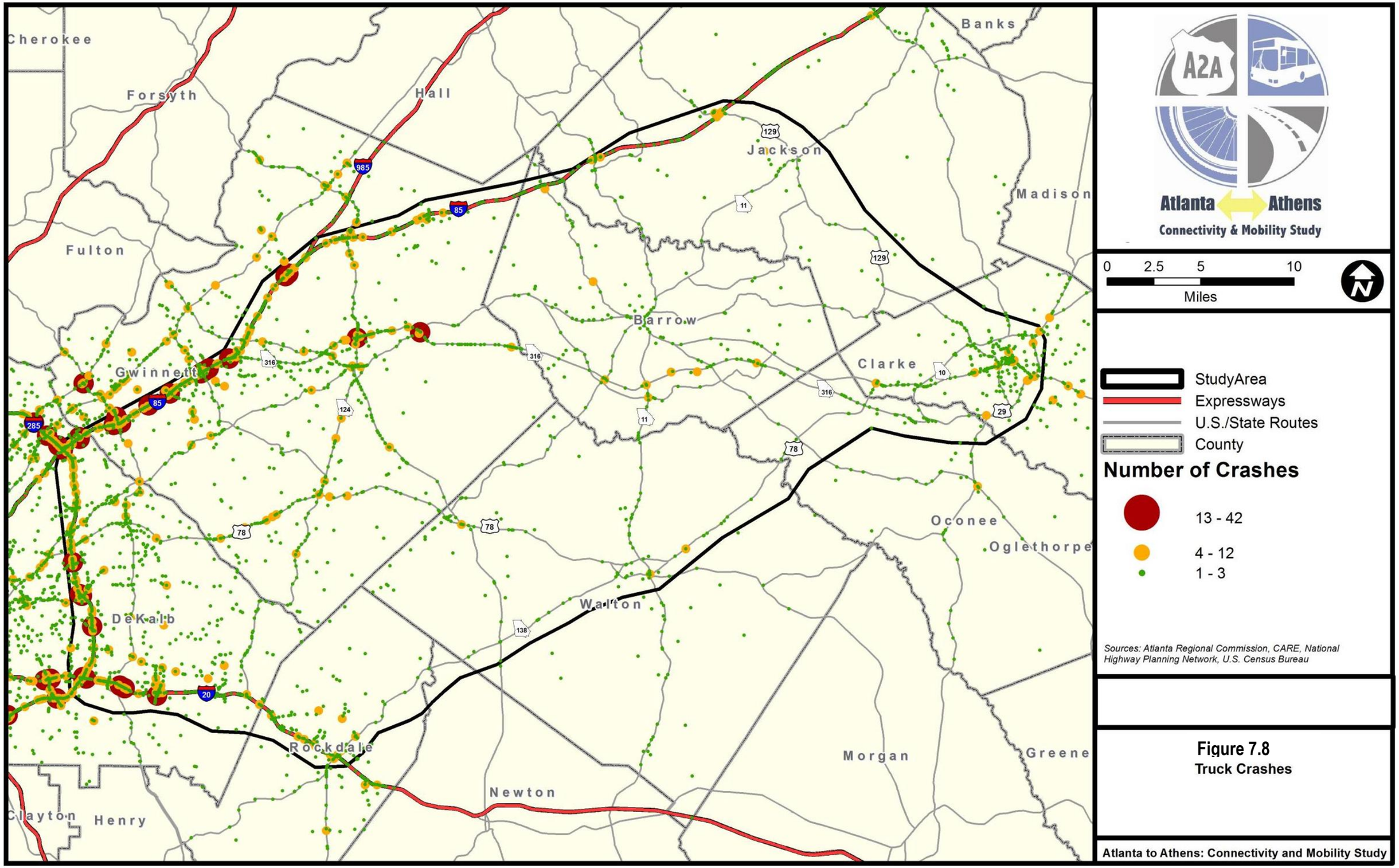


Figure 7.6

Top 20 High Crash Intersections in Study Area Determined by Severity Index


Cherokee
Forsyth
Hall
Franklin
Banks
Madison
Jackson
Fulton
Cobb
Gwinnett
Barrow
Clarke
Oconee
Oglethorpe
Walton
DeKalb
Rockdale
Greene
Morgan
Newton
Clayton
Henry
Jasper
A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
StudyArea
Expressways
U.S./State Routes
County
Crash Intersection
Sources: Atlanta Regional Commission, CARE, National Highway Planning Network, U.S. Census Bureau
Figure 7.7
Top 10 High Crash Intersections by County Determined by Severity Index
Atlanta to Athens: Connectivity and Mobility Study


Cherokee
Forsyth
Hall
Banks
Jackson
Madison
Fulton
Barrow
Gwinnett
Clarke
Oconee
Oglethorpe
Walton
DeKalb
Rockdale
Morgan
Greene
Newton
Clayton
Henry
Atlanta
Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
StudyArea
Expressways
U.S./State Routes
County
Number of Crashes
13 - 42
4 - 12
1 - 3
Sources: Atlanta Regional Commission, CARE, National Highway Planning Network, U.S. Census Bureau
Figure 7.8
Truck Crashes
Atlanta to Athens: Connectivity and Mobility Study

