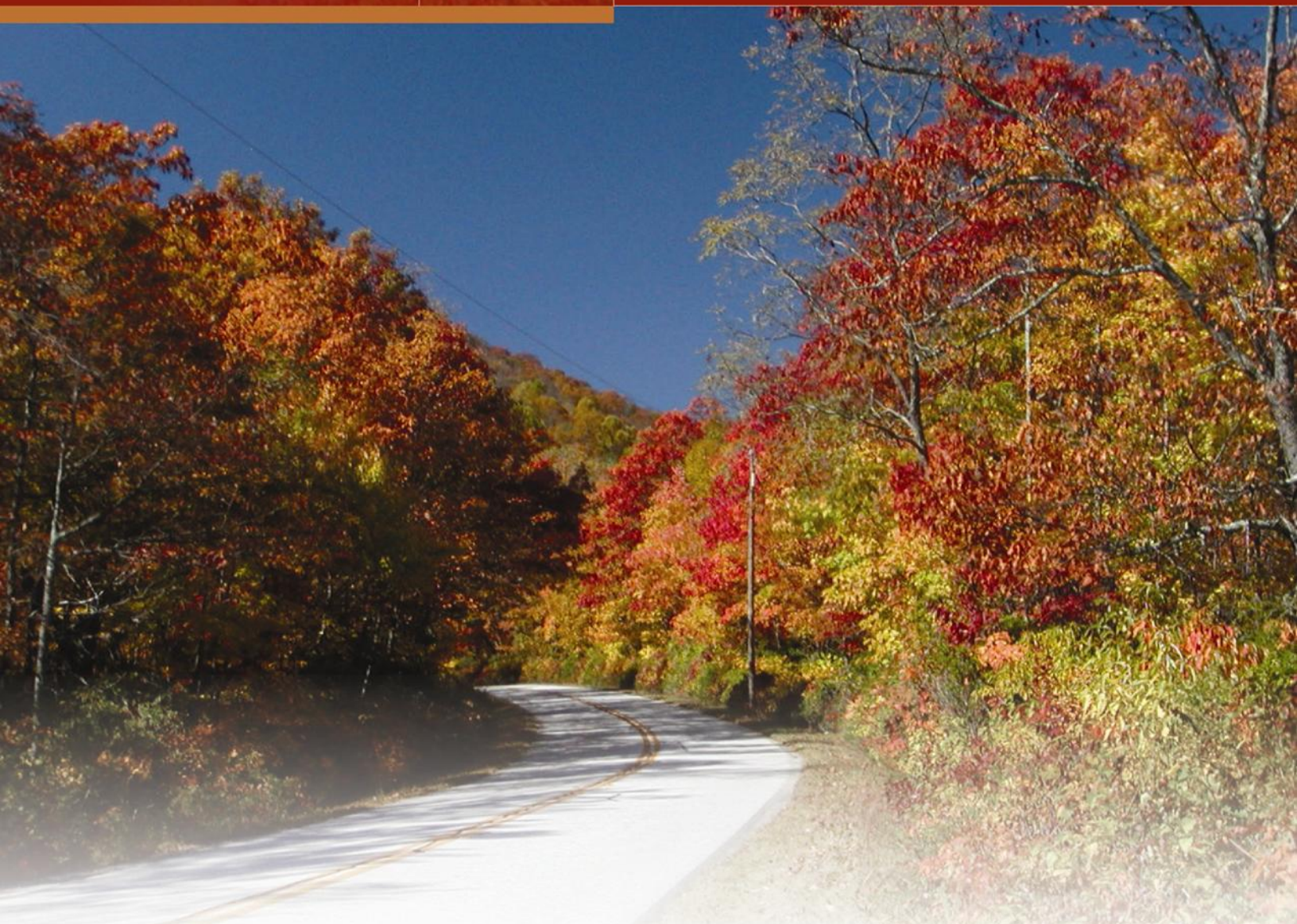


# Georgia Forest Highway **Long Range Transportation Plan** 2010 - 2030

A transportation policy plan to articulate a vision, to guide investments and to enhance Georgia Forest Highways

June 2010



U.S. Department of Transportation  
Federal Highway Administration  
Office of Federal Lands Highway

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## 1. Introduction

The Georgia Forest Highway (FH) program was created to provide safe and adequate transportation access to, within, or adjacent to National Forests or Grasslands as well as to help promote tourism, travel, and economic growth in rural communities. It is administered jointly by the Tri-Agency of the Georgia Department of Transportation (GDOT), the US Department of Agriculture Forest Service (USFS), and the US Department of Transportation Federal Highway Administration (FHWA) Eastern Federal Lands Highway Division (EFLHD). To be considered for inclusion in the Forest Highway system, a roadway must lie wholly or partially within or adjacent to National Forest System (NFS) lands and provide access to the NFS and its resources.

### 1.1. PURPOSE OF THE LONG RANGE TRANSPORTATION PLAN

A long range transportation plan (LRTP) serves as the initial step in developing a framework for maintaining and enhancing a Forest Highway network of transportation facilities and services. This plan will guide and assist Tri-Agency members in their efforts to identify and prioritize needed transportation improvements through a data driven effort focused on Forest priorities and unmet transportation needs.

Such coordination among the agencies is the key to wisely investing Georgia Forest Highway funds. The long-range plan is intended to help the agencies make investment decisions for planning, multimodal alternatives, transportation enhancements, safety management, preservation, and construction and maintenance of Forest Highways in Georgia. Because funds are limited, it is important to establish a long-term plan that prioritizes projects in order to most effectively and efficiently maintain the function of Forest Highway roads with the resources available.

### 1.2. AGENCY ROLES

Forest Highway planning requires the involvement of Federal (USFS and FHWA), state, and local governments to ensure suitable outcomes for all of the organizations involved. Additional involvement from other federal land management agencies is required when Forest Highway planning overlaps their jurisdictions or interests.

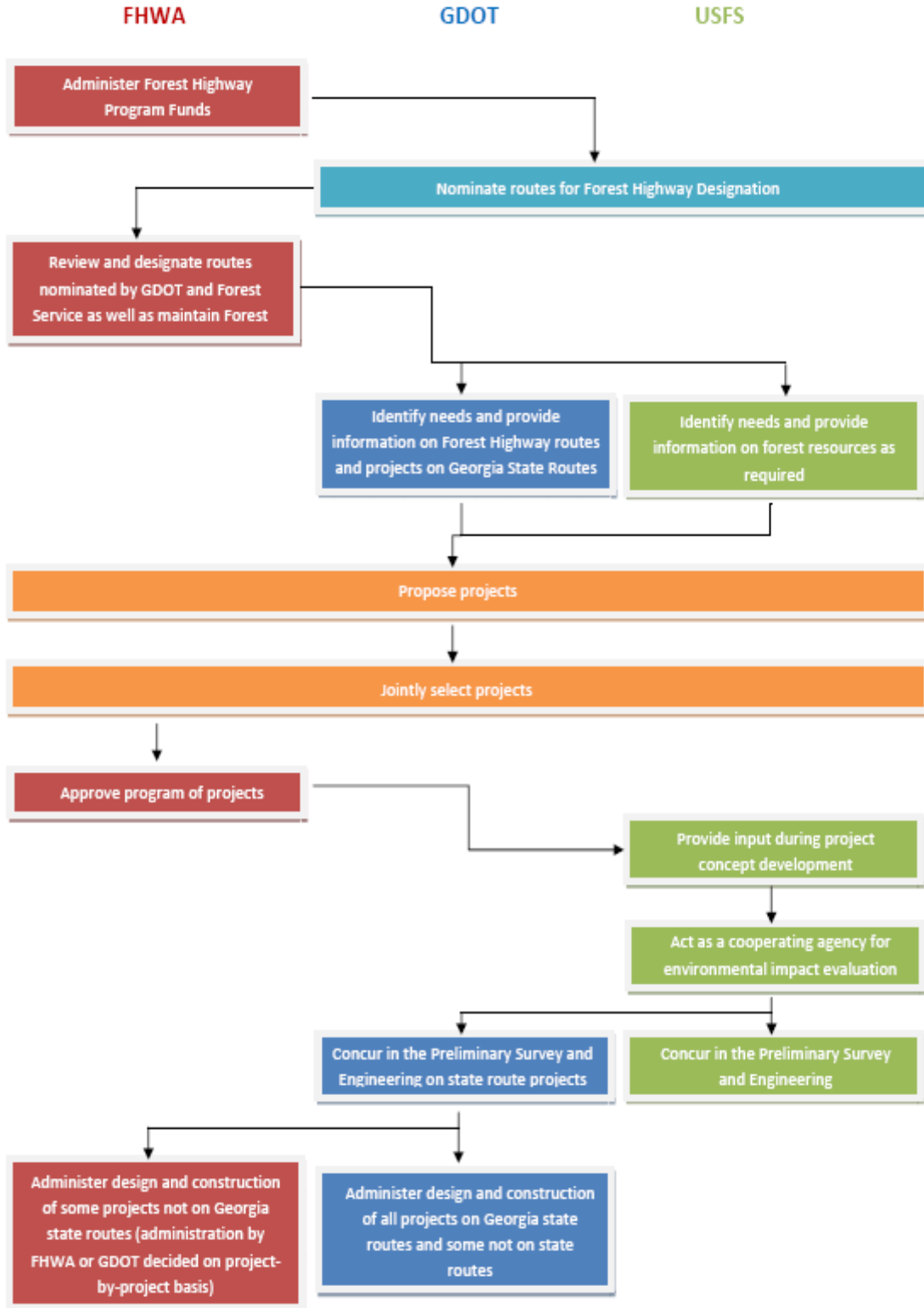
The three administering agencies serve particular roles within the Forest Highway program. **Figure 1-1** describes the typical functions of each agency, some of which are shared or cooperative.

The division of roles and responsibilities among the three agencies is documented in the Forest Highway Statewide Agreement that went into effect on October 30, 1997 (Agreement No. DTFH71-97-X-00016). In the instances where it is determined to be in the public interest that the agencies follow different procedures or guidelines than those set forth in that document, the agencies may enter into a Memorandum of Agreement for that specific project.



Figure 1-1 – Documented Roles of FHWA, GDOT, and USFS

1.3.



## LEGAL FOUNDATIONS FOR THE PLAN / REGULATORY LANGUAGE

With the passage of the Federal Highway Act of 1921, specific roadways within National Forests were designated as Forest Highways across the United States. These highways were deemed to provide benefit to the National Forests, states, and local communities. Currently, there are approximately 300 miles of roadway in Georgia that are designated as Forest Highways. The US Department of Transportation's FHWA / EFLHD and US Forest Service administer the Forest Highways Program in partnership, as part of the Federal Lands Highway Program (FLHP). The 2005 Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) authorized \$940 million for Forest Highways nationwide for fiscal years 2005 through 2009 (total). Nationally, 41 states have Forest Highway Programs. In 2009, Georgia Forest Highway Program allocation was approximately \$600,000, all of which came from SAFETEA-LU.

The US Code of Federal Regulations, 23 CFR 660, dated June 13, 1994, directs the Forest Highway Program to "enhance local, regional, and national benefits of Forest Highways funded under the public lands highway category of the coordinated Federal Lands Highway Program." Specifically, 23 CFR 660 guides the program to be "developed in cooperation with State and local agencies, providing safe and adequate transportation access to and through National Forest System lands for visitors, recreationists, resource users, and others which is not met by other transportation programs."

Title 23 USC §204 requires Federal Lands Highway, in consultation with the Federal Land Management Agencies (FLMAs), to develop planning procedures consistent with metropolitan and statewide planning processes required under 23 USC §134 and §135. These regulations recognize the need for all federal roads that are open to the public to be treated under uniform policies.

### 1.4. FOREST HIGHWAY DESIGNATION

A "Forest Highway" is a Forest road under the jurisdiction of, and maintained by, a public authority and open to public travel. In general, Forest Highways must be within or adjacent to the National Forest; be necessary for access to protect, administer, utilize, and develop National Forest resources; be open to public travel; and provide a connection to other transportation systems (e.g., public roads, shipping points, etc.).

Forest Highways are designated as such if they meet certain criteria. The list of designated Forest Highways is not fixed, and routes can be added or removed at any time.

Forest Highway route designation may be requested by the State Department of Transportation/Public Facilities, the USFS, or by a County through the State. Routes are designated by the FHWA, EFLHD Engineer with concurrence of the USFS and State. Routes do not have to be designated before a project can be proposed, but a route must be designated to receive Forest Highway funds. Route designation proposals must contain information on the criteria listed below and must be coordinated with the local USFS representatives who can provide information on USFS use of the proposed route. For Georgia Forest Highways, Tri-Agency support for the proposed designation is important.



*The Forest Service Manual Chapter 7700*

*7741.1 - Route Designation: Forest Highways are a special classification of Forest roads. They are specifically designated State or local government roads that meet the criteria listed in 23 CFR 660.105. The designation of Forest Highways is not intended to form a “system” of roads. Instead, the purpose of the designation is to identify State and local government roads that qualify for construction and reconstruction funding under the Forest Highway program.*

To be designated as a Forest Highway, a route must:

1. Be wholly or partially within, or adjacent to, and serving the National Forest System (NFS) (23 USC 101)
2. Be necessary for the protection, administration, and utilization of the NFS (23 USC 101)
3. Be necessary for the use and development of NFS resources (23 USC 101)
4. Be under the jurisdiction of a cooperator and open to public travel (23 CFR S660. 105)
5. Provide a connection between NFS resources and one of the following (23 CFR S660. 105):
  - a. A safe and adequate public road
  - b. Communities
  - c. Shipping points
  - d. Markets dependent on these resources
6. Serve one of the following (23 CFR S660.105):
  - a. Local needs such as schools, mail delivery, commercial supply
  - b. Access to private property within the NFS
  - c. A preponderance of NFS generated traffic
  - d. NFS generated traffic that has a significant impact on road design or construction

## **1.5. GEORGIA FOREST HIGHWAY PROGRAM BACKGROUND**

The National Forest System in Georgia consists of the Chattahoochee National Forest and the Oconee National Forest. The Chattahoochee National Forest lies along the northern border of the state and includes three districts (Conasauga, Blue Ridge, and Chattooga River). The Oconee National Forest is located southeast of metropolitan Atlanta and has only one district (Oconee).

The history of the National Forest System in Georgia began in 1911 when the Forest Service purchased 31,000 acres in north Georgia to become the beginnings of the Chattahoochee National Forest. The Forest areas grew in 1959 when President Eisenhower dedicated 96,000 acres of federal land as the Oconee National Forest.

Today, the two Forests comprise almost 900,000 acres of forestland total. The Chattahoochee is approximately 750,000 acres, and the Oconee is approximately 115,350 acres. Chattahoochee has over 800 miles of trails (over 500 of which are hiking trails), 10 different wilderness areas, and 118 different recreational sites. Oconee, a smaller Forest area, includes over 50 miles of trails and 14 recreational sites. Two visitor centers are located within the Chattahoochee National Forest: Brasstown Bald and Anna Ruby Falls. **Table 1-1** summarizes the 26 counties which include portions of the Forest districts.





**Table 1-1: Counties in Georgia that overlap National Forest Land**

Chattahoochee National Forest		Oconee National Forest
Banks County	Lumpkin County	Greene County
Catoosa County	Murray County	Jasper County
Chattooga County	Rabun County	Jones County
Dawson County	Stephens County	Monroe County
Fannin County	Towns County	Morgan County
Floyd County	Union County	Oconee County
Gilmer County	Walker County	Oglethorpe County
Gordon County	White County	Putnam County
Habersham County	Whitfield County	

There are approximately 285 miles of Forest Highways in Georgia, of which 180 miles are paved and the remaining 105 miles are gravel roads. Roughly 245 of the miles are owned by the counties, an additional 28 miles are owned by the state, and the remaining 12 miles are owned by private entities. Nearly half of the roadways are classified local (137 miles) with the remaining roadways being classified as minor collectors (35 miles) and major collectors (113 miles).

Both Forests are located near a number of state highways and even interstates (I-75 and I-85 near Chattahoochee and I-20 near Oconee). In combination with these state and federal roadways, other local roadways, and a number of Forest Service roads, a well connected transportation network exists to move both recreational and timber traffic throughout these Forests.



## 2. Initiating the Long Range Transportation Planning Process

### 2.1. VISION, GOALS, AND OBJECTIVES

In preliminary planning for the LRTP, a common *vision* was created among the Tri-Agency partners:

*The Georgia Forest Highway Program will promote transportation initiatives that are safe, sustainable and operationally effective, will minimize impacts to natural and cultural resources and will enhance public access to treasures of National Forests.*

From the vision and mission statements of the individual agencies, strategic *goals* were established for the LRTP by the Core Team, which included representatives of FHWA EFLHD, the USFS Region 8 and Washington offices, the Chattahoochee and Oconee Forests, and GDOT. The LRTP goals are qualified by five topic categories including safety, system performance, access and mobility, natural resources protection, and funding and economic development. **Table 2-1** summarizes LRTP goals and related CFR criteria.

**Table 2-1: LRTP Goals and Related CFR Criteria**

LRTP Goal	Related 23 CFR 660 Criteria
<p><b>Safety:</b> Increase the safety of the transportation system for motorized and non-motorized users</p>	<p>The improvement of the transportation network for the safety of its users</p>
<p><b>System Performance:</b> Preserve transportation infrastructure of National Forests</p>	<p>The improvement of the transportation network for economy of operation and maintenance</p>
<p><b>Access and Mobility:</b> Enhance rural connectivity</p>	<p>The development, utilization, protection, and administration of the National Forest Service and its resources.</p> <p>The mobility of the users of the transportation network and the goods and services provided.</p>
<p><b>Natural Resource Protection:</b> Protect and minimize impacts to natural and cultural resources</p>	<p>The protection and enhancement of the rural environment associated with the US Forest Service and its resources.</p>
<p><b>Funding and Economic Development:</b> Optimize use of available funds Foster ongoing coordination with local officials and stakeholders Support economic development</p>	<p>The continuity of the transportation network serving the National Forest Service and its dependent communities</p>



Each LRTP goal includes discrete objectives in which to further detail steps to attain the goal, as shown below.

Goal 1: Increase the safety of the transportation system for motorized and non-motorized users

- Objective 1: Reduce crashes and fatal crashes
- Objective 2: Decrease number of deficient bridges
- Objective 3: Utilize Road Safety Audits to supplement safety data (inset below)

Goal 2: Preserve transportation infrastructure of National Forests

- Objective 1: Maintain or improve the condition of the transportation facilities
- Objective 2: Reduce deferred maintenance

Goal 3: Enhance rural connectivity and support economic development

- Objective 1: Maintain/improve access to high priority recreation sites
- Objective 2: Enhance infrastructure with growing population and employment
- Objective 3: Prioritize roadways with high or increasing traffic volumes

Goal 4: Protect and minimize impacts to natural and cultural resources

- Objective 1: Limit reconstruction of roadways within one mile of a wilderness area
- Objective 2: Strengthen connectivity to and quality of scenic byways

Goal 5: Optimize use of available funds

- Objective 1: Explore opportunities to leverage funds in combination with other agencies

Goal 6: Foster ongoing coordination with local officials and stakeholders

- Objective 1: Locally-supported projects should be prioritized

*A road safety audit (RSA) is a formal safety performance examination of an existing or future road or intersection by an independent, multi-disciplinary, audit team. The audit qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements in safety for all road users. An RSA is intended to determine the elements of the road that cause safety concerns and opportunities to mitigate/eliminate the issue. The RSA can be done during any phase of project development. The level of detail of the RSA will be determined according to the size and complexity of the proposed project.*

These goals and objectives become the basis for the evaluation criteria used to select projects of highest priority to the Core Team and its members' respective agencies. Projects that improve safety and maintain the Forest Highway infrastructure in a cost effective manner may be ranked above projects that do not achieve these same goals. The Existing Conditions Analysis

portion of this report will address some of the important metrics that pertain to the aforementioned goals including the following: traffic volumes, crashes, bridge and pavement conditions, recreation and trails, environmental sensitivity, and population/economic growth. It is important to understand how each of the Forest Highways compares to the others within each of the categories. Following the Existing Conditions portion of the report, sample evaluation criteria respective to the LRTP goals were established and used to determine the highest priority projects in the Forest Highway network.



### 3. Existing Conditions Data Analysis

The Existing Conditions analysis includes review of some of the key metrics of the Forest Highway transportation network including Average Daily Traffic (ADT) on the roadways, numbers of crashes, bridge and roadway conditions, recreational usage, and proximity to various environmentally sensitive areas. Trend data regarding population and economic growth as well as visitor use were also considered as part of this analysis. GIS-based maps were created to summarize the data. The first



map, **Map 1**, is a location map of the two National Forests within the state of Georgia. Four maps were created for each subject area (crash locations, bridges, pavement condition, recreation and trails, and wilderness) – three maps for the Chattahoochee National Forest and one map for the Oconee Forest. The final two maps show the entire state of Georgia and the population and economic growth trends over a three-year period. The maps are included at the end of the report text.

#### 3.1. TRAFFIC VOLUMES

Annual average daily traffic (AADT) volumes are defined as the total volume of traffic passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year (2000 Highway Capacity Manual). Average daily traffic volumes are generally low across the entire Georgia Forest Highway system, with the highest recorded value at 2,000 vehicles per day and the lowest at 30 vehicles per day. The volumes on the Forest Highways tend to be lower than those observed on many of the state routes in the area, including SR 41 (>9,000 vehicles per day), US 19 (>7,000 vehicles per day), SR 76 (>3,000 vehicles per day), and US 129 (>5,000 vehicles per day). Conversely, some of the other non-state/county roadways in the area have volumes that are similar in magnitude to those seen on the Forest Highways including Doublehead Gap Road (<300 vehicles per day, Fannin County) and Peachtree Avenue (<600 vehicles per day, Oconee County). *[Comparative volumes are 2008 AADTs from the GDOT STARS program]*. The respective volumes on the Forest Highways can be seen in the accompanying **Maps 2A – 2D**. The Forest Highway AADTs are broken down into five groupings, ranging from 30 vehicles per day to nearly 2,000 vehicles per day. Only one major Forest roadway segment has over 1,100 vehicles per day – FH-32 located in Fannin County. Several other roadways have daily volumes in the range of 580 to 1,100 vehicles per day including FH-56 in Floyd County, FH-35 in Fannin County, FH-42 in Union County, FH-17 in Lumpkin County, and FH-06 and FH-05 in Rabun County.

