

# Assessing Recreation Settings, Opportunities and Access, and Scenic Character

**Information presented in this draft report is considered under development. It may be incomplete and is likely unedited. An updated version of this report will be posted when it becomes available.**



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## 9.0 Introduction

Many types of recreation and tourism are dependent on the presence of natural amenities such as beaches, lakes, forests, and mountainous terrain and these types of natural amenities that are owned by public agencies such as the United States Forest Service (Forest Service) are popular tourism and outdoor recreation locations (English, Marcouiller, & Cordell 2000). In addition, outdoor recreation contributes to social and economic sustainability and provides opportunities to connect people with nature. The focus of the Forest Plan assessment for recreation is to identify and evaluate information about recreation settings; use; trends and sustainability of recreation opportunities in the plan area; recreational preferences of the public; recreational access; and scenic character.

The Blue Ridge Mountains are among the oldest in the world and though old and weathered, the Blue Ridge Mountains still boast the highest peaks in the eastern United States. The North Carolina (NC) mountains also include the massive Great Smokies and transverse ranges such as the Black Mountains, Great Craggies, Great Balsams, and Nantahalas. This patchwork of mountain ranges has given rise to a stunning diversity of ecosystems, plants and wildlife. In addition, the area draws outdoor enthusiasts from around the world to hike, climb, rappel, botanize, bird-watch, or simply enjoy the views from the mountain tops. Western NC is a place of beauty and the region includes several popular recreation areas including the Blue Ridge Parkway; the Great Smoky Mountains National Park (located in Western NC and Tennessee) which is the most visited national park; and the Nantahala and Pisgah NFs, two of the most visited national forests in the United States (USDA Forest Service 2011; See Table 9.0.1).

*Table 9.0.1 Top Ten Most Visited National Forests in the National Forest System*

| National Forest Name                      | Total Estimated Visits | State     |
|---|------------------------|-----------|
| White River NF                            | 12,286,922             | CO        |
| Uinta-Wasatch-Cache NF                    | 7,628,757              | UT        |
| <b>National Forests in North Carolina</b> | <b>7,510,712</b>       | <b>NC</b> |
| Lake Tahoe Basin Management Unit          | 5,786,395              | CA        |
| Arapaho-Roosevelt NF                      | 5,413,906              | CO        |
| Tonto NF                                  | 4,800,833              | AZ        |
| Pike-San Isabel NF                        | 4,327,816              | CO        |
| National Forests in Texas                 | 3,779,613              | TX        |
| Angeles NF                                | 3,636,263              | CA        |
| Humboldt-Toiyabe NF                       | 3,634,122              | NV        |

Source: USDA Forest Service 2008 National Visitor Use Monitoring Survey.

The NC mountains are also home to two national forests that were some of the earliest forests to be protected by the federal government and which are among the most bio diverse.

- The Pisgah NF - the country's first eastern national forest - was the site of the first forestry school and the early history of forest conservation in the United States.
- The Nantahala NF - is distinguished by its spectacular whitewater, waterfalls, old growth, and the scenic byways that pass through it.

Located in western NC, the Nantahala and Pisgah NFs comprise more than 1 million acres and provide an abundance of clean air and water, scenic beauty, timber, wildlife habitats including old growth forests, and recreational opportunities. Visitors to Nantahala and Pisgah NFs take advantage of a vast array of natural resources and outdoor recreation opportunities including abundant rivers and waterfalls such as Whitewater Falls, the highest in the eastern United States; Joyce Kilmer Wilderness which contains a large old-growth stand; Biltmore Forest School, and the first forestry school in America, now an educational and interpretive known as the Cradle of Forestry in America.

Additionally, visitors to the Nantahala and Pisgah NFs enjoy a wide variety of outdoor recreational activities such as birding, boating, camping, canoeing, fishing, hiking, horseback riding, hunting, mountain biking, and picnicking. There are numerous hiking trails, including a 200 mile section of the Appalachian Trail; top-ranked mountain biking trails; rivers such the Nantahala, French Broad, Cheoah, and Chattooga, with world-class whitewater rafting, kayaking, and canoeing.

### *Nantahala and Pisgah NFs Crown Jewels – Uniquely Special Places*

The Nantahala and Pisgah NFs boast a collection of recreation “Crown Jewels,” special places that help create the Forests’ unique sense of place which help boost local, regional, national, and worldwide tourism. Among these are the following locations:

#### *Nantahala National Forest*

- Nantahala River
- Appalachian National Scenic Trail
- Mountain Lakes, including
  - Balsam
  - Cliffside
  - Santeetlah
  - Chatuge
  - Appalachia
  - Fontana
  - Hiwassee
  - Cherokee
- Cherohala Skyway
- Whitewater Falls
- Standing Indian
- Joyce Kilmer Wilderness
- Dry Falls/Cullasaja Gorge
- Wayah Bald Fire Tower and Observation Area
- Fires Creek
- Tsali Mountain Bike Trail Complex
- Jackrabbitt Mountain Bike Area
- Trail Complex

*Pisgah National Forest*

Roan Mountain  
 Appalachian National Scenic Trail  
 Wilson Creek  
 Mountain Lakes, including Lake Powhatan  
 Linville Gorge  
 Wisemans' View  
 Table Rock  
 Looking Glass Falls  
 Cradle of Forestry  
 South Toe River  
 Max Patch  
 Graveyard Fields  
 Black Balsam  
 Catawba Falls  
 Shining Rock Wilderness  
 Davidson River  
 Bent Creek Mountain Bike Trail Complex

**9.0.1 Nantahala and Pisgah NFs Visitation**

The National Visitor Use Monitoring Survey (NVUM) is a Forest Service program which provides science-based estimates of the volume and characteristics of recreation visitation to the National Forest System, as well as the benefits recreation brings to the American public. Information about the quantity and quality of recreation visits is a requirement for national forest plans (Executive Order 12862 – Setting Customer Service Standards) and the NVUM data is useful for forest planning and decision making. The NVUM is completed on a 5-year cycle with the latest survey for the Nantahala and Pisgah NFs being conducted during FY2008 (October 1, 2007 through September 30, 2008) with updates made in 2010. During round two of the NVUM (FY2005 – FY2009) annual visitation to the Nantahala and Pisgah NFs were estimated to be 4.6 million (compared to 173.5 million for the entire National Forest System) with 153,000 estimated visits to designated wilderness areas (compared to 6.7 million). In addition, respondents viewed National Forest System lands with 300 million visits to scenic byways and other travel routes near National Forest System lands (i.e., Blue Ridge Parkway). Detailed information and results of the NVUM can be found at the following link: <http://www.fs.fed.us/recreation/programs/nvum>.

*Table 9.0.2 Overview of Visitation to the Nantahala and Pisgah NFs*

| <b>Visit Type</b>            | <b>Estimated National Forest Visits</b> |
|------------------------------|---|
| Annual Visitors              | 4,612,000                               |
| Day Use visits               | 1,639,000                               |
| Overnight visits             | 111,000                                 |
| General forest visits        | 3,564,000                               |
| Designated Wilderness visits | 153,000                                 |

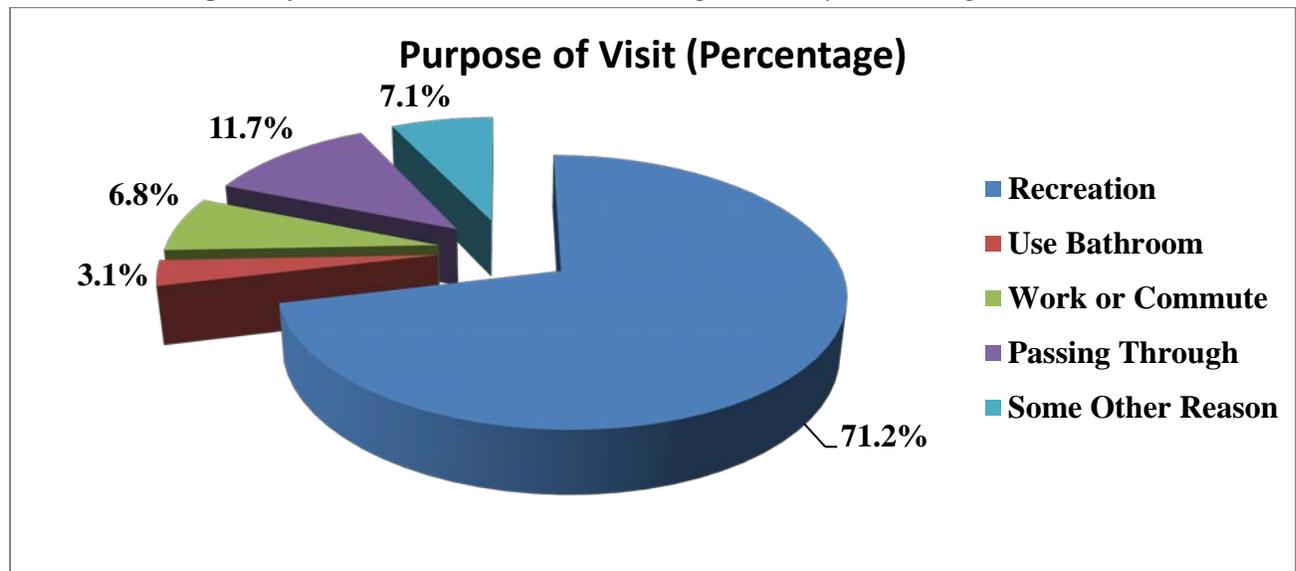
Note: Designated Wilderness visits *are included* in the site visits estimates.

*Definition of NVUM Terms:*

- National forest visit (NF visit): entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. A national forest visit can be composed of multiple site visits. The visit ends when the person leaves the national forest to spend the night somewhere else.
- Site visit: entry of one person onto a national forest site or area to participate in recreation activities for an unspecified period of time. The site visit ends when the person leaves the site or area for the last time on that day.
- Site types: Day Use Developed Sites (DUDS); Overnight Used Developed Sites (OUDS); Designated Wilderness areas (Wilderness); General Forest Areas (GFA); and View Corridors (VC). Only the first four categories are counted as national forest recreation visits and *are included* in the visit estimates. The last category (VC) is used to track the volume of people who view national forest from nearby roads and since they do not get onto agency lands, they cannot be counted as visits.

Results of the latest NVUM for the Nantahala and Pisgah NFs showed that over 71% of visitors cited recreation was the purpose of their visit; 47% of these visitors were from within 25 miles of the forest with 14% living between 25 and 50 miles away; however, nearly 20% of visitors traveled more than 200 to visit the Nantahala and Pisgah NFs. In addition, most visits to the two forests were day visits with the average visit lasting less than 10 hours and over half of the visits lasting less than four hours. Nearly 38% of the visitors were female; 98.7% of visitors were White; American Indian/Alaska Natives (2.3%) were the most common racial/ethnic group; visitors were evenly distributed across age groups with ages 16-19 and 70 or older somewhat lower than other groups; and 47%. Visitors to the Nantahala and Pisgah NFs participated in a variety of recreation activities and used a variety of facilities and special designated areas (See Tables 9.0.3 through 9.0.9).

*Table 9.0.3 Purpose of Visit to the Nantahala and Pisgah NFs by Percentage.*



*Table 9.0.4 Distance Traveled to Visit the Nantahala and Pisgah NFs by Percentage.*

| <b>Miles Traveled</b> | <b>Percentage</b> |
|-----------------------|-------------------|
| 0-25                  | 47.0%             |
| 26-50                 | 13.8%             |
| 51-75                 | 5.1%              |
| 76-100                | 3.2%              |
| 101-200               | 10.9%             |
| 201-500               | 11.0%             |
| Over 500              | 8.9%              |
| Total                 | 99.9%             |

*Table 9.0.5 Visit Duration to the Nantahala and Pisgah NFs by Percentage.*

| <b>Visit Type</b>       | <b>Average Duration (hours)</b> | <b>Median Duration (hours)</b> |
|-------------------------|---------------------------------|--------------------------------|
| Site Visit              | 4.8                             | 2.0                            |
| Day Use Developed       | 1.6                             | 1.0                            |
| Overnight Use Developed | 51.7                            | 42.3                           |
| Undeveloped Areas       | 4.6                             | 2.0                            |
| Designated Wilderness   | 8.3                             | 3.0                            |
| National Forest Visit   | 9.7                             | 3.0                            |

*Table 9.0.6 Gender, Race, and Ethnic Makeup of Visitors to the Nantahala and Pisgah NFs by Percentage.*

| <b>Gender</b>                 | <b>Count</b> | <b>Percentage</b> |
|-------------------------------|--------------|-------------------|
| Female                        | 1,192        | 37.3%             |
| Male                          | 1,478        | 62.7%             |
| <b>Race/Ethnicity</b>         | <b>Count</b> | <b>Percentage</b> |
| American Indian/Alaska Native | 22           | 2.3%              |
| Asian                         | 14           | 0.8%              |
| Black/African American        | 11           | 0.4%              |
| Hawaiian/Pacific Islander     | 1            | 0.0%              |
| White                         | 1075         | 98.7%             |
| Hispanic/Latino               | 15           | 1.0%              |

Table 9.0.7 Ages Groups of Visitors to the Nantahala and Pisgah NFs by Percentage.

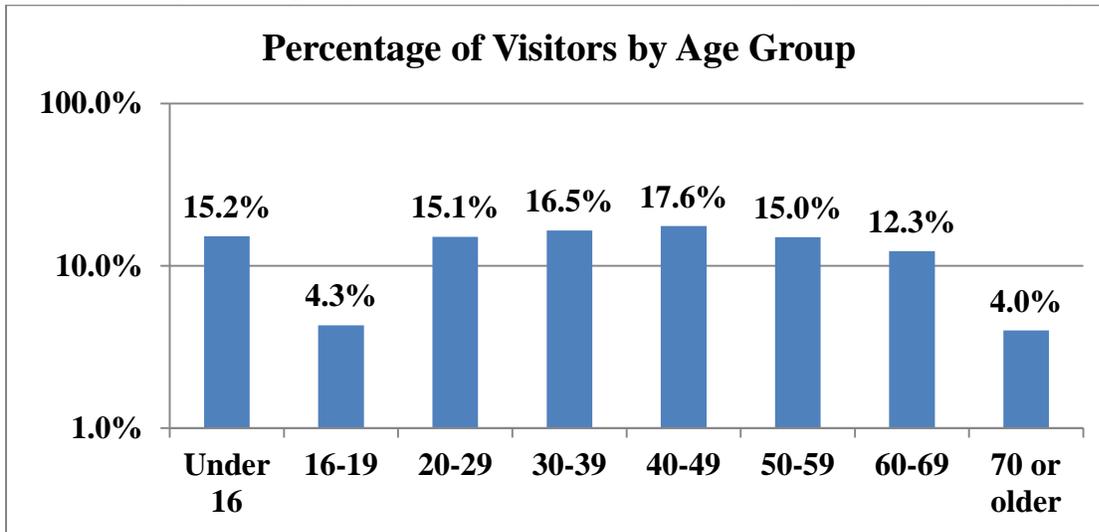


Table 9.0.8 Percent of Nantahala and Pisgah NFs Visits Indicating Use of Special Facilities or Areas.

| Special Facility or Area      | Percent of National Forest Visits |
|-------------------------------|-----------------------------------|
| Scenic Byway                  | 38.7                              |
| Visitor Center or Museum      | 15.6                              |
| Information Sites             | 10.2                              |
| Developed Swimming Site       | 6.4                               |
| Interpretive Displays         | 5.0                               |
| Developed Fishing Site        | 3.8                               |
| Designated ORV Area           | 2.7                               |
| Motorized Single Track Trails | 2.7                               |
| Motorized Dual Track Trails   | 2.7                               |
| Forest Road                   | 0.3                               |
| None of these Facilities      | 53.8                              |

*Table 9.0.9 Activity Participation of Visitors to the Nantahala and Pisgah NFs by Percentage; Percent Noting as Main Activity; and Average Time Spent Doing the Activity.*

| <b>Activity</b>            | <b>Percent Participation</b> | <b>Percent Main Activity</b> | <b>Average Hours Doing Main Activity</b> |
|----------------------------|------------------------------|------------------------------|--|
| Hiking/Walking             | 60.4                         | 38.5                         | 2.4                                      |
| Viewing Natural Features   | 55.0                         | 15.0                         | 4.0                                      |
| Relaxing                   | 37.9                         | 4.0                          | 10.8                                     |
| Driving for Pleasure       | 32.0                         | 6.9                          | 2.2                                      |
| Viewing Wildlife           | 30.9                         | 0.9                          | 2.9                                      |
| Nature Center Activities   | 11.2                         | 0.8                          | 1.8                                      |
| Bicycling                  | 10.1                         | 8.6                          | 2.0                                      |
| Picnicking                 | 10.0                         | 1.6                          | 1.6                                      |
| Fishing                    | 8.4                          | 5.8                          | 3.7                                      |
| Nature Study               | 7.0                          | 0.5                          | 2.4                                      |
| Other Non-motorized        | 5.9                          | 3.0                          | 2.6                                      |
| Visiting Historic Sites    | 4.8                          | 0.5                          | 1.7                                      |
| Gathering Forest Products  | 3.7                          | 0.0                          | 0.0                                      |
| Some Other Activity        | 3.6                          | 3.5                          | 4.1                                      |
| Developed Camping          | 3.2                          | 1.2                          | 25.0                                     |
| Non-motorized Water        | 2.8                          | 2.1                          | 3.8                                      |
| Hunting                    | 2.5                          | 2.5                          | 6.8                                      |
| Motorized Trail Activity   | 2.3                          | 0.1                          | 3.0                                      |
| Backpacking                | 2.2                          | 1.1                          | 28.8                                     |
| OHV Use                    | 2.1                          | 2.0                          | 3.6                                      |
| Primitive Camping          | 1.1                          | 0.5                          | 62.5                                     |
| Horseback Riding           | 1.0                          | 1.1                          | 4.0                                      |
| Resort Use                 | 0.4                          | 0.0                          | 56.7                                     |
| Motorized Water Activities | 0.3                          | 0.0                          | 3.8                                      |
| Other Motorized Activity   | 0.2                          | 0.1                          | 1.8                                      |

### **9.0.2 Tourism in Western North Carolina**

The Western North Carolina Vitality Index “reports on the 27 counties of Western NC through the perspectives of the region’s natural, social, built, and economic environments, and was designed to assist local governments, interest groups, and the public” (Mountain Resources Commission 2013). According to the index, from 1985 to 2009, the total number of recreation visits in the region’s national forests increased from 2.9 million to 6.8 million and from 1993–2002 the number of average annual visitors to the NC section of the Blue Ridge Parkway was 11.6 million. The number of visitors to the Great Smoky Mountains National Park in NC and Tennessee has varied slightly, but has remained around 9 million per year. In 2010, there were 14,517,118 recreation visits to the Blue Ridge Parkway, and 9,463,538 recreation visits to the Great Smoky Mountains National Park. The national forests in Western NC, which offer a much broader range of recreational activities, are some of the most visited in the national forest system.