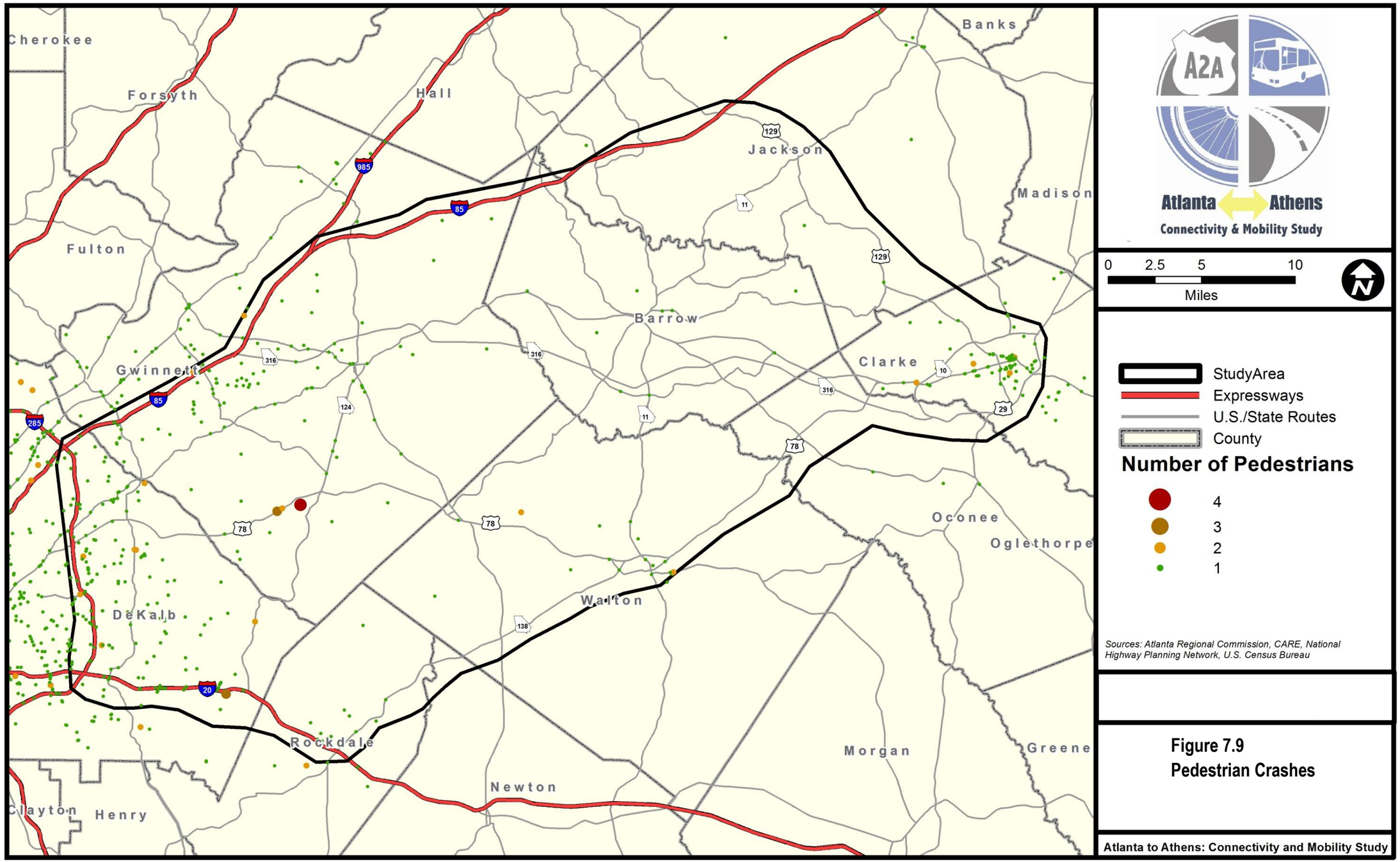


Figure 7.9
Pedestrian Crashes

V. ENVIRONMENTAL CONSIDERATIONS

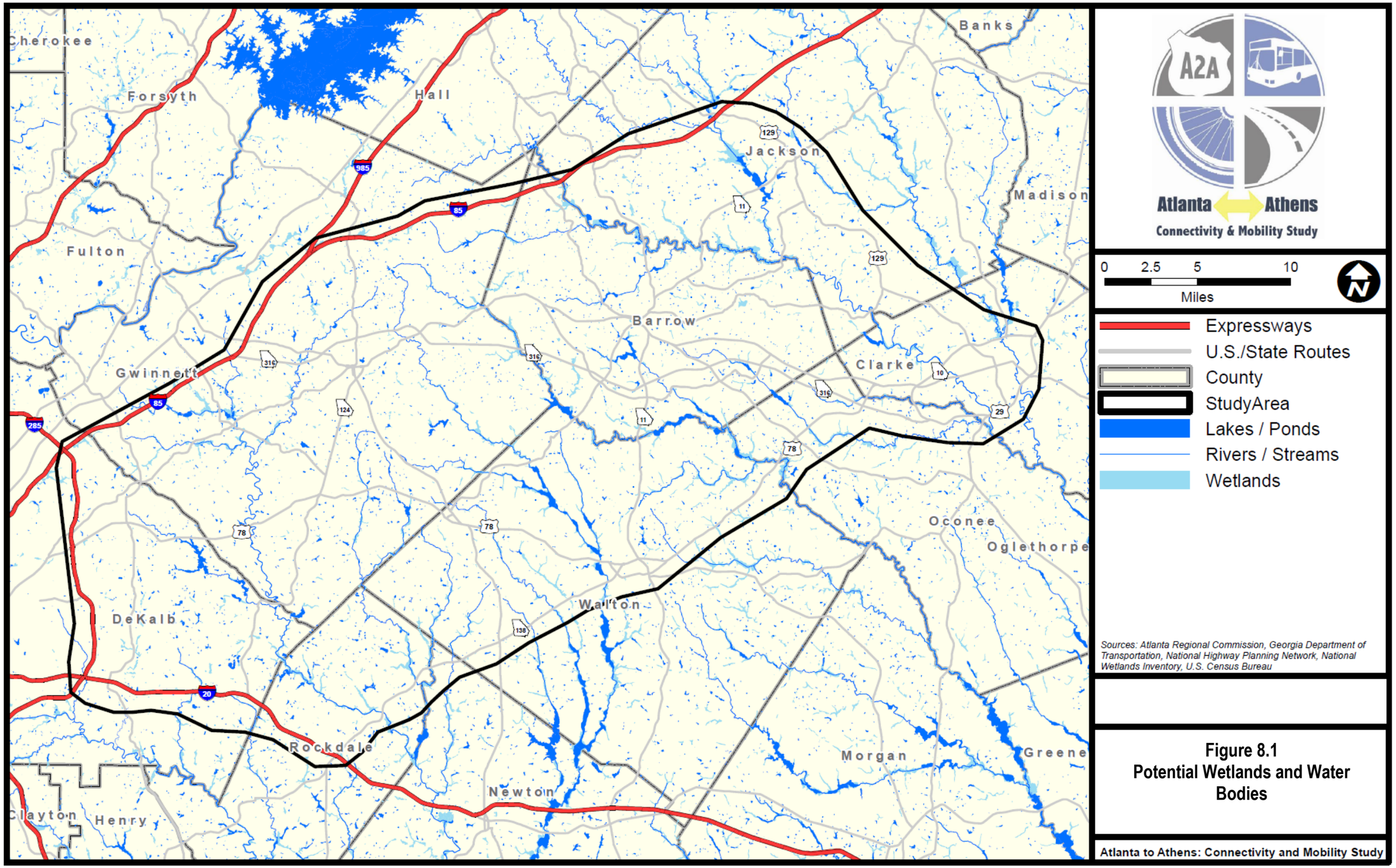


Figure 8.1
Potential Wetlands and Water Bodies

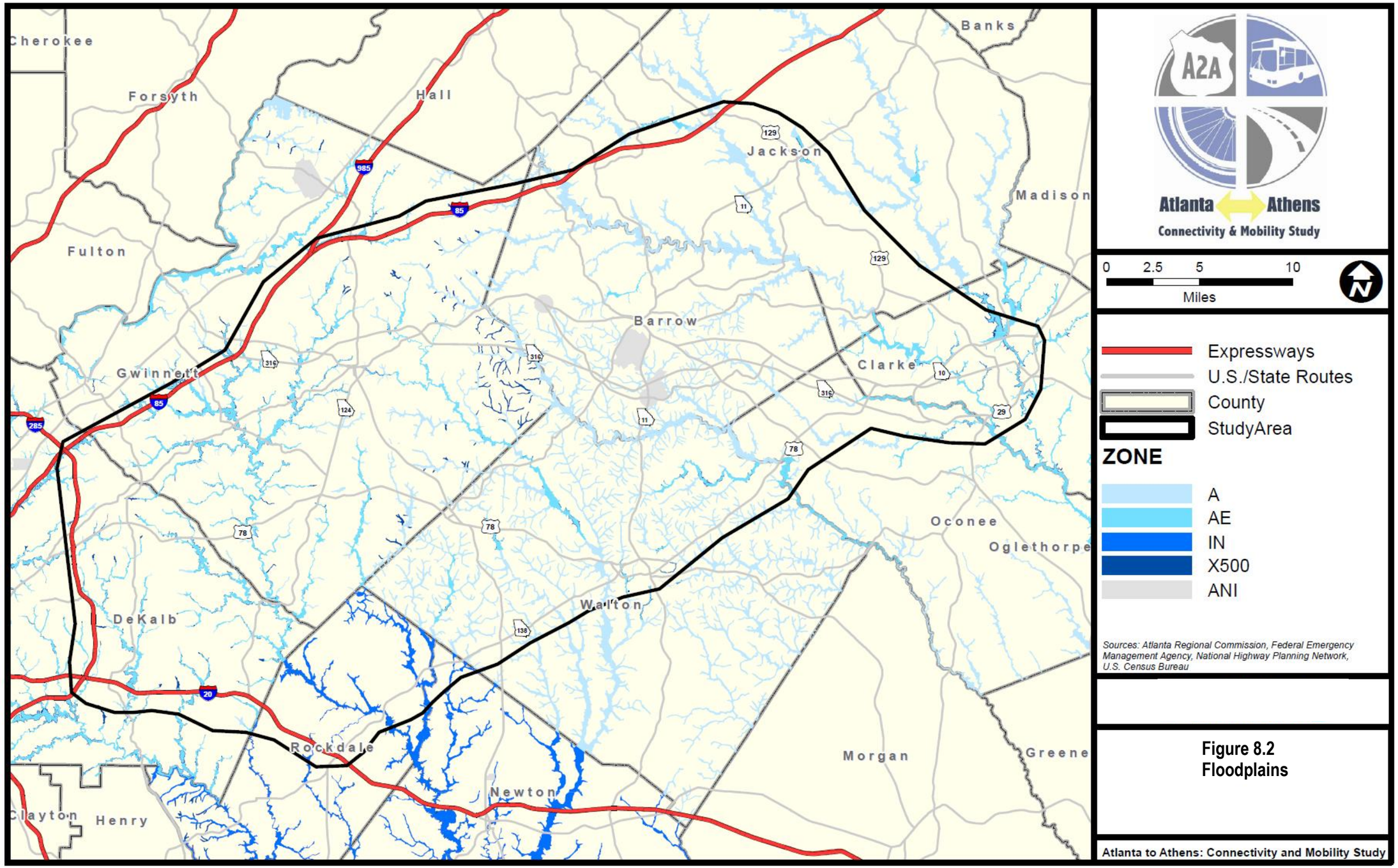


Figure 8.2
Floodplains

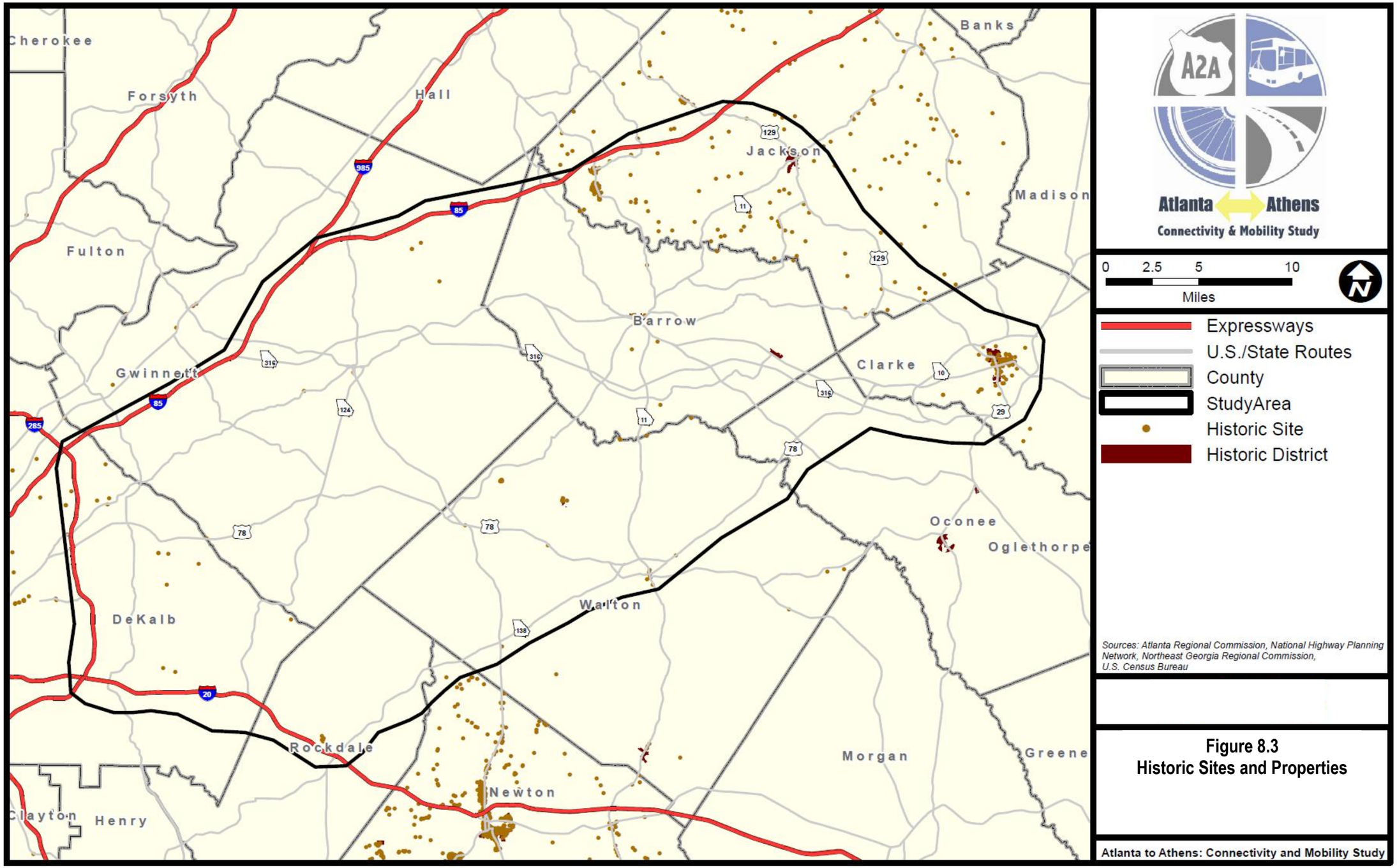


Figure 8.3
Historic Sites and Properties

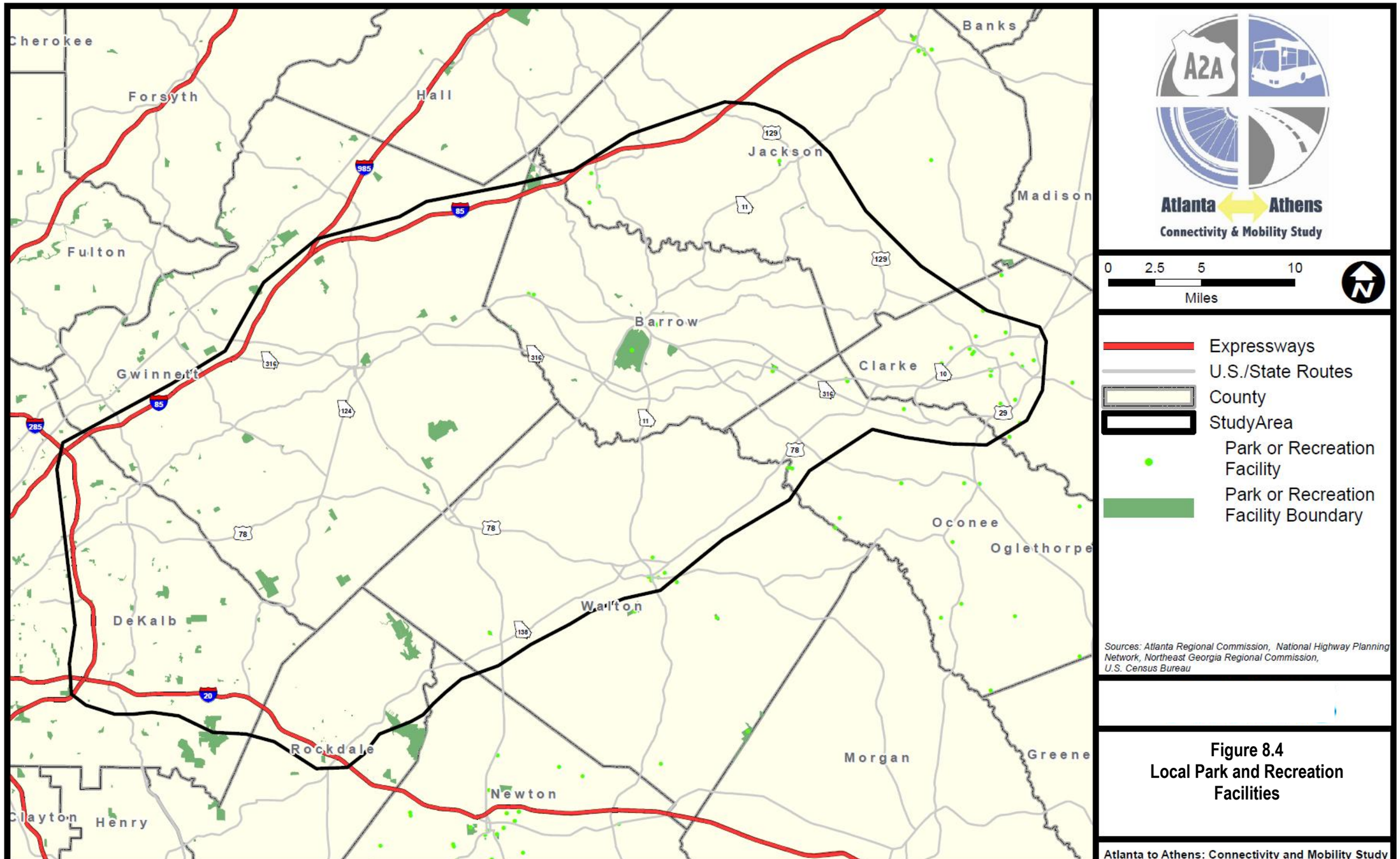


Figure 8.4
Local Park and Recreation Facilities

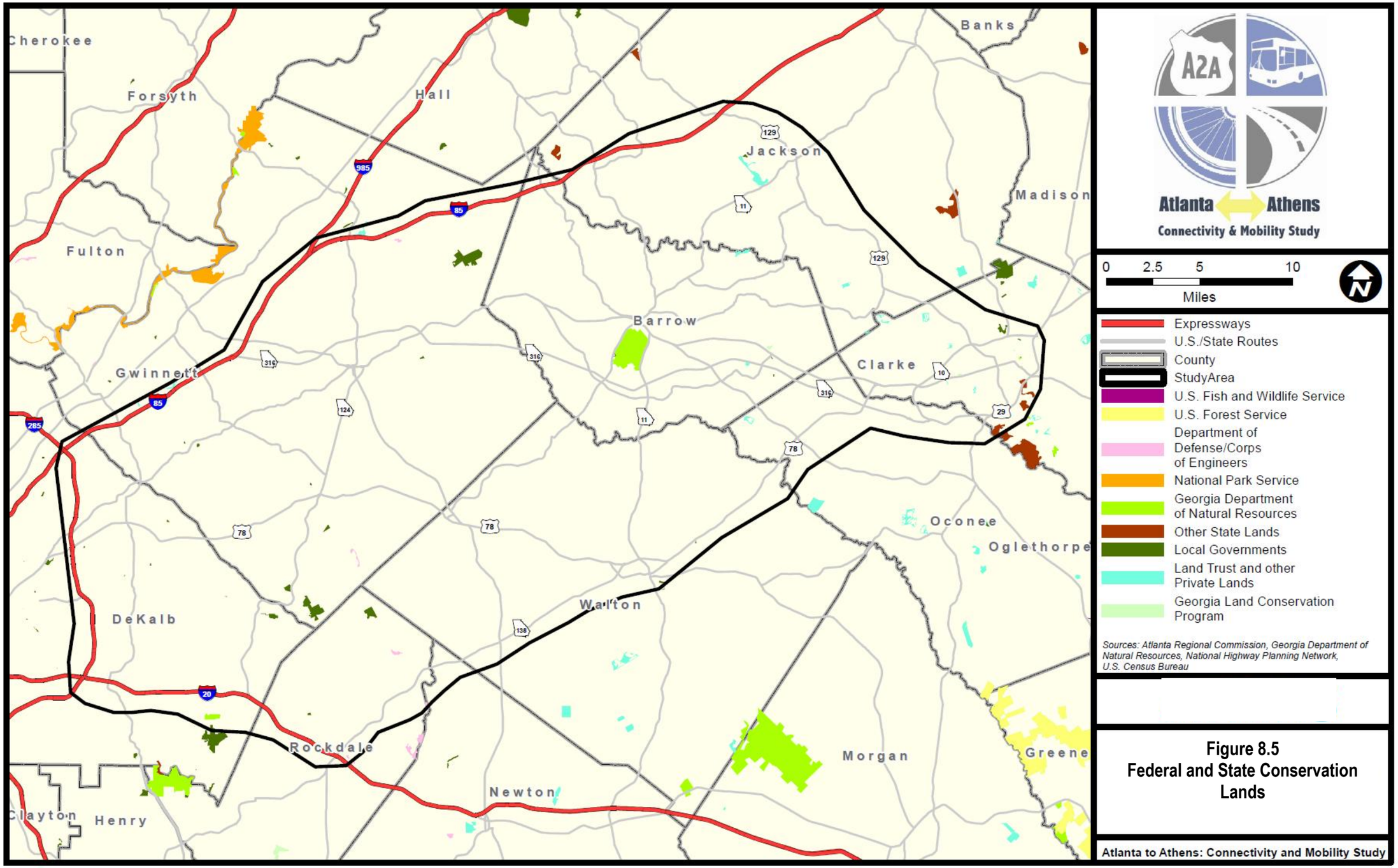


Figure 8.5
Federal and State Conservation Lands

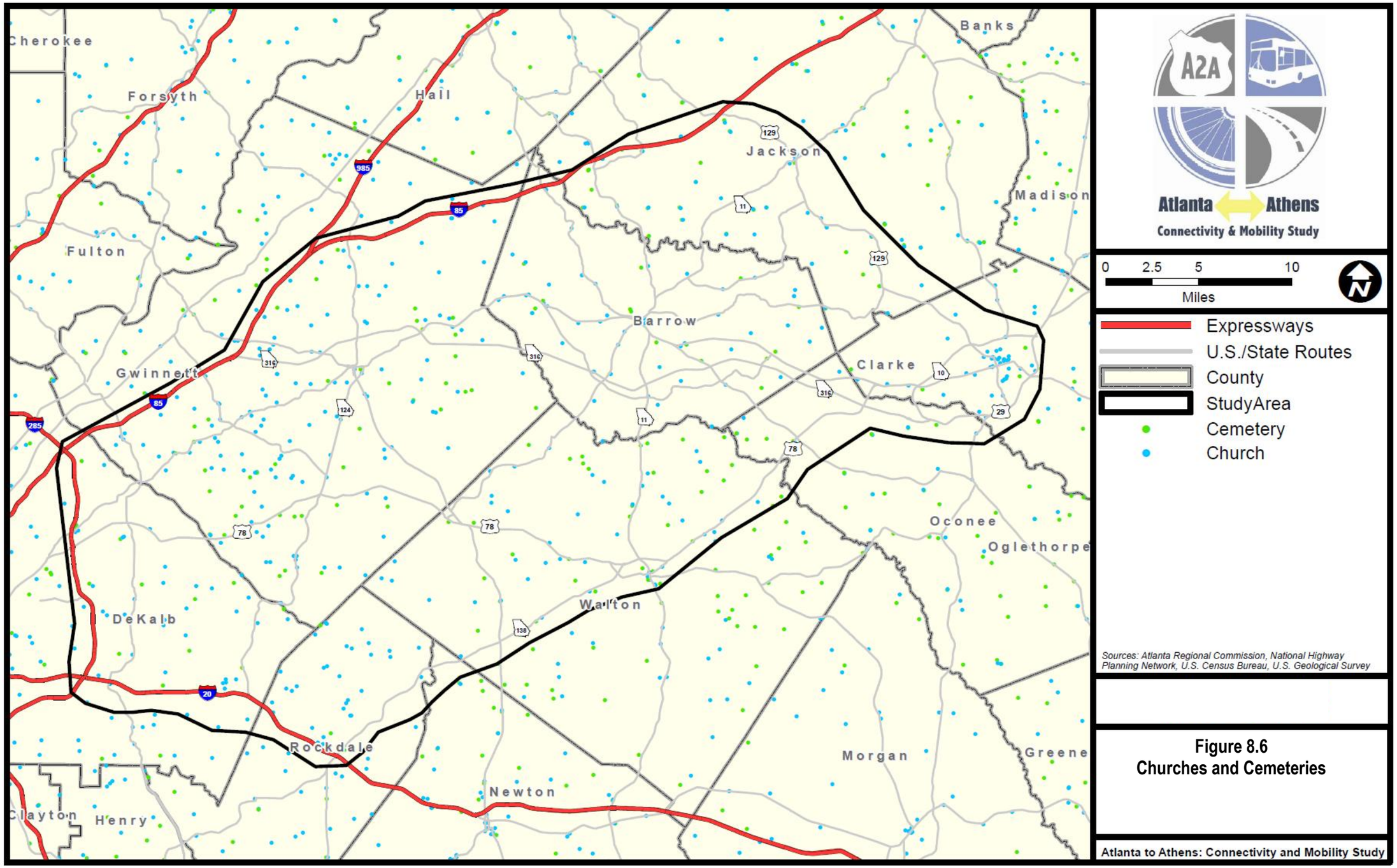


Figure 8.6
Churches and Cemeteries

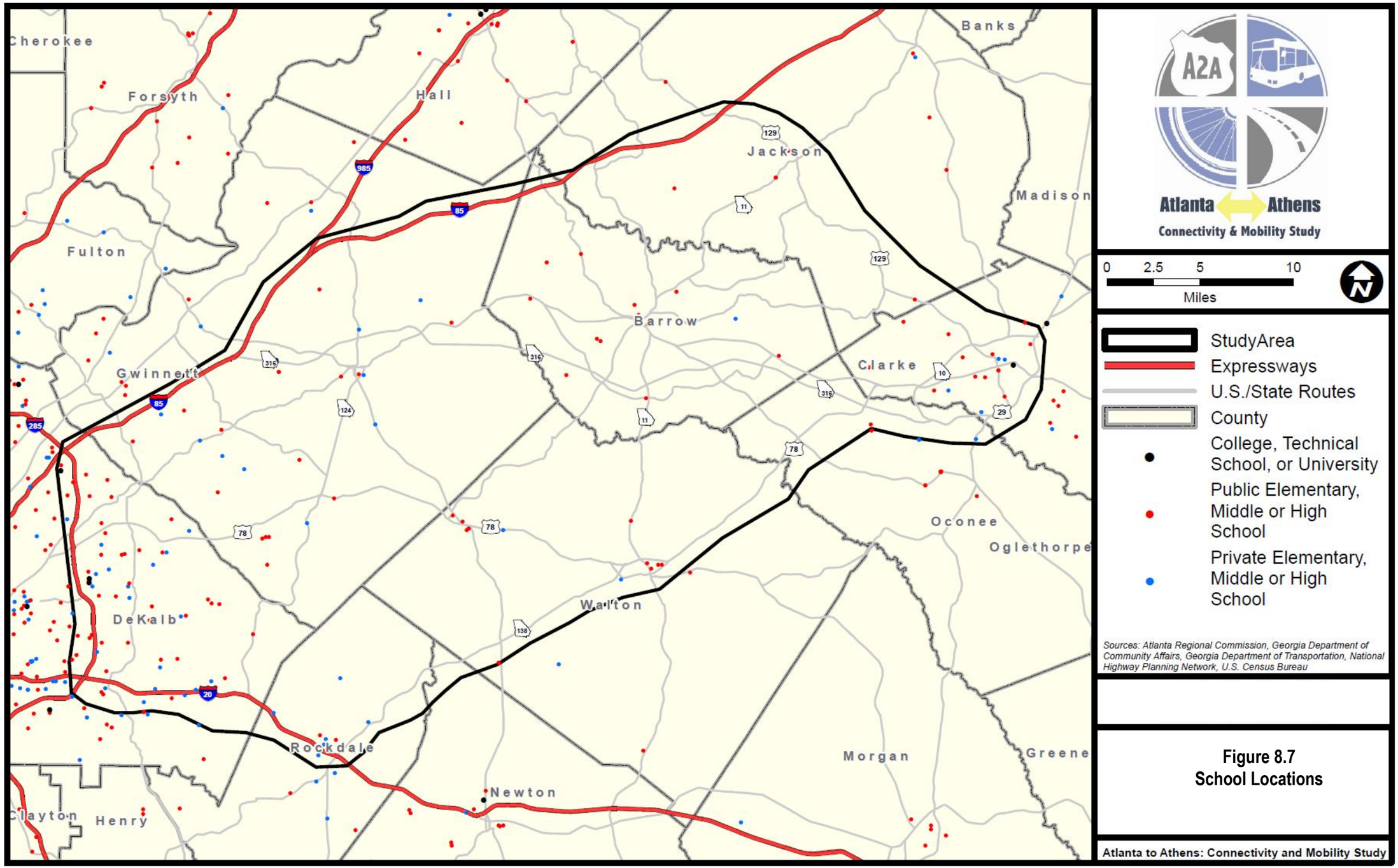


Figure 8.7
School Locations

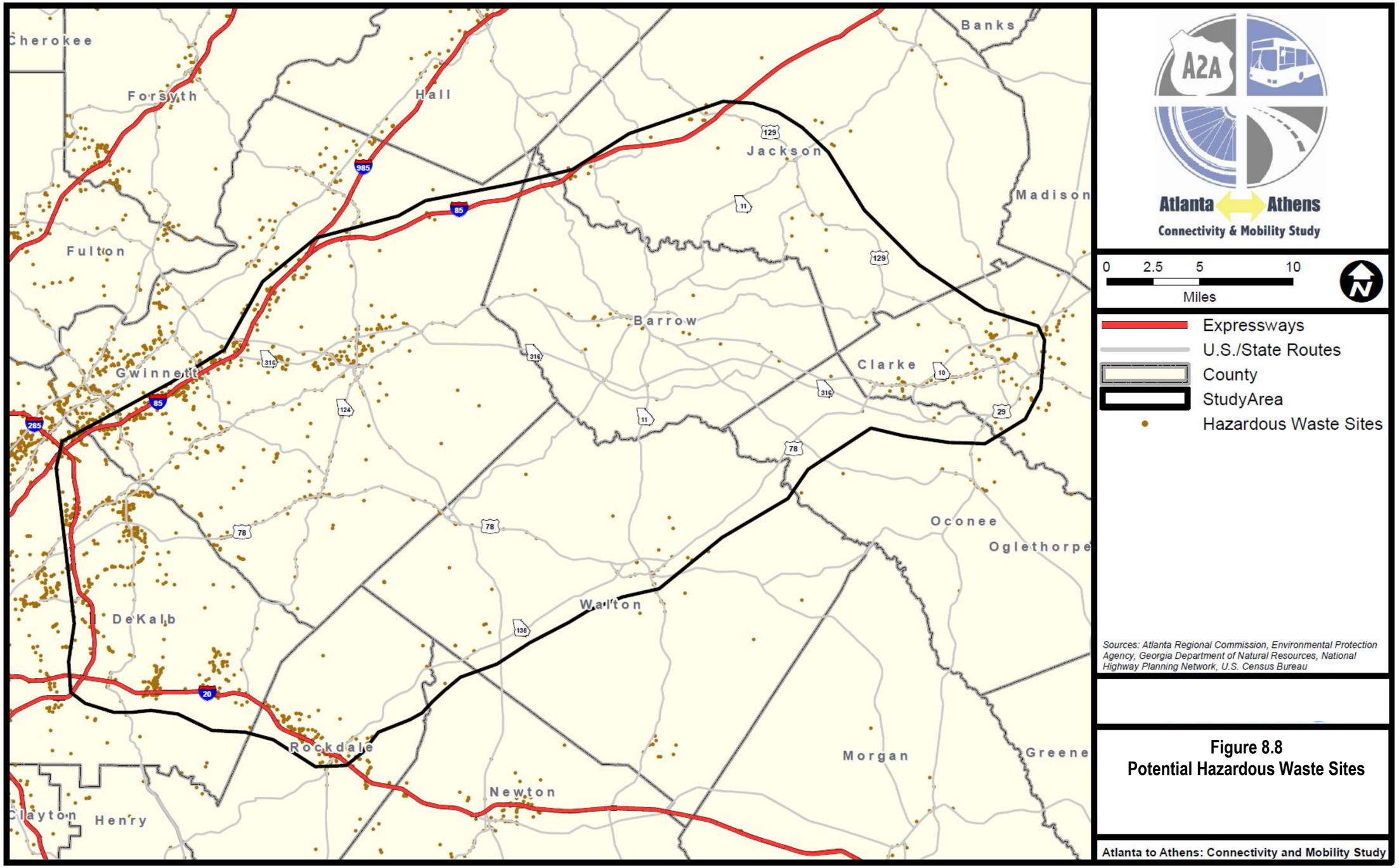
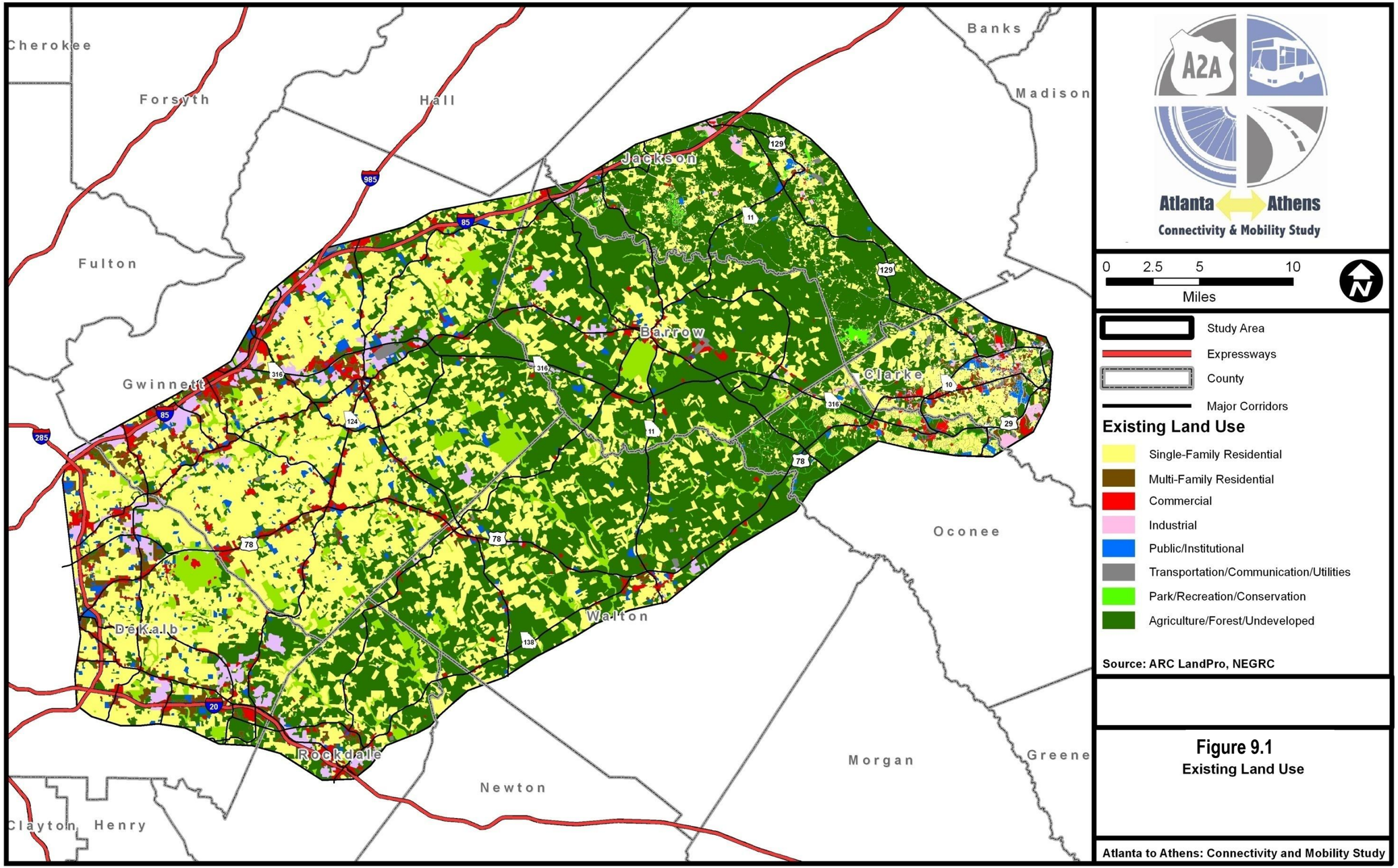
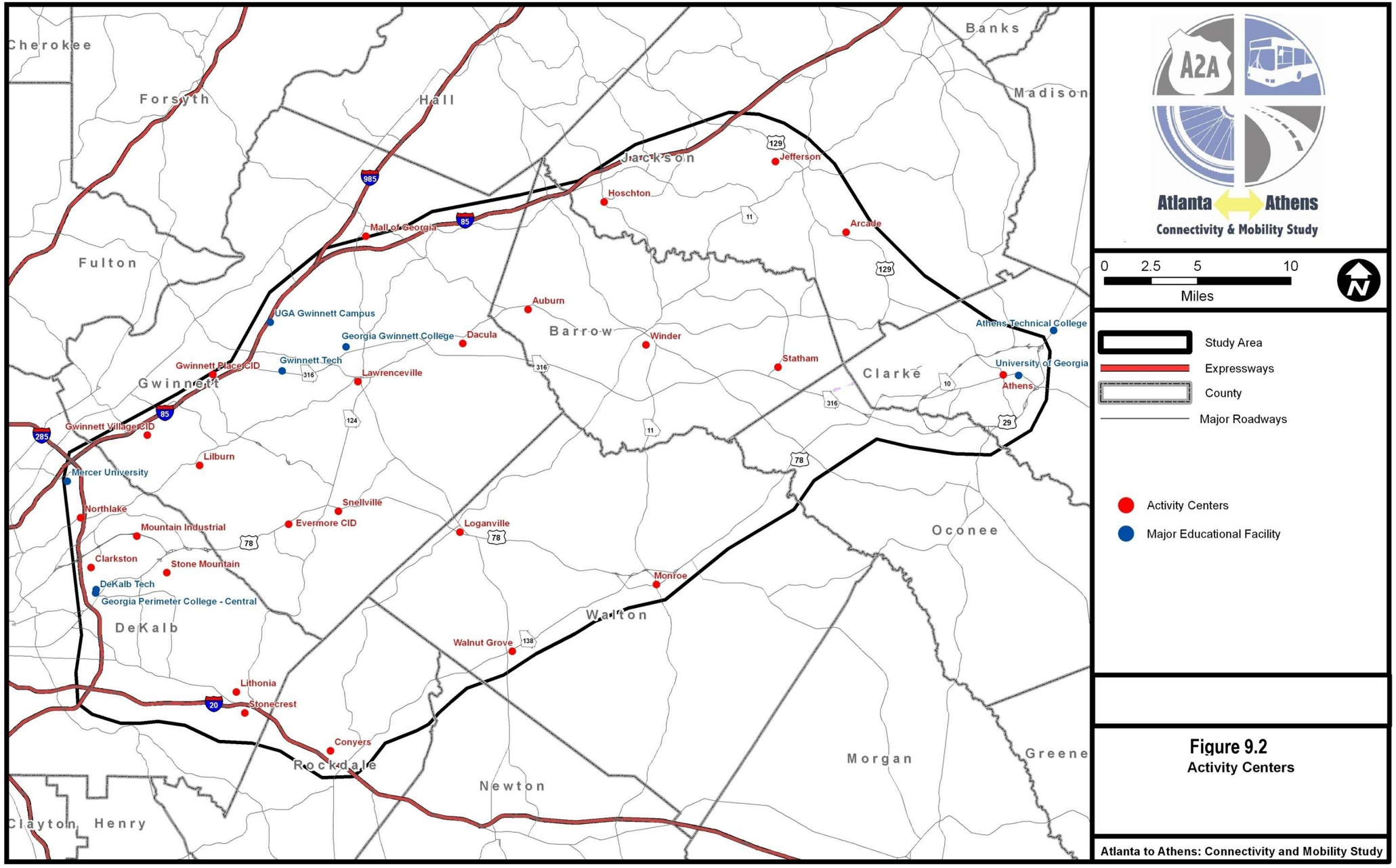


Figure 8.8
Potential Hazardous Waste Sites

VI. CURRENT AND FUTURE LAND USE AND DEVELOPMENT


Cherokee
Forsyth
Hall
Banks
Madison
Fulton
Gwinnett
Jackson
Barrow
Clarke
Oconee
Walton
DeKalb
Rockdale
Newton
Morgan
Greene
Clayton
Henry
985
85
285
20
316
124
11
129
10
29
78
138
A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
Study Area
Expressways
County
Major Corridors