A typical undivided, two-lane, paved road in rural areas can operate at an acceptable Level of Service (LOS) D with an AADT of approximately 14,000 vehicles per day. It is unlikely that any of these roads experience extremely congested or over capacity conditions on a regular basis. In addition to being used to measure the relationship between travel demand and roadway capacity, AADT has direct correlation to other operational metrics such as numbers of crashes and pavement condition. The higher the exposure a road has to traffic volume, the higher the potential for crashes as well as the more wear and tear imposed on the pavement. Both crashes and pavement condition are addressed in the upcoming sections of the report.



**3.2. ANALYSIS OF CRASH DATA**

Crash data from 2006 and 2007 shows that incidents are widely distributed throughout the Forest Highway system, with some segments having larger numbers of crashes than others. Crash data is summarized on the accompanying **Maps 2A – 2D** as well as in **Table 3-1**. Fatal crashes (four in all over this two year period) are indicated with a star, while the remaining non-fatal crashes are indicated with a blue dot. In some cases, the roadways with higher concentrations of crashes correspond to roadways with higher AADT values, as would be expected. **Table 3-2** lists the Forest Highways with a minimum of one crash per mile along the length of the road. Forest Highways 11, 53, 17, and 44 have some of the highest numbers of crashes as well as the greatest number of crashes per mile along the roadway.

On the four roadways with the highest number of crashes per mile, a mix of on-road and running off road incidents occurred. FH-11 has the highest number of crashes and per mile crashes, the majority of which occurred on the road. A high number of angle and rear end collisions occurred on a roadway with a relatively low AADT (380 vehicles). FH-53 is a higher-volume roadway (1,100 vehicles) and also has a large number of angle (29%) and rear end (18%) collisions. The two remaining high-incident roadways included the location of three of the four fatal crashes in the study area. FH-17, with an AADT of 1,100, had a significant number of single vehicle collisions, primarily with off-road trees and embankments. Two of the fatal crashes occurred on FH-17 and included one of each of the above types (one tree and one embankment). FH-44 had an AADT of 350 vehicles per day, and the majority of its incidents occurred off the road. The one fatal crash on FH-44, in addition to many of its other crashes, involved an overturned vehicle. Of the four fatalities, two explicitly indicated that the driver was under the influence, another was driving too fast, and the fourth indicated “driver condition,” which is somewhat ambiguous.

**Table 3-1: Summary of Crash Data on Forest Highways (2006 – 2007)**

Forest Highway Crashes Per Mile				Types of Each Crash			
FH ID	Number of Crashes	Length of FH	Crashes / Mi	Off Road	On Road	On Shoulder	Gore
FH-GA-0011	58	9.09	6.38	19	37	2	0
FH-GA-0053	17	3.33	5.11	6	10	1	0
FH-GA-0017	31	8.39	3.69	15	13	3	0
FH-GA-0044	24	11.13	2.16	14	9	1	0
FH-GA-0037	3	1.69	1.78	0	2	1	0
FH-GA-0056	12	7.09	1.69	2	7	3	0
FH-GA-0032	22	13.15	1.67	6	16	0	0
FH-GA-0016	3	2.21	1.36	1	2	0	0
FH-GA-0003	2	1.49	1.34	0	2	0	0
FH-GA-0014	5	3.73	1.34	2	1	2	0
FH-GA-0006	18	13.95	1.29	3	15	0	0
FH-GA-0019	2	1.95	1.02	0	1	0	1
FH-GA-0010	7	6.89	1.02	4	3	0	0



Off-road incidents are typical of rural and mountain roadways with narrow shoulders, rolling terrain, and winding turns. These roadway characteristics can also create limited sight distance issues. The four roadways discussed are relatively average width roadways (20-23 feet of pavement with 24-33 feet of width including shoulders). Many of the other roadways with fewer incidents have narrower cross-sections.

Of all the incidents that occurred on Forest Highways over the two-year period, two-thirds of them involve only one motor vehicle. Of the 206 crashes, 40% involved a driver losing control, 20% involved a driver going too fast for the conditions, and 15% involved a collision with an animal or object. Some other common occurrences for the crashes involve failure to yield, driving on the wrong side of the road, and following too closely. The majority of crashes involving injuries resulted from drivers speeding or losing control. One specific location with 14 reported collisions is the intersection of FH 6 and SR 76 in Rabun County. A more detailed inventory of crash data is included in **Appendix B, Incident Summaries**.

### 3.3. BRIDGE CONDITIONS

A total of 33 bridges are a part of the Forest Highway system in Georgia. Nine of the 33 bridges have no information available for their review and therefore are represented by a gray dot on **Maps 3A – 3D**. Information is available for the remaining 24 bridges regarding the bridge surface rating (on a scale of 0-100 where 100 is the best quality). This metric indicates the quality of the pavement surface on the deck of the bridge. A preferred metric for bridge analysis is bridge sufficiency rating, which indicates the overall stability and safety of the bridge; however, these data were not available for optional review. In future updates, bridge sufficiency rating should be used if available. Three of the 24 bridges have a bridge surface rating below 50: two bridges in Union County (along FH-44 and FH-08) and one bridge in Putnam County (along FH-27). An additional 11 bridges have a rating between 50 and 75, and the remaining 10 bridges have a rating above 75. The bridges with a surface rating below 50 should be addressed first;



however, as noted above, bridge sufficiency is a more comprehensive metric that should be studied as it relates directly to the stability and safety of the bridge structure. Bridge stability is of importance at it relates to safety as well as to connectivity. Bridges along Forest Highways may be critical links along the roadway network, which should be considered in the prioritization of upgrades.

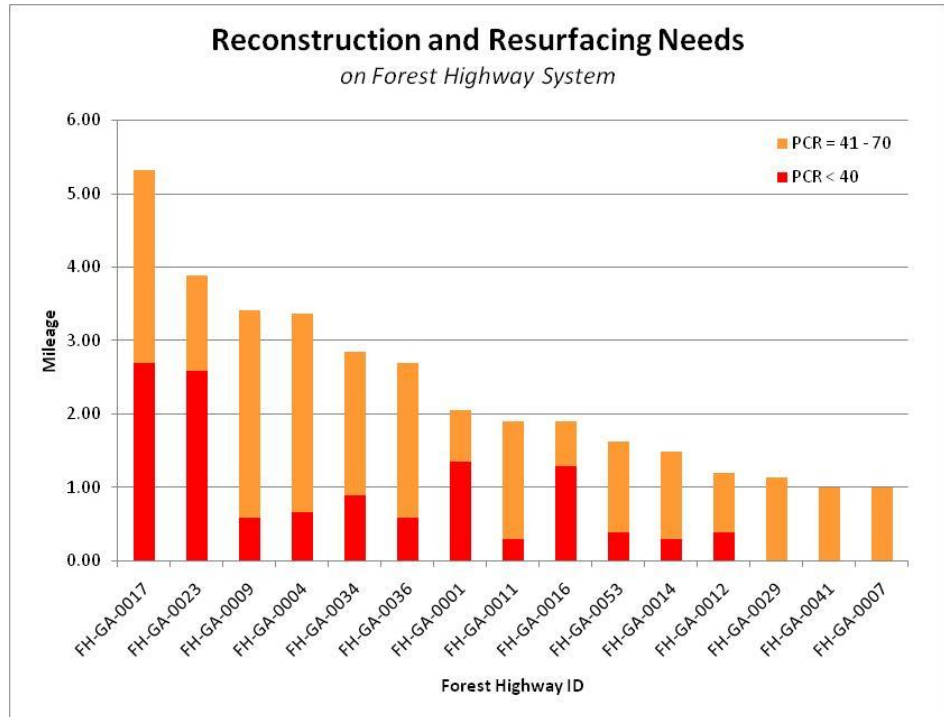


### 3.4. PAVEMENT CONDITIONS

Forest Highway roads vary widely by surface type and pavement condition. These conditions are summarized in the accompanying **Maps 4A – 4D**. Of the 285 miles of Georgia Forest Highways, there are approximately 180 miles of paved roads, surfaced with bituminous concrete or chip seal, and 105 miles of gravel or earthen roads. No data is available on the condition of the unpaved roads (shown in gray on the maps), but the paved roads have pavement condition ratings (PCR) ranging from 10 to 100. A road with a PCR of 40 or below is

considered to be in need of reconstruction (shown in red on the map), and a PCR of 41-70 suggests a need for repair or resurfacing in the near future (shown in orange on the map). The remaining roadways with a PCR greater than 70 are shown in blue on the map and should be adequate in the near term. Of the 180 miles of paved road in the Georgia Forest Highway system, approximately

**Chart 3-1: Reconstruction and Resurfacing Needs**



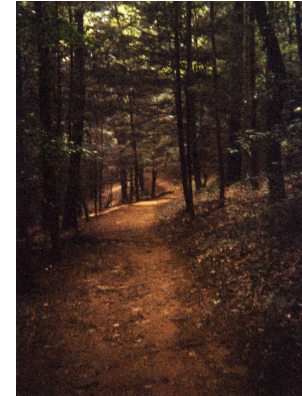
13 miles (7% of the paved mileage) have a PCR of 40 or below, suggesting the need for reconstruction and approximately 29 miles (16%) have a PCR of 41-70, which suggests a need for repair or resurfacing. The locations that are in poor condition (PCR of 40 or below) are scattered throughout the four districts, as Maps 3-4.1 through 3-4.4 illustrate. A total of 15 roadways have at least one mile in need of either reconstruction (PCR < 40) or resurfacing and repair (PCR = 41-70) or both. The roadways with the greatest needs are shown on the left side of **Chart 3-1**. Forest Highways 17, 23, 9, and 4 all require over three miles of work with the first two requiring over half of the substandard pavement to be reconstructed.

Approximately 72% of the Forest Highway usage is related to recreational traffic. The remaining 28% is associated with timber production. Ten of the Forest Highways have approximately 50% recreational / 50% timber usage: FH-04, FH-18, FH-19, FH-22, FH-23, FH-24, FH-29, FH-30, FH-43, and FH-51. Of those 10 roadways, three of them (FH-04, FH-23, FH-29) require reconstruction or resurfacing. This need may be related in a small way to the amount of timber activity along the roadway.



### 3.5. RECREATION, TRAILS, AND PUBLIC LAND

The Georgia National Forests are popular for many different recreational uses including hiking, driving, cycling, fishing, hunting, and camping, and the Forest Highway system is well-suited to support this wide variety of uses. Field observations of the studied roadways identified heavy use by motorcyclists and cyclists. Within the National Forests, there are scenic drives, state parks, major trail systems, large lakes and rivers, camping locations, hunting areas, and scenic viewpoints. The primary recreational facilities documented in the *Chattahoochee-Oconee National Forest Land and Resource Management Plan* are listed in **Appendix C** and are shown (in addition to the many other recreational facilities) on the accompanying **Maps 5A – 5D**. The maps show connectivity between the Forest Highways, scenic byways, and trails. In some instances, the scenic byways actually include portions of the Forest Highways, including along FH-56/09/11 and FH-41. The preservation of these roadways is particularly important as a result of this overlap. A number of trails also intersect the Forest Highways, specifically within the Chattahoochee National Forest. The majority of recreational sites can be accessed via the network of Forest Highways, scenic byways, and trails. The above-mentioned plan prioritizes the protection of environmentally-sensitive areas with respect to the construction and rehabilitation of trail systems throughout the Forests. Rehabilitation priority is given to trails that support off-highway vehicle (OHV) use, followed by horses and mountain bikes, and finally, foot traffic.



### 3.6. WILDERNESS

Ten wilderness areas totaling 117,000 acres are located completely or partially within the Chattahoochee National Forest. Wilderness areas are meant for the preservation of the area’s natural state and have minimal human impacts. Wilderness or “roadless” areas must be at least 5,000 acres in size and have less than one-half mile of improved road per 1,000 acres. Of the 285 miles of Forest Highways, a total of 27.6 miles are within a mile of one or less of these 10 wilderness areas, particularly within the Blue Ridge and Chattooga River districts. Three



of the wilderness areas are especially near to the Forest Highways: Mark Trail, Blood

Mountain, and Ravens Cliffs. **Table 3-2** and **Maps 6A – 6D** show the length of roadway of the six Forest Highways that are within the one mile threshold of a wilderness area. FH-41 and FH-44 have the greatest length near to a wilderness area, with FH-41 traveling completely between the Mark Trail and Ravens Cliffs wilderness areas. Restrictions may be placed on this road in particular to limit its reconstruction or rehabilitation due to its proximity to the wilderness areas. This proximity to wilderness areas should be taken into consideration in the project evaluation phase of the LRTP.

**Table 3-2:**  
**Roadway near wilderness area**

Forest Highway	Miles of roadway within 1 mile of wilderness area
FH-GA-0041	10.49
FH-GA-0044	8.98
FH-GA-0007	3.15
FH-GA-0008	3.06
FH-GA-0037	1.69
FH-GA-0016	0.2





**3.7. VISITOR USE TRENDS**

The National Visitor Use Monitoring (NVUM) program was developed to provide a standardized, science-based data collection process for estimating the volume and type of recreational visits to the National Forests. Data are gathered on 5-year rotations for 200 to 275 days per Forest. Samples of data are gathered based on the time (time of day, day, week, etc.) and by location (day use sites, overnight sites, wilderness, etc.). Visitor use surveys are also conducted to gather detailed information about visitors’ trip-making behaviors. The Chattahoochee-Oconee National Forest participated in the NVUM project from October 2002 through September 2003. The NVUM report was published in June 2004. Visitor use estimates are available at the Forest level in the referenced report. Recreation use on the Forest for fiscal year 2003 at the 80 percent confidence level was estimated to be 2,467,461 National Forest visits +/- 29.3%. There were an estimated 2,801,209 site visits. Included in the site visit estimate are 174,808 annual wilderness visits.

**Table 3-3: Annual Chattahoochee-Oconee NF recreation use estimate**

Visit Type	Visits	80% Confidence Interval
Site Visits	2,801,209	27.8
National Forest Visits	2,467,461	29.3
Wilderness Visits	174,808	25.3

A total of 723 visitors to the Forest were contacted during the sample year. Of the 635 people who agreed to be interviewed, about 84% stated that their primary purpose in the Forest was recreation. A description of visitor activity during their National Forest visit included participation in various recreation activities, length of stay on the National Forest and at recreation sites, visitor satisfaction with national Forest facilities and services, and economic expenditures. The average recreation visitor went to 1.13 sites during their visit. The average length of stay in this Forest was 17.9 hours. Almost 25% of visitors stayed overnight in the Forest. There was an average of 2.4 people per vehicle with an average of 2.14 axles per vehicle.

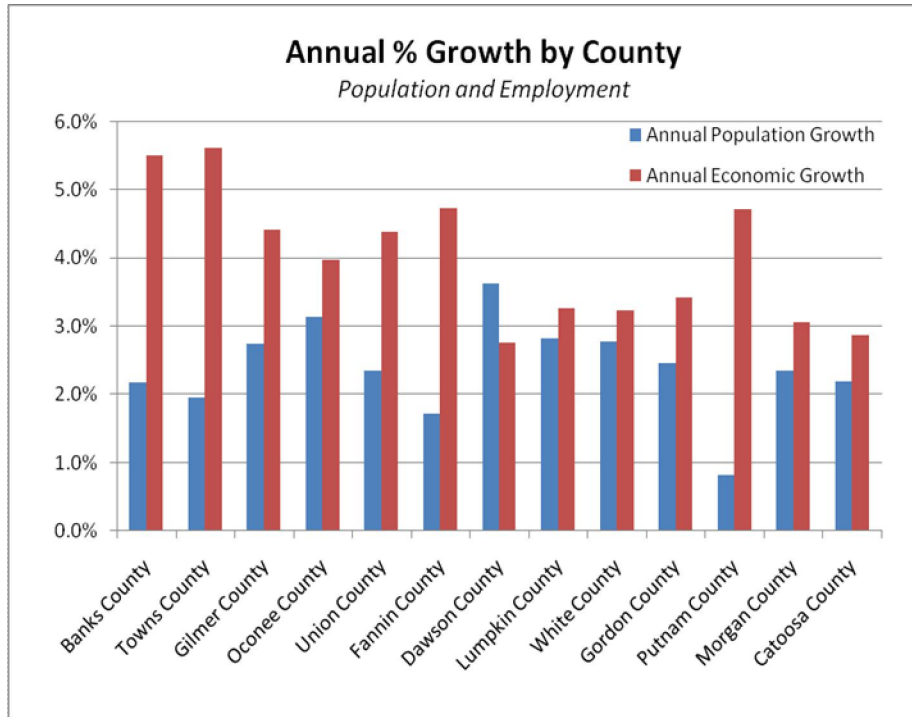
A subsequent NVUM sampling was conducted during 2009, but the data have not been compiled yet. The next update of the LRTP should utilize any existing NVUM data that is available at the time.



### 3.8. POPULATION AND ECONOMIC GROWTH TRENDS

Between 2003 and 2006, the area surrounding the City of Atlanta (particularly to the north and east of the City) experienced the greatest rate of population growth in the state of Georgia, as is evident on the accompanying **Map 7**. Fourteen of the 18 counties that include parts of the Chattahoochee National Forest experienced a population growth rate above the 60<sup>th</sup> percentile in Georgia, and the same is true for seven of the eight counties that include parts of the Oconee National Forest. Job growth was more evenly distributed throughout the state, with high-growth counties located along the north border, in the Savannah metro area, and scattered around metro Atlanta and South Georgia as shown on accompanying **Map 8**. Some of the counties with the greatest percentage job growth are located in the Chattahoochee National Forest area, including Banks, Fannin, Gilmer, Towns, Union, and Putnam Counties.

**Chart 3-2: Annual % Growth by County**



Job growth was more evenly distributed throughout the state, with high-growth counties located along the north border, in the Savannah metro area, and scattered around metro Atlanta and South Georgia as shown on accompanying **Map 8**. Some of the counties with the greatest percentage job growth are located in the Chattahoochee National Forest area, including Banks, Fannin, Gilmer, Towns, Union, and Putnam Counties.

The counties shown on **Chart 3-2** experienced a total population and economic growth of over 5% per year from 2003 to 2006. Banks, Towns, Gilmer, and Oconee Counties all had over 7% combined growth per year. The first three counties are located near the Chattahoochee National Forest and the fourth is located near the Oconee National Forest.

These growth patterns indicate that more people are living and working around the National Forests, which translates to more traffic on the roadways in the area – including the Forest Highways. High rates of growth can result in more recreational traffic to the National Forests. Increased AADTs have the potential to increase wear and tear on the roadways and can result in higher numbers of vehicle crashes. Certain types of economic growth and industries can result in new types of traffic on the Forest Highways as well.

The metrics reviewed in the previous sections provide a basis for understanding the current state of the Forest Highway system. The evaluation criteria developed in a following section of the report will be used, in conjunction with the data analyzed in this portion of the report, to determine the projects of highest priority in the next five years.



## 4. Process Recommendations

The pilot document serves as a framework plan for the Georgia Forest Highway LRTP. An Existing Conditions analysis has been conducted using GIS data associated with various infrastructure characteristics, which serves as an initial step in understanding the needs and deficiencies associated with the Forest Highway network. The Recommendations component of the report outlines the Plan Development Process that should be used to see the LRTP through to completion. This plan includes recommendations for public involvement, a sample methodology for evaluation and selection of projects, information regarding funding, and a suggested timeline of events. Future LRTPs can use this framework plan and the initial research conducted as a guide for completion of the plan.

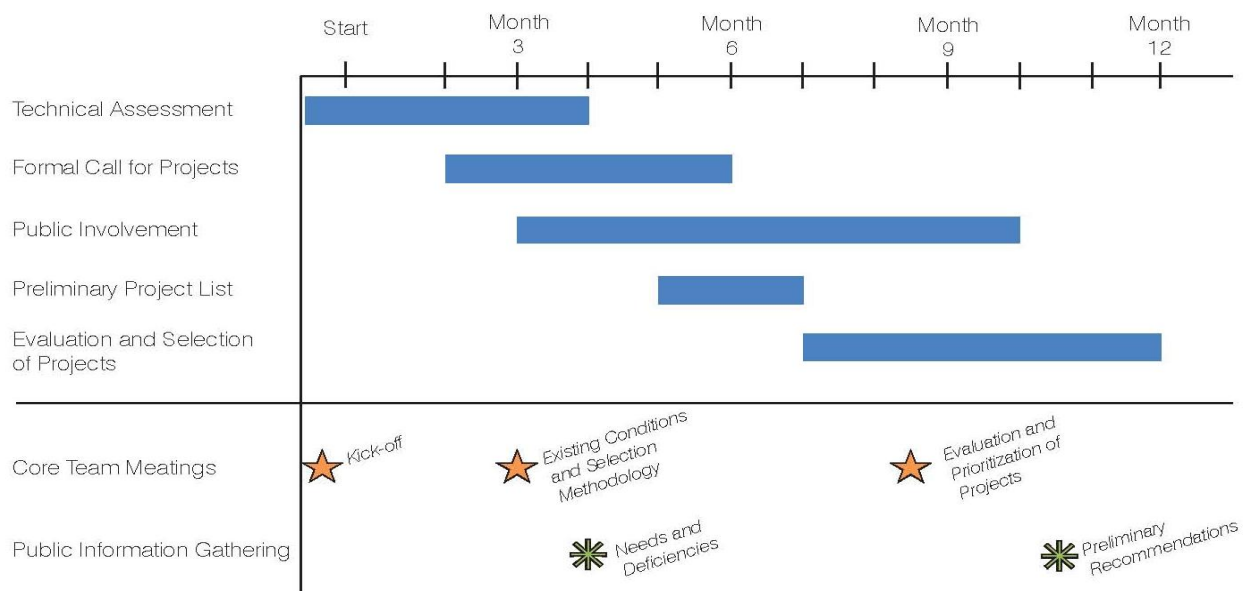
Based on the current conditions of the Forest Highway system and the vision and goals of the three agencies, the LRTP will recommend high-priority projects to be completed in the short term (five years) and create a planning process for selecting and prioritizing future projects (20 years). This process will help maintain the Forest Highway system at the highest level of quality possible given the funds available.