The Travel Economic Impact Model (TEIM) presents county-by-county travel economic impact statistics which are a part of a study entitled "The Economic Impact Of Travel On North

Carolina Counties" and is prepared annually by the Research Department of the United States Travel Association for the North Carolina Department of Commerce's Division of Tourism, Film and Sports Development (North Carolina Department of Commerce 2013).

The TEIM is used to measure the impact of travel on the U.S. Economy and was created to “capture the highly complex nature of the U.S. travel industry at the national, regional, and local levels”. The model includes 16 travel categories, such as lodging, food, retail, public transportation, auto transportation, and amusement/recreation. The TEIM utilizes detailed data from a variety of government and proprietary sources and uses a combination of data inputs derived from U.S federal government and state government, nationally-known private and non-profit travel organizations, and other travel statistics. The following table shows the economic statistics for the Nantahala and Pisgah NFs 18 county area.

*Table 9.0.10 Travel Economic Impact Statistics for Nantahala and Pisgah NFs 18 County Area.*

| County        | Expenditures by Year (in millions of dollars) |                 |                 |                 |                 |                 |
|---------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|
|               | 2006  | 2007            | 2008            | 2009            | 2010            | 2011            |
| Avery         | 89.31   | 90.72           | 89.76           | 85.05           | 89.82           | 98.38           |
| Buncombe      | 645.71  | 709.38          | 711.04          | 655.02          | 729.02          | 783.01          |
| Burke         | 71.14   | 73.22           | 74.02           | 68.05           | 71.89           | 78.50           |
| Caldwell      | 43.64   | 46.55           | 49.21           | 41.80           | 42.45           | 44.83           |
| Cherokee      | 34.63   | 35.60           | 35.31           | 30.73           | 31.64           | 33.92           |
| Clay          | 11.90   | 12.43           | 12.03           | 10.77           | 11.23           | 11.65           |
| Graham        | 24.03   | 24.54           | 23.42           | 21.38           | 22.82           | 23.73           |
| Haywood       | 111.06  | 116.64          | 113.46          | 108.88          | 116.31          | 120.40          |
| Henderson     | 189.23  | 199.85          | 198.62          | 195.76          | 203.09          | 209.39          |
| Jackson       | 68.21   | 72.61           | 69.09           | 60.90           | 62.58           | 66.79           |
| Macon         | 111.16  | 115.42          | 120.56          | 114.46          | 122.08          | 126.15          |
| Madison       | 27.30   | 30.32           | 29.26           | 28.19           | 28.54           | 30.60           |
| McDowell      | 37.00   | 38.60           | 41.09           | 40.82           | 44.09           | 47.52           |
| Mitchell      | 18.62   | 19.87           | 19.86           | 18.35           | 19.10           | 20.48           |
| Swain         | 240.86  | 251.03          | 233.26          | 237.29          | 256.35          | 280.50          |
| Transylvania  | 75.64   | 80.14           | 77.07           | 70.56           | 71.75           | 77.32           |
| Watauga       | 179.14  | 191.15          | 189.76          | 179.27          | 189.77          | 197.56          |
| Wilkes        | 59.44   | 61.42           | 60.17           | 54.44           | 57.79           | 62.33           |
| Yancey        | 26.51   | 27.20           | 26.33           | 27.59           | 29.92           | 31.04           |
| <b>Totals</b> | <b>2,064.53</b>                               | <b>2,196.69</b> | <b>2,173.32</b> | <b>2,049.31</b> | <b>2,200.24</b> | <b>2,344.10</b> |

### 9.0.3 Outdoor Recreation in the Southern Region of the United States

According to Cordell & Tarrant (2002) some general observations about outdoor recreation in the southern region include:

- Numerous outdoor recreation opportunities such as hiking, biking, and motorized vehicle use are available across the South. They are found in a wide variety of settings, ranging from large tracts of undeveloped land to highly developed theme parks in largely urban settings, both in public and private ownerships.

- Recreation access to private land is increasingly limited to the owners themselves, their families or friends, and lessees. The number of Southern private owners allowing the public to recreate on their land has been decreasing over time.
- Accommodating future public recreation demand increases will likely fall mostly to public providers, most of whom will likely continue to face significant budget and capacity constraints.
- While continuing to grow, adjust and adapt, Southern state land systems, especially state parks, have reached a point of seeming maturity as a recreation resource, except for expansion of high-end resort developments which provide better sources of revenue.
- Of public ownerships, federal tracts typically are large and mostly undeveloped. They fill a niche of providing backcountry recreation. State parks and forests are usually smaller and more developed and provide camping, picnicking, swimming, fishing, nature interpretation, and scenery.
- Twenty-six percent of residents of the South participate in gathering a wide variety of non-timber forest products (NTFPs). Most do so non-commercially. Sustaining availability of some NTFP resources will depend in large part on institutional capacities for education, monitoring, incentives, land management, and other conservation actions.
- Depending on the characteristics of recreation use, the forest site, and site management, recreation can have a variety of impacts on soils, water, vegetation and animal life. Almost all types of recreation activity have impacts, but this is especially true for motorized uses.
- Demands for off-road vehicle use, hunting, fishing, and other of the more consumptive recreational activities are likely to bring about more recreation participant/land owner conflicts over time.
- Lastly, as forest recreation demands grow, recreation activities are likely to conflict more with each other, especially on trails, in backcountry, at developed sites, on flat water (large rivers and lakes), in streams and whitewater, and on roads and their nearby environments. Typically a greater degree of conflict is perceived by one group of recreation users (usually traditional and non-motorized users) than is perceived by other groups (usually non-traditional and mechanized/motorized users).

#### **9.0.4 Key Issues in Outdoor Recreation**

According to Internet Research Information Series (IRIS) reports, “*Recent Outdoor Recreation Trends*” and “*Good Times Outdoors They Are A Changin*” (Cordell 2012) the changes in the social, economic, and environmental character of the United States will eventually be reflected in outdoor recreation shifts and some key issues associated with outdoor recreation, both for developed and dispersed recreation areas include:

- Rapid growth and change in population demographic makeup may change the demand for recreation activities
- There is an overall increase in outdoor recreation activity participation, even though some traditional activities have been in decline
- Public lands remain highly important for the recreation opportunities they offer
- Trends in visitation vary by Federal land management agency and between Federal and State jurisdictions

- Decreased appropriation funding and aging recreation building infrastructure (substantial deferred maintenance backlog)
- Increased demand for special use events
- Unauthorized activities, such as ATV or mountain bike use off-trail

### 9.0.5 Recent Outdoor Recreation Changes and Trends

For the United States population during FY2010 – 2011, participation in walking for pleasure and family gatherings outdoors were the most popular activities and participation rates for these activities have changed very little in recent years. Participation in swimming, diving, and related activities and in sightseeing were both over 60 percent while viewing or photographing birds was over 40%; making these the three activities which have grown the fastest from 2005 – 2009 to 2010 – 2011. Other activities with increasing participation rates include viewing or photographing other wildlife besides birds, boating, fishing, and snow/ice activities. Participation rates for four recreation activities decreased between the time spans, and include picnicking, bicycling, developed camping, and primitive camping.

*Table 9.0.11 Percent of United States Residents of Age 16 or Older Participating in Selected Outdoor Recreation Activities.*

| Activity                             | Percent Participating |         |
|--------------------------------------|-----------------------|---------|
|                                      | 2005-09               | 2010-11 |
| Walking for pleasure                 | 85.0                  | 84.7    |
| Family gatherings outdoors           | 74.0                  | 74.4    |
| Swimming, diving, etc.               | 61.3                  | 66.1    |
| Sightseeing                          | 52.7                  | 60.8    |
| Viewing/photographing other wildlife | 50.2                  | 54.1    |
| Picnicking                           | 51.7                  | 47.5    |
| Viewing/photographing wild birds     | 35.7                  | 41.4    |
| Boating                              | 35.5                  | 38.2    |
| Bicycling                            | 37.5                  | 35.6    |
| Fishing                              | 34.2                  | 35.0    |
| Snow/ice activities                  | 24.9                  | 26.6    |
| Developed camping                    | 23.8                  | 21.7    |
| Primitive camping                    | 14.5                  | 12.4    |

Source: National Survey on Recreation and the Environment (NSRE) 2005-2009 (n=30,398) and 2010-2011 (n=2,908) (USDA Forest Service 2002). Percentages represent annual participation rate estimates based on pooled NSRE data from the periods 2005 to 2009 and from 2010 to 2011.

### 9.1 Recreation Preferences and Demand

#### 6. What are the preferences of the public and demand for specific recreation opportunities?

Documenting the outdoor recreation activities preferences and activity participation rates are an important step in the assessment phase of the Forest Plan which should contribute to the overall plan by providing information that can be used for identifying the need for change and for developing components including desired conditions, objectives, standards, and guidelines.

The source for the National, Regional, and NC data is from the 2000 – 2002 National Survey on Recreation and the Environment (NSRE) which is a general population household telephone survey of Americans age 16 and older (USDA Forest Service 2002). The core of the NSRE is a set of questions that ask about participation in the last 12 months in a variety of outdoor recreation activities. The simple yes/no response data were weighted using a post-stratification process that adjusts the respondent age, sex, race, education, and rural/urban residency profile so that it closely matches the U. S. population profile based on the U.S. Census of Population.

Regional data covers 13 southern states including Alabama, Georgia, Arkansas, Kentucky, Florida, Louisiana, Mississippi, **North Carolina**, South Carolina, Virginia, Tennessee, Texas and Oklahoma.

### **9.1.1 Recreation Preferences and Demands for North Carolina**

In 2007, the Forest Service prepared an analysis of responses to the NSRE for residents from NC. The NSRE has yielded just fewer than 3,000 total surveys for NC during this period. The primary purpose of the NSRE and was to learn about approximately 85 specific outdoor recreation activities of people aged 16 and over in the United States. Questions from the NSRE broadly address areas such as outdoor recreation participation, demographics, household structure, lifestyles, environmental attitudes, natural resource values, constraints to participation, and attitudes toward management policies. The following information is an excerpted from the USFS report “National Survey of Recreation and the Environment: North Carolina and the North Carolina Market Area”.

*Table 9.1.1 Percent of NC Residents of Age 16 or Older Participating in Selected Outdoor Recreation Activities.*

| <b>Activity</b>                     | <b>Percent</b> | <b>Activity</b>             | <b>Percent</b> |
|-------------------------------------|----------------|-----------------------------|----------------|
| Walk for pleasure                   | 82.0           | Hunting (any type)          | 9.9            |
| Family gathering                    | 74.6           | Rafting                     | 9.3            |
| Driving for pleasure                | 58.2           | Backpacking                 | 8.4            |
| View/photo natural scenery          | 57.0           | Use personal watercraft     | 8.0            |
| Visit nature centers, etc.          | 52.9           | Horseback riding (any type) | 7.8            |
| Sightseeing                         | 52.9           | Horseback riding on trails  | 7.3            |
| Picnicking                          | 50.0           | Big game hunting            | 7.2            |
| Visit a beach                       | 44.2           | Canoeing                    | 6.7            |
| Visit historic sites                | 43.1           | Small Game hunting          | 6.4            |
| View/photo other wildlife           | 43.0           | Waterskiing                 | 6.3            |
| View/photo wildflowers, trees       | 41.0           | Downhill skiing             | 6.1            |
| Swimming in lakes, streams, etc.    | 39.7           | Mountain climbing           | 5.3            |
| View/photograph birds               | 34.0           | Caving                      | 4.2            |
| Bicycling                           | 31.0           | Snorkeling                  | 4.1            |
| Boating (any type)                  | 31.0           | Sailing                     | 3.7            |
| Freshwater fishing                  | 30.9           | Baseball                    | 3.5            |
| Visit a primitive area              | 29.8           | Anadromous fishing          | 3.1            |
| Day hiking                          | 29.7           | Kayaking                    | 3.1            |
| Visit a farm                        | 28.2           | Snowboarding                | 3.1            |
| View/photograph fish                | 26.5           | Orienteering                | 3.0            |
| Gather mushrooms, berries, etc.     | 26.3           | Rowing                      | 2.5            |
| Visit other waterside (not a beach) | 24.4           | Rock climbing               | 2.3            |
| Motorboating                        | 22.5           | Ice skating outdoors        | 2.1            |
| Drive off-road (any type)           | 20.7           | Surfing                     | 1.8            |
| Developed camping                   | 20.5           | Migratory bird hunting      | 1.7            |
| Visit archeological sites           | 18.0           | Snowmobiling                | 1.5            |
| Snow/ice activities (any type)      | 17.9           | Scuba diving                | 1.0            |
| Mountain biking                     | 15.7           | Cross country skiing        | 1.0            |
| Primitive camping                   | 14.6           | Windsurfing                 | 0.5            |
| Golf                                | 13.9           | Snowshoeing                 | 0.2            |
| Coldwater fishing                   | 11.5           |                             |                |

Source: 2007 National Survey on Recreation and the Environment (NSRE), USDA Forest Service, Athens, GA.

### **9.1.2 Recreation Preferences and Demands for the Southern Region and United States**

Participation in most outdoor recreation activities has been growing steadily over the past few years and of forest-based recreation activities, viewing and photographing fish, wildlife, birds, wildflowers, and native trees are among the fastest growing in the South. To Southerners outdoor recreation is an important part of their lifestyles. However, due to climate and type of forest setting, the abundance of forests in the South, in comparison with other less forested regions of the country, does not result in higher per capita forest recreation participation (NSRE 2001, Arndt et al., 2002).

*Table 9.1.2 Percentages of the Population Participating in Recreational Activities in the South and United States in 2001.*

| Activity                            | Percentages |               | Activity                   | Percentages |               |
|-------------------------------------|-------------|---------------|----------------------------|-------------|---------------|
|                                     | South       | United States |                            | South       | United States |
| Walk for pleasure                   | 83.1        | 84.9          | Mountain biking            | 16.2        | 23.4          |
| Family gathering                    | 71.9        | 73.9          | Saltwater fishing          | 13.8        | 7.9           |
| Visit nature centers                | 53.7        | 59.3          | Primitive camping          | 13.0        | 16.2          |
| Sightseeing                         | 53.0        | 54.0          | Hunting                    | 12.8        | 10.5          |
| Driving for pleasure                | 52.8        | 53.7          | Horseback riding on trails | 10.6        | 10.0          |
| Picnicking                          | 49.7        | 57.3          | Coldwater fishing          | 10.4        | 14.4          |
| View/photograph natural scenery     | 46.6        | 55.1          | Jet skiing                 | 10.0        | 8.9           |
| Visit historic sites                | 43.8        | 47.7          | Rafting                    | 9.2         | 10.0          |
| Swimming in lakes and streams       | 42.4        | 44.4          | Horseback riding on trails | 8.9         | 8.1           |
| View/photograph wildlife            | 36.8        | 41.1          | Waterskiing                | 8.7         | 7.9           |
| View/photograph flowers, etc.       | 36.7        | 41.2          | Backpacking                | 8.6         | 12.2          |
| Visit the beach                     | 36.5        | 40.0          | Canoeing                   | 7.5         | 10.2          |
| Bicycling                           | 35.0        | 41.6          | Snorkeling                 | 6.1         | 7.0           |
| Gather mushrooms, berries, etc.     | 31.2        | 28.0          | Downhill skiing            | 4.4         | 10.3          |
| Visit a wilderness                  | 31.1        | 35.5          | Sailing                    | 4.0         | 5.4           |
| Warm water fishing                  | 28.5        | 20.2          | Rowing                     | 3.3         | 5.0           |
| View or photograph birds            | 27.5        | 30.1          | Anadromous fishing         | 3.2         | 4.9           |
| Day hiking                          | 27.4        | 36.5          | Migratory bird hunting     | 2.7         | 2.2           |
| Visit a waterside besides the beach | 27.1        | 27.1          | Scuba diving               | 2.1         | 1.8           |
| Motorboating                        | 24.9        | 24.0          | Snowboarding               | 2.0         | 5.8           |
| View or photograph fish             | 21.4        | 21.7          | Kayaking                   | 1.8         | 3.5           |
| Outdoor team sports                 | 21.3        | 22.5          | Surfing                    | 1.5         | 1.5           |
| Developed camping                   | 20.7        | 26.8          | Snowmobiling               | 1.4         | 7.1           |
| Visit prehistoric sites             | 19.5        | 21.3          | Cross-country skiing       | 1.2         | 5.0           |
| Drive off-road                      | 17.8        | 17.0          | Windsurfing                | 0.8         | 0.8           |

Source: 2001 National Survey on Recreation and the Environment (NSRE), USDA Forest Service, Athens, GA.