Existing Land Use
Single-Family Residential
Multi-Family Residential
Commercial
Industrial
Public/Institutional
Transportation/Communication/Utilities
Park/Recreation/Conservation
Agriculture/Forest/Undeveloped
Source: ARC LandPro, NEGRC
Figure 9.1
Existing Land Use
Atlanta to Athens: Connectivity and Mobility Study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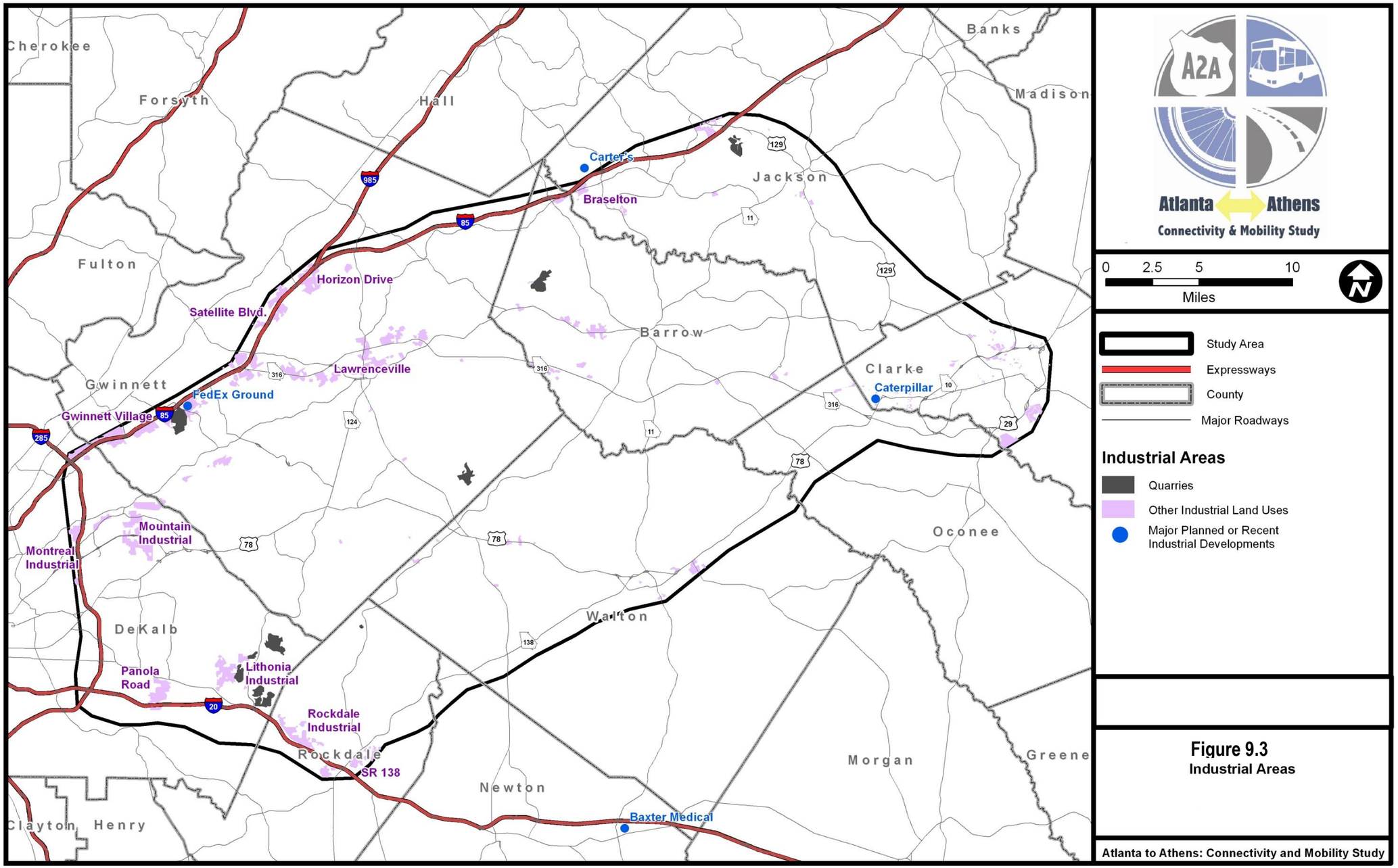
Fulton
Gwinnett
Barrow
Clarke
Oconee
Walton
DeKalb
Rockdale
Newton
Morgan
Greene
Clayton
Henry
Jefferson
Hoschton
Arcade
Mall of Georgia
Auburn
Winder
Statham
UGA Gwinnett Campus
Georgia Gwinnett College
Dacula
Gwinnett Place CID
Gwinnett Tech
Lawrenceville
Gwinnett Village CID
Lilburn
Mercer University
Northlake
Mountain Industrial
Snellville
Evermore CID
Loganville
Clarkston
Stone Mountain
DeKalb Tech
Georgia Perimeter College - Central
Monroe
Walnut Grove
Lithonia
Stonecrest
Conyers
Athens Technical College
University of Georgia
Athens
Atlanta
Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
Study Area
Expressways
County
Major Roadways
Activity Centers
Major Educational Facility
Figure 9.2
Activity Centers
Atlanta to Athens: Connectivity and Mobility Study