### 4.1. PLAN DEVELOPMENT PROCESS

Figure 4-1 shows a sample twelve-month LRTP process that can be considered for the Georgia Forest Highway program. The technical assessment will occur over the first few months of the process. A formal call for projects will then occur between months two and six to gather project recommendations from Forest Service staff, DOT staff, and county staff. It is likely that these staff members will recommend projects at will throughout the five-year cycle, but this window will be a formal call for projects. The formal public involvement process will occur in the middle months of the project (to gather specific

Georgia Forest Highways Long Range Transportation Plan  
**Plan Adoption Process**

**Figure 4-1: Plan Adoption Process**



information relative to needs and preliminary recommendations). Informal public outreach can occur at other points within the plan (as well as throughout the five-year cycle), especially because the Forest Highway program depends on other public outreach events as a result of limited staff and resources. A preliminary project list will be developed between months five and seven with final project selection occurring between months seven and twelve. Core Team meetings will be scheduled at the commencement of the project, following Existing Conditions, and during final project selection.

#### **4.2. PUBLIC INVOLVEMENT PLAN**

The stakeholder and public involvement plan implementation is integral to the continued success of the Georgia Forest Highway Long Range Transportation Plan. A successful outreach component is particularly critical in a program such as this one to bring communities and stakeholders together, to create recognition of the Forest Highway assets and program, and to obtain input from a wide range of stakeholders regarding needs and priorities. Outreach efforts will educate, inform, and involve the public about the purpose and progress of the project by highlighting local issues, technical considerations, and potential impacts. Outreach techniques are designed to encourage participation in the public process and to generate meaningful feedback. The Public Involvement Plan (PIP) provides tools for both disseminating project-related information and gathering public input that reflects community concerns and interests. The purpose of the PIP is as follows:

- To consult with community stakeholders and facility users and to gather their ideas for solutions to improve and prioritize the current transportation system
- To inform and involve the public throughout the process
- This plan intends to: 1) educate, 2) listen to, and 3) learn from the public at key points throughout the project. The success of this planning process depends on the cooperation and support of the public.

#### Public Involvement Techniques

##### **Public Meetings**

Public involvement techniques include a variety of venues and communication methods to effectively reach a broad audience. Additionally, the Core Team members will share the draft LRTP document with relevant constituencies and special interest groups in order to gather comments from them on the plan. The key techniques will include the following: public meetings, community events, an email survey, website information, and news paper advertising.

- The Core Team will look for opportunities to participate in GDOT-sponsored outreach efforts that are already planned. Benefits of participating in these planned meetings include the following:
  - Allows the Forest Highway LRTP to be included in large scale public outreach efforts that will draw large groups of the public
  - Requires less coordination time than required to conduct a single Forest-only event, which reduces the labor effort for the Forest Highway Core Team



- Participate in the Northwest Georgia and Northeast Georgia Regional Commissions monthly policy committee meetings, which are good opportunities to introduce the plan to a number of counties simultaneously.
  - Core Team members attended the Northwest Georgia Regional Commission to present the initial plan to the members of the Commission on February 18, 2010.

### **Community Event**

Often, to accommodate citizens' demanding schedules, a project must go where the people are to ensure a broad range of input and consensus building. To that end, the Core Team will staff a project kiosk at community events such as the Blue Ridge Mountain Adventure Race and other seasonal festivals. A minimum of two community events will be conducted: the first event will be an opportunity to gather input on perceived existing needs from the community, while the second will be to garner feedback on potential recommended improvements.

In general, the team's objectives will be to inform the participants about the planning process and goals, to engage them in the planning efforts, and to ask for their input and ideas. These meetings will be held at various locations and times convenient to the specific audience as described above.

### **E-mail survey**

A simple 3-4 question survey will be developed and e-mailed to key stakeholders within 18 counties (i.e., County Commission Chair) that have Forest Highway routes to seek their input on those particular roadway needs in their communities. The key stakeholder list will be provided by staff or elected officials at the counties.

### **Website Information Gathering and Advertisement**

The existing Eastern Federal Lands website will include information on the LRTP process, the schedule of dates, and opportunities for the public to get involved. An online survey form will be included for those that wish to provide feedback on the needs or recommendations portions of the process. Staff will be post the information to the website as well as will compile the data gathered from the public.

### **Newspaper**

The team will advertise in relevant newspapers to spread the word about upcoming public events. By publicizing through both print and electronic media (including radio and television) it is possible to reach a broader audience than if just using one medium.



### 4.3. EVALUATION CRITERIA

A long range transportation plan with a 20-year planning horizon serves as the initial step in and framework for maintaining and enhancing a Forest Highway network of transportation facilities and services. This plan will assist the Tri-Agency members in identifying and prioritizing needed transportation improvements through a data driven effort focused on forest priorities and unmet transportation needs, given limited Georgia Forest Highway Program funds.

#### Evaluation Table

An initial set of evaluation criteria are shown in **Table 4-1**. Determination of the final criteria will be at the discretion of the Tri-Agency.

The six goals and respective objectives listed in Chapter 2 of the report correlate to the evaluation criteria. The first four goals comprise a quantitative first tier of the evaluation criteria. Each of the project evaluation criteria factors is assigned a weight that is the sum of corresponding criteria scores. For example, the individual factor weights applied to the several criteria defined for Goal 1 sum up to 40%. The overall goal weighting factor values are as follows:

- Goal 1: Safety – 40%
- Goal 2: System Preservation – 20%
- Goal 3: Access and Mobility – 30%
- Goal 4: Resource Protection – 10%

All the criteria within this first tier can be assessed using the GIS maps or other readily accessible data. Using the results of the data analysis and weighting the goals and criteria as discussed, each Forest Highway project will be assigned an overall “score” and then prioritized based on its defined level of need.

The remaining goals such as local and public support and cost and availability of right-of-way will be evaluated more qualitatively in a second tier evaluation. A combination of the first and second tier evaluation will determine a project’s priority.

#### Relevance to Project Identification

As noted in the agency roles earlier in the report, both GDOT and the Forest Service can recommend projects to the LRTP. The evaluation criteria and two-tiered approach (quantitative followed by qualitative) allow for projects to be evaluated objectively and on an individual basis relative to the primary goals of the Tri-Agency.

In addition to project-by-project identification, the Tri-Agency can also approach the LRTP process from a comprehensive perspective, evaluating the overall transportation system at one time. Projects that are identified as being significant needs in each of the goal areas can be evaluated using the same criteria and process.

For example, a Forest Ranger may suggest a resurfacing project to the Tri-Agency based on a visual conditions assessment. Alternatively, a more comprehensive analysis may indicate a deficient bridge, a roadway with a high number of crashes, and a scenic byway in need of rehabilitation. All four of these



projects can be assessed with the same evaluation criteria to determine the highest priority. The second tier criteria can then be used to further evaluate the potential success of each of the projects. **Table 4-1** summarizes the suggested project evaluation criteria.

**Table 4-1: Suggested First Tier Evaluation Criteria**

Criterion	Weight
<b>Goal 1: Safety</b>	
Number of crashes	10
Number of fatal crashes	15
Deficient bridges	10
Road safety audit (has been conducted in project corridor)	5
<b>Subtotal – Goal 1</b>	<b>40%</b>
<b>Goal 2: System Preservation</b>	
Roadway PCR below 40	10
Bridge surface PCR below 50	5
Reduction of deferred maintenance	5
<b>Subtotal – Goal 2</b>	<b>20%</b>
<b>Goal 3: Access and Mobility</b>	
Proximity to recreation sites (high priority)	15
Proximity to faster growing counties	3
Proximity to counties with increasing job growth	2
Existing traffic volume	10
<b>Subtotal – Goal 3</b>	<b>30%</b>
<b>Goal 4: Resource Protection</b>	
Proximity of roadway to wilderness	5
Proximity of roadway to scenic byways	5
<b>Subtotal – Goal 4</b>	<b>10%</b>

**Table 4-1** presents the suggested preliminary weighting for each of the criteria that comprise the four goals. These criteria and weights are subject to the discretion of the Tri-Agency.



**4.4. FUNDING**

**Funding Assumptions**

Funding for the Georgia Forest Highway Program is anticipated to remain at current levels or to experience minor increases over the next 20 years. The combined cost of the nominated projects will likely continue to exceed the amount of program funds available each year. With the initiatives, challenges, changes in local funding priorities, as well as the effects of continuing long-term inflation, a funding and investment strategy is critical to the Forest Highway program’s success in the next 20 years.

In fiscal year 2009, the Georgia Forest Highway program was allocated approximately \$670,000 through the Federal Lands Highway Program, the maximum allocation under SAFETEA-LU. To estimate future available funding for the Forest Highway program, two financial estimates were developed, as shown in **Table 4-2** below:

- A conservative scenario, using the current fiscal year 2009 allocation of \$670,000 over the next 20 years (FY2010-FY2030) without any adjustment to reflect inflation
- An aggressive scenario, assuming a 20% increase in the current annual funding over the 20-year period, beginning in FY 2011

**Table 4-2: Anticipated Funding Scenarios through the Horizon Year (2030)**

Forecast Scenario	Annual Allocation	20-year Estimate
FY 2009 Estimate	\$670,000	\$13,400,000
20% Increase	\$804,000	\$16,080,000

Selecting the best projects for the Georgia Forest Highway program includes selecting projects that address a documented condition requiring relief, that are consistent with transportation planning for that corridor, that truly balance the missions of transportation and land management, and that provide an opportunity for the Georgia Forest Highway funds to be used most effectively where other funding either is less available or other funding has not yet addressed the condition.

In light of the pending federal transportation program reauthorization, it will also be important to understand new allocation amounts that will be dedicated to the Forest Highways system. Changes to the allocated funds will have a significant effect on the budgets of the Forest Highway program.





#### **4.5. PLAN ADOPTION**

Transportation planning at all organizational levels will reflect the vision of each party in the Tri-Agency agreement for transportation in the context of the Forest Service’s resource protection and management mission and the transportation objectives of the Federal Lands Highway Program (FLHP).

A 30-45 day comment period will occur prior to plan adoption. A link to the LRTP document will be posted to each agency’s website, and stakeholders will be notified to provide comments through the public outreach processes identified earlier in Chapter 4.

This document is a pilot version of the Long Range Transportation Plan for the Forest Highway system of Georgia. Amendments to the plan will occur no less than once every five years and will utilize as much existing data as is available for use at the time of the update. The development of this pilot plan is an important step in developing a logical method for selecting and prioritizing transportation projects based on the Forest Highway needs and funding availability.

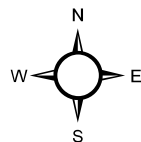


# Georgia Forest Highway Long Range Transportation Plan

## Map 1 Location of National Forests by District

### Legend

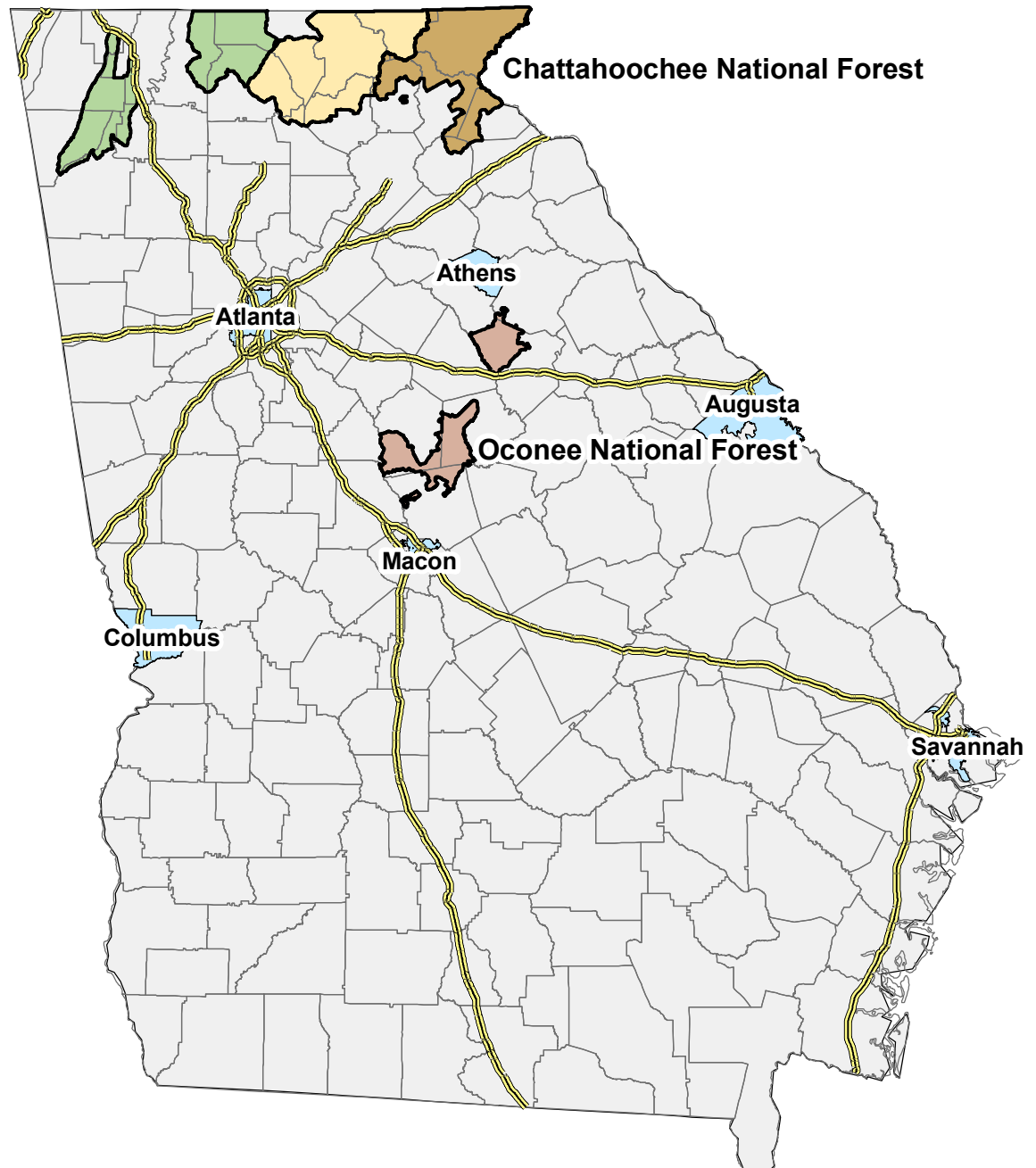
- Blue Ridge
- Chattooga River
- Conasauga
- Oconee
- Interstate Highways
- Major Cities
- Counties
- Georgia



0 10 20 40 60 80 Miles

Prepared by:  Kimley-Horn and Associates, Inc.

Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan






## Map 2A 2006 / 2007 Crash Locations Conasauga District

### Legend

#### Crashes on Forest Highways

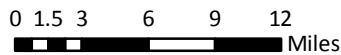
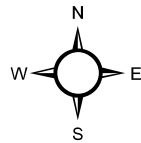
-  Fatal
-  Non-fatal

#### Forest Highway ADT

-  30 < 125
-  125 < 300
-  300 < 580
-  580 < 1100
-  1100 < 2000

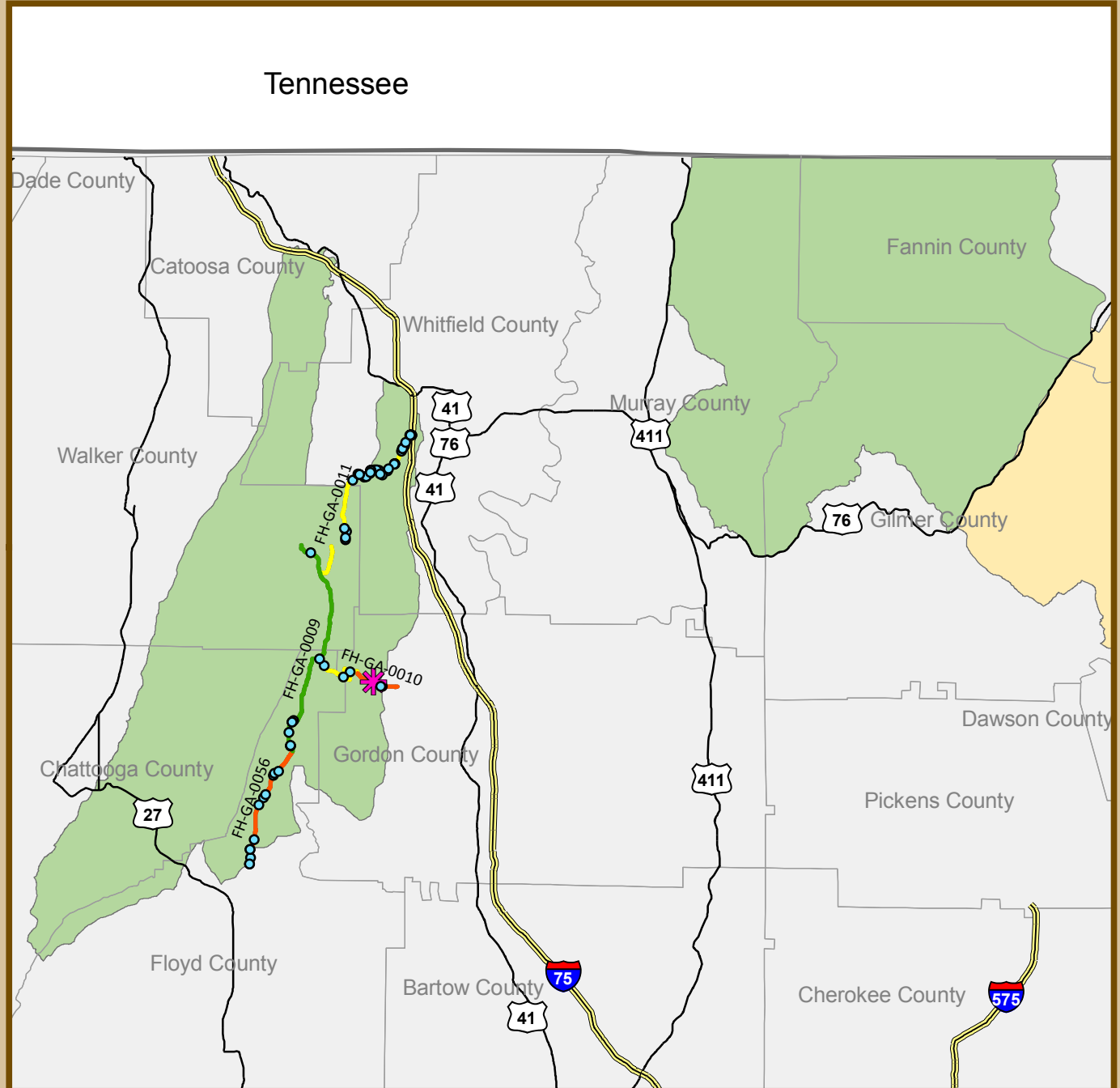
#### Forest District

-  Blue Ridge
-  Conasauga



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Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan






## Map 2B 2006 / 2007 Crash Locations Blue Ridge District

### Legend




#### Crashes on Forest Highways

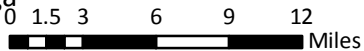
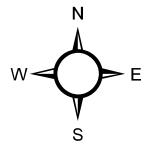
-  Fatal
-  Non-fatal

#### Forest Highway ADT

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-  125 < 300
-  300 < 580
-  580 < 1100
-  1100 < 2000