## 9.2 Recreational Settings

1. What are the available ranges, acreages, and spatial distributions of recreation settings in Nantahala and Pisgah NFs?
2. What are the preferences of the public and demand for specific recreation settings?
3. What are the conditions affecting the quality of recreation settings?

Characteristics of recreation visits such as types of sites, length, and activities help managers understand visitors' preferences, patterns, and use. Research has shown that visitors' preference for an experience partly determine their setting preferences (Andereck & Knopf 2007). For example, some wilderness visitors backpack in remote areas because they seek solitude and the associated benefits. Solitude is a frequently cited motive for visiting parks, forests, and wilderness areas. People form bonds with specific places and sites and as a consequence,

recreationists may feel a sense of ownership for favorite places and will want a say in how they are managed. Recreation management frameworks, such as the Forest Service's Recreation Opportunity Spectrum (ROS), suggest that a diverse set of recreation opportunities, including diverse recreation settings, are necessary to meet the needs and desires of a diverse population of recreationists (Graefe, et. al., 2009).

Forest Management Goals from the Land and Resource Management Plan, Amendment 5, Nantahala and Pisgah NFs, NC: Provide different environmental and social settings for outdoor recreation opportunities that range from primitive to developed. Provide for a variety of recreation activities appropriate to these settings and the forest environment. Provide all recreation visitors to the national forest the opportunity to participate in activities and programs and use facilities to the highest level of access practicable.

### 9.2.1 Recreation Opportunity Spectrum Ranges

Settings, activities and facilities are the three components of recreation supply, defined as the opportunity to participate in a desired recreation activity in a preferred setting to realize desired and expected experiences. Recreationists choose a setting and activity to create a desired experience. The key to providing most experience opportunities is the setting and how it is managed. The Recreation Opportunity Spectrum (ROS) offers a framework for understanding these relationships and interactions. The Spectrum has been divided into six major classes for Forest Service use: Primitive (P), Semi-Primitive Non-Motorized (SPNM), Semi-Primitive Motorized (SPM), Roaded Natural (RN), Rural (R), and Urban (U). Maintaining a broad spectrum of these classes provides people with choices. ROS is also flexible; it can be further subdivided into subclasses as the need arises. See the following links for further information: [www.fs.fed.us/cdt/carrying\\_capacity/rosfieldguide/ros\\_primer\\_and\\_field\\_guide.htm](http://www.fs.fed.us/cdt/carrying_capacity/rosfieldguide/ros_primer_and_field_guide.htm); [www.fs.fed.us/cdt/carrying\\_capacity/rosguide\\_1982.pdf](http://www.fs.fed.us/cdt/carrying_capacity/rosguide_1982.pdf).

This information assists both managers and the public in understanding and identifying with the:

- type of settings (landscapes) provided;
- types of transportation permitted;
- social setting to expect;
- and level of management and infrastructure.

(Source: National ROS Inventory Mapping Protocol, 7/01/2003)

National direction for developed recreation instructs national forests to “provide a broad spectrum of outdoor recreation opportunities consistent with the applicable recreation opportunity spectrum (ROS) class that reflects a balance of environmental, economic, and social factors and the natural and cultural landscape.” In addition, national forests are directed to “restore recreation settings that have been impacted by declining ecosystem health and inappropriate use” (FSM 2330.2, 1 & .5). Four general ROS classes have been inventoried on the Nantahala and Pisgah NFs, including Primitive, Semi-Primitive Non-Motorized, Rural, and Roaded Natural, which was broken into two sub-classifications, RN1 and RN2, the more remote of the two.

**Primitive (P)** is the most remote, undeveloped recreation setting, generally located three miles or greater from any open road and 5,000 acres or larger in size. In these two national forests,

Primitive ROS class is limited to Congressionally designated Wildernesses even though they may not meet the requirements for size and distance from roads. Motorized vehicles are not allowed and facilities and evidence of management are minimal. Visitor group size is often limited to create a sense of isolation and solitude.

**Semi-Primitive Non-Motorized (SPNM)** areas are generally less remote and can be as small as 2,500 acres in size and only a half-mile or greater from any open road. Motorized vehicles are not allowed; and facilities are generally rustic; and management emphasis is for site protection. These settings accommodate dispersed, non-motorized recreation such as hiking, biking, hunting, and horseback riding. Some evidence of users may occur but interaction is generally low.

**Remote Roded Natural (RN2)** is a sub classification of Roded Natural and accounts for areas that either buffer SPNM areas or stand alone as tracts of land 1,500 acres or larger with a low road density of 1.5 miles of road/1,000 acres. Inventoried RN2 areas are managed to provide additional semi-primitive recreation settings either motorized or non-motorized. Facilities are generally rustic, using native materials with design refinements, and providing some comfort for the user as well as site protection. Evidence of users may be prevalent but interaction is generally low.

**Roded Natural (RN1)** is a sub-classification of Roded Natural. Settings are located within a half mile of an open road. These settings include the majority of developed recreation sites such as campgrounds, picnic areas, and river access points. Facilities are generally rustic, using native materials with design refinements, and providing some comfort for the user as well as site protection. RN1 also accounts for undeveloped, but highly roded settings popular for dispersed recreation activities such as hunting, fishing, camping, and horseback riding. Evidence of users is prevalent and interaction is moderate.

**Rural (R)** settings represent the most developed recreation sites and modified natural settings on the forest including the developed facilities at the Cradle of Forestry and highly developed campgrounds/recreation complexes like Davidson River and Lake Powhatan. Facilities are designed primarily for user comfort and convenience. Evidence of users is readily evident, and interaction is moderate to high.

### 9.2.2 Recreation Opportunity Spectrum Acreages and Distribution

Table 9.2.1 illustrates the distribution of ROS within Nantahala and Pisgah NFs' 21 Management Areas. Twelve of these Management Areas are managed for a single class, while the remainder is managed for a wide to limited range of classes, depending on MA.

*Table 9.2.1 Recreation Opportunity Spectrum by Management Area, based on Nantahala and Pisgah Land and Resource Management Plan, Amendment 5, 1994.*

|                 |         | Rural<br>(R) | Roded<br>Natural<br>1<br>(RN 1) | Roded<br>Natural<br>2<br>(RN2) | Semi-<br>Primitive<br>Non-<br>Motorized<br>(SPNM) | Primitive<br>(P) | Plan Direction and Comments |
|-----------------|---------|--------------|---------------------------------|--------------------------------|---|------------------|-----------------------------|
| Management Area | Acreage |              |                                 |                                |   |                  |                             |
| 1B              | 38,494  |              |                                 |                                |   |                  |                             |
| 2A              | 40,642  |              |                                 |                                |   |                  |                             |
| 2C              | 37,680  |              |                                 |                                |   |                  |                             |
| 3B              | 232,873 |              |                                 |                                |   |                  |                             |
| 4A              | 55,604  |              |                                 |                                |   |                  |                             |

|   |         |  |  |  |  |  |  |
|---|---------|--|--|--|--|--|--|
| 4C  | 179,992 |  |  |  |  |  |  |
| 4D  | 160,080 |  |  |  |  |  |  |
| 5 - Backcountry                                     | 119,685 |  |  |  |  |  |  |
| 6 - Wilderness Study Areas                          | 8,419   |  |  |  |  |  |  |
| 7 - Designated Wilderness                           | 66,550  |  |  |  |  |  | "Emphasize a primitive recreation experience in a natural forest setting." (p. 99) - but no definition of "Primitive" is included in Appendix G/ROS  |
| 8 - Experimental Forests                            | 12,520  |  |  |  |  |  |  |
| 9 - Roan Mountain                                   | 7,900   |  |  |  |  |  | Developed site, Roan Gardens, Rural; remaining lands, RN2  |
| 10 - Research Natural Areas                         | 1,460   |  |  |  |  |  |  |
| 11 - Cradle of Forestry in America                  | 6,540   |  |  |  |  |  | A spectrum of ROS based on the needs of the interpretive program; heavily-developed visitor center area currently considered "Rural" trending toward "Urban"                                     |
| 12 - Developed Recreation Areas                     | 3,030   |  |  |  |  |  | More highly developed: Rural; minimally developed: RN1   |
| 13 - Special Interest Areas                         | 10,370  |  |  |  |  |  | Manage to meet the recreation experience of adjoining management areas; the experience can vary across the spectrum RN1 to SPNM  |
| 14 - Appalachian National Scenic Trail and corridor | 12,450  |  |  |  |  |  | Generally managed as SPNM except RN2 at open road crossings  |
| 15 - W/S Rivers and corridors                       | 2,050   |  |  |  |  |  | Chattooga: SPNM; Horsepasture: Drift Falls to Rainbow Falls, RN2; Rainbow Falls to NF boundary, SPNM. (Does not include Wilson Creek added to the National Wild and Scenic River System in 2000) |
| 16 - Administrative Facilities                      | 1,260   |  |  |  |  |  |  |
| 17 - Balds  | 3,880   |  |  |  |  |  | RN2 or SPNM conditions depending on the type of recreation opportunity in adjacent management areas  |
| 18 - Riparian Areas                                 | 101,530 |  |  |  |  |  |  |

|       |           |  |  |  |  |  |
|-------|-----------|--|--|--|--|--|
| Total | 1,103,009 |  |  |  |  |  |
|-------|-----------|--|--|--|--|--|

Note: Urban (U) and Semi-Primitive Motorized (SPM) classification not used in this Forest Plan.

Definitions for Rural, Roded Natural 1, Roded Natural 2 and Semi-Primitive Non-Motorized included in Appendix G, p 4-6. Primitive is offered as management direction and ROS for designated Wilderness but not defined as an ROS classification in this plan.

Source: Amendment 5, p 53-56; 59; 66; 73; 83; 91; 94; 99; 124; 128; 133; 137; 141; 145; 153; 168; 174; 184; Appendix G, p 4-10. For detailed description of management objectives by ROS and Management Area, see Appendix G, p 7-10.

Based on approximate acreage by Management Areas, as of 1994, the supply of these settings is currently inventoried as follows:

| Classification                  | Approx. percent of total land base |
|---------------------------------|------------------------------------|
| Primitive                       | 6.6%                               |
| Semi-Primitive Non-Motorized    | 12.9%                              |
| Remote Roded Natural (RN2)      | 63.8%                              |
| Roded Natural (RN1)             | 11.6%                              |
| Rural                           | Less than 0.1%                     |
| Management Areas with mixed ROS | 5.0%                               |

Note: Percentages based on 1,004,779 acres and Nantahala and Pisgah NFs land Management Plan Revision Handout #1, "Management Areas (MA) – 1987 Nantahala and Pisgah Land Management Plan (Approximate acres as of 1994)," February 2013.

ROS maps for the 1985 Forest Plan have not been located. GIS-based ROS maps, displayed by district in Appendix A, were likely developed by planned Management Area (MA) allocations for Nantahala and Pisgah NFs sometime after the 1995 revision. Without original hand-drawn or GIS-based maps, this GIS coverage is the best available information, recognizing that errors occur with the transfer of line-drawn maps to the GIS database. Analysis of acreages in each ROS classification, and the percentages displayed in Table 9.2.2 were based on current acreage instead of 1995 acreage. The following table indicates the spatial distributions of ROS Classifications, or planned settings, by district.

*Table 9.2.2 Spatial Distribution of ROS Classifications on the Nantahala and Pisgah NFs.*

| Spatial Distribution of ROS Classifications (Planned Settings) by District |           |                              |                            |                     |        |           |              |
|--|-----------|------------------------------|----------------------------|---------------------|--------|-----------|--------------|
| District   | Primitive | Semi-Primitive Non-Motorized | Remote Roded Natural (RN2) | Roded Natural (RN1) | Rural  | Mixed ROS | Unclassified |
| Tusquitee (NNF)  | 3.9%      | 9.5%                         | 59.2%                      | 23.1%               | 0.3%   | 0.8%      | 3.2%         |
| Cheoah (NNF)   | 10.2%     | 14.7%                        | 63.2%                      | 9.1%                |        | 1.6%      | 1.3%         |
| Nantahala (NNF)  | 3.5%      | 10.3%                        | 66.2%                      | 12.2%               | 0.01%  | 3.8%      | 4.0%         |
| Pisgah (PNF)   | 15.5%     | 6.2%                         | 61.4%                      | 4.7%                | 0.2%   | 8.2%      | 3.9%         |
| Grandfather (PNF)  | 6.1%      | 25.3%                        | 55.4%                      | 7.2%                | >0.01% | 0.04%     | 5.9%         |
| Appalachian (PNF)  |           | 17.4%                        | 59.1%                      | 9.6%                |        | 12.4%     | 1.6%         |

Note: Unclassified acres range from new acquisitions since the 1995 Amendment to information missing in the GIS database.

Each of the six districts offers greater than 55% of its land base in the Remote Roaded Natural classification (not including any RN2 in the Mixed ROS classifications). Approximately 31% of the Grandfather District is classified in non-motorized settings, followed by almost 25% of the Cheoah District and 22% of the Pisgah District. The Tusquitee District offers the highest percentage of Roaded Natural (over 23%). Tusquitee and Pisgah districts offer the highest percentages of Rural settings (0.3% and 0.2% respectively).

State of the Forest Report for Uinta National Forest, September 1999, [www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fsem\\_034851.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsem_034851.pdf).

### 9.2.3 Conditions Affecting the Quality of Recreation Settings

Some conditions affecting the quality of recreation settings on the Nantahala and Pisgah NFs include:

- Unanticipated changes in activities from recent recreation-related multi-agency agreements have required changes to settings to accommodate visitation. Examples of this include Federal Energy Regulatory Commission (FERC) agreements with Brookfield Renewable Energy Partners (formally Alcoa) and Duke Energy Corporation that provided new whitewater releases on Cheoah and upper Nantahala Rivers. These river releases have resulted in new outfitting services and increased numbers of boaters. Recent changes in water release schedules and water volumes have required additional designed access and facilities for concentrated recreation use. [www.americanwhitewater.org/content/Calendar/view-event/event/2733/](http://www.americanwhitewater.org/content/Calendar/view-event/event/2733/); [www.boatingbeta.com/releases/cheoah/](http://www.boatingbeta.com/releases/cheoah/);
- [www.duke-energy.com/pdfs/Nantahala\\_River\\_Paddling.pdf](http://www.duke-energy.com/pdfs/Nantahala_River_Paddling.pdf); [www.americanwhitewater.org/content/Calendar/view-event/](http://www.americanwhitewater.org/content/Calendar/view-event/); [www.americanwhitewater.org/content/Article/view/id/31517/](http://www.americanwhitewater.org/content/Article/view/id/31517/)
- Recreation-related equipment (kayaks, mountain bikes, motorcycles, etc.) have brought on changes to settings; for example, heavy use and sounds of motorcycles on the Cherohala Skyway frequently alters the sense of remoteness. <http://www.motorcycleroads.com/75/515/Tennessee/Cherohala-Skyway.html>.
- Aging facilities in Roaded Natural and Rural settings are changing the quality of recreation experience.
- The need for active management, including focused information, to channel visitation from over-utilized to under-utilized locations. Many of Nantahala and Pisgah NFs' "crown jewels" – unique and exceptionally beautiful places – are overused, while others can accommodate additional use. Great Smoky Mountains National Park has recognized the need to advertise "Quiet Places" for many years. <http://www.nps.gov/grsm/planyourvisit/things2do.htm>.
- The increased popularity of some portions of designated Wilderness affects the intended Primitive setting, especially at Linville Gorge, Shining Rock, and Joyce Kilmer-Slickrock Wildernesses: [www.wilderness.net/NWPS/threatsOveruse](http://www.wilderness.net/NWPS/threatsOveruse); [www.wilderness.net/NWPS/wildView?WID=319&tab=regulations](http://www.wilderness.net/NWPS/wildView?WID=319&tab=regulations); [www.hikinginthesmokys.com/shining\\_rock\\_wilderness.htm](http://www.hikinginthesmokys.com/shining_rock_wilderness.htm); <http://hikingthecarolinas.com/shiningrockhikes.php>.

- As recreation popularity has increased, outfitter-guide services have grown with increasing numbers of groups and group members across the setting spectrums. Outfitters offer guided fishing, hunting, hiking, horseback riding, and other activities. Day treks by summer camps are also increasing the numbers of groups and group sizes across the setting spectrums.
- Settings (especially semi-primitive and remote settings) are also affected by the increased demand for festivals, races, challenge, orienteering, and other Special Use events in Nantahala and Pisgah NFs.
- Increased development and/or over-development in response to perceived needs of visitors and for resource protection often unintentionally changed ROS class. For example, adding amenities to dispersed camp sites such as picnic tables, lantern posts, and fire rings to replicate the appearance and amenities of highly developed fee sites. These dispersed sites occur along many of the Nantahala and Pisgah NFs river and creek corridors. Another example includes dispersed parking along many of the national forests' travelways.
- As the U. S. population ages, the number and development levels in Rural and Roaded Natural settings may increase to accommodate their needs for more accessible and/or highly developed facilities as well as front-country opportunities.
- Land acquisitions in the past two decades have not been assigned ROS classifications.
- Changes in open/closed road designations could have an influence on ROS designations.