Cherokee
Forsyth
Hall
Banks
Madison
Jackson
Fulton
Barrow
Clarke
Gwinnett
Oconee
Walton
DeKalb
Morgan
Greene
Newton
Clayton
Henry
Carter's
Braselton
Horizon Drive
Satellite Blvd.
Lawrenceville
FedEx Ground
Gwinnett Village
Caterpillar
Mountain Industrial
Montreal Industrial
Panola Road
Lithonia Industrial
Rockdale Industrial
Rockdale
SR 138
Baxter Medical
985
85
285
20
129
11
316
124
10
29
78
138
A2A
Atlanta Athens
Connectivity & Mobility Study
0 2.5 5 10
Miles
N
Study Area
Expressways
County
Major Roadways
Industrial Areas
Quarries
Other Industrial Land Uses
Major Planned or Recent Industrial Developments
Figure 9.3
Industrial Areas
Atlanta to Athens: Connectivity and Mobility Study

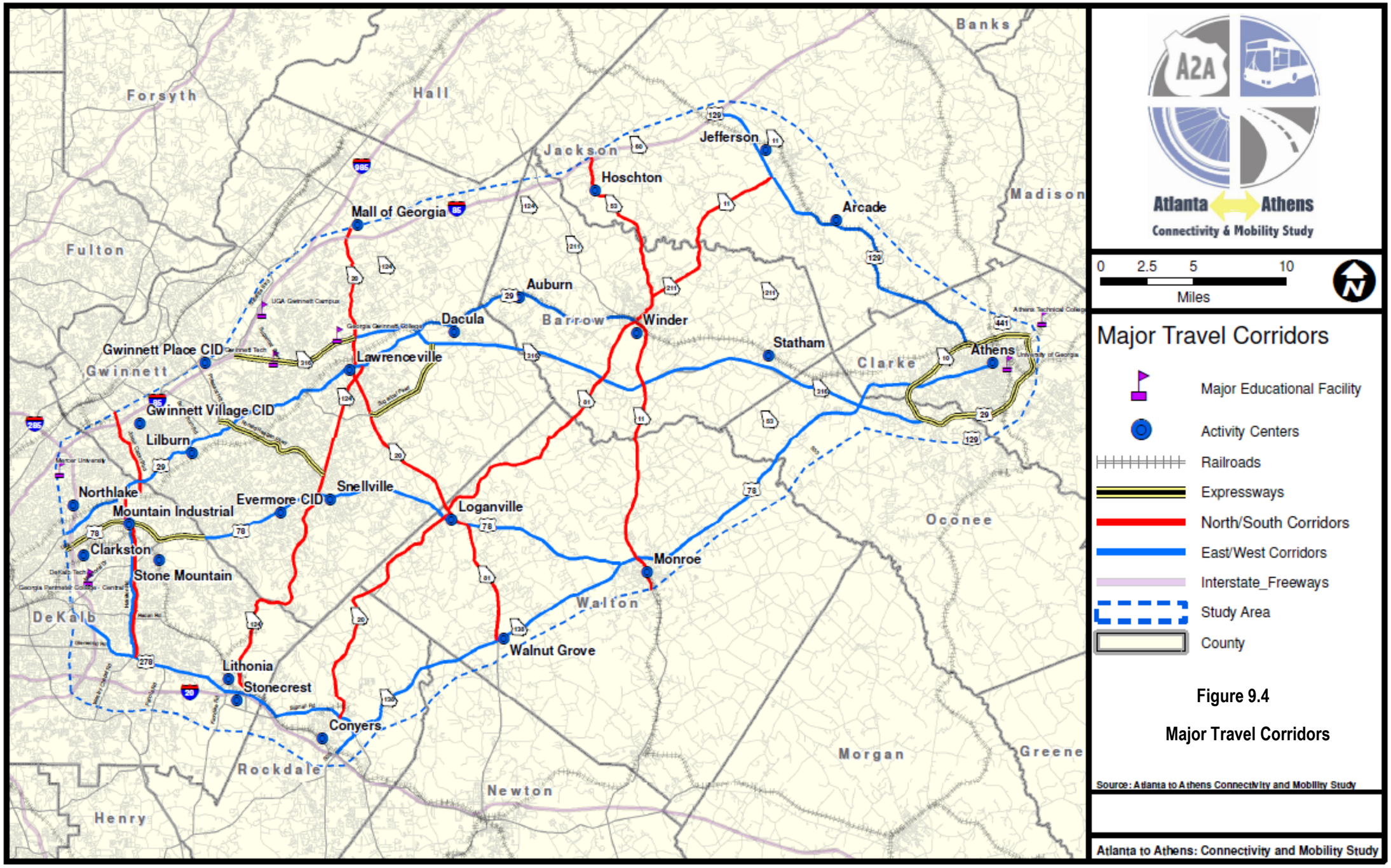


Figure 9.4

Major Travel Corridors

Figure 9.5: Plan 2040 Unified Growth Policy Map

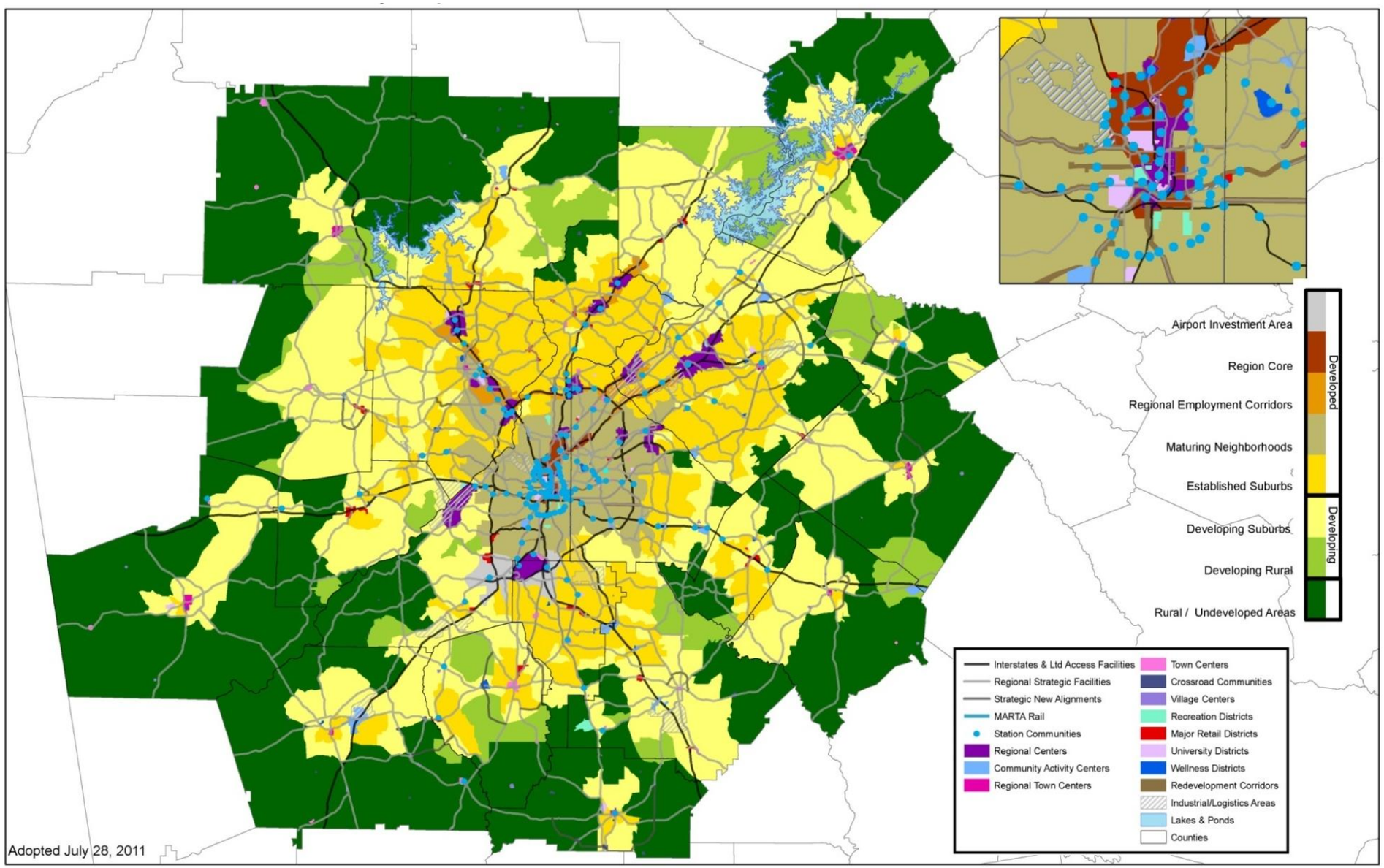
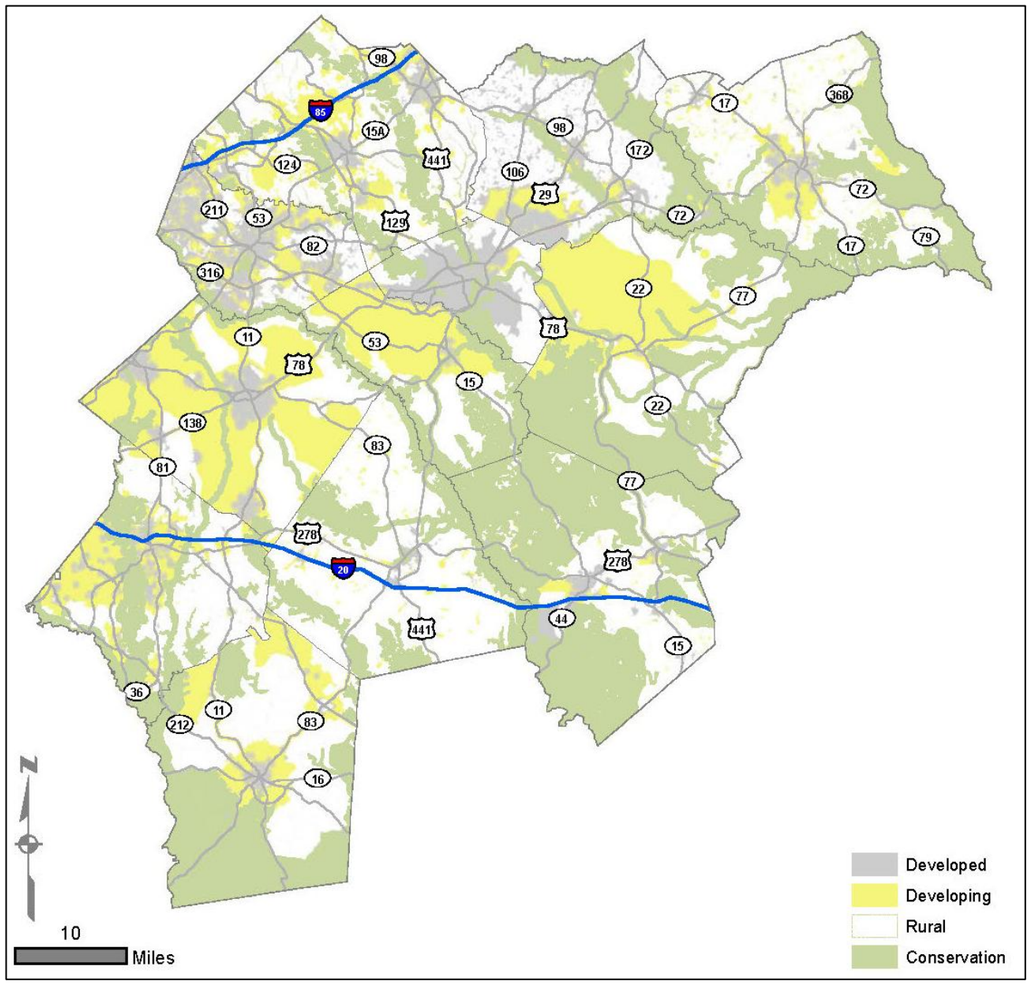
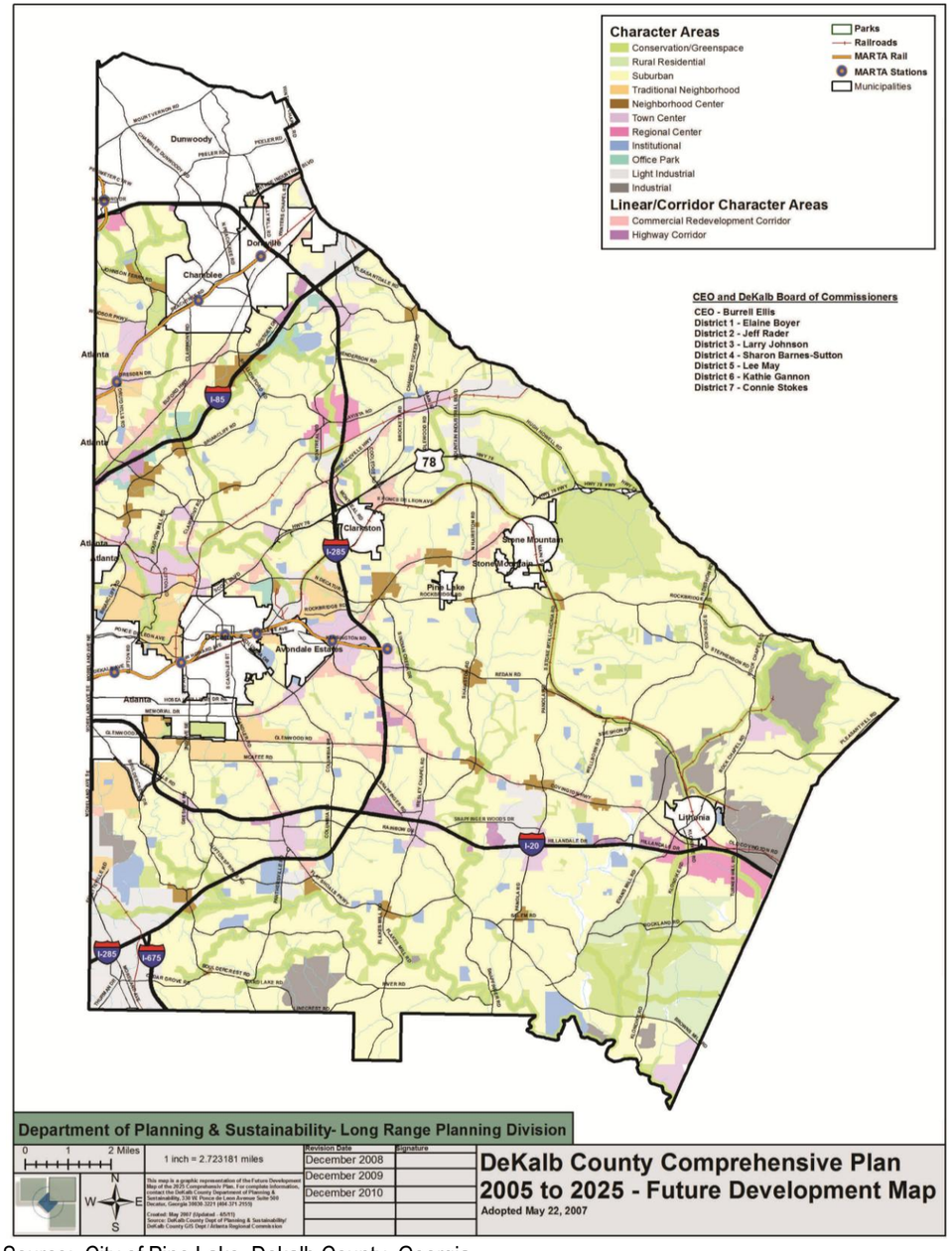