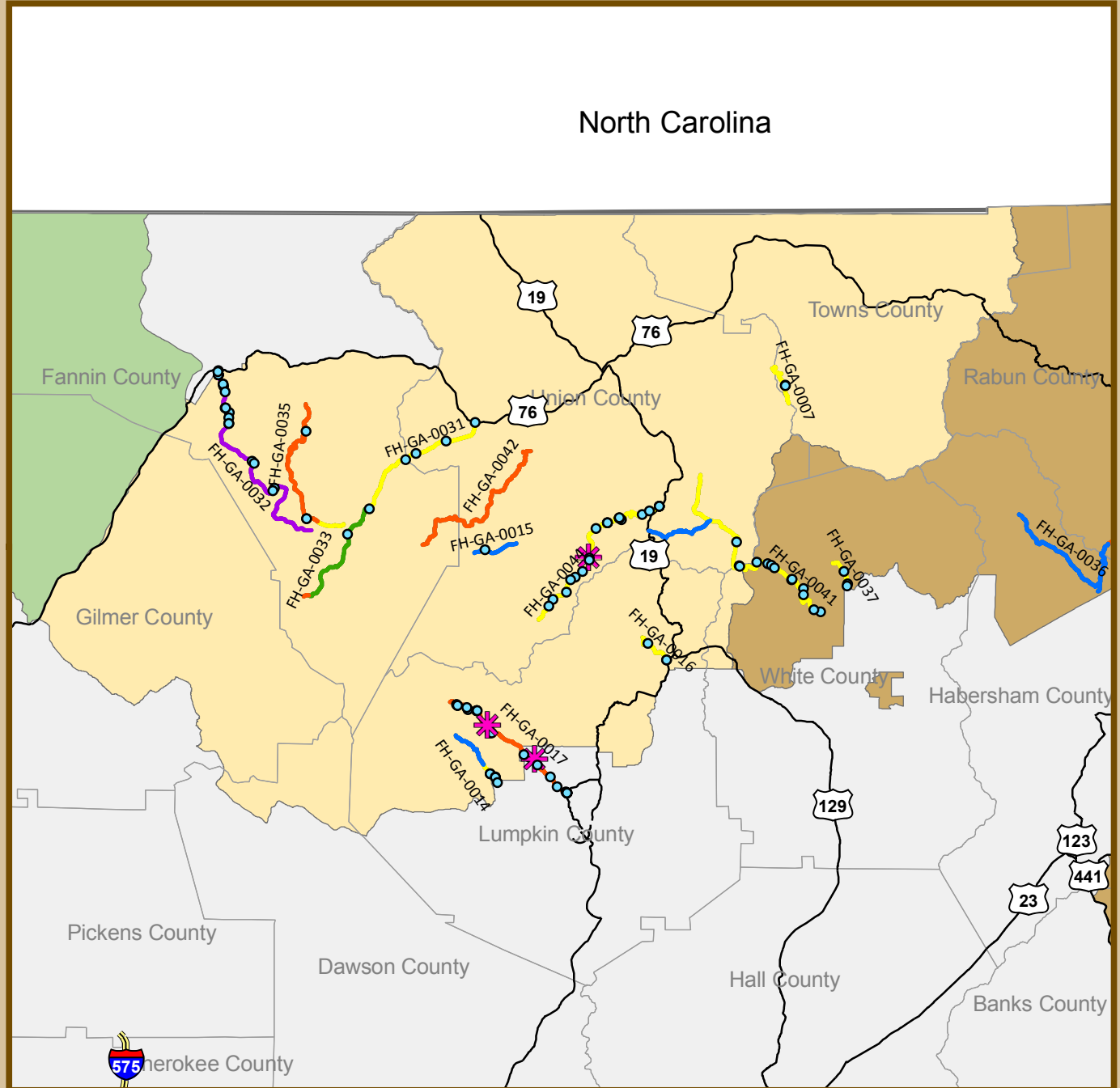
#### Forest District

-  Blue Ridge
-  Chattooga River
-  Conasauga



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Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan






## Map 2C 2006 / 2007 Crash Locations Chattooga River District

### Legend

#### Crashes on Forest Highways

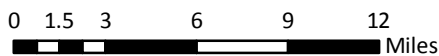
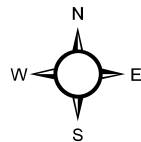
-  Fatal
-  Non-fatal

#### Forest Highway ADT

-  30 < 125
-  125 < 300
-  300 < 580
-  580 < 1100
-  1100 < 2000

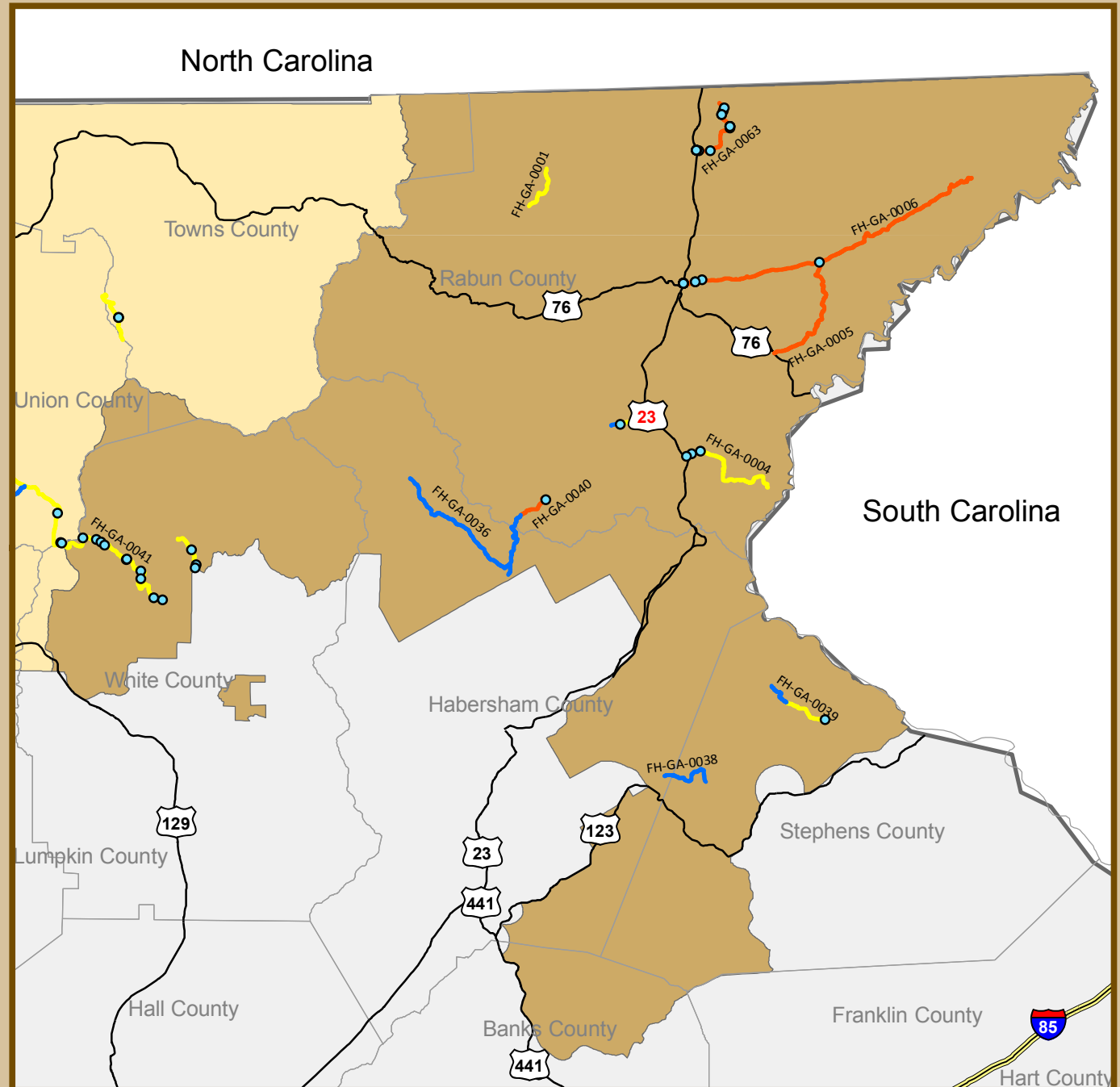
#### Forest District

-  Blue Ridge
-  Chattooga River



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Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan






## Map 2D 2006 / 2007 Crash Locations Oconee District

### Legend

#### Crashes on Forest Highways

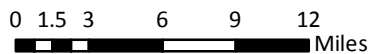
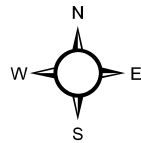
-  Fatal
-  Non-fatal

#### Forest Highway ADT

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-  125 < 300
-  300 < 580
-  580 < 1100
-  1100 < 2000

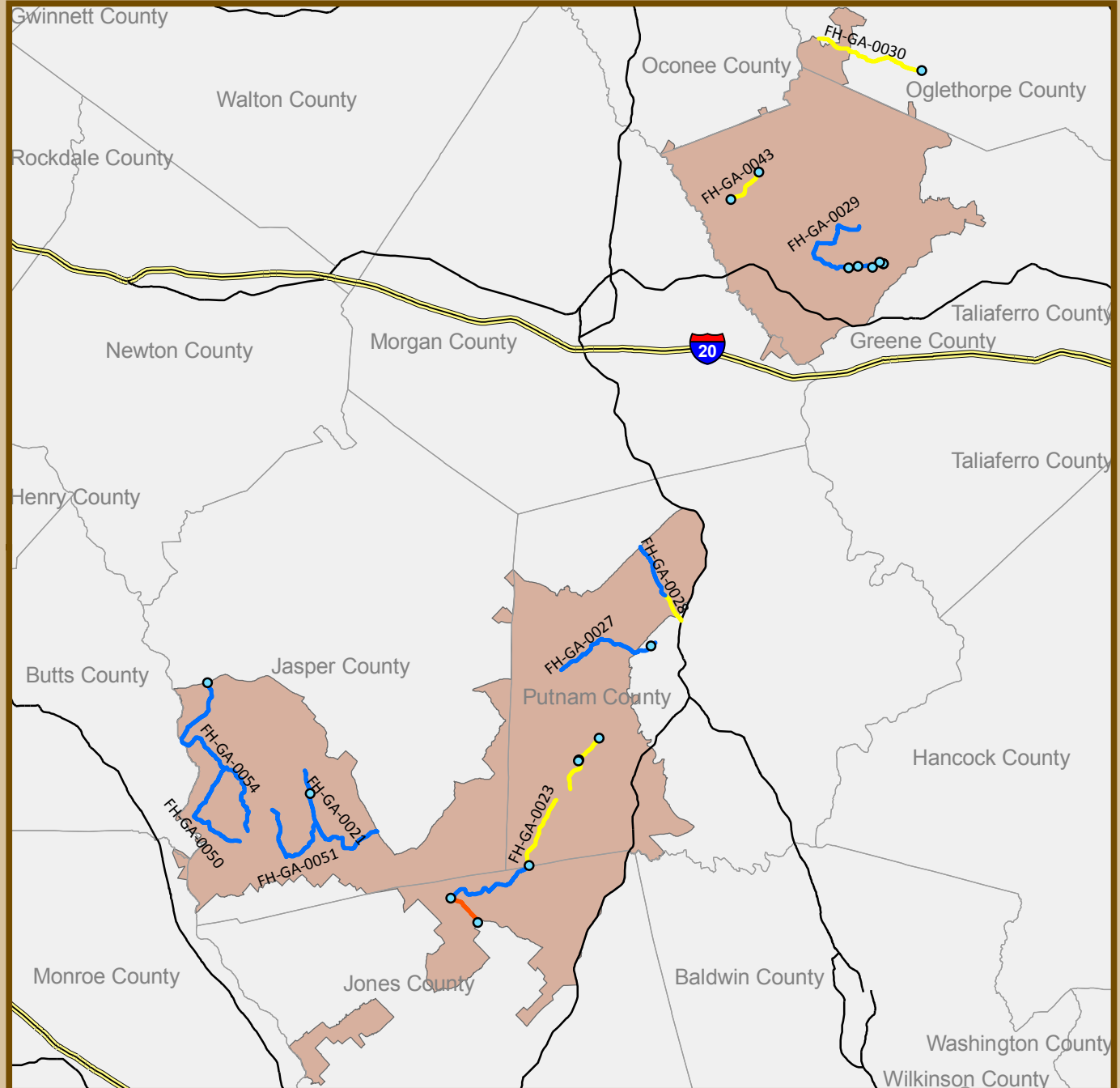
#### Forest District

-  Oconee



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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 3A Bridges Conasauga District

### Legend

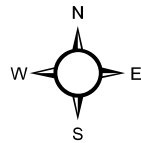
#### Bridge Surface Rating

- No information
- < 50
- 50 < 75
- 75 < 100

— Forest Highway Routes

#### Forest District

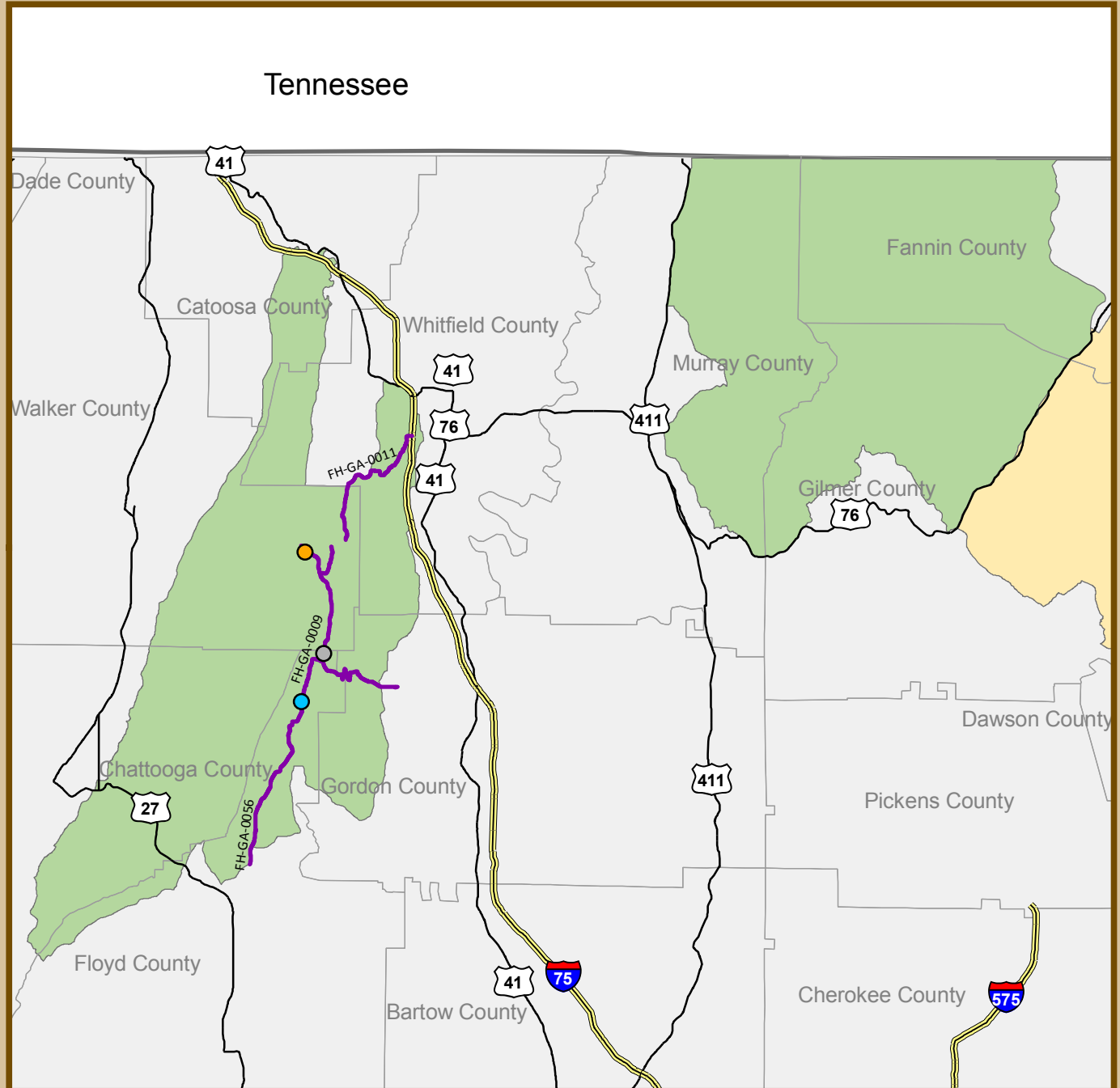
- Blue Ridge
- Conasauga



0 1.5 3 6 9 12 Miles

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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 3B Bridges Blue Ridge District

### Legend

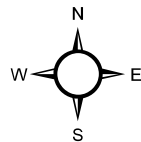
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- < 50
- 50 < 75
- 75 < 100

— Forest Highway Routes

#### Forest District

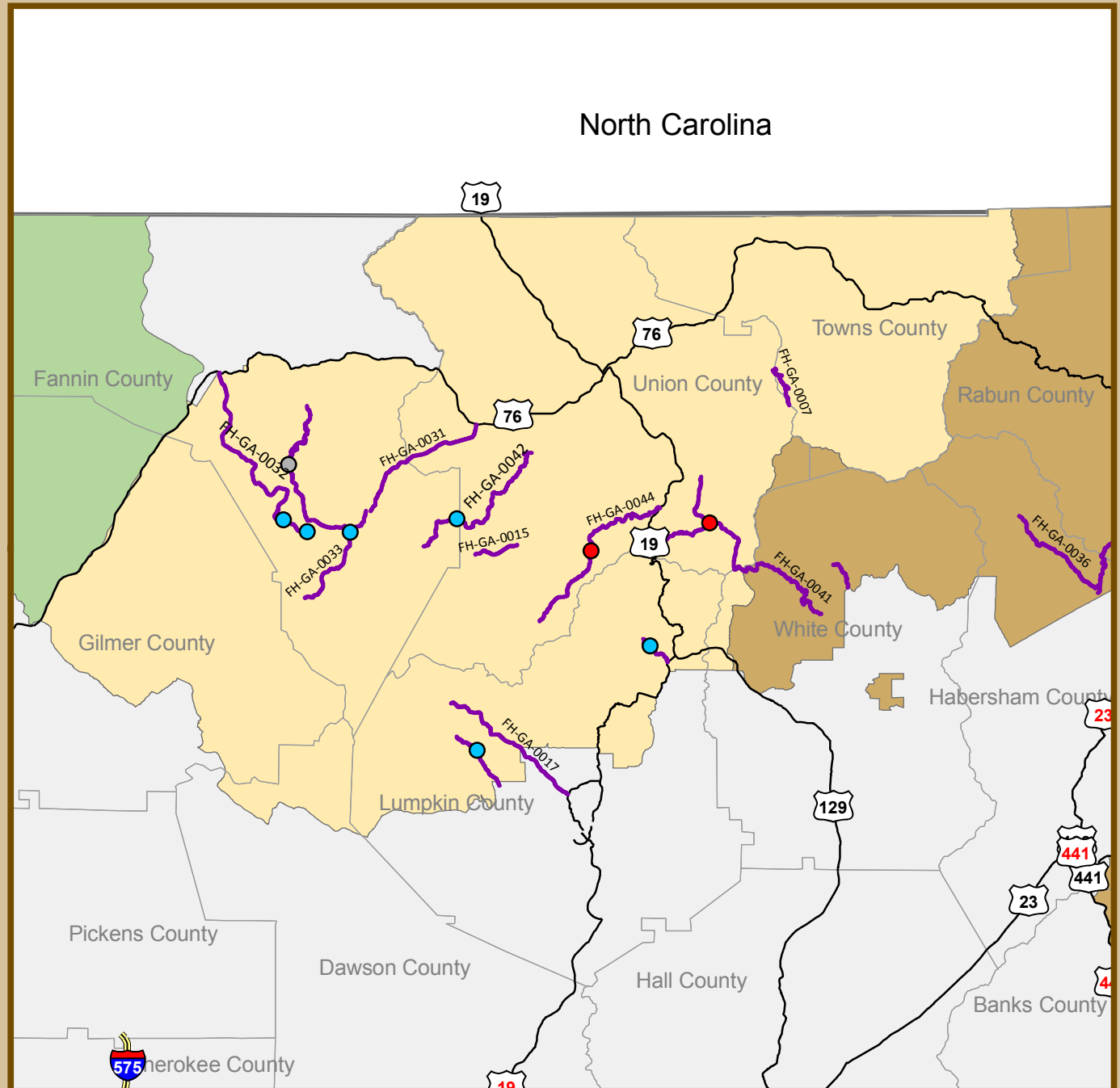
- Blue Ridge
- Chattooga River
- Conasauga



0 1.5 3 6 9 12 Miles

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Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan

## Map 3C Bridges Chattooga River District

### Legend

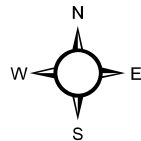
#### Bridge Surface Rating

- No information
- < 50
- 50 < 75
- 75 < 100

— Forest Highway Routes

#### Forest District

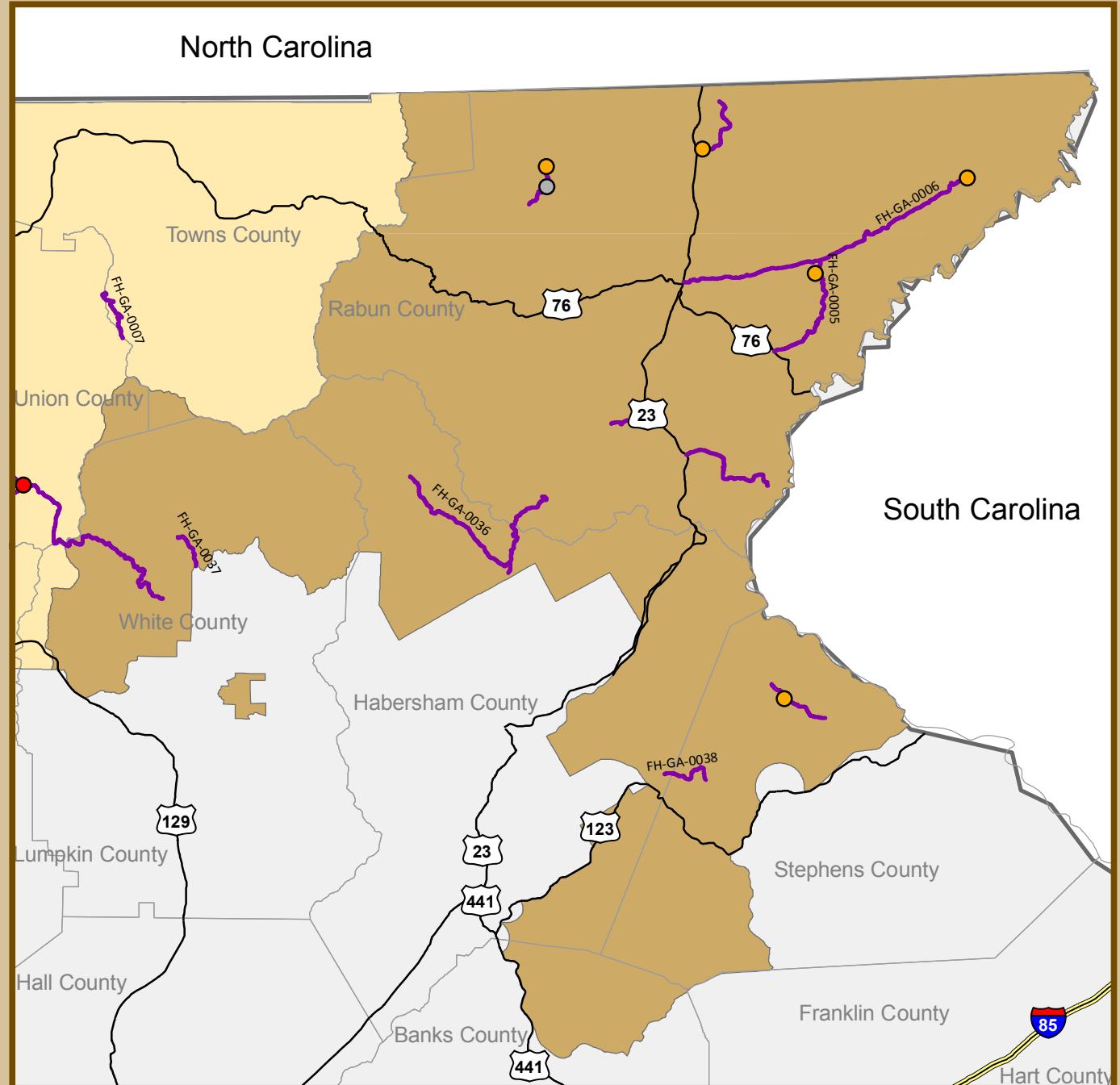
- Blue Ridge
- Chattooga River



0 1.5 3 6 9 12 Miles

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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 3D Bridges Oconee District