### **9.3 Recreational Opportunities**

4. What are the recreational opportunities available on the forests?

5. What are the recreational use types by range, capacities, and distribution?

6. Moved to above

9. What are the nature, extent, and condition of trails and other transportation to provide recreational access? (i.e., water and foot travel).

#### **9.3.1 Available Recreation Opportunities**

Many visitors to the Nantahala and Pisgah NFs are local; however, many also visit from neighboring states including Alabama, Georgia, Tennessee, Virginia, and West Virginia (Cordell & Tarrant 2002). Past research has demonstrated that most national forest visits originate from within a 75-mile (1½ hour driving time) radius (Overdevest & Cordell 2001). The largest cities within this driving radius include Atlanta, Knoxville, Chattanooga, Charlotte, and Winston-Salem. In addition, Asheville, NC, the Blue Ridge Parkway, and Great Smoky Mountains National Park draw national and international audiences. Nantahala and Pisgah NFs are the third most visited in the United States, with approximately 4.6 million visits annually. Visitors are drawn to a range of “Crown Jewels,” including Roan Mountain; Wiseman’s View/Table Rock/Linville Gorge; Davidson River Corridor; and Fires Creek. Four distinct seasons and elevations ranging from about 1,000 - 6,300+ feet help provide a range of recreation opportunities. A wide range of developed and dispersed recreation opportunities are offered in the Nantahala and Pisgah NFs.

More than 280 developed sites in in these two forests serve as destinations or hubs from which to access forest lands. A “developed site” contains a concentration of facilities and services used to provide recreation opportunities to the public. Recreation sites are developed within different

outdoor setting to facilitate desired recreation use such as camping and picnicking; each site represents significant investment in facilities and management under the direction of a Forest Service administrative unit. Based on the assigned ROS setting, developed sites provide different levels of user comfort and convenience. Development Levels range from 1 to 5, with Level 1 representing the most primitive, natural settings with minimal or no site amenities. Level 2 improvements are designed primarily for protection of the site rather than the comfort of users. User comfort increases in Levels 3 – 5. Level 3s typically include vault toilets and designated campsites; Level 4 sites often include bathhouses and options of electrical hookups. Level 5 sites are the most highly developed on national forest lands. Types of sites, their capacities (measured in persons-at-one-time, or PAOT), and distribution cross districts are shown below.

Table 9.3.1 Developed Recreation Sites by Type and District for the Nantahala and Pisgah NFs

| Site Type                | Nantahala NF    |                    |                    | Pisgah NF            |                      |                 | Totals |
|--------------------------|-----------------|--------------------|--------------------|----------------------|----------------------|-----------------|--------|
|                          | Cheoah District | Tusquitee District | Nantahala District | Appalachian District | Grandfather District | Pisgah District |        |
| Boating Site             | 8               | 4                  | 5                  | 2                    | 0                    | 0               | 19     |
| PAOT                     | 936             | 639                | 1422               | 240                  | 0                    | 0               | 3267   |
| Campground               | 4               | 2***               | 3                  | 3                    | 3*                   | 4               | 19     |
| PAOT                     | 570             | 786                | 573                | 565                  | 290                  | 1600            | 4384   |
| Roadside/Hunt Camp       | 5               | 1                  | 1                  | 0                    | 1                    | 7               | 15     |
| PAOT                     | 455             | 70                 | 70                 | 0                    | 50                   | 215             | 860    |
| Group Camp               | 1               | 0                  | 2                  | 2*****               | 1**                  | 3               | 9      |
| PAOT                     | 100             | 0                  | 225                | 200                  | 100                  | 230             | 855    |
| Horse Camp               | 0               | 1                  | 2                  | 1                    | 0                    | 2               | 6      |
| PAOT                     | 0               | 30                 | 100                | 80                   | 0                    | 105             | 285    |
| Cabin/Lookout/Lodge      | 3               | 0                  | 1                  | 0                    | 0                    | 0               | 4      |
| PAOT                     | 26              | 0                  | 16                 | 0                    | 0                    | 0               | 42     |
| Fishing Site             | 1               | 1                  | 0                  | 2                    | 1                    | 0               | 5      |
| PAOT                     | 21              | 35                 | 0                  | 36                   | 25                   | 0               | 117    |
| Information Site         | 0               | 0                  | 1                  | 0                    | 0                    | 3               | 4      |
| PAOT                     | 0               | 0                  | 45                 | 0                    | 0                    | 74              | 119    |
| Interpretive Site        | 0               | 0                  | 2                  | 0                    | 0                    | 0               | 2      |
| PAOT                     | 0               | 0                  | 32                 | 0                    | 0                    | 0               | 32     |
| Observation Site         | 2               | 0                  | 9                  | 1                    | 2                    | 1               | 15     |
| PAOT                     | 253             | 0                  | 277                | 30                   | 280                  | 140             | 980    |
| Picnic Site              | 2*****          | 3                  | 8****              | 6                    | 3                    | 9               | 31     |
| PAOT                     | 74              | 230                | 723                | 1132                 | 310                  | 1247            | 3716   |
| Swim Site                | 1               | 1                  | 1                  | 0                    | 0                    | 2               | 5      |
| PAOT                     | 200             | 280                | 96                 | 0                    | 0                    | 1100            | 1676   |
| Target Range             | 1               | 1                  | 2                  | 0                    | 0                    | 0               | 4      |
| PAOT                     | 15              | 45                 | 71                 | 0                    | 0                    | 0               | 131    |
| Non-motorized Trail head | 13              | 7                  | 20                 | 23                   | 20                   | 59              | 142    |
| PAOT                     | 552             | 310                | 461                | 655                  | 1135                 | 1586            | 4699   |
| OHV Trail head           | 0               | 0                  | 1                  | 0                    | 1                    | 0               | 2      |
| PAOT                     | 0               | 0                  | 60                 | 0                    | 375                  | 0               | 435    |
| Visitor Center           | 0               | 0                  | 0                  | 0                    | 1                    | 1               | 2      |
| PAOT                     | 0               | 0                  | 0                  | 0                    | 105                  | 715             | 820    |

Notes: PAOT = Maximum number of people at one time. \*Boone Fork CG (75 PAOT) not currently open; \*\*Boone Fork Group Camp not currently open; \*\*\*Two loops of Hanging Dog Campground (approximately 187 of 281 PAOT) not currently open; \*\*\*\*Arrowwood Glade Picnic Area (100 PAOT) not currently open; \*\*\*\*\*Not including picnic sites along Cherohala Skyway; \*\*\*\*\*Silvermine Group Camp currently closed due to flash flood damage during the Summer of 2013.

Several areas of outdoor activities help define the recreation opportunities for the Nantahala and Pisgah NFs.

- *Sightseeing/Driving for Pleasure/Nature Study*
  - Three scenic byways are open year round to accommodate driving for pleasure. Two of these are nationally-designated: Cherohala National Scenic Byway and a 17-mile

- portion of Forest Heritage National Scenic Byway. The remainder of Forest Heritage Scenic Byway and Mountain Waters Scenic Byway were designated as National Forest Scenic Byways.
- There are 12 NC Department Of Transportation Scenic Byways including:
    - Nantahala Byway (part of this will be overlain by Mountain Waters Scenic Byway)
    - Cherohala (All overlain by the National Scenic Byway)
    - Indian Lakes
    - Waterfall (part of this will be overlain by Mountain Waters Scenic Byway)
    - Whitewater
    - Forest Heritage (all overlain by other designations)
    - I-26 Scenic Byway (the northernmost piece near the Tennessee line is travels over portions of the Pisgah NF)
    - Appalachian Medley
    - Pisgah Loop
    - Little Parkway
    - Mission Crossing
    - Mount Mitchell Scenic Byway: SR 19 from I-40, Exit 9, 19E through Micaville to NC 80/Blue Ridge parkway to NC 128
  - Fourteen observation sites, including Looking Glass Falls, Wiseman's View, Brown Mountain, Patton's Run, Dry Falls, Wayah Bald, and Roan Mountain. Some of these offer interpretation about the site; some, like Cherohala National Scenic Byway corridor, include multiple developed overlooks; and some provide facilities for picnicking or for short hikes.
  - Developed picnicking options range from a few tables to accommodations for group gathering. Currently, 31 picnic areas provide capacity to accommodate more than 3,700 people.
  - The mountains of western NC offer unique habitats for plants and animals and offer popular locales for viewing birds and other wildlife, nature study and wildcrafting (i.e., collecting plant materials in their natural habitat for food, medicine, and crafts). In its statewide program, NC features a Mountain region Birding Trail in "site groups" which include Nantahala and Pisgah NFs locations. See [www.ncbirdingtrail.org](http://www.ncbirdingtrail.org) for further information. In addition, four NC wildlife viewing areas are currently listed for Nantahala and Pisgah NFs and more information can be found at [www.wildlifeviewingareas.com](http://www.wildlifeviewingareas.com):
    - Big Bald Banding Station
    - Mt. Mitchell and Black Mountains
    - Roan Mountain
    - Standing Indian Mountain – Nantahala River wetlands

In addition, several other Forest sites are featured in Charles E Roe's *North Carolina Wildlife Viewing Guide* (1992), designated in partnership through a program with Defenders of Wildlife. Studying the diverse natural world is another favorite pastime for visitors to the Nantahala and Pisgah NFs. Wildflower pilgrimages, fall color tours, and many other activities are based on the natural environment and wildcrafters visit woods and fields to collect a wide range of plants, from edible mushrooms to ramps to the leaves, stems, bark, and roots of medicinal herbs. Summer months bring berry pickers to

famed natural blueberry/huckleberry fields, to patches of blackberries and raspberries, persimmons, and other tree fruits are abundant during the fall. The Asheville Citizen-Times lists a number of sites in Nantahala and Pisgah NFs in their annual “It’s Wild Blueberry Season!” feature dated 8/22/13.

- *Conservation Education*

- The Cradle of Forestry Historic Site, once home to the Biltmore Forest School with ties to the historic Biltmore estate of George Vanderbilt, as well as Gifford Pinchot and the origins of conservation forestry in America, includes a major visitor center; an amphitheater; and a collection of historic and reconstructed buildings, objects and site furnishings. The wooded campus with extensive parking facilities for small and large groups provides the setting for a series of accessible conservation education programs offered April through November to the general public and school groups.
- The Linville Gorge Cabin provides visitor information and wilderness education three days a week during peak recreation season.
- A few self-guided interpretive trails and scattered interpretive signs provide educational messages. For example, the Bob Padgett Poplar and the Wasilik Poplar are among the oldest living Tulip Poplar trees in the state, and can be accessed by short trails (<http://www.stayandplayinthesmokies.com/vendor/bob-padgett-poplar>).
- A short hiking loop through Joyce Kilmer Memorial Forest offers glimpses to an old growth cove forest ecosystem.
- Heritage interpretation is the emphasis at former Civilian Conservation Corps (CCC) sites (e.g., Massey Branch, Curtis Creek, and Mortimer); Wilson Lick, a former ranger station; White Oak bottoms, a former community; Wayah Bald fire tower; the Vanderbilt purchase memorial at Stony Fork; the first Weeks Act purchase at Curtis Creek; Cherokee Indian history at Tsali Trailhead; and along the route of the Overmountain Men (e.g., signs at Yellow Gab and Dobson Knob), as well as other locations. See Table 9.3.14 (Existing Interpretive Facilities). Hiking to NC’s historic lookout towers to take in vast spans of scenery from their sites is another popular heritage-based tourism activity.

- *Water-based Recreation*

Water-based Recreation in the Nantahala and Pisgah NFs can be broadly categorized into four sub-categories:

- *Whitewater paddling:*

Whitewater paddling is popular in the western NC area. Avid paddlers take advantage of heavy rain events to run a myriad of creeks and rivers.

(<http://www.americanwhitewater.org/content/River/state-summary/state/NC>). Forest Service facilities are located on the Cheoah, French Broad, Nantahala, and Nolichucky rivers, with trailhead access to the upper Chattooga. Additional access facilities are being designed for Cheoah River and on the Nantahala River between River Mile 16.5 and 19.

Free-flowing rivers that offer outfitter-guide services in the Nantahala and Pisgah NFs are the French Broad and Nolichucky. No guide services are currently available on the NC section of Chattooga and the floatable season (December 1 – April 30) is restricted to flows above 350 cubic feet per second. See the following web link for further information: <http://www.americanwhitewater.org/content/River/detail/id/3446>.

The Nantahala River routinely draws a varied audience due to frequent water releases, Class II and III rapids along the eight-mile section between the Duke Energy power plant and Wesser, NC. Also, there are sixteen commercial outfitters available to the public. In spite of infrequent water releases on the portion of the Nantahala River upstream from the power plant and below the dam (eight releases annually), and on Cheoah River between Santeetlah Dam and Caulderwood Lake (18 releases annually); these river sections are highly valued for their intense challenges and high flows. Outfitter-guides operate on Cheoah River and provide limited transportation services on the high-challenge portion of the Nantahala during some scheduled releases. These rivers compliment the network of other nearby rivers, including the Pigeon, Hiwassee, and Ocoee Rivers.

Table 9.3.2 *Whitewater Put-ins and Take-outs on the Nantahala and Pisgah NFs*

| Forest    | District    | River              | Site name  |
|-----------|-------------|--------------------|--|
| Nantahala | Cheoah      | Cheoah River       | Cheoah River Launch                                |
|           |             | Cheoah River       | Cheoah River Take-out                              |
|           | Nantahala   | Nantahala River    | Nantahala River Launch                             |
|           |             | Nantahala River    | Nantahala River Commercial/Public Take-out         |
|           |             | Nantahala River    | Nantahala River Ferebee Memorial Launch & Take-out |
|           |             | Nantahala River    | Nantahala River Beaching Area/Observation Deck     |
|           |             | Nantahala River    | Nantahala River Silver Mine Take-out               |
| Pisgah    | Appalachian | French Broad River | Stackhouse Boat Launch                             |
|           |             | Nolichucky River   | Poplar Boat Launch                                 |

○ *River and creek-oriented recreation*

Dispersed fishing, wading, tubing, and other activities as well as a few facilities characterize a large percentage of these forests' river and creek-oriented recreation. Developed facilities for activities including picnicking, camping, and fishing are offered at some locations. Popular sites include Davidson, South Toe, Upper and Lower Nantahala, Cullasaja, North Mills, and Fires Creek. Sliding Rock, a developed site in the Pisgah NF, offers an unusual sliding and viewing experience for thousands of visitors annually.

○ *Wild and Scenic Rivers*

There are three designated Wild and Scenic Rivers within the boundaries of Nantahala and Pisgah NFs. **Wilson Creek Wild and Scenic River** is a total of 23 miles in length. With nine miles on the Pisgah NF, the river offers fantastic vistas, ridges more than 4000 feet high, and whitewater rapids and trails that travel to spectacular waterfalls. In addition, Wilson Creek offers developed recreation facilities and access (restrooms and constructed stairs) and is popular for wading, fishing, and other low-water activities. Parking is limited along narrow State Route 1328.

**Horsepasture Wild and Scenic River** on the Nantahala NF is the shortest of the three with a total length of four miles with one and three quarters of a mile on the forest. It is an exceptional example of an escarpment river with five major waterfalls within two miles – Drift Falls, Second Falls (or Turtleback Falls for its turtle shell like rock

formation), Rainbow Falls, Stairstep Falls, and Windy Falls with numerous cascades, rapids, boulders, and rock outcroppings. Access is available via Rainbow Falls trail out of Gorges State Park.

**Chattooga Wild and Scenic River** originates in the mountains of western NC and runs a total of 59 miles from NC into Georgia and South Carolina, with 9.8 miles on the Nantahala NF and a section of the river runs through the Ellicott Rock Wilderness. The Chattooga is used by paddlers during high water flows. Limited trailhead access is available on the Nantahala NF's segment of the Chattooga River but can be accessed via the Chattooga River trail and off State Route 1100/Bull Pen Road.

o *Waterfalls*

There is a falling cascade of water on almost every stream in the Nantahala and Pisgah NFs. A single "cascade" may be only a few feet in height, but it might be combined in a series of drops that travel a distance of several hundred feet. A "waterfall," by comparison, flows freely in a vertical drop along a cliff face. The quantity of water in the "fall" or "cascade" depends on the amount of rainfall, which varies from season to season and from year to year. More than 44 named waterfalls attract visitors to admire their beauty and power as well as providing the opportunity to wade or swim in the cold pools. Many of the waterfalls listed below are adjacent to system trails. Some such as Bridal Veil Falls can be viewed from state highways and others like Dry, Looking Glass, and Whitewater Falls offer wide hardened trails, handrails, uniform stairs, and resting benches. Several are accessed by short easy hiking trails, while others are embedded several miles in designated Wilderness and backcountry. Sliding Rock, in the Pisgah NF, is an unusual developed recreation "swimming" site, completed with lifeguards, and restrooms. In addition, nearly 1,000 visitors a day during the summer months pay a fee to slide on the waterfall or view others who engage in that activity.

Many local counties feature waterfalls as part of their outdoor recreation offerings. Transylvania County is known as "The Land of Waterfalls," and offers names of outfitters for guided waterfall tours. (<http://www.visitwaterfalls.com/the-great-outdoors/waterfalls>). Mountain Waters Scenic Byway that stretches between Highlands and Wesser, NC, travels past several named falls. The Franklin, NC chamber provides a list and map of waterfalls in the area (<http://www.franklin-chamber.com/whattodo/waterfalls.php>). An internet search of waterfalls in any of the counties in the N&P study area will yield directions and specific waterfall information. For example, see <http://www.ncwaterfalls.com/index2.htm>.