Figure 9.6 : Northeast Georgia Regional Development Map



Source: Northeast Georgia Regional Development Commission

Figure 9.7: DeKalb County Future Development Map



Source: City of Pine Lake, Dekalb County, Georgia

Figure 9.8: City of Pine Lake Future Development Map

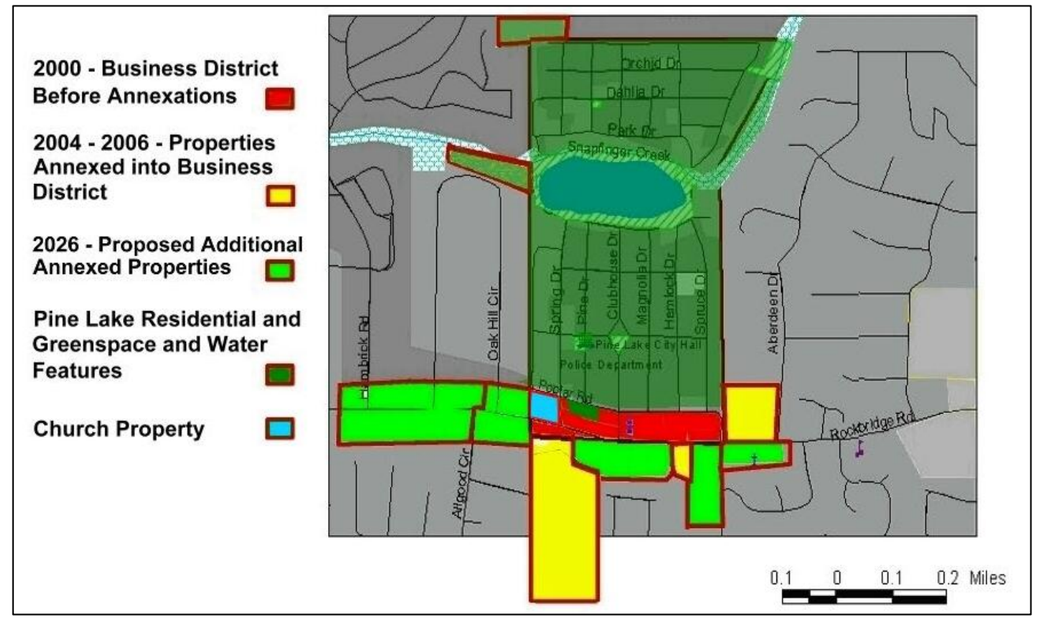
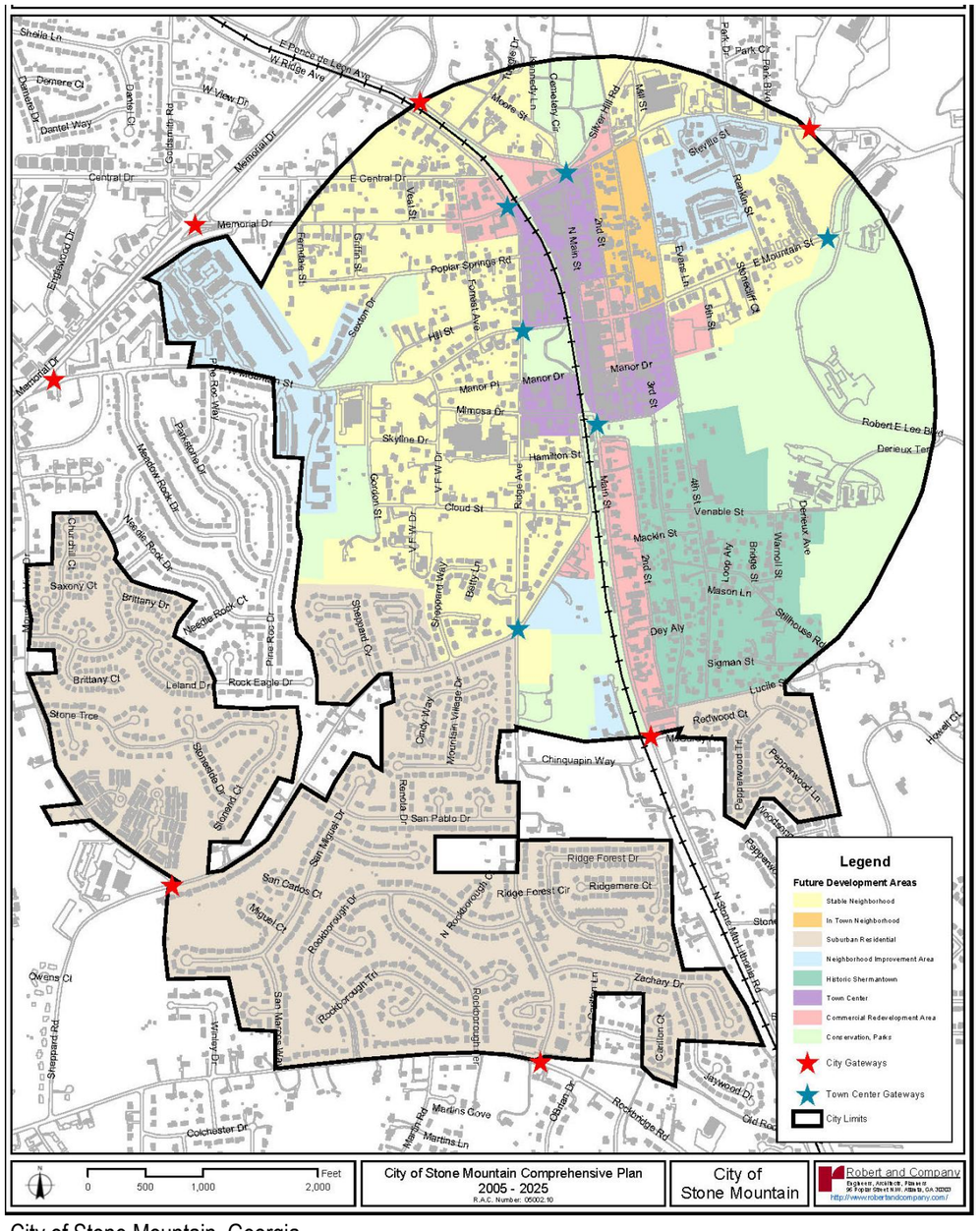
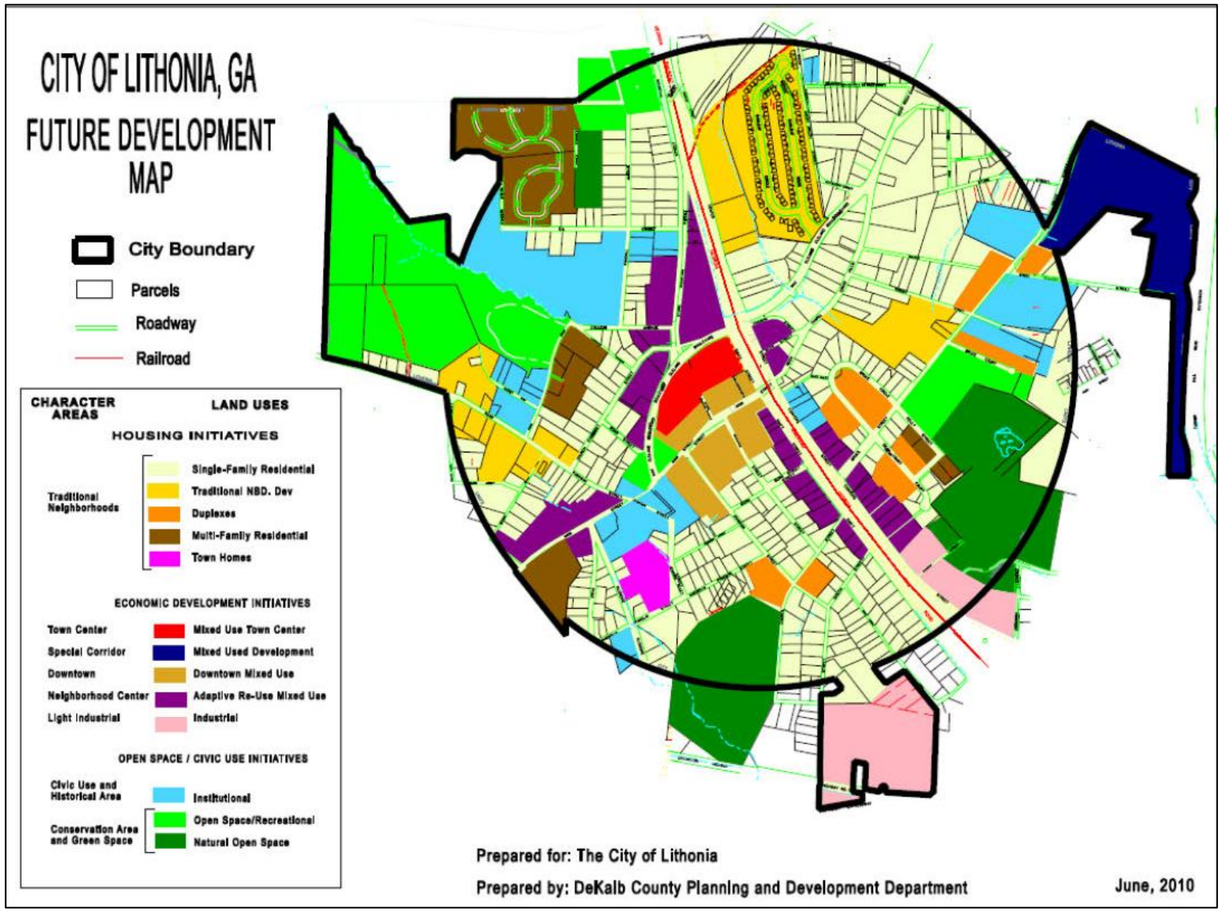