### Legend

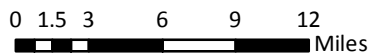
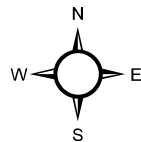
#### Bridge Surface Rating

- No information
- < 50
- 50 < 75
- 75 < 100

— Forest Highway Routes

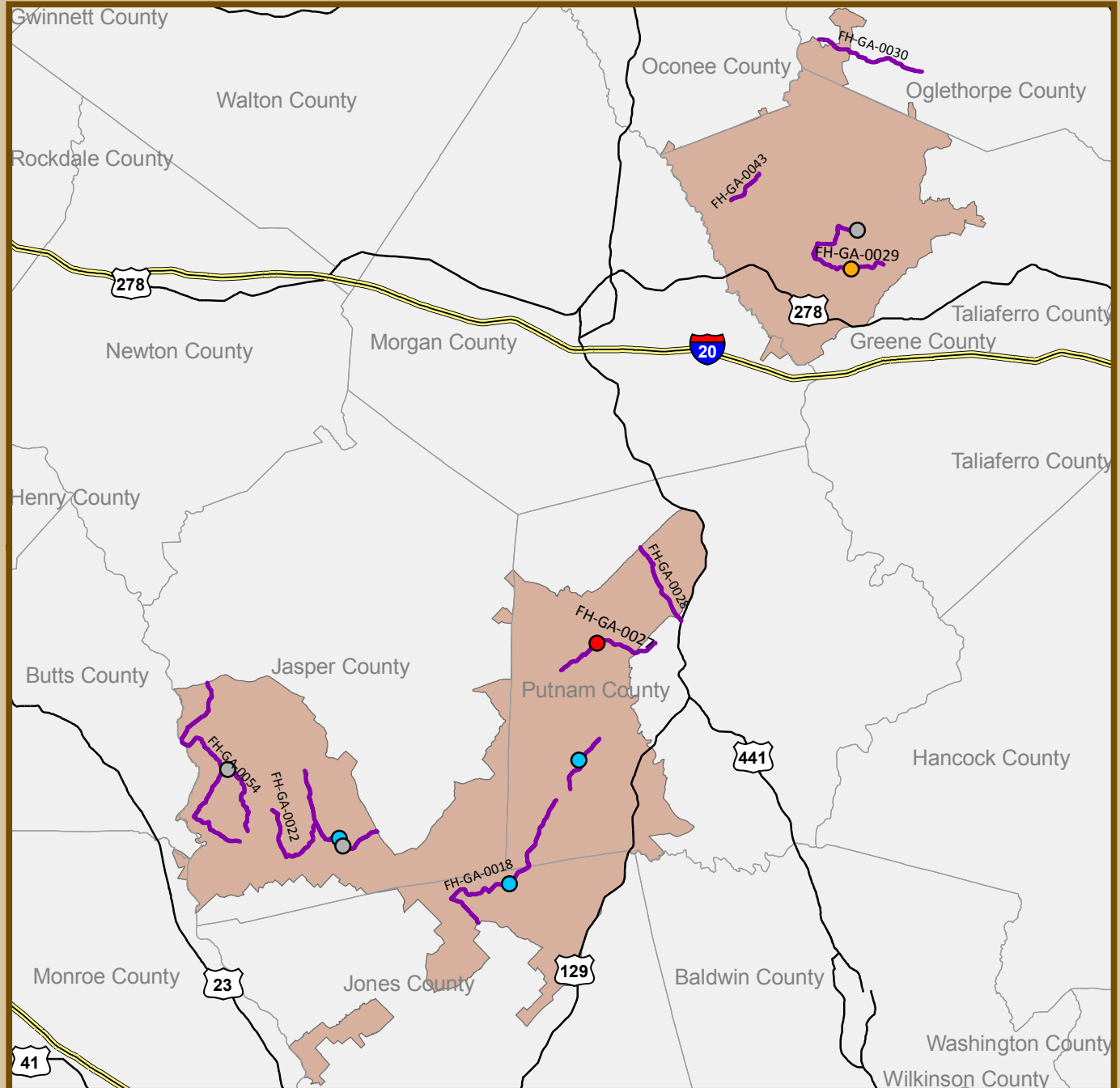
#### Forest District

■ Oconee



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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 4A Pavement Condition Conasauga District

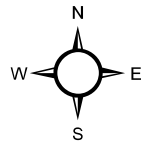
### Legend

#### 2004 Pavement Condition Rating

- 0 - 40
- 41 - 70
- 71 - 100
- Unpaved

#### Forest District

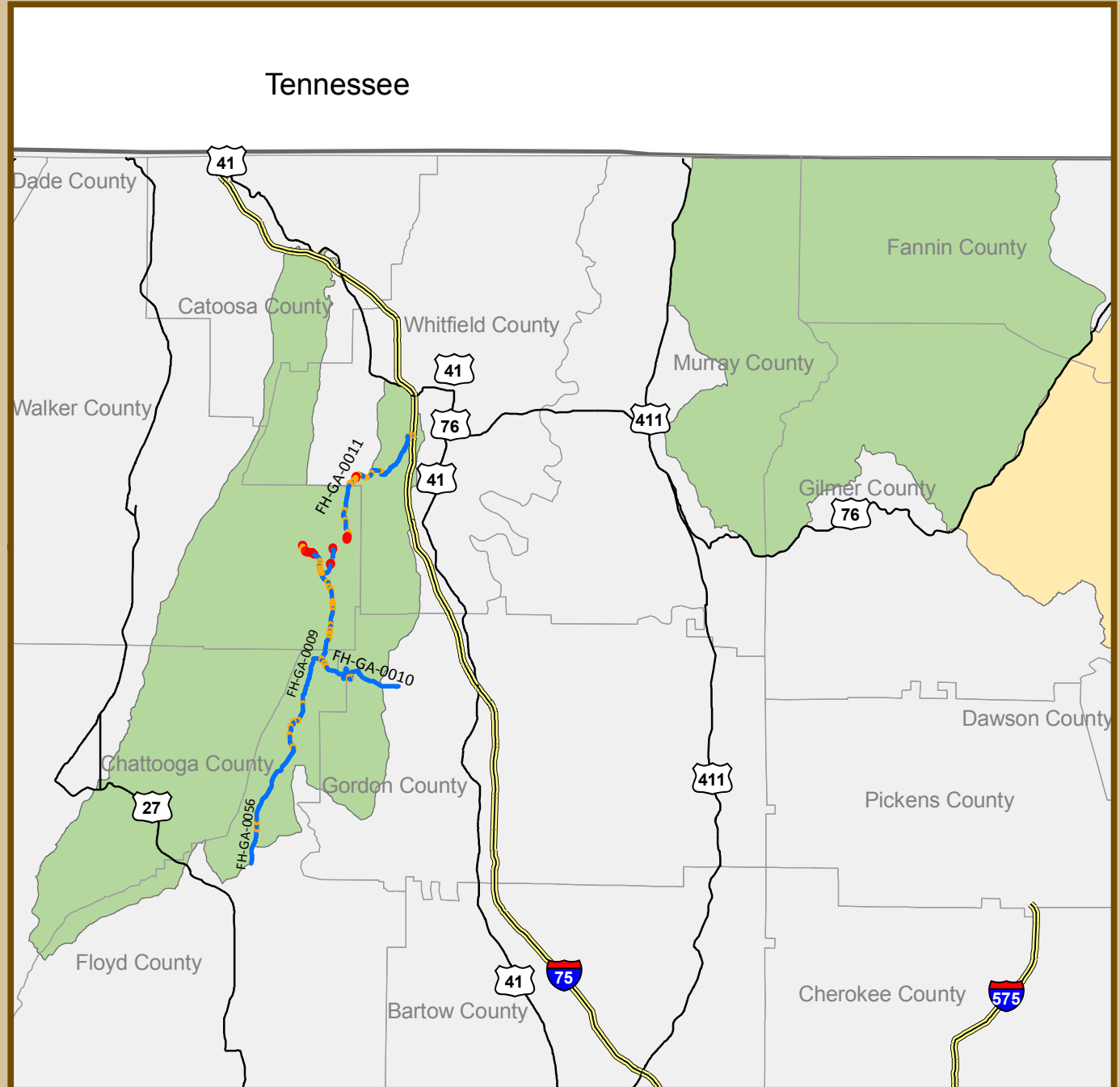
- Blue Ridge
- Conasauga



0 1.5 3 6 9 12  
Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 4B

### Pavement Condition Blue Ridge District

#### Legend

2004 Pavement Condition Rating

0 - 40

41 - 70

71 - 100

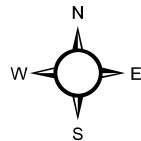
Unpaved

Forest District

Blue Ridge

Chattooga River

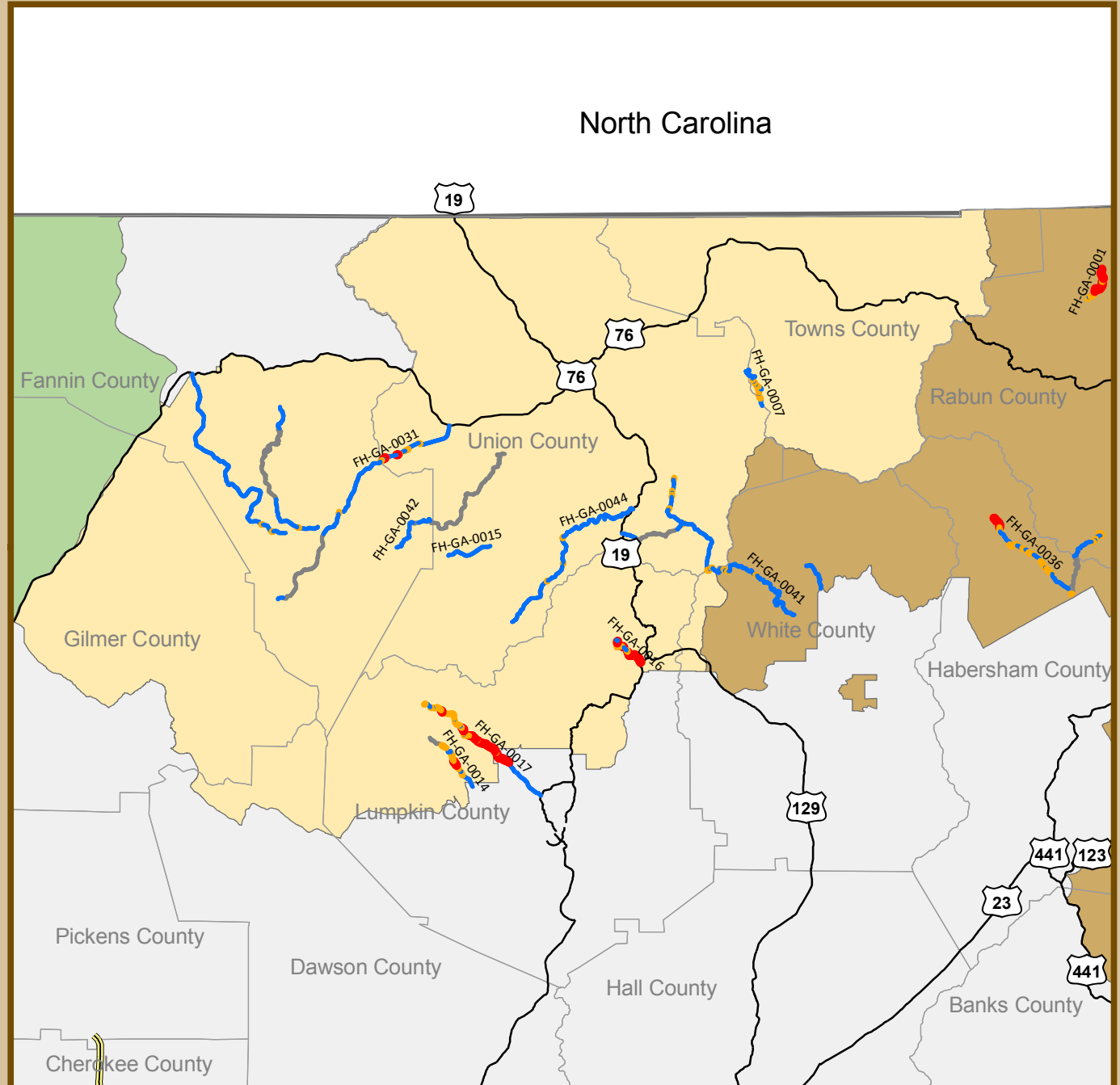
Conasauga



0 1.5 3 6 9 12  
Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 4C Pavement Condition Chattooga River District

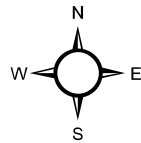
### Legend

2004 Pavement Condition Rating

- 0 - 40
- 41 - 70
- 71 - 100
- Unpaved

Forest District

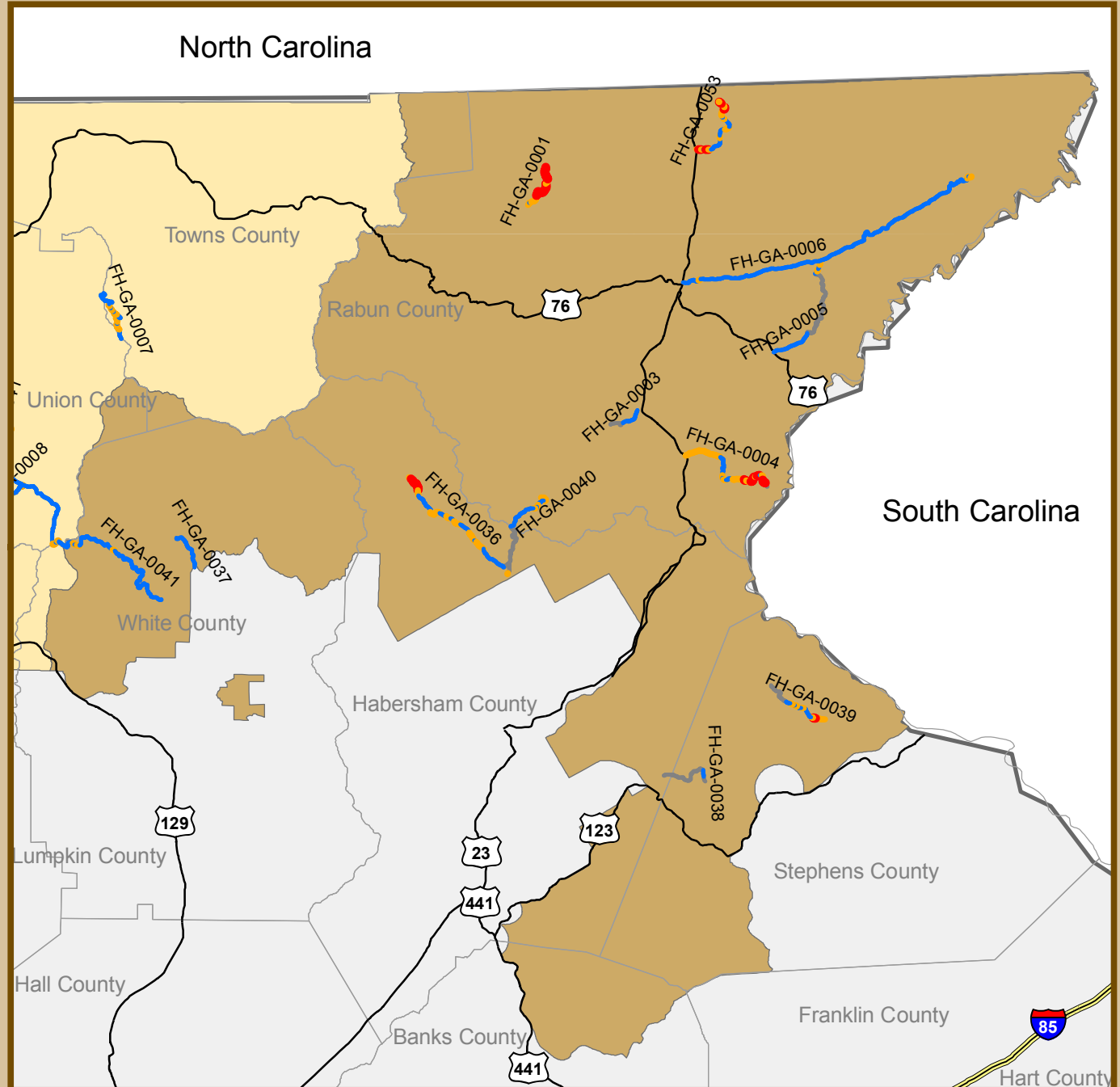
- Blue Ridge
- Chattooga River



0 1.5 3 6 9 12 Miles

Prepared by:  Kimley-Horn and Associates, Inc.

Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 4D Pavement Condition Oconee District

### Legend

2004 Pavement Condition Rating

0 - 40

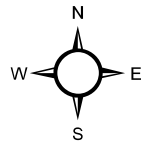
41 - 70

71 - 100

Unpaved

Forest District

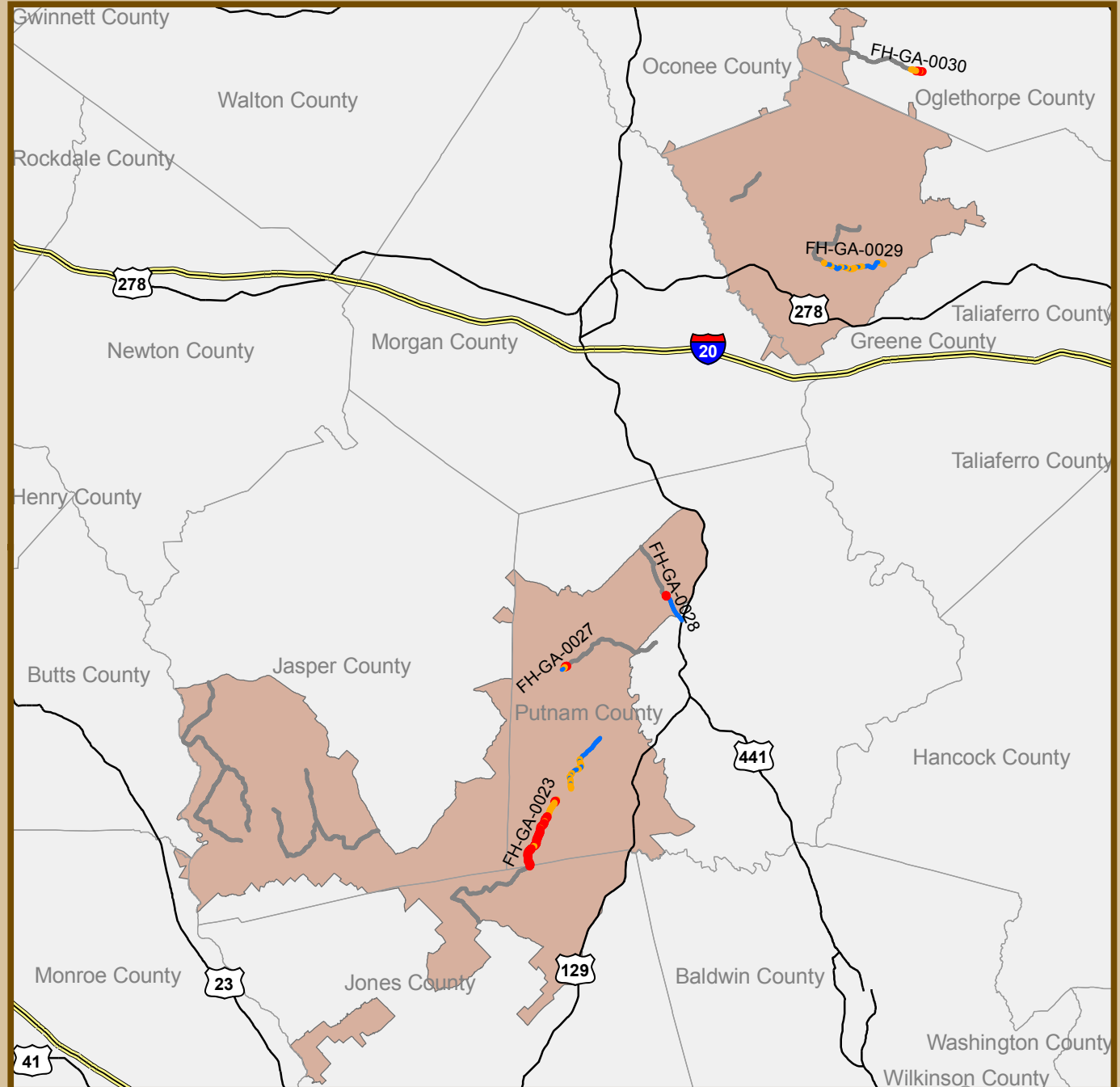
Oconee



0 1.5 3 6 9 12  
Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 5A Recreation, Trails & Public Land Conasauga District

### Legend

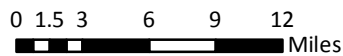
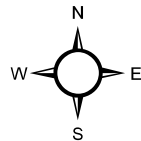
#### Recreation Site Type

- Boating
- Camping
- Day Use/Picnic
- Trailhead
- Observation
- Other

- Scenic Byways
- Trails
- Forest Highway Routes

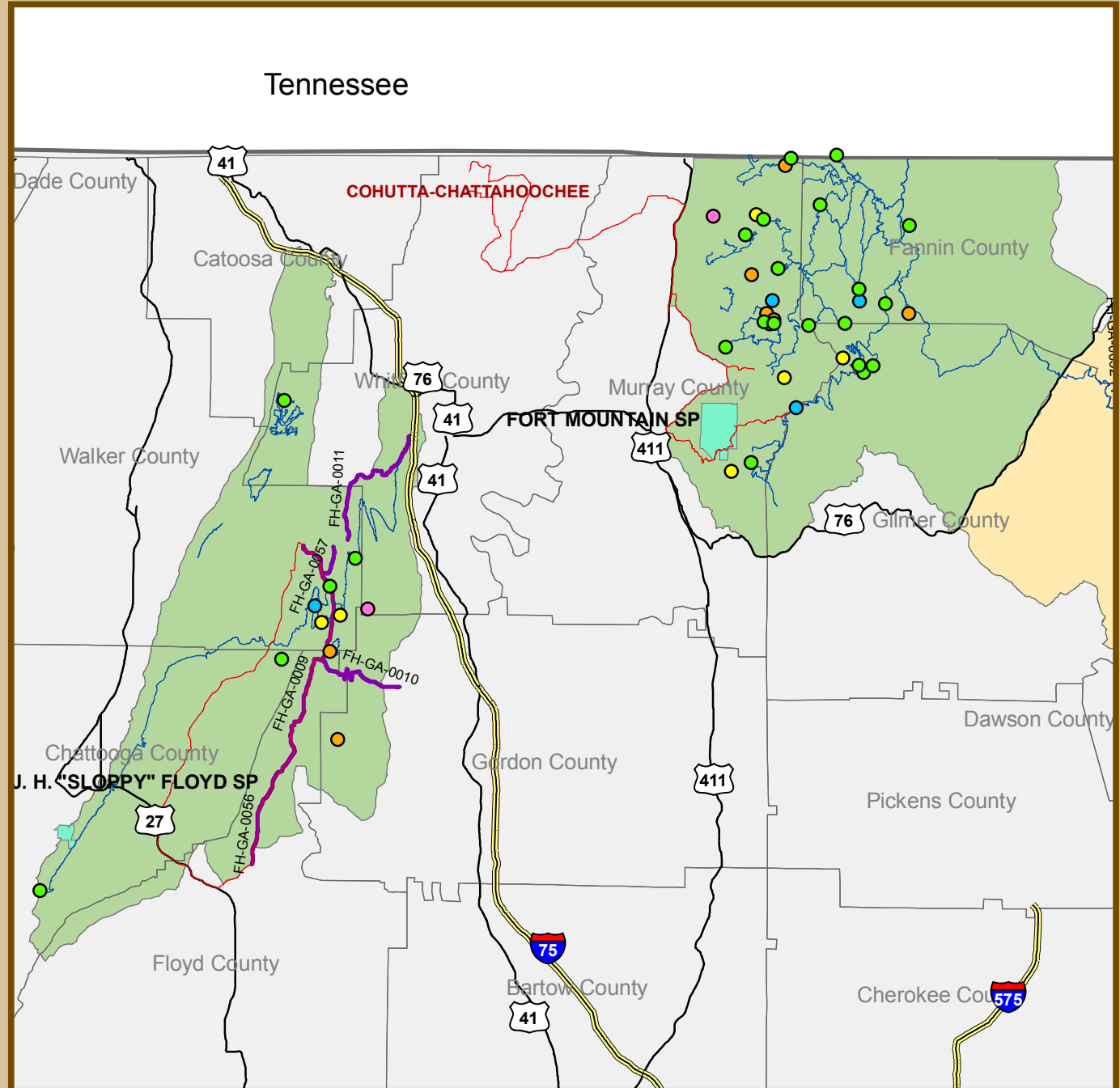
#### State Parks

- State Parks
- Blue Ridge
- Conasauga



Prepared by: Kimley-Horn  
and Associates, Inc.

Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 5B Recreation, Trails & Public Land Blue Ridge District

### Legend

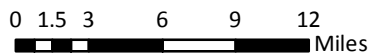
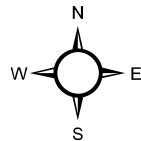
#### Recreation Site Type

- Boating
- Camping
- Day Use/Picnic
- Trailhead
- Observation
- Other

- Trails
- Scenic Byways
- Forest Highway Routes

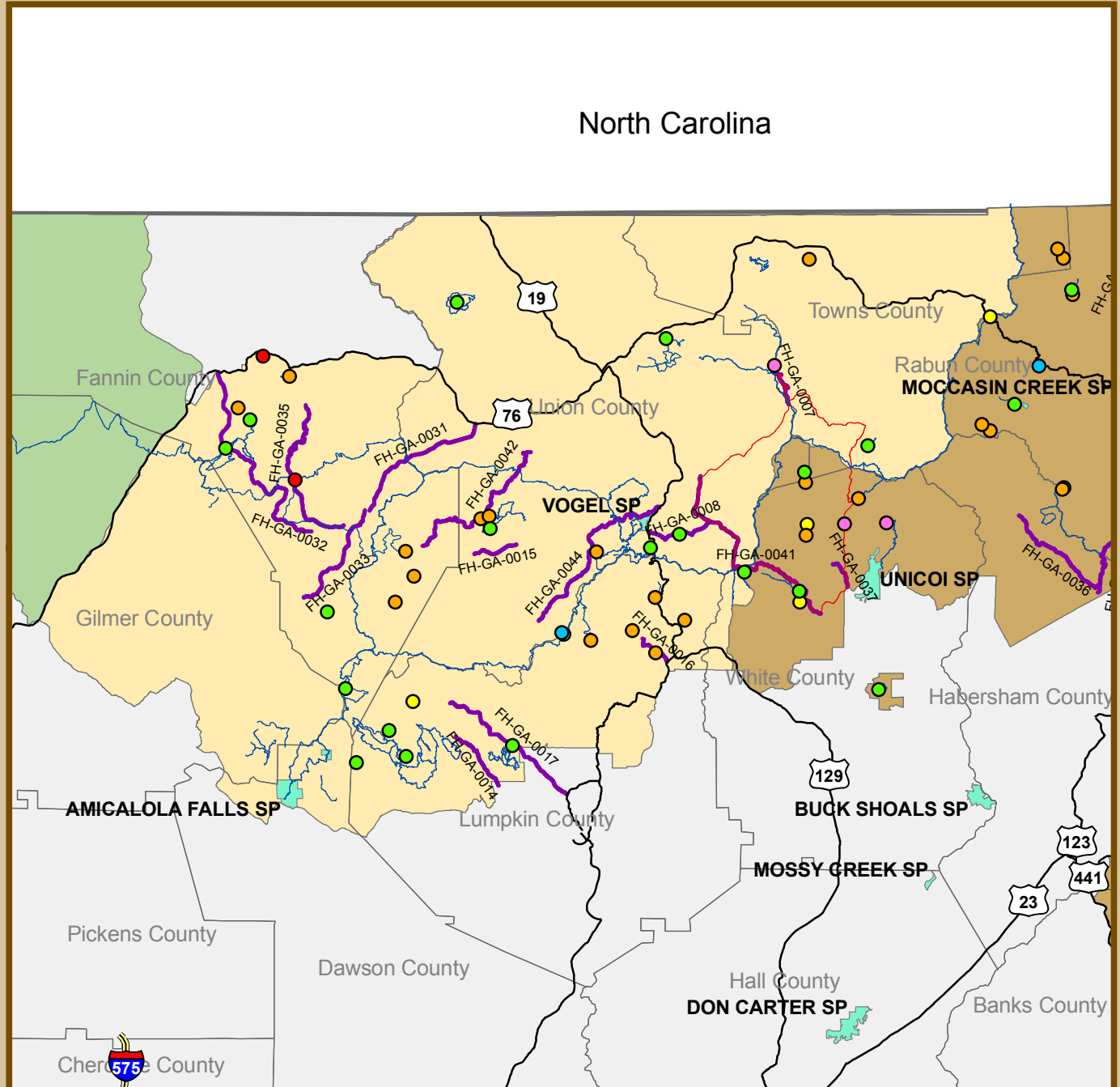
#### State Parks

- Blue Ridge
- Chattooga River
- Conasauga



Prepared by: Kimley-Horn and Associates, Inc.

Date: June 2010





# Georgia Forest Highway Long Range Transportation Plan

## Map 5C Recreation, Trails & Public Land Chattooga River District

### Legend

#### Recreation Site Type

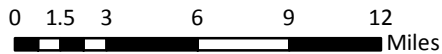
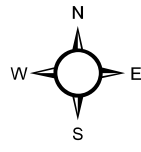
- Boating
- Camping
- Day Use/Picnic
- Trailhead
- Observation
- Other

- Trails
- Scenic Byways
- Forest Highway Routes

#### State Parks

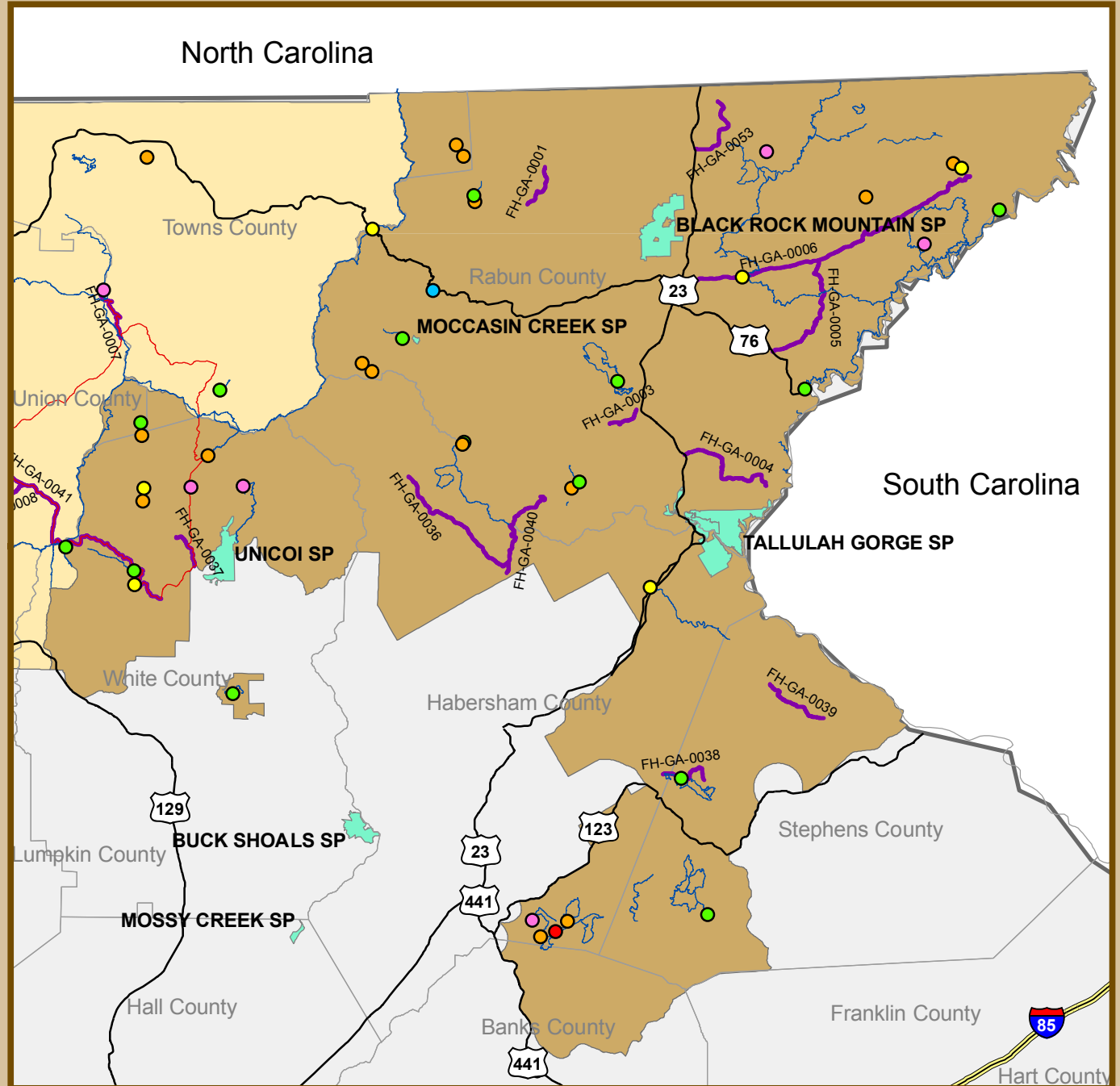
#### Forest District

- Blue Ridge
- Chattooga River



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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 5D Recreation, Trails & Public Land Oconee District

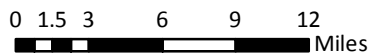
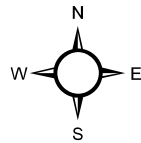
### Legend

#### Recreation Site Type

- Boating
- Camping
- Day Use/Picnic
- Trailhead
- Observation
- Other

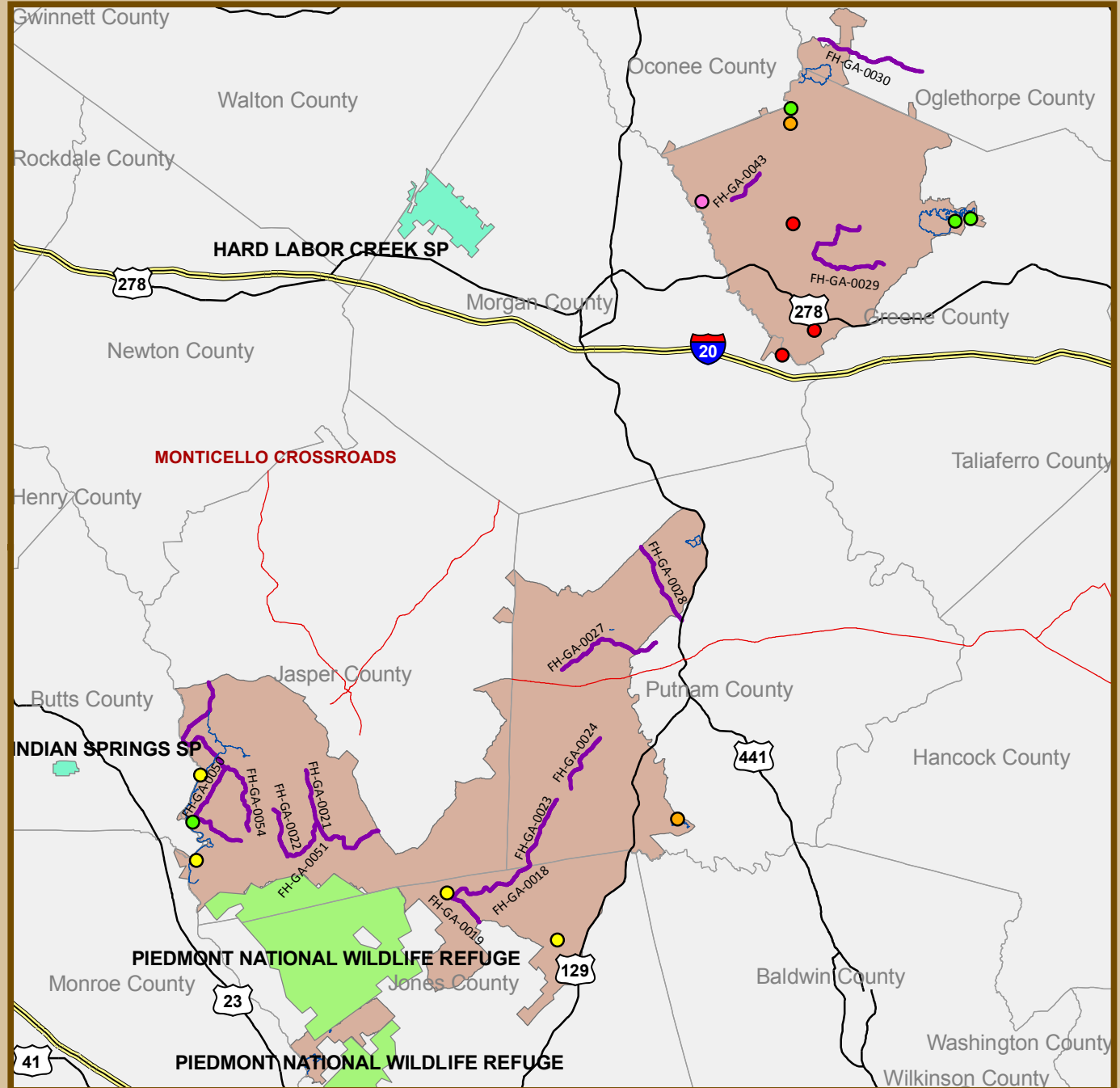
- Trails
- Scenic Byways
- Forest Highway Routes
- State Parks
- National Wildlife Refuge