Table 9.3.3 Waterfalls on the Nantahala and Pisgah NFs by Ranger District

| Nantahala NF                                  |           | Pisgah NF           |             |
|---|-----------|---------------------|-------------|
| Waterfalls                                    | District  | Waterfalls          | District    |
| Big Snowbird Creek (Big Falls, Middle, Upper) | Cheoah    | Elk River (aka Big) | Appalachian |
| Sassafras                                     | Cheoah    | Roaring Falls       | Appalachian |
| Slickrock Creek (aka Lower Falls)             | Cheoah    | Douglas             | Appalachian |
| Wildcat                                       | Cheoah    | Walker              | Appalachian |
| Big Laurel Falls                              | Nantahala | Catawba             | Grandfather |
| Bridal Veil                                   | Nantahala | Harper Creek        | Grandfather |
| Cullasaja                                     | Nantahala | Huntfish            | Grandfather |
| Dry   | Nantahala | Steele Creek        | Grandfather |
| Glen  | Nantahala | Upper Creek         | Grandfather |
| Mooney Falls                                  | Nantahala | Courthouse          | Pisgah      |
| Paradise (aka Wolf Creek)                     | Nantahala | Daniel Ridge        | Pisgah      |
| Quarry (aka Upper Cullasaja)                  | Nantahala | Graveyard Fields    | Pisgah      |
| Ranger (Skitty Creek)                         | Nantahala | Looking Glass       | Pisgah      |
| Rufus Morgan                                  | Nantahala | Moore Cove          | Pisgah      |
| Silver Run                                    | Nantahala | Rainbow             | Pisgah      |
| Wesser Falls (Nantahala River)                | Nantahala | Skinny Dip          | Pisgah      |
| Whitewater                                    | Nantahala | Slickrock Creek     | Pisgah      |
| Beech Creek                                   | Tusquitee | Sliding Rock        | Pisgah      |
| Leatherwood Falls                             | Tusquitee | Stairway            | Pisgah      |
| North Shoal Creek Falls                       | Tusquitee | Turtleback          | Pisgah      |

o *Motorized and non-motorized recreation on large lakes*

Large lakes adjacent to national forest lands on the Nantahala NF include Chatuge, Hiwassee, Fontana, and Santeetlah. The lakes themselves are owned and managed by the Tennessee Valley Authority (TVA) or corporations such as Brookfield (formerly Alcoa) and Duke Power. Forest Service facilities include boat launches (some operated in cooperation with the North Carolina Wildlife Resources Commission (NCWRC)); swimming beaches; picnic areas; fishing piers; and campgrounds. The Forest Service is currently obligated through FERC agreements to provide dispersed camping on islands on Nantahala Lake and on the shores of Santeetlah and Calderwood lakes. Some privately owned marinas are operated through Special Use agreements with the Forest Service.

Table 9.3.4 Motorized Boat Launches and Boat Ramps on the Nantahala and Pisgah NFs

| Forest    | District  | Lake/River      | Site name                       |
|-----------|-----------|-----------------|---------------------------------|
| Nantahala | Cheoah    | Fontana Lake    | Lemmons Branch Boat Launch      |
|           |           | Fontana Lake    | Cable Cove Boat Launch          |
|           |           | Fontana Lake    | Tsali Boat Launch               |
|           |           | Santeetlah Lake | Cheoah Point Boat Launch        |
|           |           | Santeetlah Lake | Massey Branch Boat Launch       |
|           |           | Santeetlah Lake | Avery Branch Boat Launch        |
|           | Nantahala | Fontana Lake    | Finger Lakes Kayak Boat Launch  |
|           | Tusquitee | Lake Chatuge    | JackRabbit Mountain Boat Launch |
|           |           | Lake Hiwassee   | Hanging Dog Boat Launch         |
|           |           | Lake Hiwassee   | Grape Greek Boat Launch         |
|           |           | Lake Hiwassee   | Ramsey Bend Boat Launch         |

○ *Recreation (generally non-motorized) on small mountain lakes*

The small mountain lakes, Balsam, Cherokee, Cliffside, and Appalachia on the Nantahala NF and Powhatan on the Pisgah NF, provide an intimate, and generally non-motorized water-based recreation experiences. As with the large lakes, Forest Service facilities include swimming beaches; picnic areas; fishing piers; and campgrounds. Balsam Lake Lodge, with accommodations for groups of up to 16 people, provides direct access to Balsam Lake. Group picnicking in covered pavilions is available at both Cherokee and Cliffside Lakes.

○ *National Forests in North Carolina's Accessible Fishing Collaborative*

For more than twenty years, Fisheries, Engineering, and Recreation in National Forests in North Carolina have partnered to create a comprehensive network of accessible fishing opportunities. Through careful planning, design and construction, often in partnership with NC's Wildlife Resources Commission, accessible fishing facilities provide opportunities that include warm water fishing in reservoirs and small ponds and cold water angling in streams and rivers, including some premiere trout fishing destinations. Cantilevered fishing pier designs have been refined over the years and have been adopted for use by the Wildlife Resources Commission throughout the state. Site-specific design has provided accessible parking and routes to these water-based sites; most of the fishing piers include areas for both seated and standing fishing. Recent piers have incorporated a metal mesh water-viewing component into a portion of the pier's flooring.

Local communities utilize these facilities on a day-to-day basis. In many communities, these have become centers for frequent outdoor recreation. Boone Fork Pond pier, near the communities of Lenoir and Hudson, is commonly used as an outdoor destination for the mentally and physically challenged. Partners who have provided funding or assistance in constructing these facilities include Trout Unlimited, the Muskie Club, Bass Anglers Sportsmen Society and chapters of Wounded Warriors. Many of these accessible fishing facilities are used during National Fishing Week activities, including sites for Special Needs Fishing Days.

Throughout National Forests in North Carolina, the comprehensive network of accessible fishing facilities is well-designed and is well received by anglers and other forest visitors. These sites also provide places for viewing the majestic scenery along forested waterways. Accomplishments over the past twenty years include:

Piers on small lakes and ponds: Cherokee Lake, Balsam Lake (network of several piers); Max Patch Pond; Boone Fork Pond; Cradle of Forestry impoundment; Cheoah Pond

Piers on rivers and streams: North Mills River; Davidson River at Sycamore Flats and Coontree; South Toe River near Black Mountain Campground; Curtis Creek network of piers; French Broad River at Murray Branch; Fires Creek; Snowbird Creek

Piers on large lakes: Jackrabbit Mountain (Lake Chatuge); Massey Branch (Santeetlah Lake)

- *Trails, Trailheads, and Shelters*

More than 140 developed trailheads provide access to Off High-way Vehicle (OHV) Trail Complexes; bike and equestrian trail complexes; and a number of backcountry areas and Wildernesses.

- *Motorized Trail Complexes*

Two OHV complexes, Brown Mountain in the Pisgah NF and Wayehutta in the Nantahala NF, provide motorized trail access. Both accommodate wheeled vehicles less than 50" wide. In addition, two trails in the Brown Mountain complex accommodate full-sized vehicles. A segment of motorized trail on the Pisgah Ranger District, Ivestor Gap Trail, is open to street-legal vehicles on a seasonal basis for access to berry picking areas.

*Table 9.3.5 Motorized mileage for the Nantahala and Pisgah NFs*

| <b>Motorized Trail Miles by Use-Type</b> |                |
|--|----------------|
| <b>Brown Mountain</b>                    | <b>Mileage</b> |
| Trail Bike                               | 6.0            |
| Trail Bike, ATV                          | 20.1           |
| Trail Bike, ATV, 4WD                     | 6.1            |
| <b>Sub Total</b>                         | <b>32.2</b>    |
| <b>Wayehutta</b>                         | <b>Mileage</b> |
| Trail Bike, ATV/UTV                      | 22.7           |
| <b>Ivestor Gap</b>                       | <b>Mileage</b> |
| Highway Legal Vehicles                   | 2.3            |
| <b>Grand Total</b>                       | <b>57.20</b>   |

- *Non-Motorized Trail Complexes*

For many visitors exploring a trail is the best way to enjoy the Nantahala and Pisgah NFs. National Forest System trails allow people to experience the forests beyond picnic areas, campgrounds, and forest highways. Trails invite people to view waterfalls and scenic overlooks and entice them to explore deeper into the forests. In addition, they allow a personal interaction with the forest landscape in a minimally constructed and planned environment. More than 1,560 miles of trails for hiking, mountain biking, and pack and saddle provide access into these two national forests.

From 2011-13 the Forest Service coordinated an assessment of non-motorized trail condition, use, and user preferences through a series of collaborative meetings with trail volunteers and user groups. The resulting document is titled *Nantahala and Pisgah National Forest Trail Strategy, 2013*, and is available for download from the following website: <http://www.fs.usda.gov/detail/nfsnc/home/?cid=STELPRDB5341557>. In this document a series of trail complexes are identified for each ranger district. Some of the complexes emphasize a specific use type and others are made up of mixed use trails.

Non-motorized trail complexes provide a range of recreation opportunities across all ROS settings from primitive to roaded natural. There are short loops, interpretive trails, challenging mountain bike trails, equestrian trails with overnight camping sites, and hiking trails for half-day or multi-day trips. The Appalachian National Scenic Trail, Bartram National Recreation Trail, Mountains-to-the Sea National Scenic Trail, Art Loeb National Recreation Trail, and Benton MacKaye Trail offer long-distance back-packing opportunities of three or more days. The following tables breakdown the mileage, location, and use-type for all non-motorized trails on the Nantahala and Pisgah NFs.

*Table 9.3.6 Non-motorized mileage by Ranger District by use type for the Nantahala and Pisgah NFs*

| <b>Non-Motorized Trail Miles by Use-Type</b> |                      |                  |                   |                  |                        |
|--|----------------------|------------------|-------------------|------------------|------------------------|
| <b>Use Type</b>                              | <b>Total Mileage</b> | <b>Hike Only</b> | <b>Horse/Hike</b> | <b>Bike/Hike</b> | <b>Horse/Bike/Hike</b> |
| <b>Nantahala NF</b>                          | <b>649</b>           | <b>504</b>       | <b>72</b>         | <b>21</b>        | <b>52</b>              |
| Cheoah RD                                    | 252                  | 198              | 15                | 0                | 39                     |
| Nantahala RD                                 | 276                  | 223              | 39                | 1                | 13                     |
| Tusquitee RD                                 | 121                  | 83               | 18                | 20               | 0                      |
| <b>Pisgah NF</b>                             | <b>911</b>           | <b>609</b>       | <b>50</b>         | <b>157</b>       | <b>95</b>              |
| Appalachian RD                               | 264                  | 203              | 39                | 15               | 7                      |
| Grandfather RD                               | 267                  | 206              | 3                 | 43               | 15                     |
| Pisgah RD                                    | 380                  | 200              | 8                 | 99               | 73                     |
| <b>Total</b>                                 | <b>1560</b>          | <b>1113</b>      | <b>122</b>        | <b>178</b>       | <b>147</b>             |

There are three categories of nationally designated trails on the Nantahala and Pisgah NFs: National Scenic Trails, National Historic Trails, and National Recreation Trails. Each of these are recognized for their unique attributes and managed to maintain those qualities. Nationally designated trails on the Nantahala and Pisgah NFs are shown in the following table.

*Table 9.3.7 Nationally Designated Trails within the Nantahala and Pisgah NFs*

| <b>Trail Name</b>           | <b>Designation</b>        | <b>Mileage</b> | <b>Location</b>   |
|-----------------------------|---------------------------|----------------|---|
| Andy Cove Nature Trail      | National Recreation Trail | 0.6            | Transylvania County   |
| Appalachian Trail           | National Scenic Trail     | 180            | Clay, Macon, Swain, Graham, Haywood, Madison, Yancey, Mitchell & Avery Counties |
| Art Loeb Trail              | National Recreation Trail | 30.1           | Transylvania & Haywood Counties   |
| Bartram Trail               | National Recreation Trail | 59.2           | Macon, Swain & Graham Counties  |
| Biltmore Campus Trail       | National Recreation Trail | 1.0            | Transylvania County   |
| Joyce Kilmer Memorial Loop  | National Recreation Trail | 2.0            | Graham County   |
| Overmountain Victory Trail  | National Historic Trail   | 4.9            | Avery & Burke Counties  |
| Roan Mountain Gardens Trail | National Recreation Trail | 0.6            | Mitchell County   |
| Shut-In Trail               | National Recreation Trail | 18.8           | Buncombe County   |
| Whiteside Mountain Trail    | National Recreation Trail | 1.9            | Jackson Country   |

○ *Trailheads*

A broad spectrum of trailhead facilities abounds in both the Nantahala and Pisgah NFs. These trailheads, and associated trails and roads, provide hike, bike, horse, and motorized access to areas of all ROS settings in both national forests. Some trailheads are highly developed with paved parking and picnic and restroom facilities, while the least developed include undefined parking and little else. Most developed trailheads are identified on Nantahala and Pisgah NFs trail maps.

○ *Trail shelters*

Twenty-two shelters offer trail-side overnight accommodations along the Appalachian National Scenic Trail and other trails. These shelters are typical primitive three-sided structures, though some are more complex. Many have nearby pit or moldering toilets. The following table identifies the shelter and associated trail.

Table 9.3.8 Trail Shelters on the Nantahala and Pisgah NFs

| Trail Shelter Name      | District    | Trail           |
|-------------------------|-------------|-----------------|
| Groundhog Creek Shelter | Appalachian | Appalachian NST |
| Roaring Fork Shelter    | Appalachian | Appalachian NST |
| Deer Park Mtn. Shelter  | Appalachian | Appalachian NST |
| Little Laurel Shelter   | Appalachian | Appalachian NST |
| Jerry Cabin Shelter     | Appalachian | Appalachian NST |
| Flint Mtn. Shelter      | Appalachian | Appalachian NST |
| Hogback Ridge Shelter   | Appalachian | Appalachian NST |
| Overmountain Shelter    | Appalachian | Appalachian NST |
| Stan Murray Shelter     | Appalachian | Appalachian NST |
| Sassafras Gap Shelter   | Cheoah      | Appalachian NST |
| Brown Fork Gap Shelter  | Cheoah      | Appalachian NST |
| Cable Gap Shelter       | Cheoah      | Appalachian NST |
| Standing Indian Shelter | Nantahala   | Appalachian NST |
| Carter Gap Shelter      | Nantahala   | Appalachian NST |
| Long Branch Shelter     | Nantahala   | Appalachian NST |
| Rock Gap Shelter        | Nantahala   | Appalachian NST |
| Siler Bald Shelter      | Nantahala   | Appalachian NST |
| Wayah Bald Shelter      | Nantahala   | Appalachian NST |
| Cold Spring Shelter     | Nantahala   | Appalachian NST |
| Wesser Bald Shelter     | Nantahala   | Appalachian NST |
| Rufus Morgan Shelter    | Nantahala   | Appalachian NST |
| Panthertown Shelter     | Nantahala   | TR449-TR489     |
| Deep Gap Shelter        | Pisgah      | Art Loeb        |
| Butter Gap Shelter      | Pisgah      | Art Loeb        |
| Buckhorn Gap Shelter    | Pisgah      | Black Mountain  |
| Muskrat Creek Shelter   | Tusquitee   | Appalachian NST |

- *Remote Dispersed Recreation, including Wilderness and Backcountry*

- *Congressionally Designated Wilderness*

In 1964, with a nearly unanimous vote, the United States Congress enacted landmark legislation that permanently protected some of the most natural and undisturbed places in America. The Wilderness Act established the National Wilderness Preservation System "... to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. A uniquely American idea, wilderness is part of our heritage and is passed on as a legacy to our children. Firmly attached to the American past, the legacy that is wilderness will remain indispensable to the American future. See Assessment Section 15 Designated Areas for more information.

The six Wildernesses on Nantahala and Pisgah NFs offer many types of primitive recreation experience and natural beauty, from the cliffs and rock ledges of Linville Gorge Wilderness, to the massive old-growth forests of Joyce Kilmer-Slickrock Wilderness. These areas attract users from across the country and around the world. Some areas of Shining Rock, Linville Gorge, and Joyce Kilmer-Slickrock Wildernesses

are heavily used; while others such as Ellicott Rock, Middle Prong, and Southern Nantahala Wildernesses offer opportunities for escape from the sights and sounds of humans. In an attempt to reduce user impacts and maintain wilderness character, all Wildernesses have a group size limit of 10 people; some have campfire bans and camping set-backs from streams; and Linville Gorge Wilderness requires an overnight permit during peak use season. All six Wildernesses allow commercial outfitter and guide operations under special use permit. No motorized equipment or mechanized means of conveyance, such as bicycles, are allowed in congressionally designated Wilderness.

Wilderness in the Nantahala and Pisgah NFs include:

**Ellicott Rock Wilderness** is located at the intersection of NC, South Carolina, and Georgia state lines, with approximately 3,400 acres of 8,300 acres in NC. The Chattooga National Wild and Scenic River passes through the Wilderness in this remote section of the Nantahala NF.

**Joyce Kilmer-Slickrock Wilderness** is comprised of 17,394 acres with 13,562 acres in NC and 3,832 acres in Tennessee. The Wilderness is on the Nantahala NF and has approximately 56 miles of rugged hiking trails. This Wilderness is home to the Joyce Kilmer Memorial Forest, a grove of old-growth Yellow Poplar trees dedicated to the author of the same name.

**Linville Gorge Wilderness** is on the Pisgah NF and is one of the most beautiful and rugged river gorges in western NC. The gorge is formed by the Jonas Ridge on the east and Linville Mountain on the west and is bisected by the Linville River which drops 2,000 feet into the valleys below. The terrain is steep with numerous rock formations, and is covered by dense hardwood and pine forests. Recreation opportunities include hiking backpacking, rock climbing, fishing and hunting.