Figure 9.9: City of Stone Mountain Future Development Map



Source: City of Stone Mountain, Georgia

Figure 9.10: City of Lithonia Future Development Map

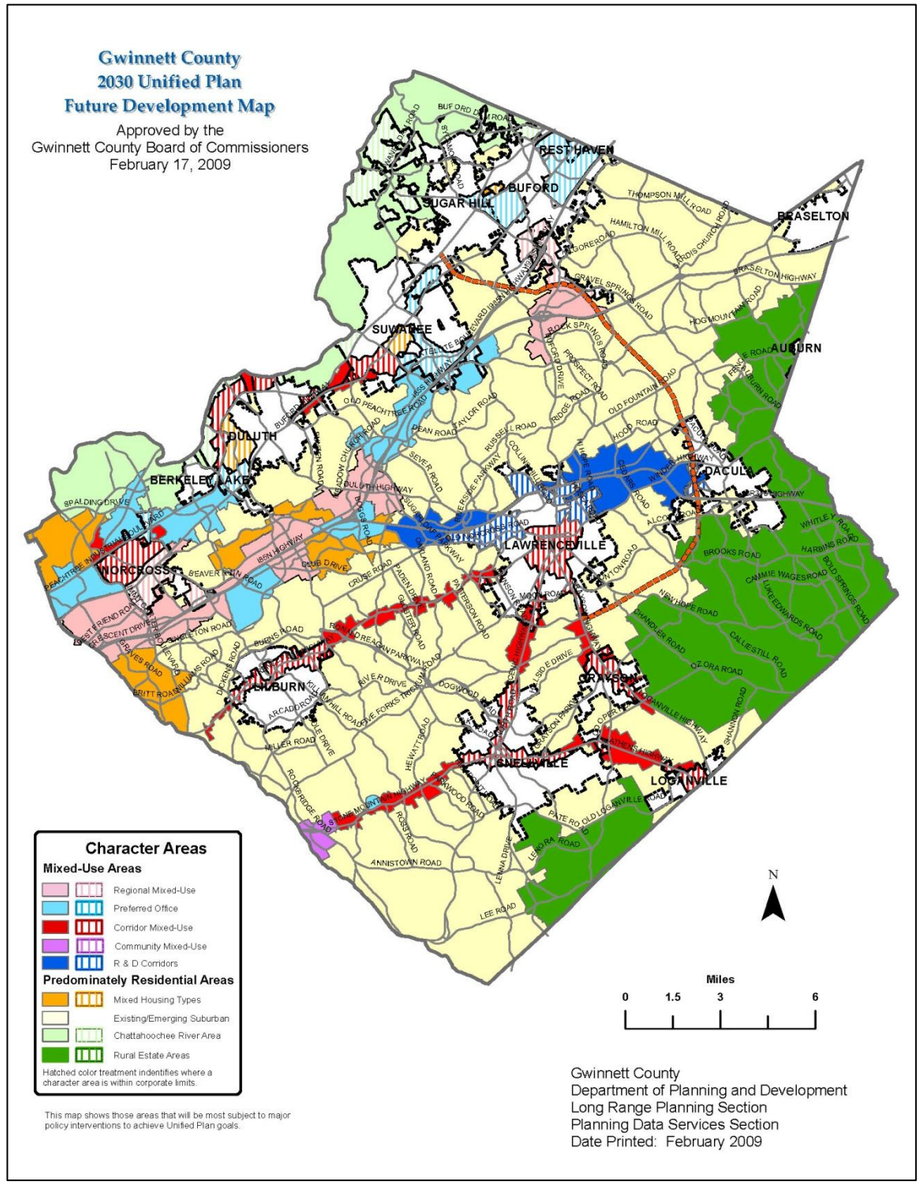


Source: City of Lithonia, Georia

Figure 9.11: City of Clarkston Character Area Map

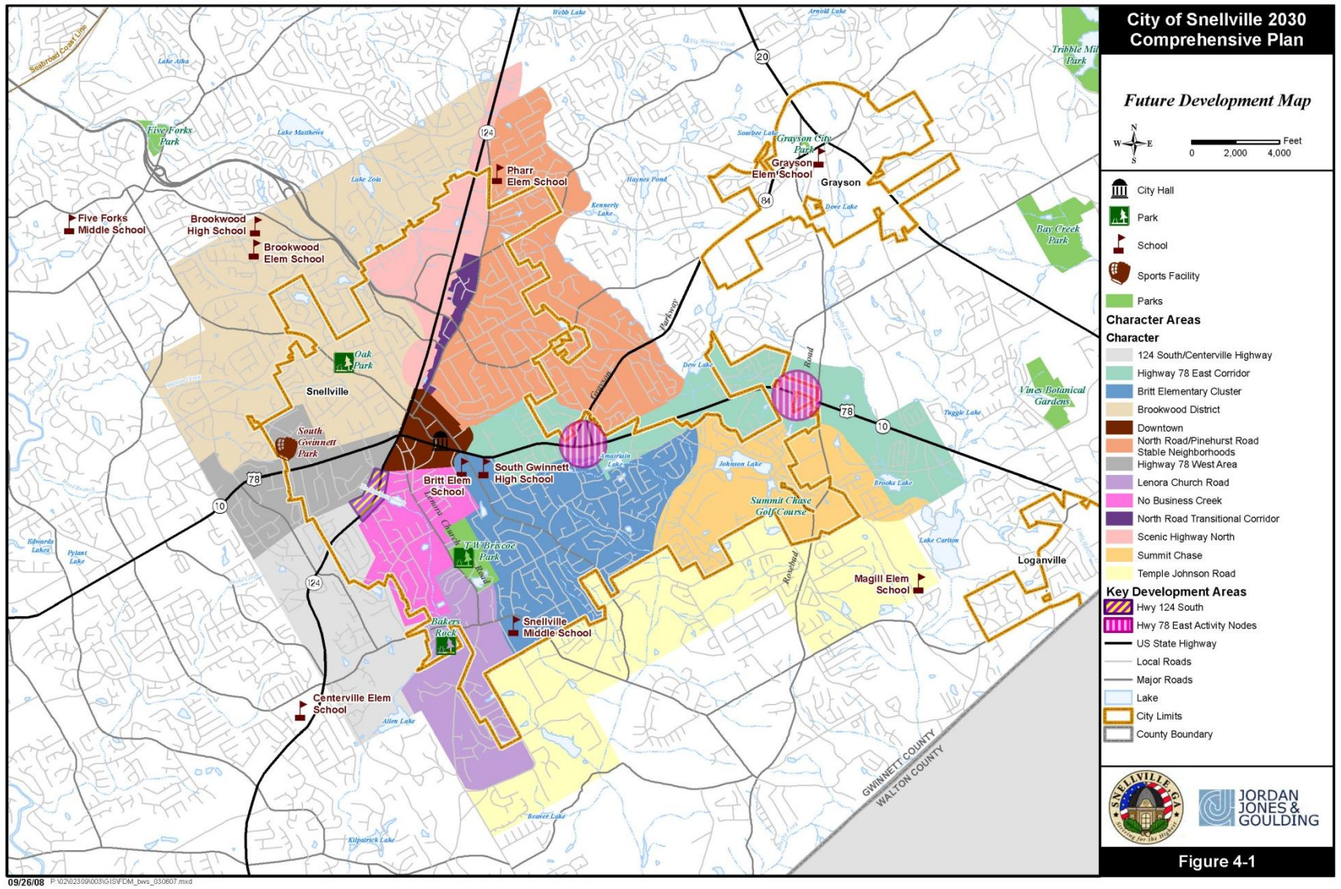
Source: City of Clarkston, Georgia

Figure 9.12: Gwinnett County Future Development Map



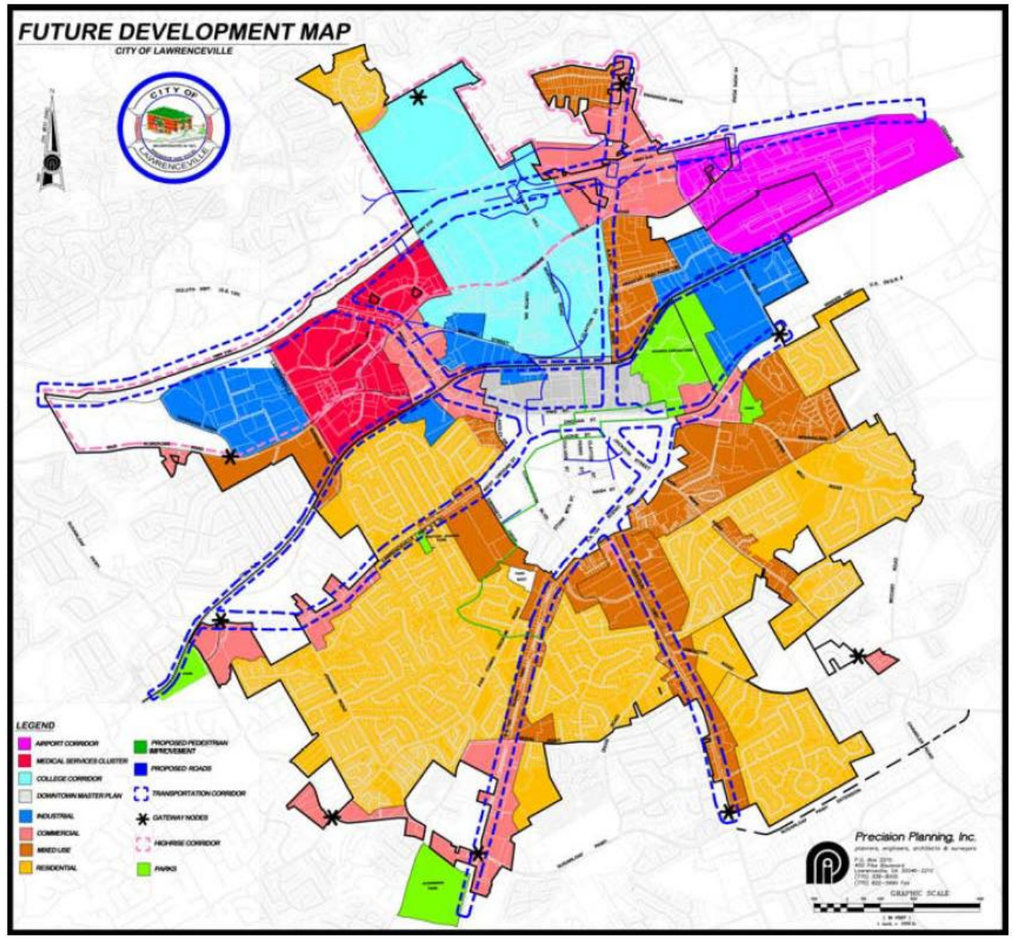
Source – Gwinnett County, Georgia

Figure 9.13: City of Snellville Future Development Map



Source – City of Snellville, Georgia

Figure 9.14: City of Lawrenceville Future Development Map



Source – City of Lawrenceville, Georgia

Figure 9.15: City of Lilburn Future Development Map

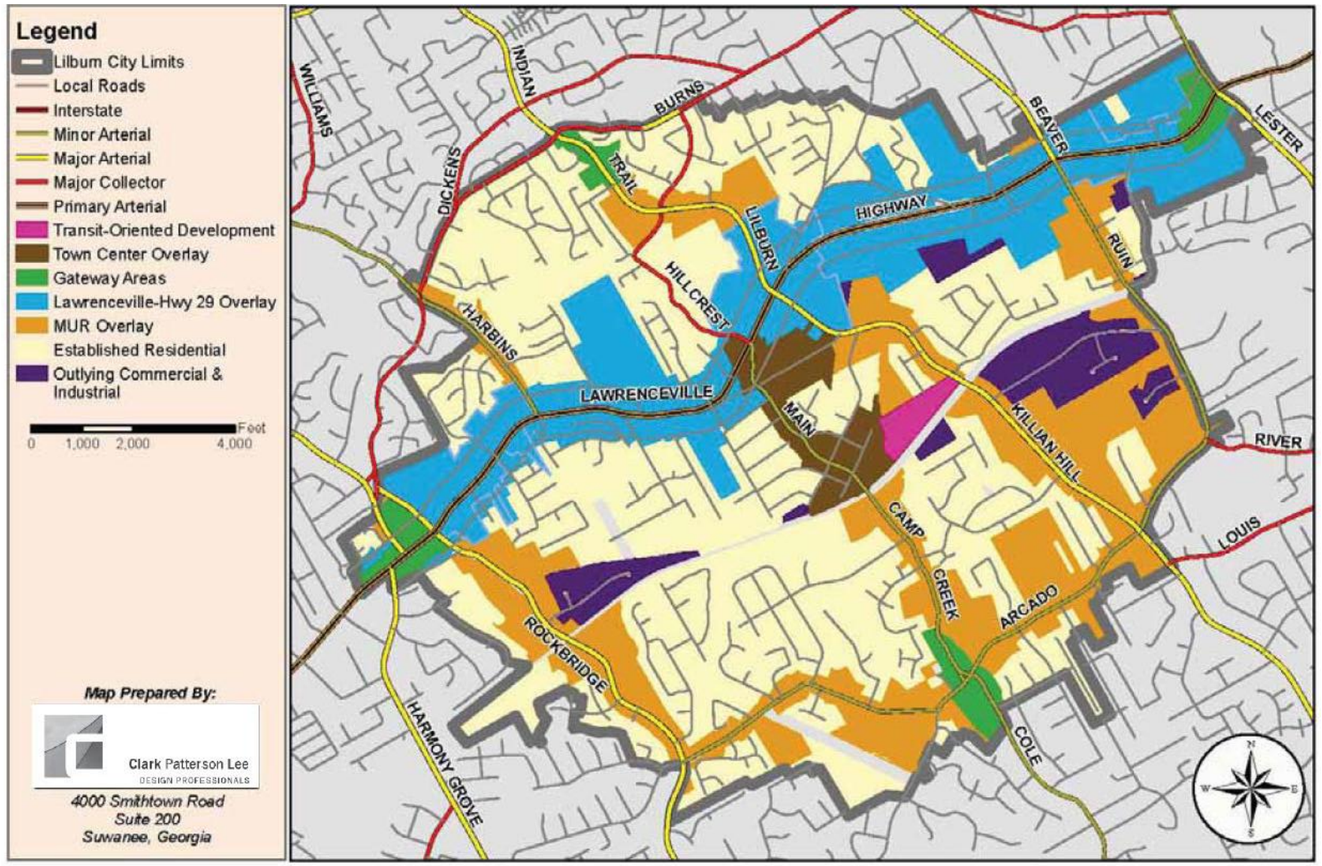


Figure 9.16: City of Dacula Future Development Map

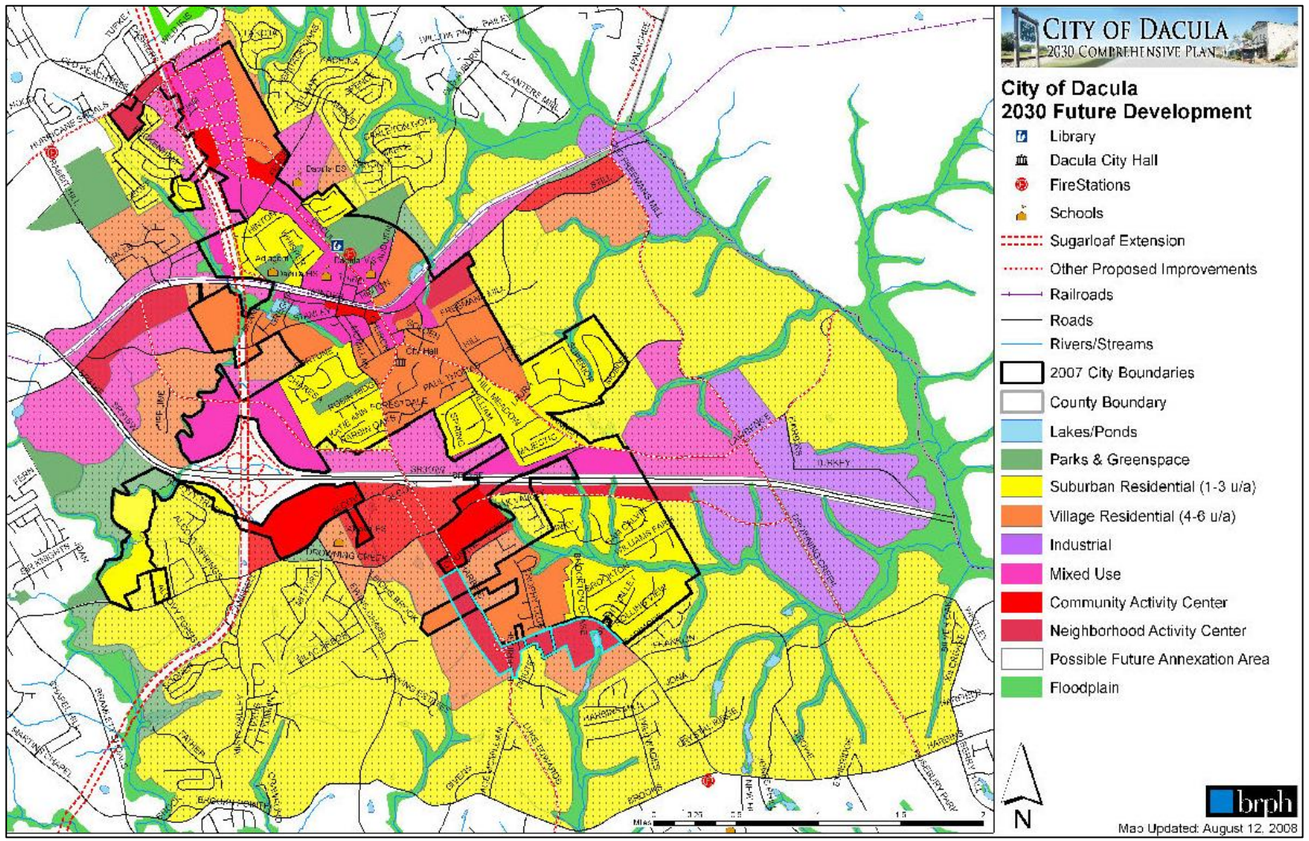
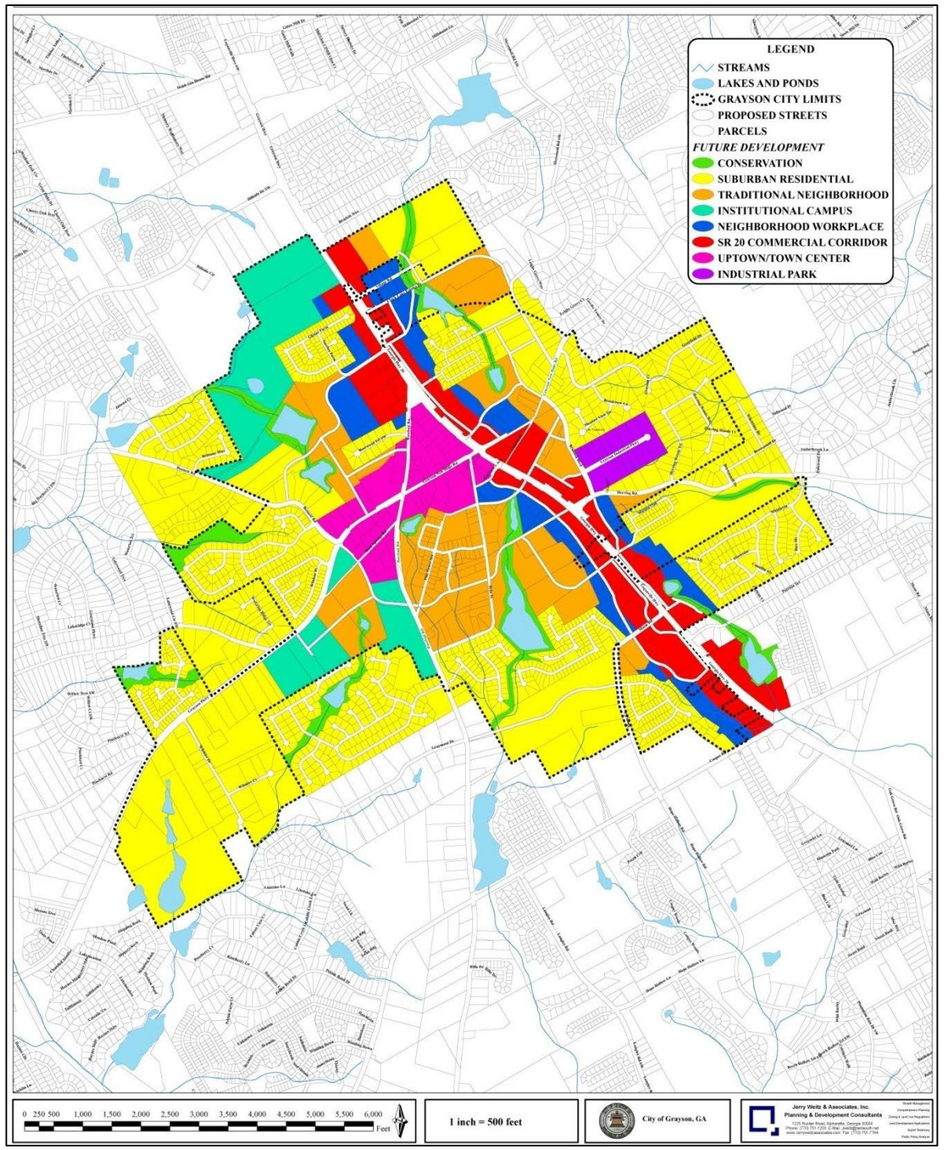
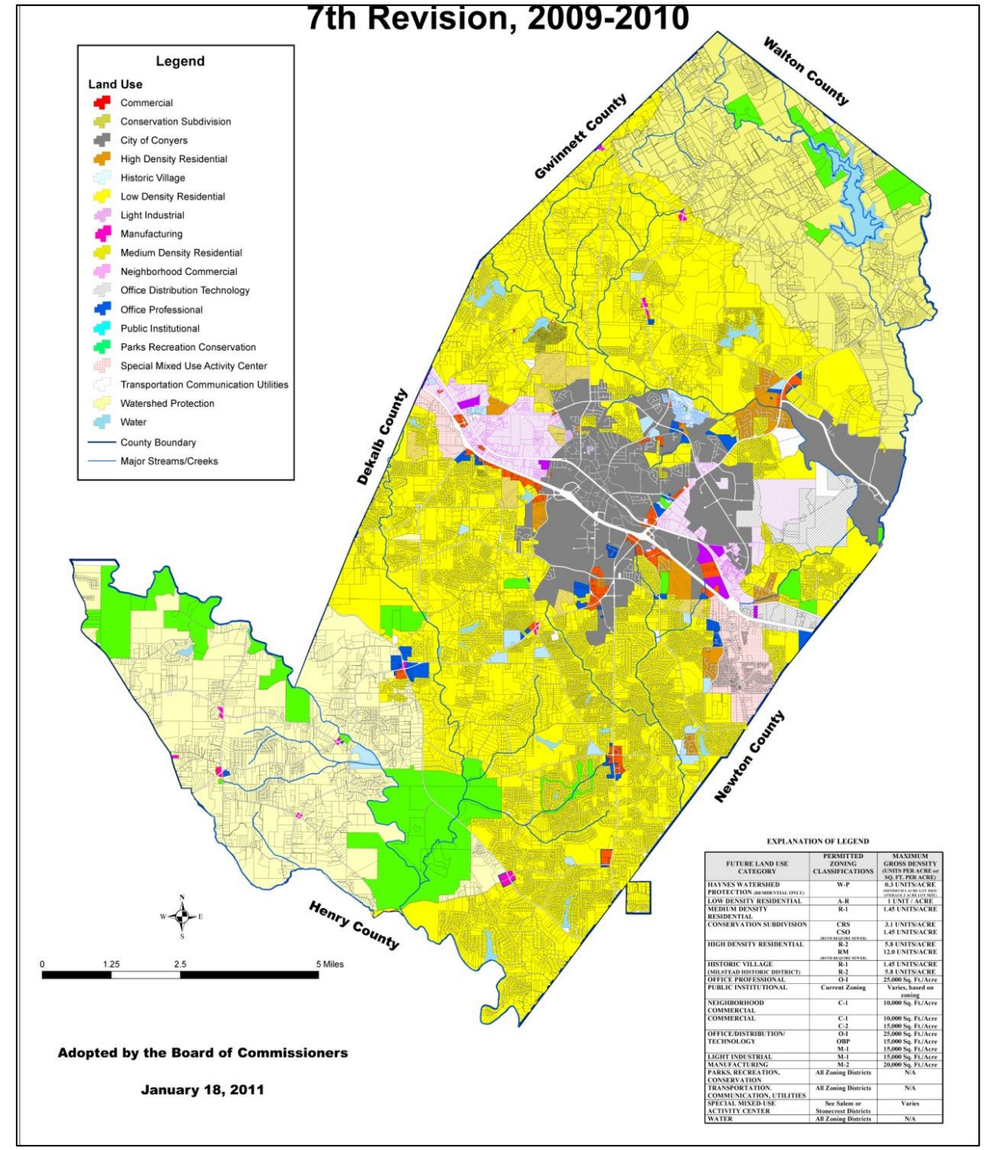