- Forest District
- Oconee



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Date: June 2010



# Georgia Forest Highway Long Range Transportation Plan

## Map 6A Wilderness Conasauga District

### Legend

— Within 1 Mile of Wilderness

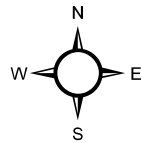
— Forest Highway Routes

■ Wilderness

Forest District

■ Blue Ridge

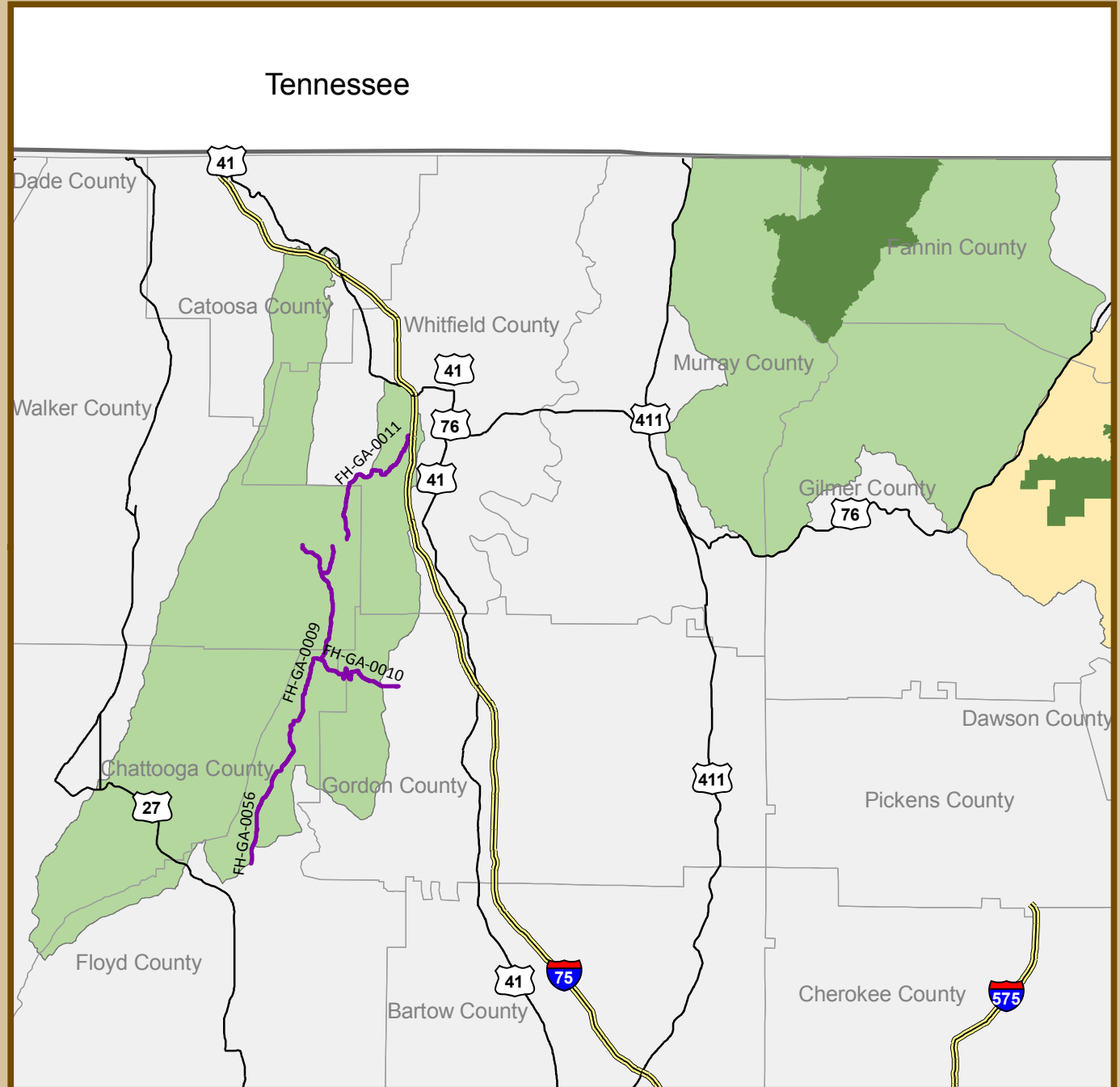
■ Conasauga



0 1.5 3 6 9 12 Miles

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Date: June 2010

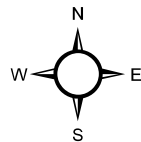


# Georgia Forest Highway Long Range Transportation Plan

## Map 6B Wilderness Blue Ridge District

### Legend

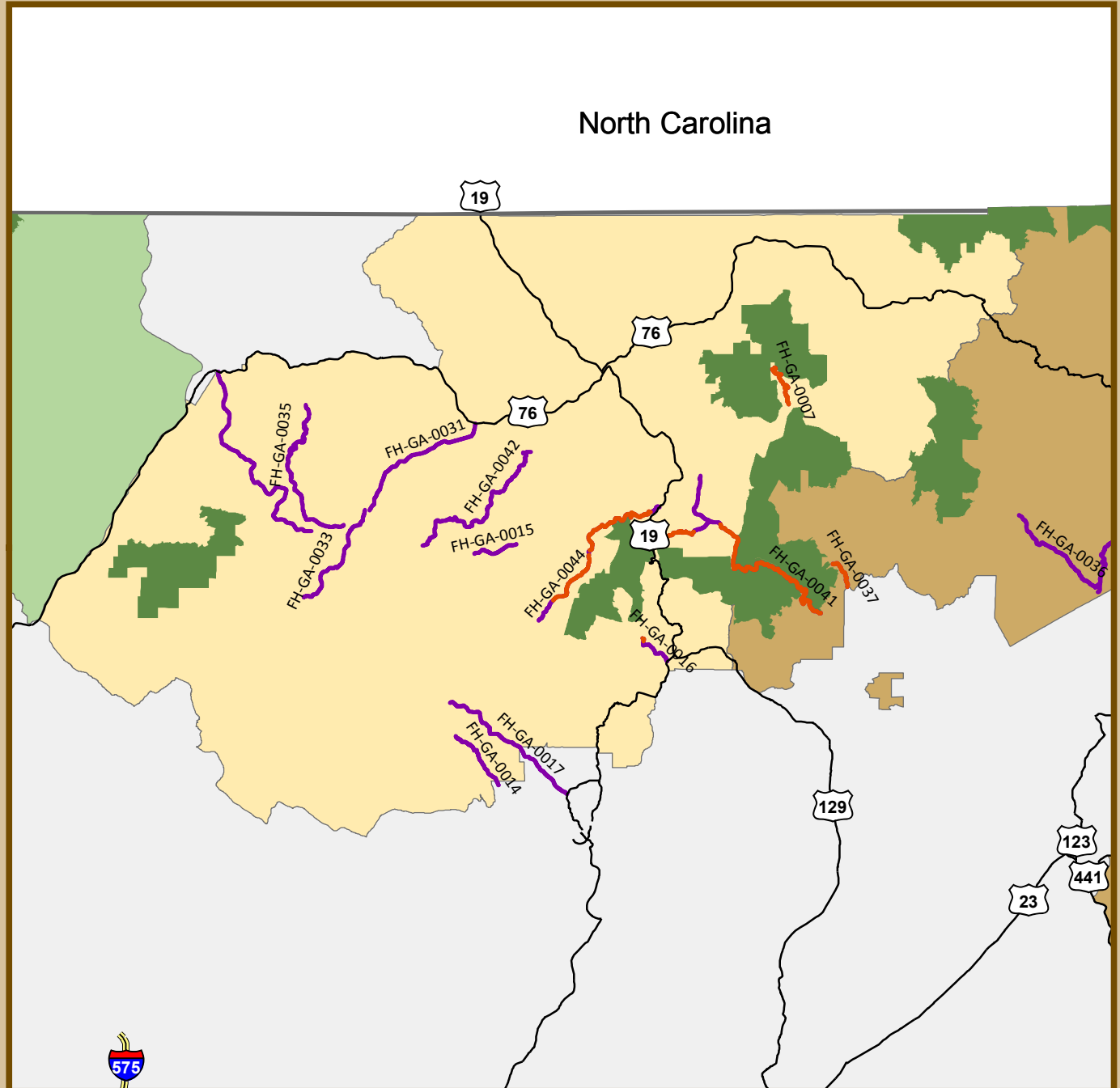
- Within 1 Mile of Wilderness
  - Forest Highway Routes
  - Wilderness
- Forest District
- Blue Ridge
  - Chattooga River
  - Conasauga



0 1.5 3 6 9 12  
Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010

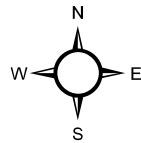


# Georgia Forest Highway Long Range Transportation Plan

## Map 6C Wilderness Chattooga River District

### Legend

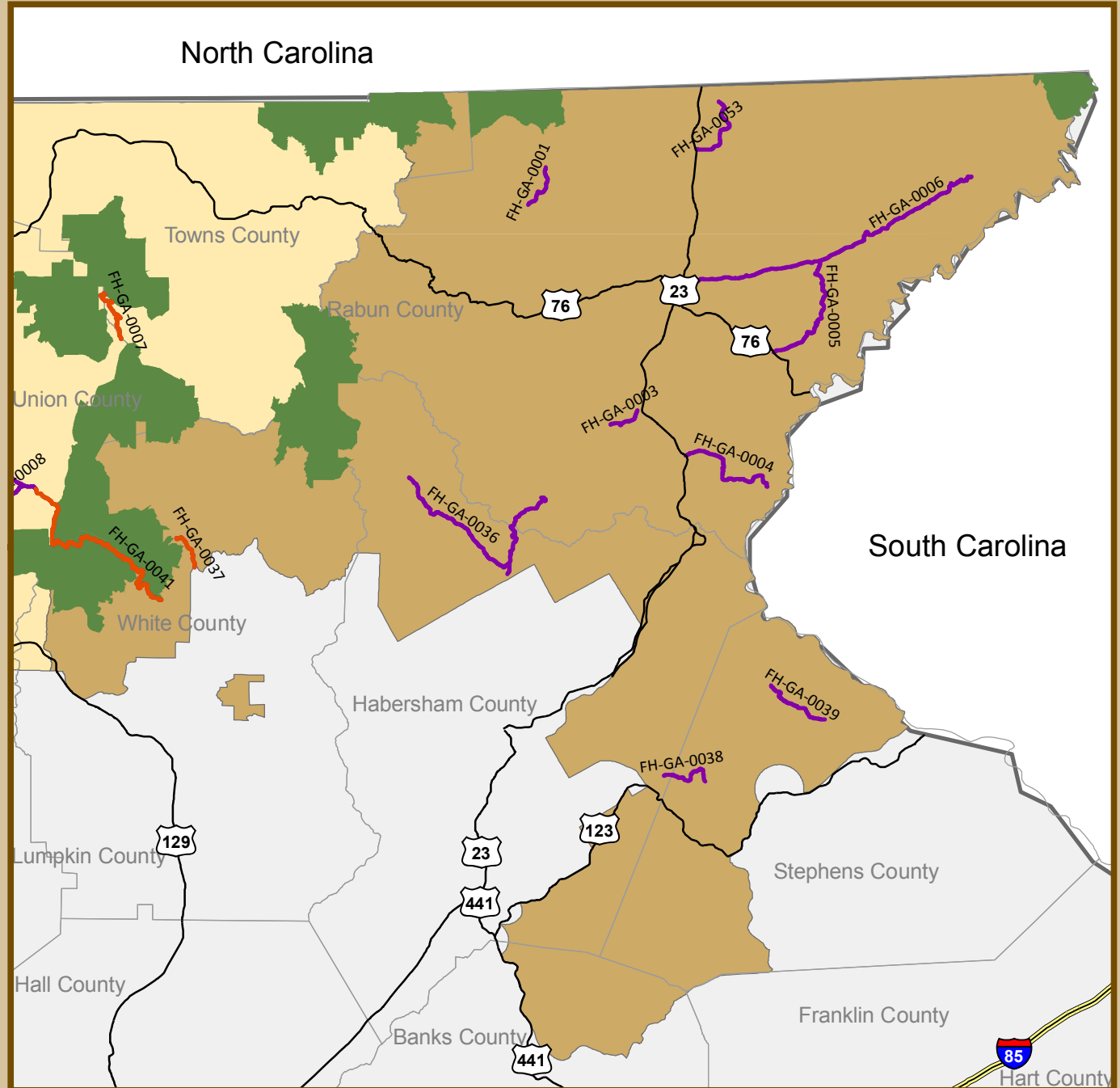
- Within 1 Mile of Wilderness
  - Forest Highway Routes
  - Wilderness
- Forest District
- Blue Ridge
  - Chattooga River



0 1.5 3 6 9 12 Miles

Prepared by:  Kimley-Horn and Associates, Inc.

Date: June 2010



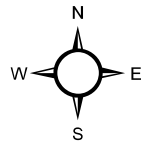
Hart County

# Georgia Forest Highway Long Range Transportation Plan

## Map 6D Wilderness Oconee District

### Legend

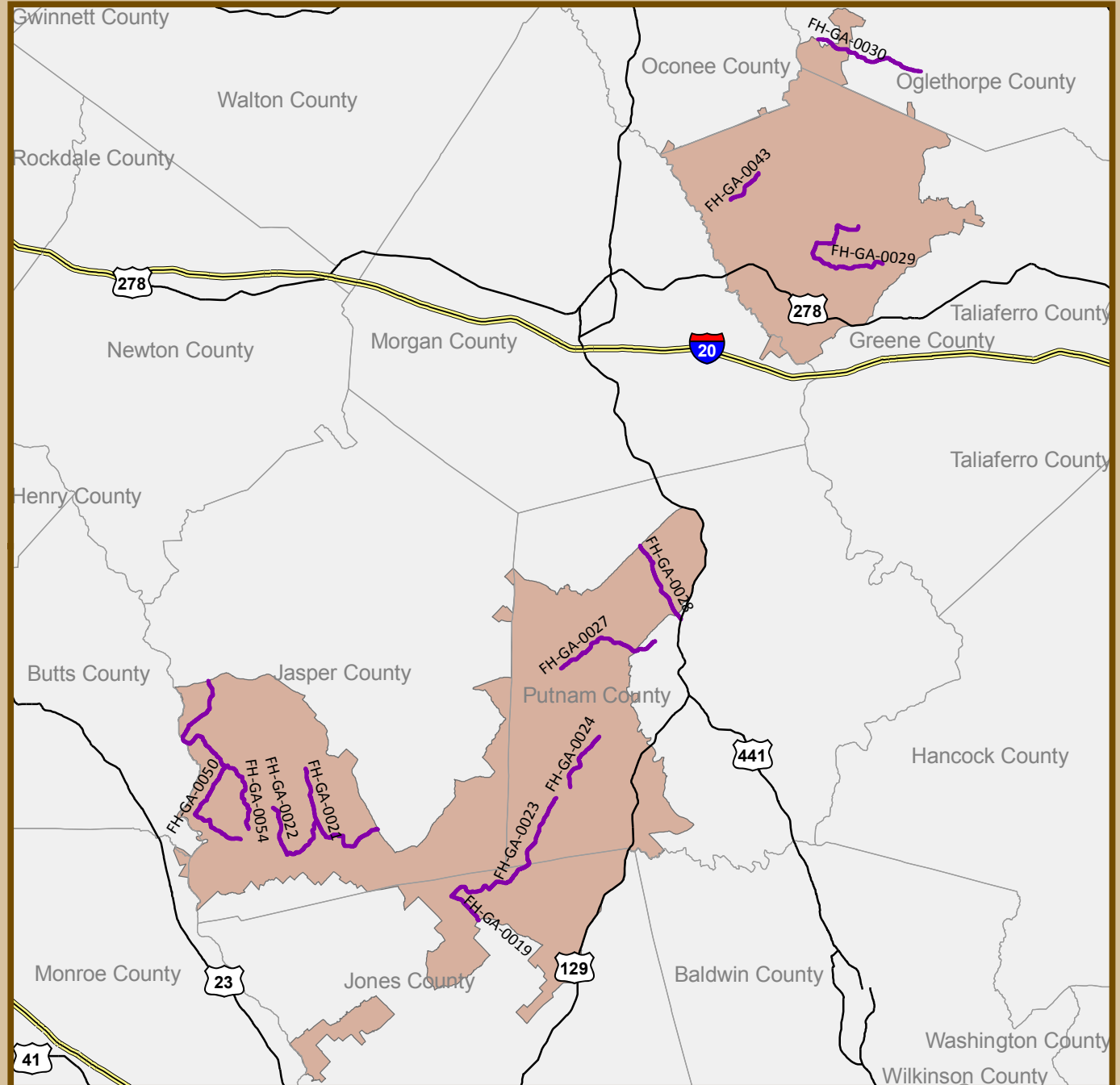
- Within 1 Mile of Wilderness
- Forest Highway Routes
- Wilderness
- Forest District
- Oconee



0 1.5 3 6 9 12  
Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010








# Georgia Forest Highway Long Range Transportation Plan

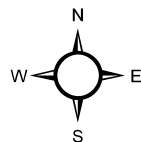
**Map 7**  
**Average Yearly**  
**Population Growth**  
**2003-2006**

## Legend

— Interstate Highways

Average Yearly Population Growth

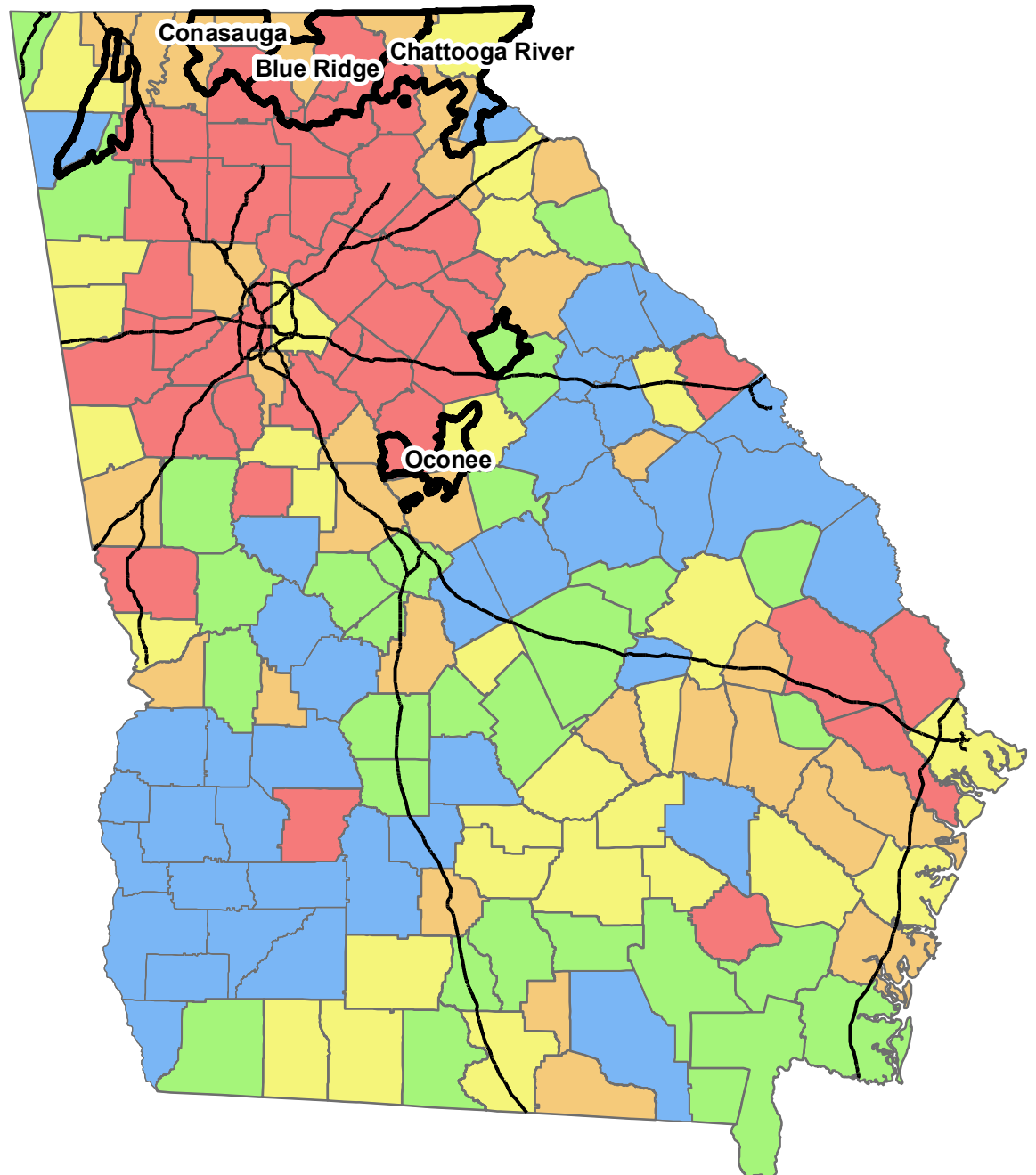
-  0 < 20th percentile
-  20 < 40th percentile
-  40 < 60th percentile
-  60 < 80th percentile
-  80 < 100th percentile



0 10 20 40 60 80 Miles

Prepared by:  Kimley-Horn  
and Associates, Inc.

Date: June 2010

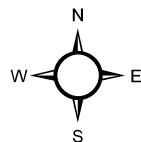


# Georgia Forest Highway Long Range Transportation Plan

**Map 8**  
**Average Yearly**  
**Job Growth**  
**2003-2006**

## Legend

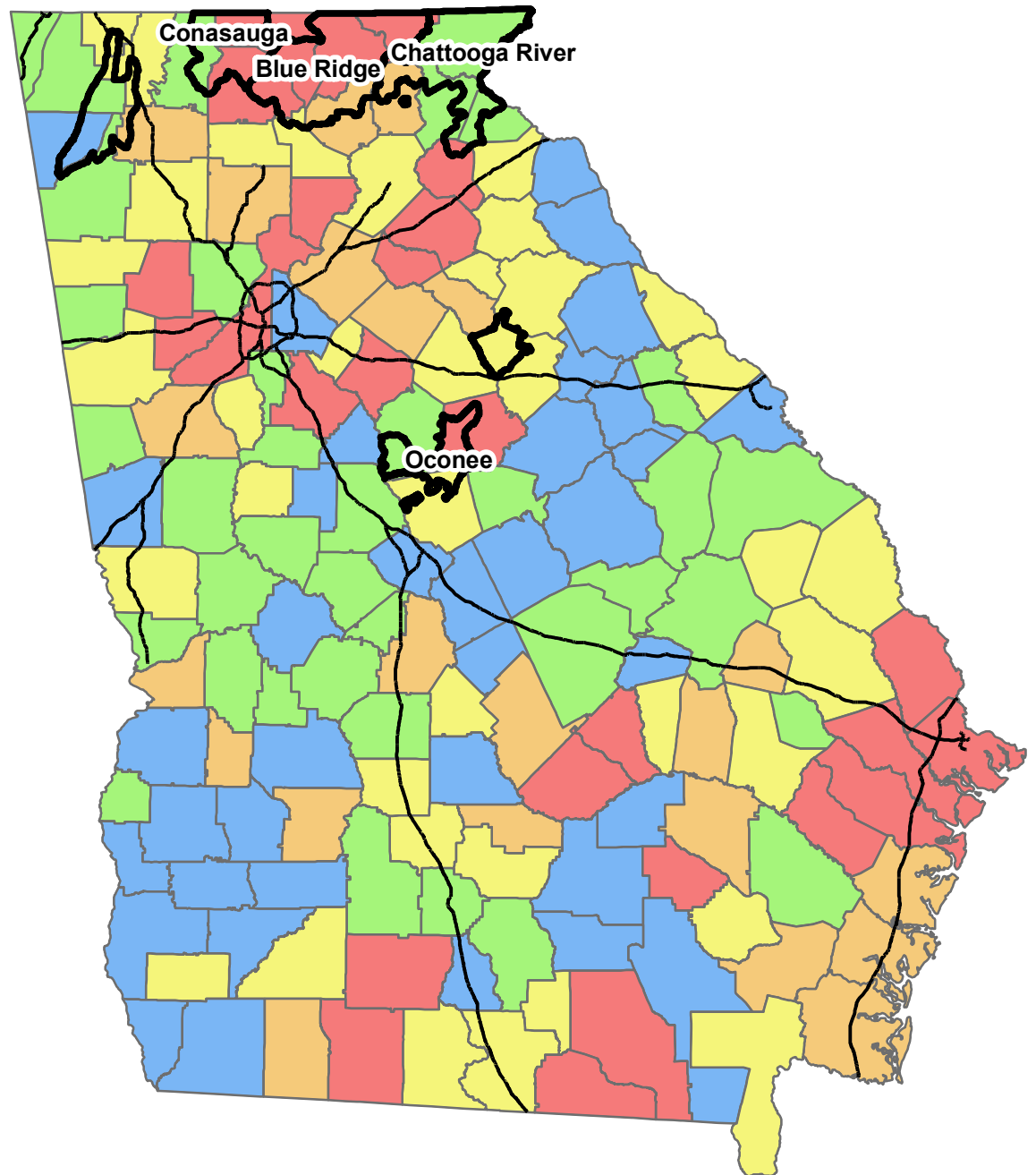
- Interstate Highways
- Average Yearly Job Growth
  - 0 < 20th percentile
  - 20 < 40th percentile
  - 40 < 60th percentile
  - 60 < 80th percentile
  - 80 < 100th percentile



0 10 20 40 60 80 Miles

Prepared by:  Kimley-Horn and Associates, Inc.