**Middle Prong Wilderness** is 7,900 acres of steep, rugged high-elevation ridges ranging from 3,200 to over 6,400 feet. The area gets its name from the Middle Prong of the Pigeon River whose headwaters are located in this area of the Pisgah NF.

**Shining Rock Wilderness** on the Pisgah NF encompasses over 18,000 acres, and was one of the first Wildernesses designated in NC. The area has elevations varying from 3300 to over 6,000 feet, and lies on the north slope of the Pisgah Ledge, a northeasterly extension of the Blue Ridge Mountains. Its name comes from the white quartz outcropping near the crest of the Shining Rock Mountain.

**Southern Nantahala Wilderness** was designated in 1984 and consists of 23,473 acres. Approximately 11,703 acres are located in NC on the Nantahala NF and 11,770 acres are located in Georgia's Chattahoochee NF. The highest elevation in the Southern Nantahala Wilderness is the 5,499-foot peak of Standing Indian Mountain and the lowest elevation is approximately 2,400 feet. The Appalachian Trail passes through the Wilderness in both states.

*Table 9.3.9 Overview of Wildernesses in the Nantahala and Pisgah NFs*

| Site Name                         | Ranger District | Acreage | Mileage Hiking | Mileage Horse |
|-----------------------------------|-----------------|---------|----------------|---------------|
| <b>Nantahala National Forest</b>  |                 |         |                |               |
| Joyce Kilmer-Slickrock Wilderness | Cheoah          | 13,562  | 56             | 0             |
| Ellicott Rock Wilderness          | Nantahala       | 3,394   | 7              | 0             |
| Southern Nantahala Wilderness     | Nantahala       | 11,703  | 13             | 3             |
| <b>Pisgah National Forest</b>     |                 |         |                |               |
| Linville Gorge Wilderness         | Grandfather     | 11,786  | 39             | 0             |
| Middle Prong Wilderness           | Pisgah          | 7,460   | 12             | 0             |
| Shining Rock Wilderness           | Pisgah          | 18,483  | 36             | 7             |

○ *Wilderness Study Areas*

Wilderness Study Areas (WSA) are lands designated by Congress for further study for potential designation as Wilderness or their release from further consideration for designation. The Land Management Plan (LMP) recommends designation for some areas and release from further study for others. Until designated or released, these lands are managed to preserve their wilderness characteristics. As in designated Wilderness, this includes a prohibition of bicycles and other mechanical conveyance.

*Table 9.3.10 Overview of Wilderness Study Areas in the Nantahala and Pisgah NFs*

| Site Name                        | Ranger District | Acreage | Recommend for Designation | Mileage Horse |
|----------------------------------|-----------------|---------|---------------------------|---------------|
| <b>Nantahala National Forest</b> |                 |         |                           |               |
| Snowbird                         | Cheoah          | 8,490   | No                        | 31            |
| Overflow                         | Nantahala       | 3,200   | No                        | 6             |
| <b>Pisgah National Forest</b>    |                 |         |                           |               |
| Craggy Mountain                  | Appalachian     | 2,380   | Yes                       | 6             |
| Harper Creek                     | Grandfather     | 7,140   | Yes                       | 22            |
| Lost Cove                        | Grandfather     | 5,710   | Yes                       | 12            |

○ *Managed Backcountry*

Additional semi-primitive backcountry opportunities are available in the 119,000 plus acres of the Nantahala and Pisgah NFs, these are identified in the LMP as Management Area 5. In these areas, the “emphasis is on providing large blocks of backcountry where there is little evidence of other humans or human activities other than recreation use”. (Amendment Five, III-89).

○ *Rock Climbing*

Rock climbing, rappelling, ice climbing, and mountaineering are technical and unique ways to experience national forests. The rugged but accessible terrain makes climbing in the Nantahala and Pisgah NFs appealing and climbing in a forested, yet remote environment are characteristics of climbing in the area unique. Climbing in the Nantahala and Pisgah NFs provides a wide range of options, levels of commitment, and rock types. Whiteside, Big Green, Cedar Rock, Lost Cove, Looking Glass, and Linville Gorge are premier climbing locations which provide opportunities ranging from bouldering to single-pitch and multi-pitch climbs. In addition, current climbing management allows

recreational access while protecting natural and cultural resource values. For example, seasonal peregrine closures at Whiteside, Wall, and other cliffs successfully balance peregrine falcon protection with recreational access. Seasonal restrictions may vary from site to site.

o *Recreational Rockhounding*

Western NC is a destination for many amateur rockhounds and mineral collecting organizations. Rockhounding is primarily done as a dispersed recreation activity at old commercial mines and mineralized outcrops on the national forest. Popular rockhounding areas include the Ray Mine near Burnsville, Yancey County, the Buck Creek olivine deposit in Clay County, Walker Creek Kyanite Prospect in Buncombe County, and Grimshawe Sapphire Mine in Transylvania County. Organizations such as the Mountain Area Gem and Mineral Association (M.A.G.M.A.) bring hundreds of visitors to the forest every year for rockhounding and contribute to the local economy. Some of the common minerals collected include: kyanite, feldspar, mica, corundum, and quartz.

While collecting minerals that are loose and free on the surface is a permitted activity, some popular collection areas are experiencing more significant damage to natural resources as a result of digging and subsequent erosion. There is high interest from the rockhounding community in working with the forest to maintain areas that are open for rock collecting. More information regarding the current rockhounding guidelines on the Nantahala and Pisgah NF is posted on the forest's website at: <http://www.fs.usda.gov/detail/nfsnc/recreation/?cid=stelprdb5420144>.

• *Hunting, Fishing, and Trapping*

Outside of developed recreation areas, fishing and hunting are permitted throughout the National Forest System lands in NC. According to the North Carolina Wildlife Resources Commission (NCWRC), any lands open to the public hunting are called "game lands." The USFS manages the habitat and protects water quality in the national forests and the NCWRC regulates fishing. Anglers should have a fishing license and hunters must have the proper licenses or permits needed to hunt. For information on licenses refer to the NCWRC at [www.ncwildlife.org](http://www.ncwildlife.org).

In addition to big game species including black bear, deer, and wild turkey (see Tables below for big game harvest data), many people hunt small game species in NC such as rabbits and squirrels as well as quail, grouse, and pheasants. Each year approximately 150,000 sportsmen/ sportswomen take more than 1.0 million trips afield in pursuit of resident small game species. According to a survey of hunters during a recent hunting season, it was estimated that hunters harvested approximately 8,750 grouse, 230,000 quail, 382,500 rabbits, and 482,000 squirrels in NC (NCWRC 2013).

*Table 9.3.11 Hunting & Fishing Licenses for Western North Carolina in 2011-2012*

| <b>County</b> | <b>Hunting only</b> | <b>Inland Fishing only</b> | <b>Hunting &amp; Inland Fishing</b> |
|---------------|---------------------|----------------------------|-------------------------------------|
| Avery         | 49                  | 679                        | 854                                 |
| Buncombe      | 424                 | 9633                       | 3991                                |
| Burke         | 286                 | 4832                       | 2756                                |
| Caldwell      | 334                 | 4768                       | 2868                                |
| Cherokee      | 127                 | 1752                       | 1451                                |
| Clay          | 69                  | 597                        | 561                                 |
| Graham        | 46                  | 657                        | 820                                 |
| Haywood       | 214                 | 3672                       | 2256                                |
| Henderson     | 222                 | 3722                       | 2111                                |
| Jackson       | 106                 | 2047                       | 1409                                |
| Macon         | 123                 | 1739                       | 1408                                |
| Madison       | 89                  | 1071                       | 1282                                |
| McDowell      | 227                 | 2565                       | 1857                                |
| Mitchell      | 96                  | 862                        | 832                                 |
| Swain         | 48                  | 1076                       | 731                                 |
| Transylvania  | 120                 | 1301                       | 1195                                |
| Watauga       | 218                 | 1584                       | 1138                                |
| Yancey        | 94                  | 859                        | 1185                                |
| <b>Totals</b> | <b>2892</b>         | <b>43,416</b>              | <b>28,705</b>                       |

Source: North Carolina Wildlife Resources Commission, [www.ncwildlife.org](http://www.ncwildlife.org).

*Table 9.3.12 Big Game Harvest in Western North Carolina Counties 2011-12*

| <b>County</b> | <b>Bear</b> | <b>Deer</b>  | <b>Turkey</b> |
|---------------|-------------|--------------|---------------|
| Avery         | 5           | 56           | 26            |
| Buncombe      | 7           | 81           | 24            |
| Burke         | 27          | 135          | 58            |
| Caldwell      | 12          | 56           | 34            |
| Cherokee      | 75          | 87           | 70            |
| Clay          | 16          | 33           | 17            |
| Graham        | 112         | 46           | 59            |
| Haywood       | 31          | 28           | 21            |
| Henderson     | 1           | 43           | 14            |
| Jackson       | 28          | 48           | 49            |
| Macon         | 55          | 143          | 65            |
| Madison       | 29          | 84           | 29            |
| McDowell      | 66          | 70           | 53            |
| Mitchell      | 8           | 31           | 15            |
| Swain         | 35          | 48           | 23            |
| Transylvania  | 26          | 83           | 34            |
| Watauga       | 0           | 8            | 6             |
| Yancey        | 30          | 40           | 17            |
| <b>Totals</b> | <b>563</b>  | <b>1,120</b> | <b>614</b>    |

Source: North Carolina Wildlife Resources Commission, [www.ncwildlife.org](http://www.ncwildlife.org).

North Carolina has many opportunities for the 1.2 million anglers who fish in the state. Inland fishing consists of both game (See list of inland game fish below) and non-game fish. Any fish not classified as a game fish is considered a non-game fish when found in inland fishing waters and includes shellfish and crustaceans. Additionally, the harvest of several game fishes is regulated by length limits. Further information on specific regulations can be found at [www.ncwildlife.org](http://www.ncwildlife.org). In addition, the NCWRC provides information and two interactive maps on more than 500 publicly accessible places to fish in NC. Information on the location of publicly accessible fishing piers, boat ramps, and canoe launches, as well as places that provide bank and wade fishing opportunities including locations on the Nantahala and Pisgah NFs can be found at [www.ncwildlife.org/Fishing/Wheretofish.aspx](http://www.ncwildlife.org/Fishing/Wheretofish.aspx).

North Carolina offers a wide variety of trapping opportunities. Regulated trapping is an integral component of wildlife conservation programs, as it controls abundant wildlife, removes nuisance animals, aids in restoring native species, and protects habitat, property, and threatened and endangered species. Trapping on game lands is managed by the NCWRC. Additional information on trapping season dates, regulations, best management practices, furbearer management, and furbearer species can be located on the NCWRC website [www.ncwildlife.org](http://www.ncwildlife.org).

Target shooting ranges with developed facilities provide opportunities for sighting guns and for increasingly popular recreational shooting. There are four USFS operated ranges

in the Nantahala NF including Panther Top near Murphy, NC; Moss Knob and Dirty John near Franklin, NC; and Atoah near Robbinsville, NC.

- *Camping in the full range of development scales*

Nantahala and Pisgah NFs offer a variety of different camping options, from large developed campgrounds with showers and electrical hook-ups to rustic roadside and backcountry hunt camps. These overnight accommodations provide destination and hub opportunities for recreating in the adjacent forests and in local communities.

- There are 19 developed family-type campgrounds that can accommodate more than 4,300 people
- Six horse camps can accommodate more than 315 people
- Nine group camps can accommodate 855 people
- There are more than 100 individual dispersed sites identified in 15 roadside/hunt camp areas. Many of the hardened dispersed sites have evolved over time in response to riparian resource degradation and sanitation concerns. These sites are often developed in areas of concentrated use and along popular water corridors.
- One 16-person lodge (Balsam Lake), one rustic cabin (Swan Cabin) and two “camping cabins” in Cheoah Point Campground provide a different level of overnight facilities.
- Concession-operated camping/day use facilities include five large campgrounds (Standing Indian, Lake Powhatan, Davidson River, Carolina Hemlocks, and Black Mountain), four group camps and several associated small campgrounds and day use areas.
- To limit impacts, dispersed camping is only allowed at designated sites in many areas of the forest including:
  - Pisgah NF: (1) throughout the Pisgah Ranger District; (2) in corridors along Neals Creek, South Toe River, Big Ivy Road, Cold Springs Creek, and River Road/French Broad River in the Appalachian Ranger District; and (3) along the Curtis Creek corridor in the Grandfather Ranger District.
  - Nantahala NF: In the corridors in the Cheoah, Santeetlah, and Tellico rivers in both the Cheoah and Tusquitee Ranger District.
- Areas closed for an dispersed camping include Bent Creek Experimental Forest; the Cradle of Forestry’s developed areas; Wilson Creek corridor; land around Balsam Lake; the Coweeta Experimental Forest; U.S. 64 Cullasaja Gorge corridor; the Fontana Lake Finger Lake area; the 1,000 foot corridor along the Nantahala River between Silvermine Creek and Junaluska Road, including any islands; within the boundaries of developed day-use sites and campgrounds; in many wildlife openings; and areas with no-camping signs.
- Camping stay limits: Camping in developed or dispersed areas is limited to 14 days within a 30 day time period. A camper who wishes to relocate after the 14 day limit is required to move more than 10 miles from the previously occupied camping site.

### 9.3.2 Conditions Affecting the Quality of Recreation Opportunities

- *Resource Issues*
  - Heavy use in dispersed recreation areas is resulting in resource damage, including trampling; user conflicts in some areas (e.g., hunters and trail users; trail users of different types); increased traffic and parking demands; increased demand for restrooms; increased trash; and need for clean-up/trash collection facilities vs. Pack In/Pack Out philosophy (Source: Recreation manager observations).
  - Lack of carefully planned and designed access and facilities, where needed, in newly-acquired tracts of land, can lead to unmanaged recreation issues.
  - Increased bear encounters (GSMNP #1 in US in bear encounters, Backpacker magazine, 9/13; bear-camper conflicts in North Mills River and Shining Rock Wilderness, 2013, and Black Mountain/Briar Bottom, 2012).
  - Increased accidents and fatalities in the general forest area, including swift water rescues at waterfalls and rivers; current messaging: “you are responsible for your own safety”; agency philosophy: risk increases as development decreases.
  - Potential increase in demand for festivals, special events, and other special uses could affect other users’ ability to recreate in those areas (e.g., Tsali and Jackrabbit Mountain festivals and events; group trail running events on Shut-In Trail)
  - Changes in open/closed road designations.
- *Demographics*
  - Populations of retired persons are increasing in NC (United States Census 2012).
  - Dispersed camping by homeless people, especially nearer larger towns and cities, is a social issue for recreation management (article in Asheville Citizen Times 2012).
- *Infrastructure*
  - Recreation user fees are used to help maintain, improve, and provide specialized services at developed recreation sites. In the Nantahala and Pisgah NFs user fees are charged at highly-developed campgrounds; some swim sites; the Cradle of Forestry; and some highly developed day use sites. In addition, special recreation permits are required at OHV trail complexes; many shooting ranges; and for developed whitewater rafting access on several rivers.
  - Increased demand for more accessible and/or highly developed facilities and front-country opportunities.
  - The Nantahala and Pisgah NFs recreation infrastructure is aging; some existing facilities are 40+ years old and are in poor condition.
  - Reductions in appropriated funding are resulting in fewer improvements in popular, heavily used sites.
  - In recent years, there has been pressure from communities and groups to (1) add new recreation areas (example: Clay County Shooting Range) and/or to continue operating unprofitable, seldom used areas (example: Hanging Dog Campground).
  - With decreasing appropriations for deferred maintenance, there will likely be a shift in emphasis from new construction and the expansion of existing facilities to increasing utilization at existing facilities and providing for reconstruction when necessary.

- *Climate*
  - Climatic effects from rains, freeze-thaw, snow, ice, heat, and winds often result in mudslides, flooding, logjams, etc., and can cause adverse changes to developed recreation facilities and dispersed areas, including trails, roads and other access routes.
  - Studies of flash-flood prone developed sites have caused some changes to facility location and could likely result in other changes in the future.
- *Recreation Visitor Information*
  - Many of Nantahala and Pisgah NFs' "crown jewels" – unique and exceptionally beautiful places – are overused, while others can accommodate additional use.
  - Climatic dangers (floods, lightning, wind), resource issues (bear awareness, etc.) and potential threats from other humans (theft, drug use, etc.).

7. What are the opportunities within the plan area to foster a greater connection between people and nature?

### 9.3.3 Connecting People with Nature

National forests provide the greatest diversity of outdoor recreation opportunities in the world, connecting people with nature in a variety of settings and activities. In addition to providing a venue for various forest-based recreation activities such as hiking, biking camping, horseback riding, and viewing wildlife and scenery, the Nantahala and Pisgah NFs provides many other opportunities to connect people with nature.

- **Hosted programs:**

Hosted programs are partnerships between the Forest Service and other parties, either within or outside of the Federal government, where the primary purpose is for the Forest Service to provide a host site for the partners' job training program. The Forest Service hosts a variety of programs under this heading which provide a multitude of benefits to both parties. Benefits to outside partners include opportunities for their clients to gain and develop important job skills, while the Forest Service benefits from the accomplishment of many important tasks related to its mission of caring for the land. Examples of partnerships that fall under the hosted program title include:

- A crew of teen-age youth enrolled in a summer job training program sponsored by a private-nonprofit youth serving organization which maintain trails, improve wildlife habitat, and build fences for 10 weeks during the summer.
- Since, 2008 the Cheoah and Tusquitee Ranger Districts within the Nantahala and Pisgah NFs have hosted the Youth Conservation Corps. In addition, the Cheoah Ranger District has hosted Wilderness Rangers (college students) since 2011.
- A low income senior citizen enrolled in a Federal job training program who gains work skills while working at the front desk of the local Ranger Station, and who goes on to become gainfully employed at a local business.