Figure 9.18: Rockdale County Future Land Use Map



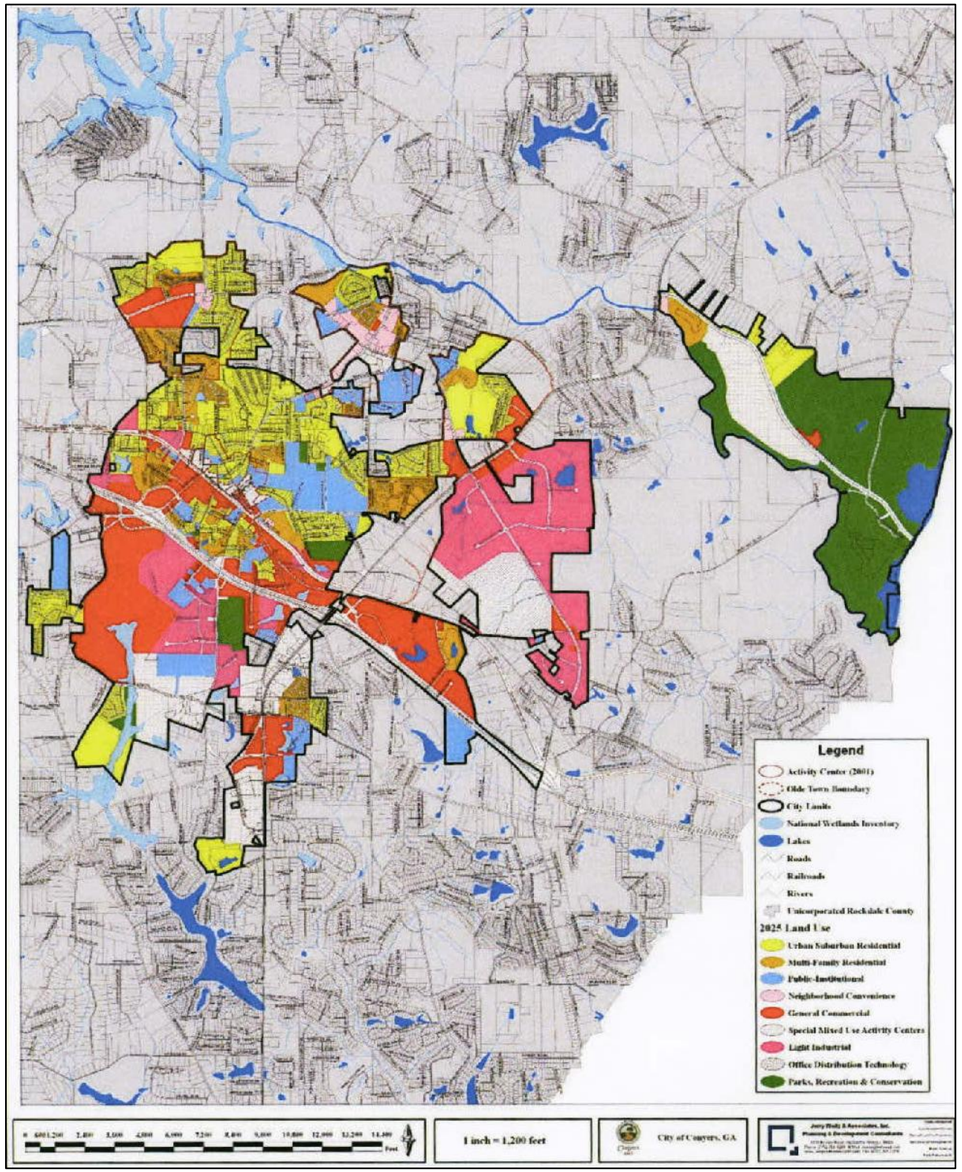
Source – City of Rockdale, Georgia

Figure 9.19: City of Grayson Future Development Map



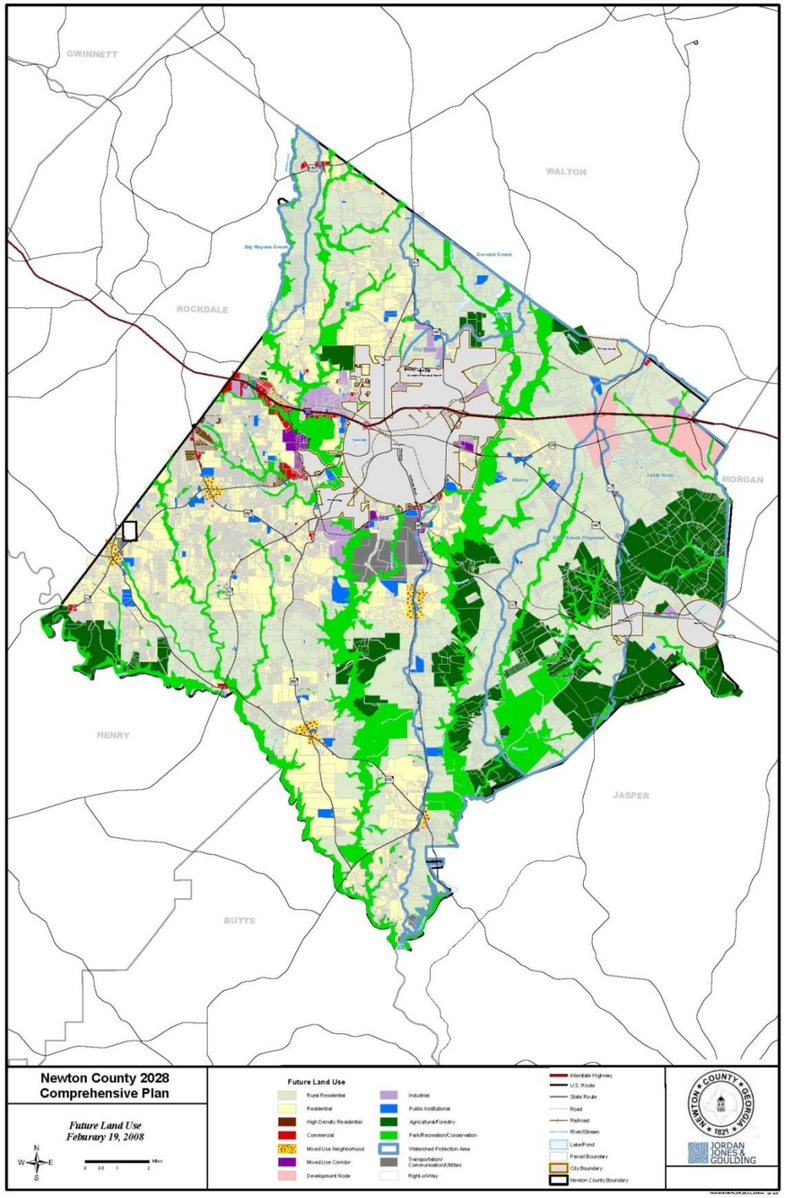
Source – City of Grayson, Georgia

Figure 9.19: City of Conyers Future Land Use Map



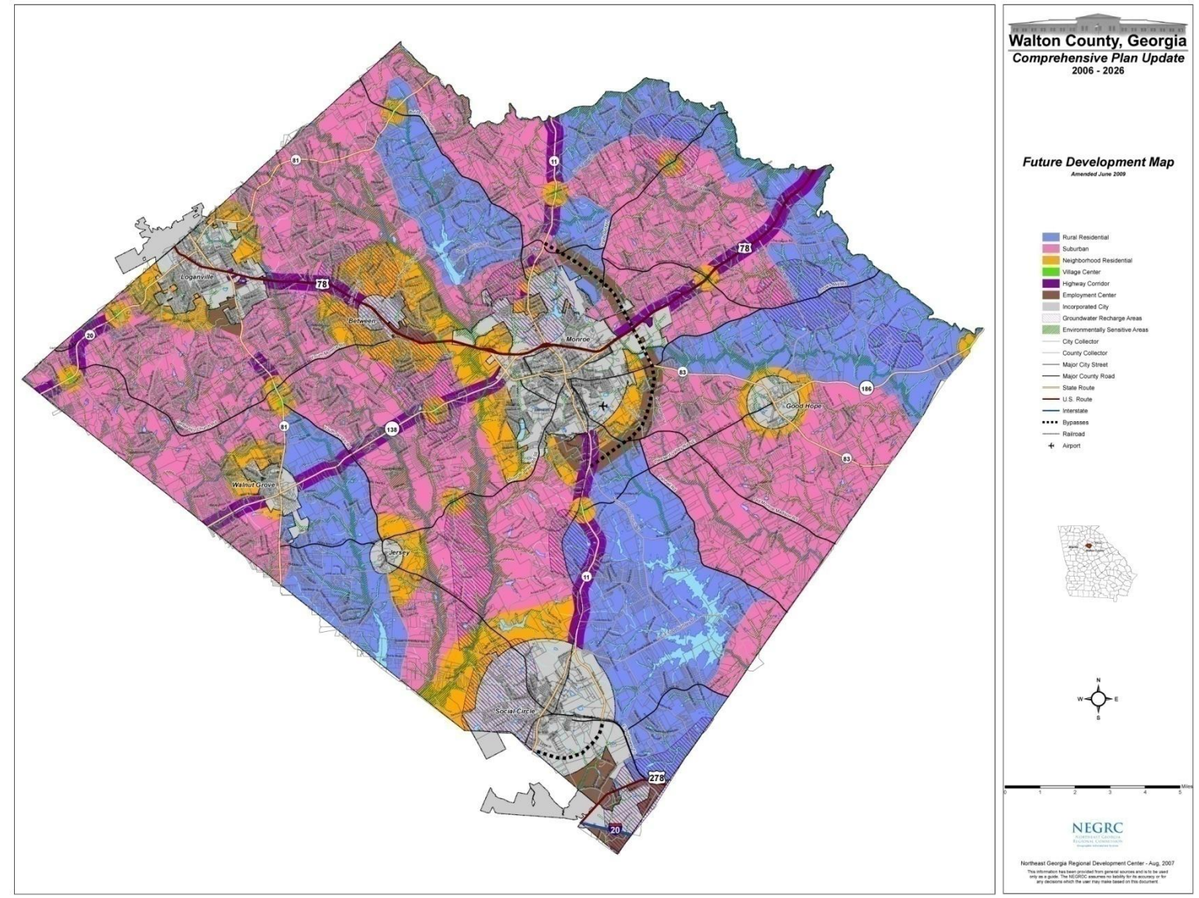
Source – City of Conyers, Georgia

Figure 9.20: Newton County Future Development Map



Source - Newton County, Georgia

Figure 9.21: Walton County Character Area Map



Source – Walton County, Georgia

Figure 9.22: Barrow County Future Development Map

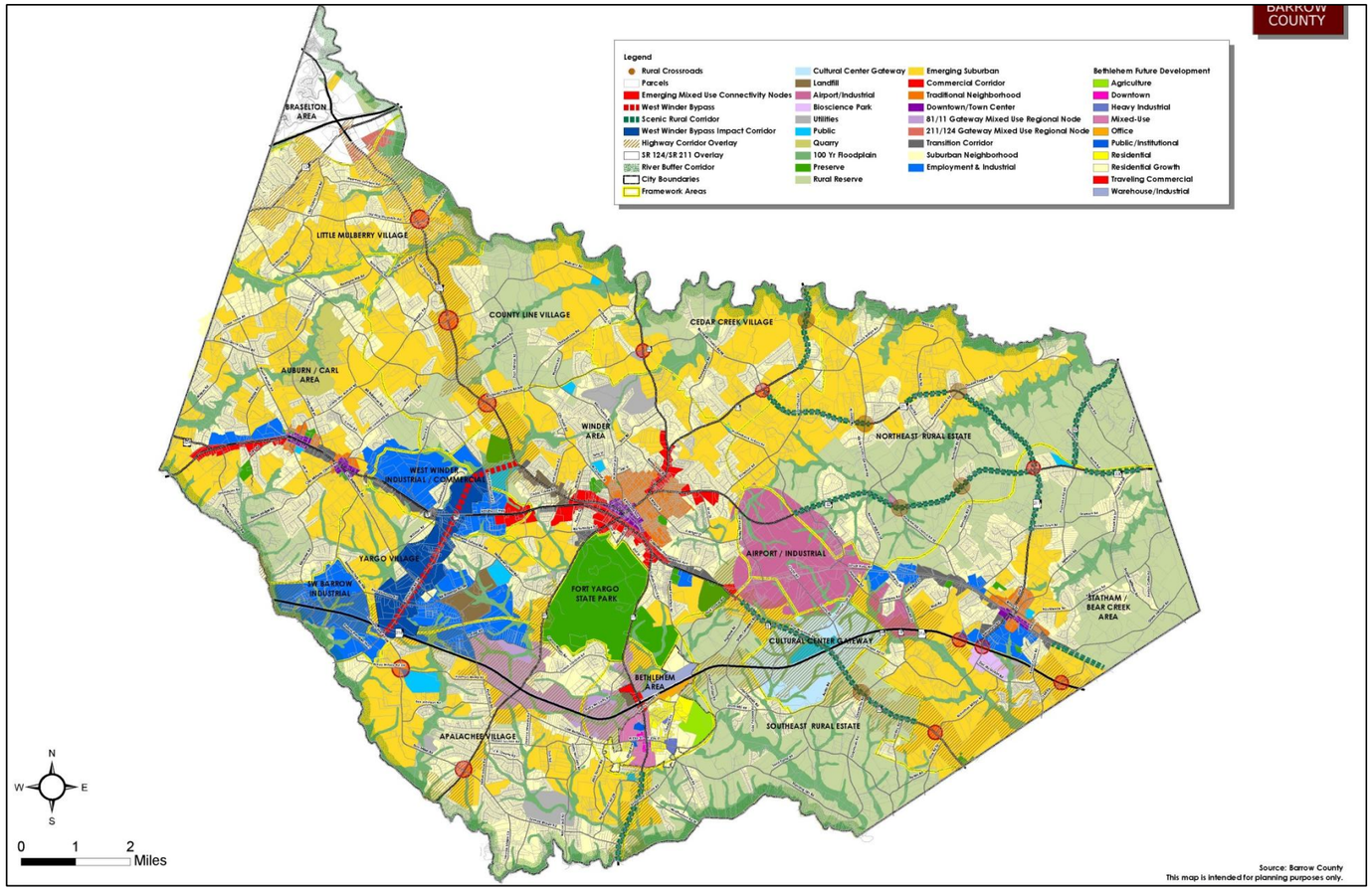
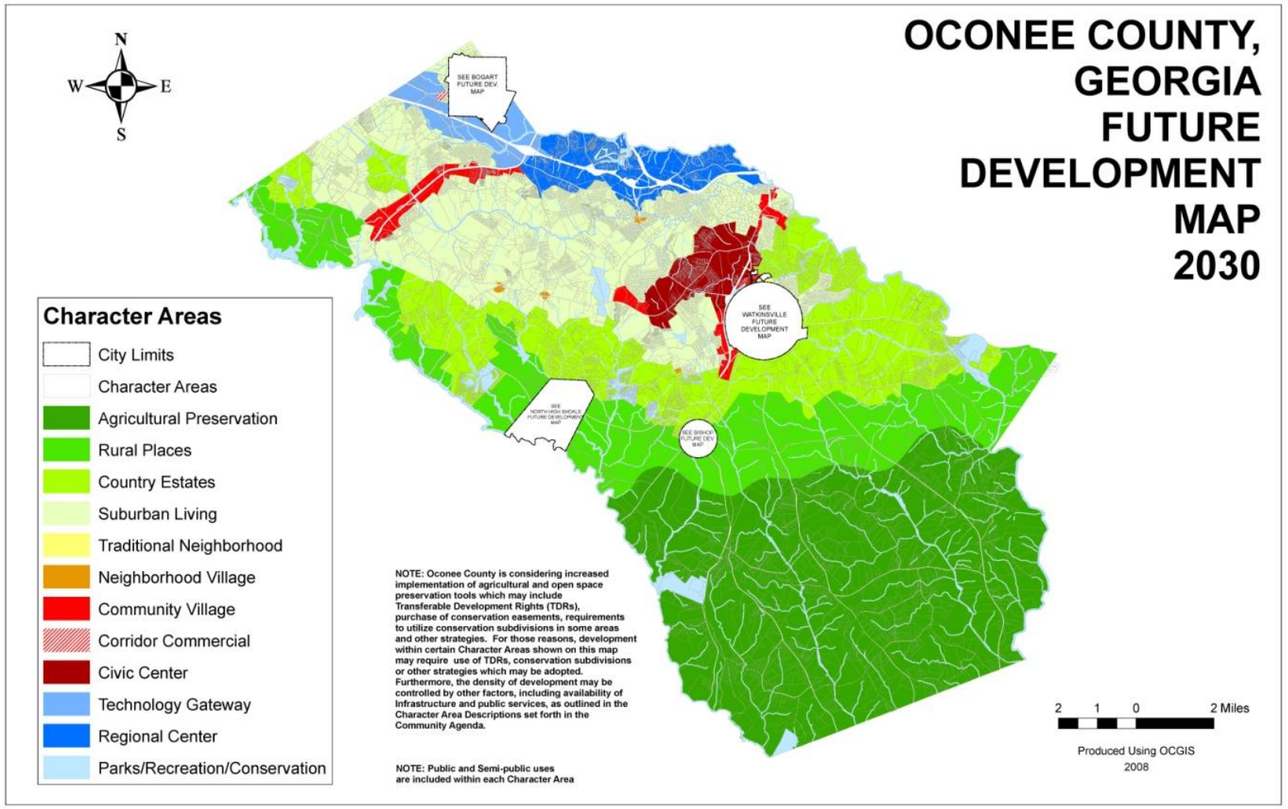
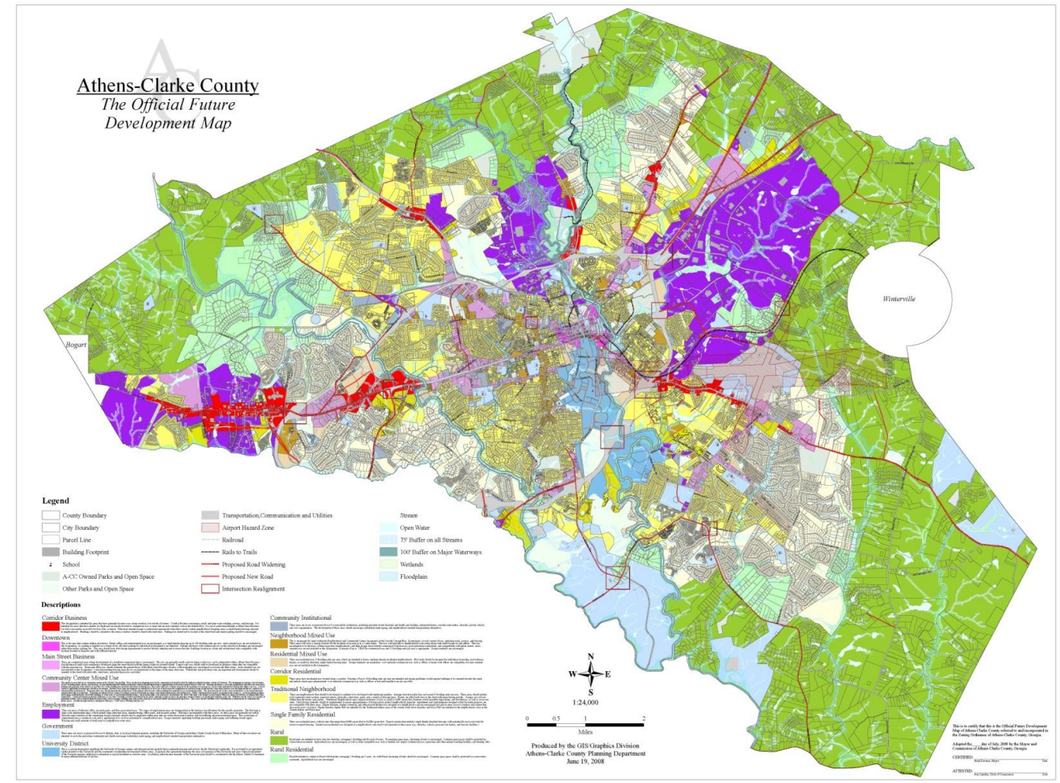