Date: June 2010





## **Appendix**

## **Appendix A**

### **Georgia Forest Highway Fact Sheets**

# Chattahoochee National Forest



The Chattahoochee National Forest is comprised of approximately 750,000 acres and is considered to be one of the premier outdoor recreation destinations in the country. The vast area covers 18 counties in North Georgia and within its borders are Georgia's highest point, Brasstown Bald, the headwaters of every major North Georgia river, hundreds of waterfalls, and abundant flora and fauna. Hiking is a popular recreation that is easily accessed through the Forest Highway network.

The Chattahoochee National Forest has over 800 miles of trails (over 500 of which are designated hiking trails) 10 wilderness areas, and 118 recreational sites. This is significant because it attracts many tourists and visitors to the North Georgia area. Forest Highways assist rural economic development and promote tourism and travel.

## Long Range Transportation Plan

The Long Range Transportation Plan (LRTP) will establish a method for setting priorities, evaluating potential projects, and optimizing the use of Forest Highway funding to improve and maintain the system. The development of the LRTP is based upon the current conditions and trends of Forest Highways, the missions of the managing agencies, and input from stakeholders and the general public. The involvement and support of cooperating agencies is essential in order to develop a planning process that is consistent with other existing and ongoing transportation plans. Because funds are limited it is important to establish a long-term plan that prioritizes projects in order to most effectively maintain the function of Forest Highway roads. The purposes of the LRTP are as follows:

### ***Georgia Forest Highways Transportation Goals***

- Increase the safety of the transportation system for motorized and non-motorized users.*
- Preserve transportation infrastructure of National Forests.*
- Enhance rural connectivity and support economic development.*
- Protect and minimize impacts to natural and cultural resources.*
- Optimize use of available funds.*
- Foster ongoing coordination with local officials and stakeholders.*

- Establish long range goals and objectives that are shared among the three managing agencies and reflect their missions
- Develop a prioritization process for accomplishing these goals
- Identify top priorities and determine methods for using and leveraging Forest Highway funds to meet those needs

# Chattahoochee National Forest

## Existing Conditions

Average daily traffic (ADT) volumes are generally low across the entire Georgia Forest Highway system, with the highest at 2,000 vehicles per day and the lowest at 30. The volumes on the Forest Highways tend to be lower than many of the state routes in the area. Forest Highway roads vary widely by surface type and pavement condition. The paved roads have possible pavement condition ratings (PCR) ranging from 10 to 100. PCRs are used to determine recommendations for reconstruction, repair, or resurfacing of roadways. Thirteen miles of roadway are in need of reconstruction in the Chattahoochee National Forest (PCR less than or equal to 40), and 25.8 miles were identified as in need of repair or resurfacing (PCR between 41 and 70). A total of 25 bridges exist in the Forest, and each bridge is given a bridge surface rating between 1-100 which indicates the quality of the pavement on the surface of the deck of the bridge. Two of these bridges have a rating lower than 50, and 10 have a rating between 50 and 75. Bridges with a rating lower than 50 should be given priority for resurfacing.

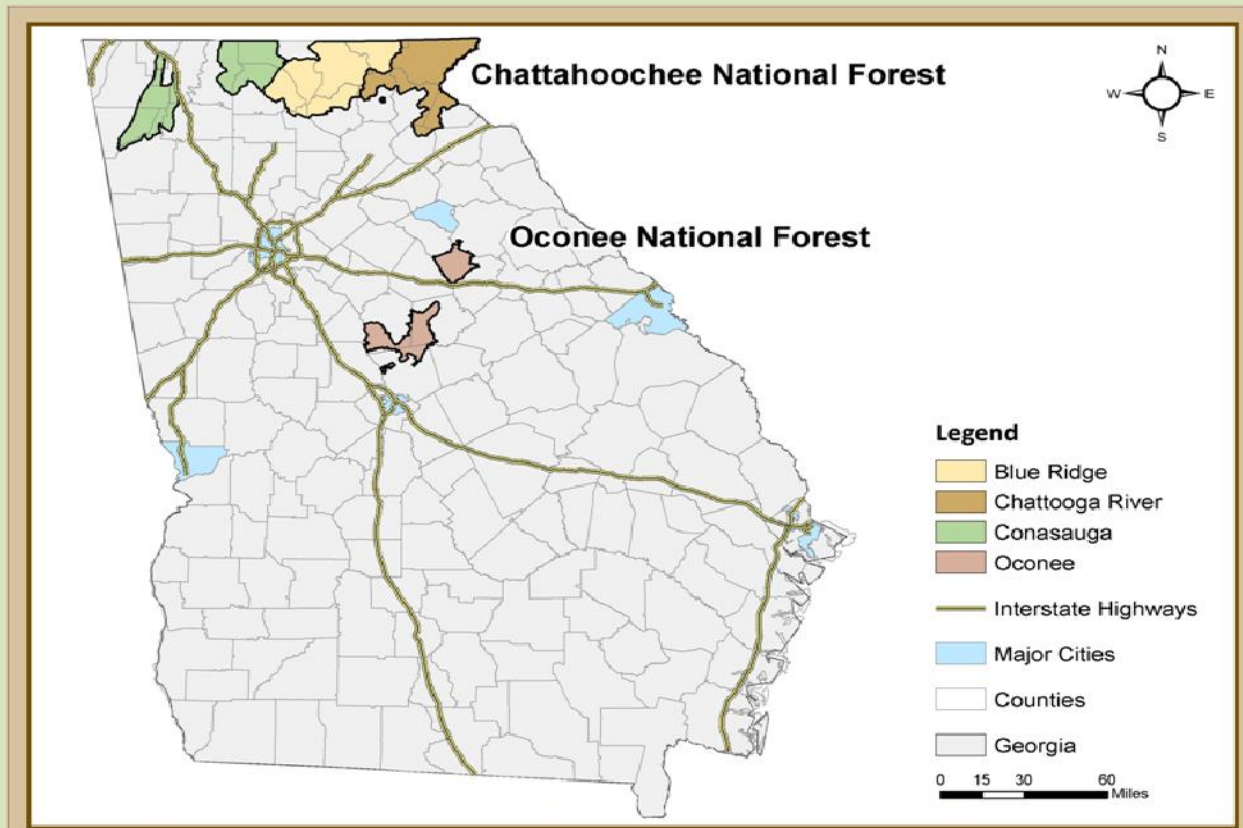
## Quick Facts

*The Chattahoochee National Forest has 166 miles of paved roadways and 74 miles of unpaved roadways*

*13 miles of paved roadway within the Forest are in need of reconstruction*

*25 bridges exist in the Forest, two of which have a very low surface rating and should be prioritized for repaving*

*Approximately 72% of the Forest Highway usage is related to recreational traffic. The remaining 28% is associated with timber production*



# Oconee National Forest



The Oconee National Forest is comprised of approximately 115,353 acres, covering 10 counties in Central Georgia between Athens and Macon. The Oconee National Forest remains a popular destination for outdoor activities such as hiking and camping, hunting the bountiful game when in season, and enjoyment of Lake Sinclair, suitable for motor boats. Unlike the Chattahoochee National Forest in the mountains, the Oconee in the Piedmont Region is relatively flat with small hills. Its accessibility via Interstates 75 and 20, in conjunction with its many outdoor attractions, makes it a popular family day trip for many Georgians.

## Long Range Transportation Plan

The Long Range Transportation Plan (LRTP) will establish a method for setting priorities, evaluating potential projects, and optimizing the use of Forest Highway funding to improve and maintain the system. The development of the LRTP is based upon the current conditions and trends of Forest Highways, the missions of the managing agencies, and input from stakeholders and the general public. The involvement and support of cooperating agencies is essential in order to develop a planning process that is consistent with other existing and ongoing transportation plans. Because funds are limited it is important to establish a long-term plan that prioritizes projects in order to most effectively maintain the function of Forest Highway roads. The purposes of the LRTP are as follows:

### ***Georgia Forest Highways Transportation Goals***

- Increase the safety of the transportation system for motorized and non-motorized users.*
- Preserve transportation infrastructure of National Forests.*
- Enhance rural connectivity and support economic development.*
- Protect and minimize impacts to natural and cultural resources.*
- Optimize use of available funds.*
- Foster ongoing coordination with local officials and stakeholders.*

- Establish long range goals and objectives that are shared among the three managing agencies and reflect their missions
- Develop a prioritization process for accomplishing these goals
- Identify top priorities and determine methods for using and leveraging Forest Highway funds to meet those needs

# Oconee National Forest

## Existing Conditions

Average daily traffic (ADT) volumes are generally low across the entire Georgia Forest Highway system, with the highest at 2,000 vehicles per day and the lowest at 30. The volumes on the Forest Highways tend to be lower than many of the state routes in the area. Forest Highway roads vary widely by surface type and pavement condition. The paved roads have pavement condition ratings (PCR) ranging from 10 to 100. PCRs are used to determine recommendations for reconstruction, repair, or resurfacing of roadways. Only 0.1 miles of roadway are in need of reconstruction in the Oconee National Forest, but 2.9 miles were identified as in need of repair or resurfacing. A total of 8 bridges exist in the Forest, and each bridge is given a bridge surface rating between 1-100 which indicates the quality of the pavement on the surface of the deck of the bridge. One of these bridges has a rating lower than 50, and one has a rating between 50 and 75. The bridge with a rating lower than 50 should be given priority for resurfacing.

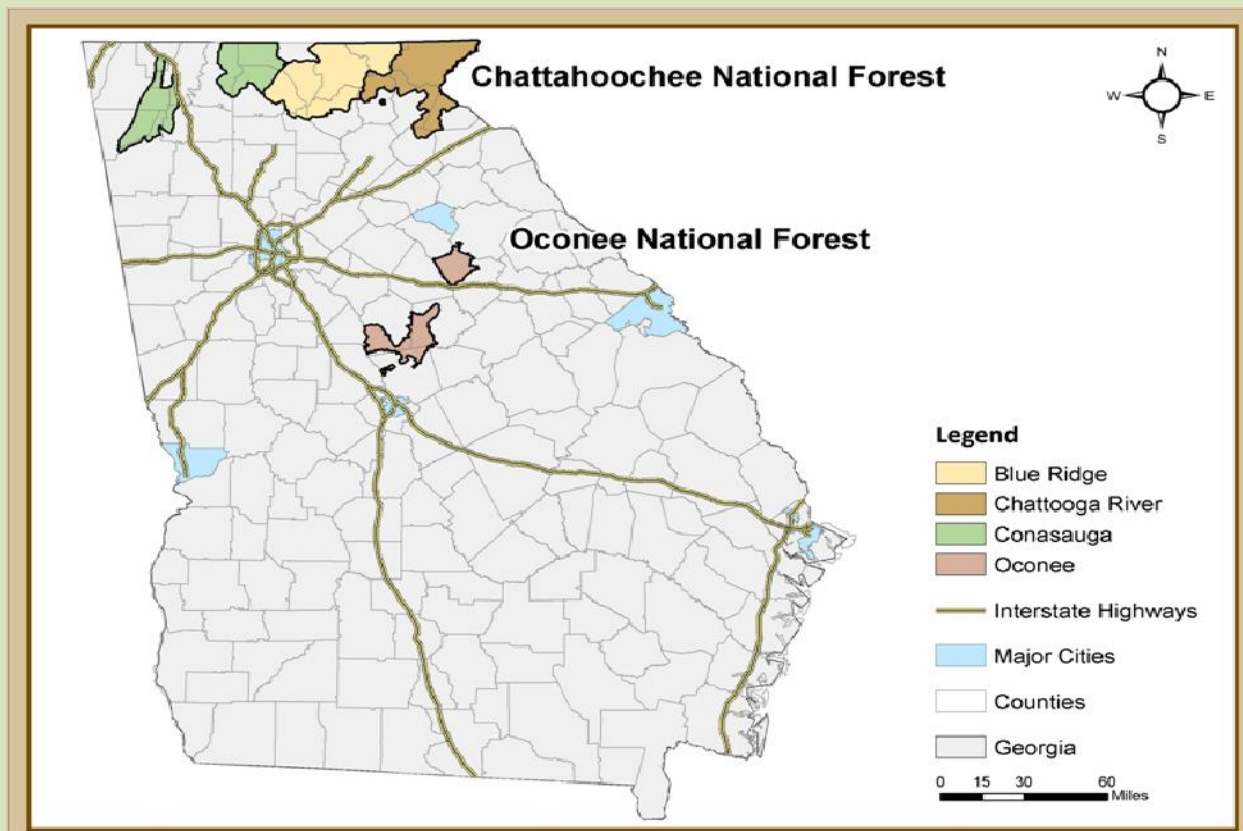
## Quick Facts

*The Chattahoochee National Forest has 166 miles of paved roadways and 74 miles of unpaved roadways*

*13 miles of paved roadway within the Forest are in need of reconstruction*

*25 bridges exist in the Forest, two of which have a very low surface rating and should be prioritized for repaving*

*Approximately 72% of the Forest Highway usage is related to recreational traffic. The remaining 28% is associated with timber production*



**Appendix B**

**Incident Summaries**

Forest Highway Crashes Per Mile				Types of Each Crash			
Route ID	# of Crashes	Rte Length	Crashes / Mi	Off Road	On Road	On Shoulder	Gore
FH-GA-0003	2	1.49	1.3423	0	2	0	0
FH-GA-0004	3	5.004	0.5995	1	1	1	0
FH-GA-0005	1	6.084	0.1644	0	1	0	0
FH-GA-0006	18	13.95	1.2903	3	15	0	0
FH-GA-0007	2	3.19	0.6270	1	1	0	0
FH-GA-0009	9	13.683	0.6578	5	3	1	0
FH-GA-0010	7	6.89	1.0160	4	3	0	0
FH-GA-0011	58	9.09	6.3806	19	37	2	0
FH-GA-0014	5	3.73	1.3405	2	1	2	0
FH-GA-0015	1	2.41	0.4149	1	0	0	0
FH-GA-0016	3	2.21	1.3575	1	2	0	0
FH-GA-0017	31	8.39	3.6949	15	13	3	0
FH-GA-0018	2	5.127	0.3901	1	1	0	0
FH-GA-0019	2	1.953	1.0241	0	1	0	1
FH-GA-0021	1	7.325	0.1365	0	1	0	0
FH-GA-0023	1	3.88	0.2577	1	0	0	0
FH-GA-0024	3	3.352	0.8950	0	3	0	0
FH-GA-0027	1	5.99	0.1669	0	0	1	0
FH-GA-0029	6	7.853	0.7640	1	4	1	0
FH-GA-0031	5	7.785	0.6423	3	1	1	0
FH-GA-0032	22	13.147	1.6734	6	16	0	0
FH-GA-0033	1	6.45	0.1550	0	0	1	0
FH-GA-0035	3	10.53	0.2849	3	0	0	0
FH-GA-0036	0	10.53	0.0000	0	0	0	0
FH-GA-0037	3	1.69	1.7751	0	2	1	0
FH-GA-0039	1	2.99	0.3344	1	0	0	0
FH-GA-0040	1	4.783	0.2091	1	0	0	0
FH-GA-0041	13	13.975	0.9302	6	2	5	0
FH-GA-0043	2	2.162	0.9251	0	1	1	0
FH-GA-0044	24	11.134	2.1556	14	9	1	0
FH-GA-0050	1	13.101	0.0763	0	1	0	0
FH-GA-0051	0	13.101	0.0000	0	0	0	0
FH-GA-0053	17	3.33	5.1051	6	10	1	0
FH-GA-0056	12	7.09	1.6925	2	7	3	0

	Wet		Dry																							
FH-GA-0011	19	33%	39	67%																						
FH-GA-0017	8	27%	22	73%																						
FH-GA-0044	2	9%	20	91%																						
FH-GA-0053	4	25%	12	75%																						
Not a Collision with a Motor Vehicle	Rear End		Angle		Head On		Sideswipe - Same Direction		Sideswipe - Opposite Direction																	
	Tree		Culvert		Ditch		Embankment		Deer																	
	Motor Vehicle in		Overturn		Animal		Other Fixed Object		Other Object (Not Fixed)																	
	Tree		Culvert		Ditch		Embankment		Deer																	
	Motor Vehicle in		Overturn		Animal		Other Fixed Object		Other Object (Not Fixed)																	
FH-GA-0011	31	53%	8	14%	2	3%	3	5%	3	10%	6	10%	0	0%	0	0%	1	2%	0	0%	1	2%				
FH-GA-0017	11	35%	6	19%	0	0%	2	6%	2	23%	7	23%	1	3%	3	10%	0	0%	1	3%	0	0%	1	3%		
FH-GA-0044	3	13%	2	8%	1	4%	1	4%	1	21%	5	21%	1	4%	6	25%	1	4%	1	4%	1	4%	1	4%		
FH-GA-0053	8	47%	1	6%	0	0%	1	6%	1	12%	2	12%	0	0%	1	6%	0	0%	0	0%	0	0%	1	6%	2	12%

FH-GA-0011 High number of rear end and angle collisions as well as collisions with trees. Middle volume roadway (3rd)  
 FH-GA-0017 Two of the four fatal crashes (tree and embankment). Large tree and embankment issues Higher volume (4th)  
 FH-GA-0044 One of the four fatal crashes (overturn). Overturn is biggest issue (also embankment). Middle volume (3rd)  
 FH-GA-0053 High rear end and angle collisions; Higher volume (4th)



## Appendix C

### **National Forest Recreational Facilities**

(specifically mentioned in the *Chattahoochee-Oconee National Forest Land and Resource Management Plan*)

#### **Chattahoochee National Forest - Conasauga District (West)**

Pinhoti Trail  
Hidden Creek Recreation Area  
The Pocket Recreation Area

#### **Chattahoochee National Forest - Conasauga District (East)**

Pinhoti Trail  
Barnes Creek Picnic Area  
Lake Conasauga Recreational Area

#### **Chattahoochee National Forest - Blue Ridge District**

Frank Gross Recreation Area  
Deep Hole Recreation Area  
Mulky Recreation Area  
Cooper Creek Recreation Area  
Dockery Lake Recreation Area  
Desoto Falls Recreation Area  
Lake Blue Ridge Campground  
Lake Chatuge Campground  
Toccoa Sandy Bottoms Landing

#### **Chattahoochee National Forest - Chattooga District**

Anna Ruby Falls Recreation Area  
Tate Branch Recreation Area  
Tallulah River Recreation Area  
Lake Rabun Beach Recreation Area  
Panther Creek Recreation Area  
Lake Russell Campground  
Willis Knob Horse Camp

#### **Oconee National Forest**

Lake Sinclair Recreation Area  
Hillsboro Lake Day Use Area  
Oconee River Recreation Area

Other recreation areas and trails listed in the report but not specifically shown on the maps include the following:

Andrews Cove  
Brasstown Bald  
Fern Springs  
Waters Creek  
Camp Wahsega  
Morganton Point  
Lakewood Landing  
Warwoman Dell  
Lake Winfield Scott  
Dukes Creek Falls  
Redlands and Swords Boat Ramps  
Woody Gap  
William Bartram  
Arkaquah  
Duncan Ridge  
Jacks Knob  
Benton MacKaye

## Appendix D

### ARRA Projects:

GA PFH 0012-1(001)  
FH 12- 1.6 miles of pavement rehabilitation at CR 325  
Chattooga County  
\$77,390 FY 2010

GA PFH 0012-1(002)  
FH 12- 0.86 mile of pavement rehabilitation on Narrows Rd. (FH 12) from CR 324 to 0.55 mile west of CR 336  
Chattooga County  
\$34,578 FY 2010

GA PFH 0009(292)  
FH 70- 1.0 mi of pavement stabilization on Tallulah River Rd  
Rabun County  
\$107,431 FY 2010

### GA Forest Highway Obligation Plan Projects:

US Highway 441 – Deceleration lane into new Forest Service office  
Rabun County  
\$85,160 FY 2008

GA PFH 0040(1)  
Low Gap Road - Habersham CR 240 - Reconstruction from CR 245 to Rabun County Line  
Habersham County  
\$2,000,000 FY 2009

Miller Lake – Jones CR 83 - Reconstruct gravel road from US Hwy 441 to Miller Lake & Parking Area  
Jones County  
\$170,000 FY 2009

Miller Lake – Jones CR 83 - Pave County section from US Hwy 441 to FS Property Line  
Jones County  
No funds have been programmed at this time.

GA PFH 0002(1), GA PFH 0002-2(2)  
Tallulah River Road, Tate Branch Bridge D/B – Replace 3 bridges and reconstruction from Rabun CR 90 to GA/NC border  
Rabun / Towns Counties  
\$1,004,112.01 FY 2009  
\$300,000 FY 2010  
\$3,000,000 FY 2011  
\$360,000 FY 2012

Rock Creek Road – FSR 69 reconstruction from end of pavement to Fish hatchery  
Fanine County  
No funds have been programmed at this time.

Trembling Bridge Road (1&2) – Greene CR 22 – Replace arch pipe and reconstruction from County Line  
to end of Roadway  
Greene County  
\$198,185 FY 2008

Trembling Bridge Road (3) – Greene CR 22 – Roadway reconstruction from County Line to Greene CR 194  
Greene County  
No funds have been programmed at this time.