- **Archeology/Archeologists:**

To connect people with nature Forest Service archeologists and cultural resource managers direct opportunities for public enjoyment, public education, and public involvement. In addition to many public presentations, professional presentations, and publication of scientific research; FS archeologists identify structures and sites for preservation and public

visitation along with interpretation. The latter most often includes the history of the landscape, former inhabitants and past land use. The public is invited to share their interests and participate in Windows to the Past and Passport In Time (PIT) projects. These are hands-on projects working alongside professional archeologists with artifacts, repairing historic structures, locating, and excavating archeological sites. Often the public has the opportunity to work with FS hosted university archeological field schools, professors and students, as well as American Indian Tribal members. The public most often shares their knowledge and assistance while learning and connecting with the past people, environment and changes in the Forest over time.

- **Cradle of Forestry in America:** <http://www.cradleofforestry.com/site>.

The Cradle of Forestry in America is a 6,500 acre historic site within the Pisgah NF and the Pisgah Ranger District and is categorized as a Special Management Area in the current Forest Plan. Congress set this site aside to commemorate the beginning of forest conservation in the United States. The Cradle of Forestry tells the story of the first forestry school and the beginnings of scientific forestry in America. The center also has an interactive exhibit hall, the Giving Tree Gift Shop, and the Forest Bounty Cafe. Two interpretive trails, seven historic buildings, a 1915 Climax logging locomotive, an old sawmill, and several crafters—a toy maker, weaver, wood carver, and basket maker—bring the past to life. The Forest Service and the Cradle of Forestry Interpretive Association (CFIA) jointly manage the Cradle of Forestry in cooperation with other partners. The Cradle of Forestry attracts more than 40,000 visitors annually with nearly 10,000 visitors participating in a variety of special events—from the colorful music of Appalachian heritage to the exploration of bogs, air quality, wood products, and land stewardship. Each year more than 6,000 school children engage in educational, hands-on, curriculum-based programs interacting with the Cradle’s rich history and outdoor setting. Additionally, nearly 1,000 educators, classroom teachers, and interested individuals participate in professional development workshops, such as the Woodland Owners Short Course, a six-part series on understanding your land. Below is an example list of the programs available at the Cradle:

- Old Time Plowing and Folkways
- International Migratory Bird Day Celebration
- Woodsy Owl’s Curiosity Club
- National Get Outdoors Day
- Twilight Firefly Tour
- Bug Day!
- Songcatchers Music Series
- Winged Creatures of the Night Twilight Tour
- Train History Day
- Smokey Bear’s Birthday Party
- Afternoon Tea with the Llamas
- Bring Back the Monarchs
- National Public Lands Day
- Forest Festival Day and John G. Palmer Intercollegiate Woodsmen’s Meet
- Camping in the Old Style
- *The Legend of Tommy Hodges* – an outdoor drama

- **The North Carolina Arboretum:** <http://www.ncarboretum.org>.

The North Carolina Arboretum is located on land within the Pisgah NF, and is operated under a special use permit issued by the National Forests in North Carolina. The NC Arboretum provides outreach and engagement through plant-centered adult and youth education and demonstration that promotes leadership in environmental sustainability awareness, related economic development and science literacy for NC communities, and campuses. The facilities, exhibits, education programs, and economic strategies serve as a model for excellence in institutional outreach that result in positive educational and economic outcomes. Annual visitation during 2012 was approximately 494,000 visitors.

- *Adult Education:* Adult education at The North Carolina Arboretum covers three basic areas 1) horticulture and the environment; 2) natural history; and 3) fine arts and crafts and accounts for nearly 2000 classroom seats filled each year. Courses range from one to 20 hours and included topics such as “Spruce-fir Forests of the Southern Appalachians” to “Map and Compass Skills”.
- *Youth Education:* Youth education programs serve students in Pre-K through high school. Over the past three years Arboretum educators have provided active, engaging experiences for an average of nearly 390 campers each summer, which translates into over 13,000 hours of outdoor fun and learning each summer. Since 2009 the year round youth education participation rates have been increasing with annual numbers growing from 7,929 in the 2009-2010 program years, to 11,380 in the 2010-2011 program years, to 15,633 in the 2011-2012 program years. Programs provide students the opportunity to hike through the woods, splash in creeks, learn survival skills, experiment with outdoor cooking, investigate animal habitats, create crafts from natural materials, build forts, go rafting, discover geocaching, camp out overnight, and share these experiences with friends old and new. The mission of youth education at the NC Arboretum is to provide every student with:

*Adventure:* Enjoyable, physically active, healthy experiences that get students moving, outdoors, and immersed in the unique natural heritage of our biologically diverse region;

*Exploration:* Hands-on investigations that challenge students to make observations, examine data, and draw conclusions about the natural world of which they are a part; and

*Awareness:* Learning experiences that foster an environmental consciousness in students that will aid in shaping their personal and professional life.

- **Pisgah Center for Wildlife Education:**

The Pisgah Center for Wildlife Education explores NCs mountain wildlife and habitats. The center is located in Pisgah NF on Highway 276 in Pisgah Forest. The Pisgah Center for Wildlife Education offers many programs that give participants a chance to learn a particular skill, such as tracking, orienteering or biological water sampling. Programs are offered at the Center and offsite. Below are some of the specific programs available.

- The Nature Nuts programs, for children ages 4 to 7, offers activities and topics that focus on specific wildlife species or related topics by incorporating an informational presentation with a children's book, craft project and a hands-on activity.
- Eco-Explorers programs engage youth ages 8 to 13 with the natural world through different hands-on investigations. In addition, both youth and adults may register for special events (see below) that provide a variety of learning experiences.

- The Center's Outreach Educator leads Project WILD, Aquatic WILD, and CATCH workshops for educators and youth leaders. These workshops provide materials and methods for incorporating wildlife in school curricula, scouting, and 4-H programs as well as environmental education.
- Group programs are available for groups of 10 or more. All group programs are hands-on and most are conducted outdoors. These programs are scheduled at each group's convenience and generally last two to three hours depending on the topic.

*Special Events:*

Hunter Education

Outdoor Photography

Outdoor Cooking Skills

Bird House Basics

Birding

Kid's Introduction to Archery

Salamanders

Gone Fishin'

Be Bear Aware

Stream Investigation

A Week in the Woods

National Hunting and Fishing Day Festival

- **Outward Bound:**

Outward Bound is the oldest outdoor educator in the world and the NC Outward Bound located in Asheville, NC is the oldest independent Outward Bound School in the country. Since 1967, North Carolina Outward Bound School (NCOBS) has delivered challenging wilderness adventures that teach more than just outdoor skills. The mission of the Outward Bound is to change lives through challenge and discovery. Upholding the same ideals and goals as the first Outward Bound School established in the 1940s in Britain, every NCOBS course is built around a progression that delivers powerful life lessons by encouraging participants to safely and confidently, step outside their comfort zones and travel in spectacular wilderness areas. NCOBS conducts courses on both the Nantahala and Pisgah NFs under special use permits. Courses are offered for age ranges of 14-16, 16-18, 18+, 18-30, 20+, and 30+ and are scheduled from April to October each year with an of approximately 1700 each year. Courses include a variety of outdoor activities such as backpacking, mountain biking, rock climbing, and whitewater canoeing. Participants sleep outside under the stars each night in different spots in the national forest, cook meals outside on a camp stove, and learn how to use a map and compass as well as other camping and technical skills.

- **Outdoor Recreation Camps:**

Western NC is a popular location for outdoor and forest-based recreation activities. Its close proximity to large metro cities such as Atlanta, GA and Charlotte, NC and a large airport in Asheville, NC, has helped it become a popular location for summer camps. Each year the Nantahala and Pisgah NFs fills special permit request for a variety of camps which emphasize outdoor activities such as hiking, kayaking, canoeing, sailing, mountain biking, rock climbing, and horseback riding. Camps range from one day to several weeks and

are attended by youth ages 6 to 17 years old and adults as well. Summer time attendance at any one of the over one hundred camps (see Appendix B), can range from 28 to 1200 individuals.

- **Interpretive Facilities**

In 1991, interpretive planners developed a Comprehensive Interpretive Plan for National Forests in North Carolina. The mission and the goals developed to direct the direction for the next 15 years include:

*Mission:*

“The interpretive services of the National Forests in North Carolina will provide high quality interpretive opportunities and experiences that increase the public’s awareness and understanding of their natural and cultural environment and how the Forest Service manages resources on the national forests to support and improve these environments.”

*Goals:*

- All Ranger Districts will provide orientation services
- Interpretation programs will address critical/sensitive issues
- The Forest will have an Interpretive Service specialist who will ensure quality and message unity through - District Interpretive Service coordinators
- NFsNC will be the center of excellence for interpretive services in Region 8
- The Cradle of Forestry in America Interpretive Association will be the center of excellence in interpretation in the Forest Service
- Interpretive services will provide enjoyable recreation experiences

Orientation is provided at all District Ranger Stations through exhibits, artifacts, and visitor information including maps. Interpretive sales items are also offered in partnership with the Cradle of Forestry In America Interpretive Association (CFAIA) at most of the ranger stations. The most elaborate series of orientation exhibits is at the Pisgah Ranger Station Visitor Center; many of these exhibits featuring *Leave No Trace* themes. The Grandfather Ranger Station also features a series of interactive and stationary exhibits focused on forest management. The Appalachian Ranger Station, located off I-26 near Mars Hill, features recreation orientation by “zone” or distinctive geographic vicinity (e.g., Roan Mountain or Hot Springs/Harmon Den).

Small seasonally operated visitor centers are located at Linville Gorge, with exhibits and sales materials based on wilderness education, and Roan Mountain, with exhibits about rare species, cultural history, rhododendrons, high elevation mountain balds and other site-specific subjects.

In addition, dozens of wayside signs at historic sites and trailheads and along road corridors, as well as several trails interpret the area’s natural and cultural resources. (Table 9.3.5).

Table 9.3.13 Existing Interpretive Facilities Connecting People with Nature and Heritage.

| Forest    | Existing Interpretive Facilities |   | Connecting People with Nature and Heritage |   |
|-----------|----------------------------------|---|--|---|
|           | District                         | Wayside/Trailhead Interpretive Signs and Exhibits   | Interpretive Trails                        | Interpretive Sites  |
| Nantahala | Cheoah                           | Tsali Bike Trailhead exhibits (Cherokee history, etc.)  | Cable Cove Interpretive Trail              | CCC Camp at Massey Branch (interpretive signage)                    |
|           |                                  | Joyce Kilmer Memorial Forest Trailhead exhibits   | Llewellyn Cove Interpretive Trail          |   |
|           |                                  | Cherohala Skyway National Scenic Byway corridor interpretive wayside signage                          |  |   |
|           | Tusquitee                        |   |  |   |
|           | Nantahala                        | Whiteside Mountain Trailhead  | Walton Interpretive Trail                  | Bob Padgett Poplar  |
|           |                                  | Nantahala River Gorge wayside signs, including Ferebee Memorial                                       |  | Wasilik Poplar  |
|           |                                  | Mountain Waters Scenic Byway route exhibit (2 locations)  |  | Wilson Lick (including history exhibit)                             |
|           |                                  | Roy Taylor Forest Dedication sign   |  | Wayah Fire Tower (including history exhibit)                        |
|           |                                  | White Oak Bottoms wayside signs   |  |   |
| Pisgah    | Appalachian                      | Overmountain Victory National Historic Trail interpretive sign at Yellow Gap                          |  |   |
|           |                                  | Max Patch/A.T. Trailhead  |  |   |
|           |                                  | Carvers Gap/A.T. Trailhead  |  |   |
|           |                                  | Roan Mountain signage at Cloudlands, Roan Gardens, High Bluff and exhibits at seasonal visitor center |  |   |
|           | Grandfather                      | Pinnacle Rock interpretive sign ("Wings over the Gorge")  | Table Rock Interpretive Trail              | First Weeks Act Purchase, commemorative/history sign @ Curtis Creek |
|           |                                  | Wiseman's View interpretive sign  |  | CCC Camp at Mortimer (signage)                                      |
|           |                                  | Brown Mountain Overlook wayside signage   |  | CCC Camp at Curtis Creek (signage)                                  |

|  |        |   |  |   |
|--|--------|---|--|---|
|  |        | Wilderness Education signage at seasonal Linville Gorge Cabin                                       |  |   |
|  |        | Overmountain Victory National Historic Trail interpretive sign at Dobson Knob                       |  |   |
|  |        | Catawba Falls Trailhead   |  |   |
|  |        |   |  |   |
|  | Pisgah | Forest Heritage National Scenic Byway interpretive wayside signage                                  | Andy Cove Trail (Kids in Parks - TRACK Trail)                                | The Cradle of Forestry National Historic Site, including visitor center; two interpretive trails; numerous facilities and installations |
|  |        | North Mills River Stream Enhancement Project  | Centennial Interpretive Trail (maintained by Bent Creek Experimental Forest) | Vanderbilt Purchase Memorial at Stony Fork  |
|  |        | Bent Creek vegetation management interpretive panels (maintained by Bent Creek Experimental Forest) | Graveyard Fields Interpretive Trail  |   |
|  |        | Headwaters and Yellow Gap vegetation management interpretive panels                                 |  |   |

- **Information boards:**

Information boards are typically a component of many sites in the Plan area with some sites having multiple information boards. The boards can be one, two, or three-panel boards and usually include site identification, a map of the area, site rules, and safety recommendations by activity type (e.g., mountain biking safety tips and rules at mountain bike trailheads). Information contained on the boards can also be based on the specific needs of the site (i.e., lightning warnings at high elevation balds or flash flood information at flood-prone sites). Recreation fee sites have information boards with site-specific fee information and fee usage applications. A Southern Region initiative aimed to improve the appearance and quality of national forest visitor information boards within the region was introduced in 2004, and many of the Forests' information boards have been upgraded with these templates.



Example of an upgraded information board in Cloudlands Picnic Area at Roan Mountain.

- **Amphitheaters**

Amphitheaters and the associated campfire programs were once frequent design components in national forest campgrounds. In the Nantahala and Pisgah NFs, six amphitheaters remain: some with regular programming; some with Sunday services in the summer season; and some with little use other than campers' impromptu gatherings. The most heavily used amphitheater in the two forests is the new amphitheater at the Cradle of Forestry which a popular location for a variety of public programs. At Davidson River and Black Mountain campgrounds, both operated by the Cradle of Forestry in America Interpretive Association (CFAIA), naturalist programs are offered regularly in the amphitheater areas. Other amphitheater facilities are located at Jackrabbit Mountain and Standing Indian campgrounds in the Nantahala NF, and at Rocky Bluff Campground in the Pisgah NF.

- **Maps:**

There are several Forest Service maps of the Nantahala and Pisgah NFs available for purchase by the public including the following:

- Nantahala National Forest – Nantahala Ranger District
- Pisgah National Forest – Cheoah and Tusquitee Ranger Districts
- Pisgah National Forest – Pisgah Ranger District
- Pisgah National Forest – Grandfather and Appalachian Ranger Districts (Grandfather, Toecane, and French Broad)
- Chattooga national Wild and Scenic River
- Joyce Kilmer-Slickrock Wilderness
- Wayehutta Off-Highway Vehicle System
- Bent Creek Experimental Forest
- Brown Mountain Off-Highway Vehicle Area
- Linville Gorge Wilderness
- Shining Rock & Middle Prong Wilderness
- South Toe River, Mount Mitchell & Big Ivy Trail Maps
- Wilson Creek National Wild and Scenic River Trail Guide

In addition there are National Geographic Maps available including the following:

- Brasstown Bald/Chattooga River (#778)
- Linville Gorge/Mount Mitchell – Pisgah National (#779)
- Pisgah Ranger District – Pisgah National Forest (#780)
- Tellico and Ocoee Rivers – Cherokee National Forest (#781)
- French Broad & Nolichucky Rivers – Cherokee & Nantahala National Forests (#782)
- South Holston and Watauga Lakes – Cherokee & Pisgah National Forests (#783)
- Fontana & Hiwassee Lakes – Nantahala National Forest (#784)
- Nantahala & Cullasaja Gorge – Nantahala National Forest (#785)

- **Interpretive and Outreach Programs:**

Each year the Rangers from the six districts on the Nantahala and Pisgah NFs conduct interpretive programs and provided outreach to visitors and local communities. Some of these programs include:

- Smokey Bear
- Woodsy Owl
- Fishing days: Several kids fishing days take place on the Nantahala and Pisgah NFs during the spring of each year. Below is an example of the locations for the spring of 2013:
  - Rattler Ford, Cheoah Ranger District
  - Cherokee Lake, Tusquitee Ranger District
  - Cliffside Lake, Nantahala Ranger District
  - Boone Fork Pond, Grandfather Ranger District (event for the handicapped)
  - Boone Fork Pond, Grandfather Ranger District
  - Lake Powhatan, Pisgah Ranger District (special needs children day)
  - Lake Powhatan, Pisgah Ranger District

- Carolina Hemlocks, Appalachian Ranger District
- Max Patch, Appalachian Ranger District
- Leave No Trace and Seasonal Wilderness Ranger Programs
- Conservation Field Day – 7<sup>th</sup> graders from area schools on yearly basis
- Rangers participate in forestry summer camps at local schools
- Host middle/high school field trips about Hemlock woolly adelgid and other issues
- Present natural resource opportunities at career days yearly
- Present outdoor activities in nature for family fitness fair at elementary schools
- Present NEPA and other natural resource issues to college classes yearly
- Host groups of students who participate in alternative spring break
- Present to adult hiking groups (sponsored by Sierra Club)
- Participate in Partners of Joyce Kilmer Wilderness
- Host volunteers for trail maintenance yearly
- Lake clean-up yearly

In addition, campground programming is provided by the Cradle of Forestry in America Interpretive Association (CFAIA). Programs and events include mix of hikes, wildlife information (bears, local birds, plants, etc.) touch tables with natural objects, movies relating to the outdoors, and nature games. In addition, the CFAIA provides S'mores roast, ice cream social and hot dog roast, and "summer games" which include three-legged races, watermelon seed spitting, oh deer, and predator/prey games.