Figure 9.23: Oconee County Future Development Map



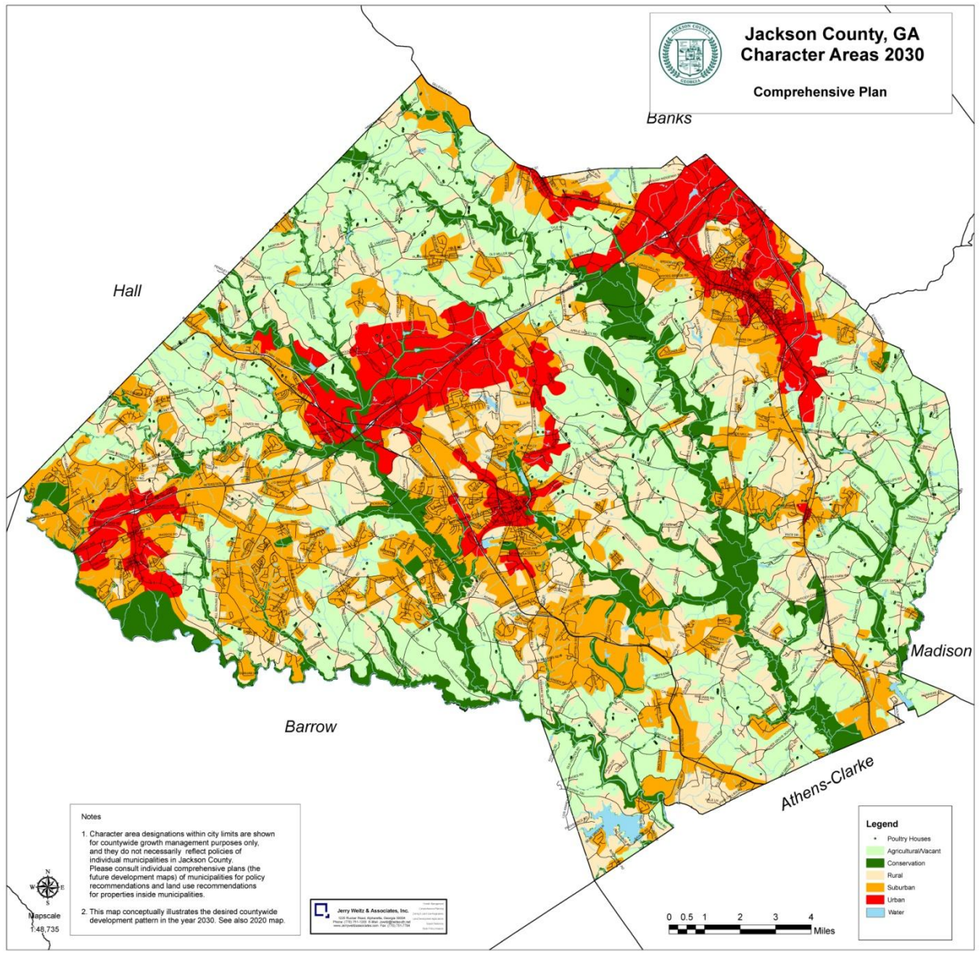
Source – Oconee County, Georgia

Figure 9.24: Athens-Clarke County Future Development Map



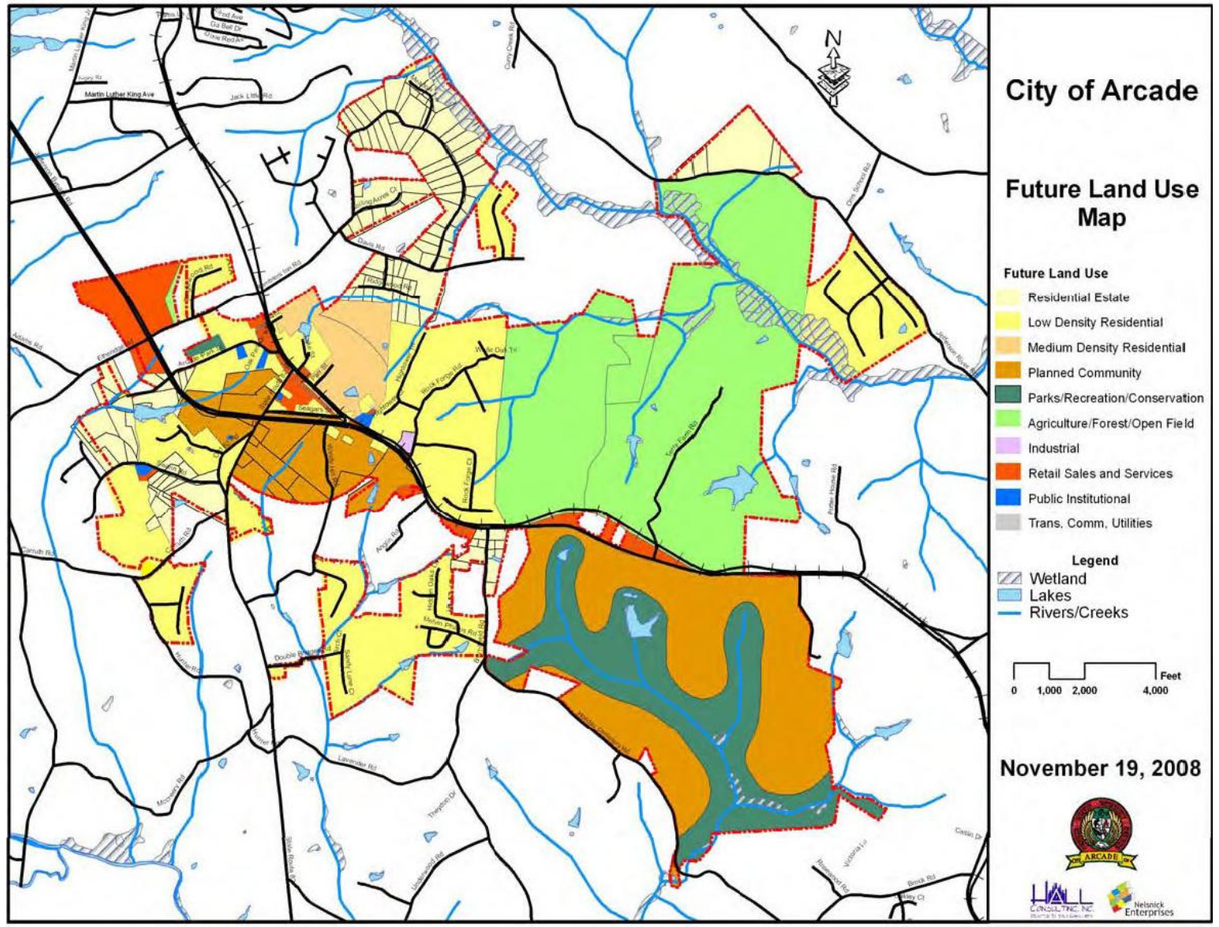
Source – Athens-Clarke County, Georgia

Figure 9.25: Jackson County Future Development Map



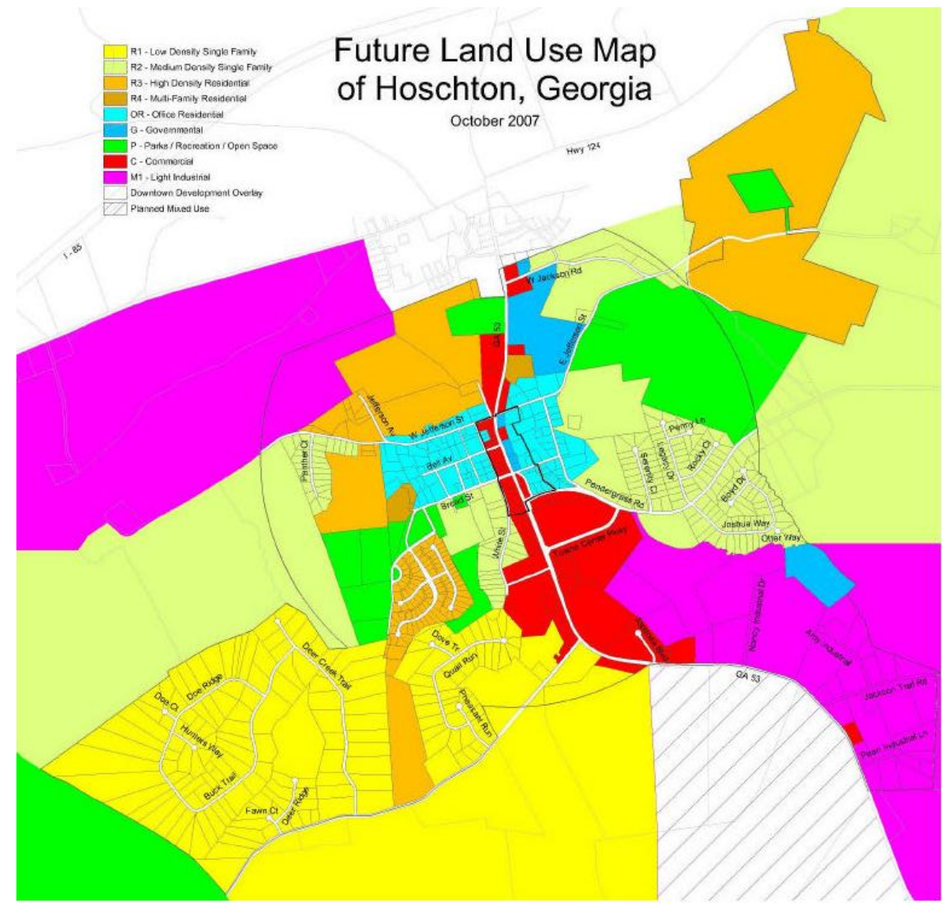
Source – Jackson County, Georgia

Figure 9.26: City of Arcade Future Policies Map



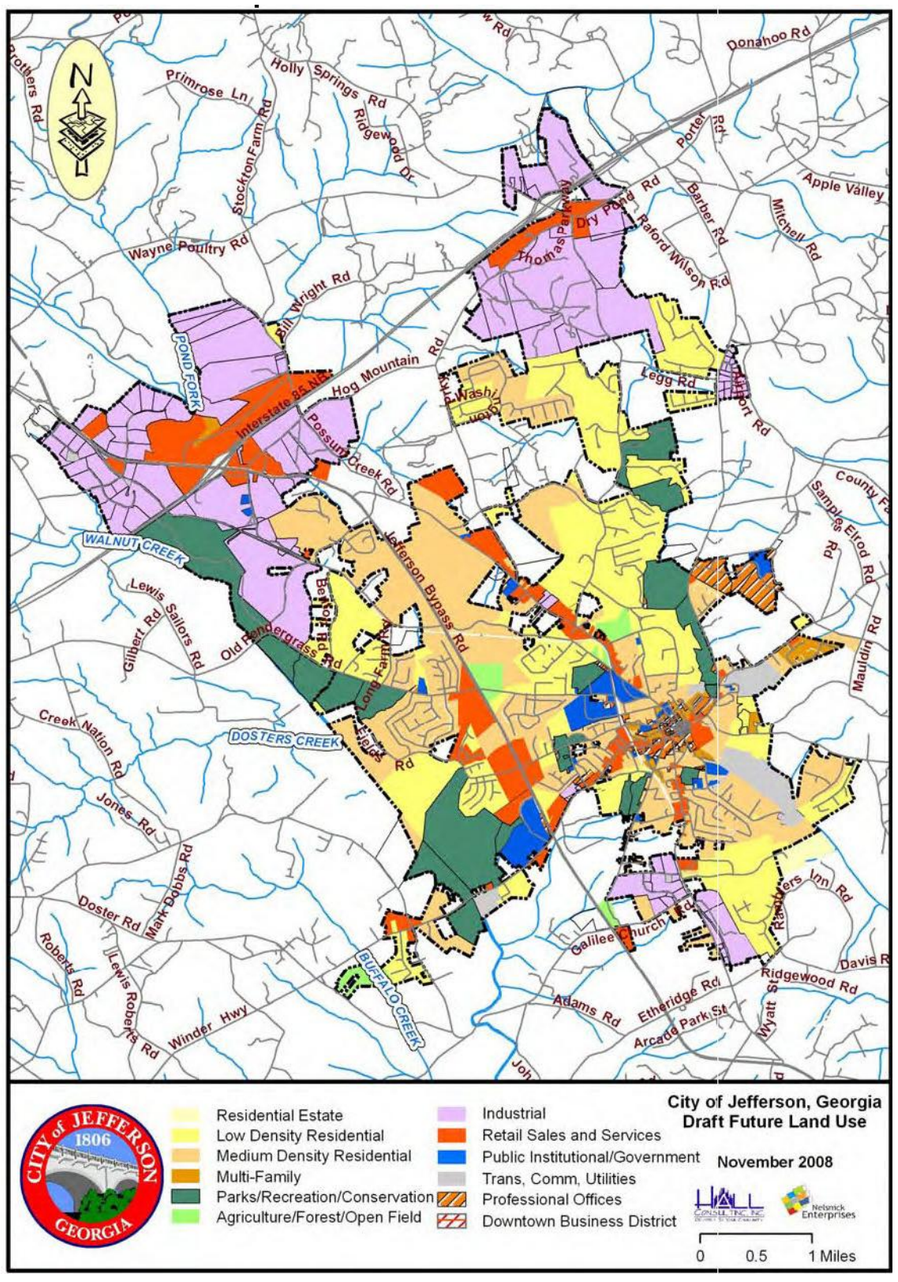
Source – City of Arcade, Georgia

Figure 9.27: City of Hoschton Future Development Map



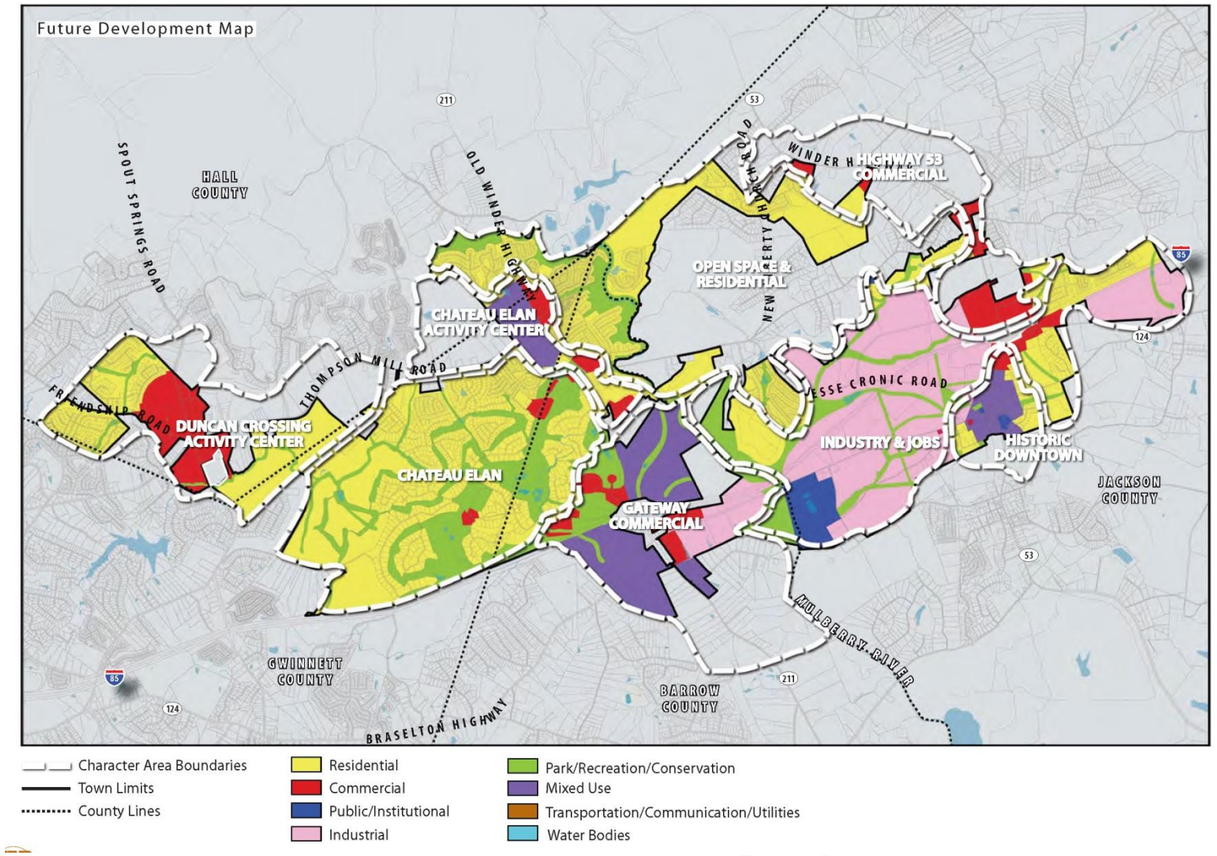
Source – Hoschton County, Georgia

Figure 9.28: City of Jefferson Future Development Map



Source – City of Jefferson, Georgia

Figure 9.29: Town of Braselton Future Development Map



Source – Town of Braselton, Georgia