## 8. What is the availability of recreation opportunities on other lands within the broader landscape?

### 9.3.4 Recreation Opportunities on Other Federal and State Lands in Assessment Area

The 18-county area touched by the Nantahala and Pisgah NFs in NC offers recreational opportunities that draw tourists and residents alike to national parks, state forests, and state parks. The Nantahala and Pisgah NFs share boundaries and opportunities for outdoor recreation with two sister national forests in Georgia (Chattahoochee) and Tennessee (Cherokee). In addition, other recreational opportunities nearby include Jefferson National Forest and Mount Rogers National Recreation Area in southwest Virginia; Great Smoky Mountains National Park; Blue Ridge Parkway; Cherokee Indian Reservation; state forests (DuPont State Recreation Forest, Holmes Educational State Forest, and Tuttle Educational State Forest); and numerous NC state parks including Elk Knob; Gorges; Grandfather Mountain; Lake James; Mount Mitchell; and South Mountain.

In addition, the Appalachian National Scenic Trail provides a unique long distance hiking opportunity across several national forests including Chattahoochee, Nantahala, Pisgah, Cherokee, George Washington/Jefferson National Forests, and the Great Smoky Mountain National Park. The Mountains-to-the-Sea National Recreation Trail travels through NC, with many miles running through public lands in the western section. Large lakes that provide water-based recreation opportunities within the market area and in the Nantahala and Pisgah NFs are corporately managed by Tennessee Valley Authority (TVA), Brookfield (formerly Alcoa, Inc.) and Duke Energy. The lakes and rivers in western NC attract people to pursue a variety of activities such as fishing; whitewater rafting; canoeing; kayaking; and motor boating.

*Table 9.3.14 Non-Forest Service National Recreation Trails within the Nantahala and Pisgah NFs 18 County Area.*

| <b>Trail Name</b>          | <b>Type</b>    | <b>Mileage</b> | <b>Location</b>     | <b>Agency</b>                |
|----------------------------|----------------|----------------|---------------------|------------------------------|
| American Tobacco Trail     | Greenway       | 10.7           | Transylvania County | Municipal                    |
| Big Glassy                 | Suburban       | 1.5            | Transylvania County | National Park Service        |
| Cherokee Arboretum         | Pedestrian     | 0.50           | Edgecombe County    | Nonprofit                    |
| Grandfather Trail          | Backcountry    | 3.5            | Macon County        | Private                      |
| Highlands Plateau Greenway | Greenway       | 5.5            | Macon County        | Nonprofit                    |
| House Creek Greenway       | Greenway       | 3.2            | Graham County       | Private                      |
| Linville Falls Trail       | Backcountry    | 1.2            | Avery County        | National Park Service        |
| Mountains to Sea Trail     | Backcountry    | 218.5          | NC                  | Nonprofit/State              |
| Overmountain Victory Trail | Backcountry    | 13.0           | NC                  | U.S. Army Corps of Engineers |
| Princeville Heritage Trail | Greenway-Urban | 1.25           | Mitchell County     | Municipal                    |

Source: The National Recreation Trails Program (2013): American Trails - [www.AmericanTrails.org](http://www.AmericanTrails.org).

Some specific facilities in national park units and state parks in Georgia, NC, South Carolina, and Tennessee include:

- **Blue Ridge Parkway:** (from milepost 294 south): Campgrounds capacity: 2,495; picnic area capacity 2,170.
- **Great Smoky Mountains National Park:** (NC and Tennessee): 10 developed campgrounds accommodating 4,630; 4 group camps accommodating 445, 3 horse camps accommodating 110; and several picnic facilities accommodating 3,785.
- **Carl Sandburg Home National Historic Site:** interpretive site and day use area.
- **Georgia State Parks:** (Black Mountain State Park): Campground capacity: 300, one group camp: 15; ten cottages: 100; picnic area capacity: 100; and one visitor center and gift shop.
- **North Carolina State Parks:** (South Mountain, Mt. Mitchell, Grandfather Mountain, Elk Knob, Lake James, Gorges): Campground capacity: 265, one group camp: 100; one horse camp: 75; total picnic area capacity: 1010.
- **North Carolina State Forests:** (DuPont State Recreation Forest, Holmes Educational State Forest, and Tuttle Educational State Forest): one group campground accommodating 50 people; picnic capacity: 550.
- **South Carolina State Parks:** (Caesars Head State Park, Jones Gap State Park, Mountain Bridge Wilderness Area): Campground capacity: 160; picnic area capacity: 20; one observation site; and one interpretive/visitors center.
- **Tennessee State Parks:** (Roan Mountain, Sycamore Shoals, Warriors Path, Fort Loudoun, Hiwassee/Ocoee): Campground capacity: 2375, one group camp accommodating 20, and several picnic areas accommodating 1215.

Types of facilities on these public land units can be summarized as providing:

- 24 campgrounds, most family type with defined sites and flush toilets, a few with showers, electrical hookups, and reserved sites, accommodating 10,210 people.
- 11 group camps that can be reserved, accommodating 630 people.
- 6 horse camps, most primitive, allowing several horses per site, accommodating 185 people.
- 23 sites with interpretive services and visitor information with various levels of development.
- 68 picnic sites, including pavilions and shelters, accommodating 8,850.

#### 9.4 Recreational Scenic Character

### 10. How is the scenery currently managed on the Nantahala and Pisgah NFs, what are the Visual Quality Objectives (VQO) across the forest, and how many acres of each VQO exist?

At the time of the 1994 Land Management Plan (LMP) Amendment 5, Forest Service Manual 2380 cited authority for managing National Forest System visual resources in the National Environmental Policy Act of 1969 (42 U.S.C. 4321), and the National Forest Management Act of 1976 (16 U.S.C. 1600). It further states that the objective of visual management is to manage all National Forest System lands to attain the highest possible visual quality commensurate with other appropriate public uses, costs, and benefits. Under section 2380.3 of the manual, Forest Service policy is to:

1. Inventory, evaluate, and manage the visual resources as a fully integrated part of the National Forest System land management process.
2. Employ a systematic, interdisciplinary approach in this effort to ensure the integrated use of the natural and social sciences and the environmental design arts.
3. Ensure the visual resource is treated equally with other resources.
4. Apply landscape management principals routinely in all National Forest System activities.

Under section 2380.42, each Forest Supervisor is directed to:

1. Determine and map visual quality objectives (per Agriculture Handbook 462) for definitive land areas that consider the physical characteristics and scenic quality of the land and the desires and preferences of the public.
2. Ensure that Forest and District personnel including wildlife biologists, silviculturists, timber sale administrators, engineers, land management planners, and range specialists understand and apply the basic landscape management concepts and principals.
3. Establish and implement a method for monitoring, recording, and documenting changes in the condition of the visual resource.
4. Implement a method of organizing, filing, and documenting recommended and final visual quality objectives.

Section 2380.6 direction is to use the *National Forest Landscape Management: Volume 2, Chapter 1: The visual management system* (Agriculture Handbook 462) to manage visual resources on National Forest System lands. This handbook identifies a process for inventorying

and classifying scenic landscapes, identifying management objectives, and incorporating those objectives into a Land Management Plan (LMP). This process was used in the current Nantahala and Pisgah NFs LMP and is described below.

In the inventory phase, landscape Character Types were identified and classified into Variety Classes. Character Types are land areas having common distinguishing visual characteristics of landform, rock formations, water forms, and vegetative patterns, and are used as a frame of reference in classifying scenic quality based on physical features of the landscape. The second tier of classification is Variety Class, which subdivides the landscape into areas of scenic importance. This is based on the premise that landscapes with more variety or diversity have a greater potential for high scenic value, although all landscapes have some scenic value.

There are three Variety Classes identified in the Visual Management System (VMS):

- Variety Class A – Distinctive: Areas of unusual or outstanding scenic value, not common in the landscape character type.
- Variety Class B – Common: Areas where combinations of form, line, color, and texture are repeated throughout the character type, not unusual from standpoint of scenic value.
- Variety Class C – Minimal: Areas of little change in form, line, color, or texture, and contain no characteristics of Classes A or B.

In the initial scenery inventory created for the current LMP all landscapes within the Character Type were determined to have some degree of variety and scenic value, therefore no lands were classified as Variety Class C. Variety Class A landscapes were ultimately identified as special interest areas to be managed for their respective unique characteristics. All remaining lands were classified as Variety Class B – Common.

After determination of Variety Class, two other considerations affecting management of scenery were considered as directed in the VMS: Sensitivity Level and Distance Zone. Sensitivity Level is a measure of viewer concern for scenic quality and Distance Zone is the distance from viewer to landscape or feature being viewed. Both of these elements were identified in the initial scenery inventory for the current LMP, though this was a generalized or broad-scale inventory for land management planning purposes (a more detailed assessment of these elements is typically conducted for project-level scenery analysis).

The initial scenery inventory identified the following Sensitivity Levels and Distance Zones:

- Sensitivity Level 1 (SL1) – Highest Sensitivity: All seen areas from primary travel routes, use areas, and water bodies where at least  $\frac{1}{4}$  of visitors have a major concern for scenic quality; and secondary travel routes, use areas, and water bodies where at least  $\frac{3}{4}$  of visitors have a major concern.
- Sensitivity Level 2 (SL2) – Average Sensitivity: All seen areas from primary travel routes, use areas, and water bodies where less than  $\frac{1}{4}$  of visitors have a major concern for scenic quality; and secondary travel routes, use areas, and water bodies where at least  $\frac{1}{4}$ , but not more than  $\frac{3}{4}$ , of visitors have a major concern.
- Sensitivity Level 3 (SL3) – Lowest Sensitivity: All seen areas from secondary travel routes, use areas, and water bodies where less than  $\frac{1}{4}$  of visitors have a major concern for scenic quality.

Primary routes, use-areas, or water bodies are areas of national or regional importance, high use volume, and/or long use duration. Secondary routes, use-areas, or water bodies only have local importance, low use volume, and/or short use duration.

- Foreground Distance Zone (FG): The detailed landscape between the viewer and ¼ to ½ mile in the distance.
- Middleground Distance Zone (MG): The landscape between the foreground and background located between ¼ and ½ mile and 3 to 5 miles from the viewer.
- Background Distance Zone (BG): The distant part of the landscape located greater than 3 to 5 miles from the viewer.

After these three elements were classified and mapped for the Nantahala and Pisgah NFs, guidance in the VMS was used to synthesize Variety Classes, Sensitivity Levels, and Distance Zones into the following Visual Quality Objectives (VQOs). The resulting inventory was then used in management area (MA) allocation during the planning process.

- Preservation VQO – Ecological changes only.
- Retention VQO – Provides for management activities which are not visually evident.
- Partial Retention VQO – Management activities remain visually subordinate to the characteristic landscape.
- Modification VQO – Management activities may visually dominate the original characteristic landscape, but must borrow from natural form, line, color, and texture so completely that activities appear as natural occurrences.
- Maximum Modification VQO – Management activities may visually dominate the characteristic landscape; however when viewed as background the visual characteristics must be of natural occurrences.

The current LMP has VQOs assigned in the standards for each MA. In some cases there is one VQO per MA, such as the Preservation VQO for congressionally designated wilderness and research natural areas. Conversely, MA 1B and 3B lands are assigned Modification VQO; except where visible from the Blue Ridge Parkway (BRP) or Appalachian National Scenic Trail (AT) which must meet Partial Retention VQO. From these viewpoints, the Partial Retention portion of MA 1B and 3B is determined with site specific analysis. Other management areas are also assigned a range of VQOs, where again the applicable objective is determined by site specific analysis. Therefore acreage of each VQO type, for some management areas, cannot be determined at the LMP level. The following tables identify the VQO or range of VQOs assigned to each MA, associated acres, and percentage of total acres on the Nantahala and Pisgah NFs.

Table 9.4.1 Range of VQOs assigned to Management Areas on the Nantahala and Pisgah NFs

| MA | Assigned VQO   | N&P NF Acres |
|----|--|--------------|
| 1B | Modification (Partial Retention where seen from BRP or AT) | 38,498       |
| 2A | Retention or Partial Retention                             | 40,642       |
| 2C | Retention or Partial Retention                             | 37,680       |
| 3B | Modification (Partial Retention where seen from BRP or AT) | 232,873      |
| 4A | Retention or Partial Retention                             | 55,604       |
| 4C | Retention or Partial Retention                             | 179,992      |
| 4D | Partial Retention or Modification                          | 160,080      |
| 5  | Retention  | 119,685      |
| 6  | Retention  | 8,419        |
| 7  | Preservation   | 66,550       |
| 8  | No VQO Assigned  | 12,250       |
| 9  | Retention  | 7,900        |
| 10 | Preservation   | 1,460        |
| 11 | Retention, Partial Retention, or Modification              | 6,540        |
| 12 | Retention, Partial Retention, or Modification              | 3,030        |
| 13 | Retention  | 10,370       |
| 14 | Retention  | 12,450       |
| 15 | Retention or Partial Retention                             | 5,616        |
| 16 | Retention, Partial Retention, Modification, or Maximum     | 1,260        |
| 17 | Retention or Modification                                  | 3,880        |
| 18 | Retention, Partial Retention, or Modification              | Embedded     |

Table 9.4.2 Assigned VQOs Incorporated into the Current Land Management Plan for the Nantahala and Pisgah NFs

| Assigned VQOs Incorporated into Current LMP (Forest-Wide)           | Acres   | % of Total |
|---|---------|------------|
| Preservation  | 68,010  | 6.8%       |
| Retention   | 158,824 | 15.8%      |
| Retention or Partial Retention                                      | 319,534 | 31.8%      |
| Retention, Partial Retention, or Modification                       | 9,570   | 1.0%       |
| Retention or Modification   | 3,880   | 0.4%       |
| Retention, Partial Retention, Modification, or Maximum Modification | 1,260   | 0.1%       |
| Partial Retention or Modification                                   | 160,080 | 15.9%      |
| Modification (Partial Retention where seen from BRP or AT)          | 271,371 | 27.0%      |
| No VQO Assigned   | 12,250  | 1.2%       |

Distribution and percentage of land base for assigned VQOs across each ranger district is displayed in the following tables and maps are available in Appendix C.

Table 9.4.3 Assigned VQOs by Ranger District for the Nantahala and Pisgah NFs

| <b>Assigned VQOs on Appalachian Ranger District</b>                 | <b>% of District</b> |
|---|----------------------|
| Preservation  | 0.9%                 |
| Retention   | 28.8%                |
| Retention or Partial Retention                                      | 27.9%                |
| Retention, Partial Retention, or Modification                       | 0.1%                 |
| Retention or Modification   | 0.0%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.0%                 |
| Partial Retention or Modification                                   | 12.0%                |
| Modification (Partial Retention where seen from BRP or AT)          | 30.2%                |
| No VQO Assigned   | 0.00%                |
| <b>Assigned VQOs on Grandfather Ranger District</b>                 | <b>% of District</b> |
| Preservation  | 6.5%                 |
| Retention   | 26.9%                |
| Retention or Partial Retention                                      | 33.8%                |
| Retention, Partial Retention, or Modification                       | 0.0%                 |
| Retention or Modification   | 0.0%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.01%                |
| Partial Retention or Modification                                   | 6.7%                 |
| Modification (Partial Retention where seen from BRP or AT)          | 26.2%                |
| No VQO Assigned   | 0.03%                |
| <b>Assigned VQOs on Pisgah Ranger District</b>                      | <b>% of District</b> |
| Preservation  | 16.6%                |
| Retention   | 9.0%                 |
| Retention or Partial Retention                                      | 20.0%                |
| Retention, Partial Retention, or Modification                       | 4.0%                 |
| Retention or Modification   | 2.2%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.3%                 |
| Partial Retention or Modification                                   | 18.1%                |
| Modification (Partial Retention where seen from BRP or AT)          | 25.8%                |
| No VQO Assigned   | 4.1%                 |
| <b>Assigned VQOs on Cheoah Ranger District</b>                      | <b>% of District</b> |
| Preservation  | 10.4%                |
| Retention   | 15.4%                |
| Retention or Partial Retention                                      | 24.9%                |
| Retention, Partial Retention, or Modification                       | 0.0%                 |
| Retention or Modification   | 0.0%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.0%                 |
| Partial Retention or Modification                                   | 21.6%                |
| Modification (Partial Retention where seen from BRP or AT)          | 27.8%                |
| No VQO Assigned   | 0.02%                |
| <b>Assigned VQOs on Nantahala Ranger District</b>                   | <b>% of District</b> |
| Preservation  | 3.5%                 |
| Retention   | 13.8%                |
| Retention or Partial Retention                                      | 41.1%                |

|   |                      |
|---|----------------------|
| Retention, Partial Retention, or Modification                       | 0.1%                 |
| Retention or Modification   | 0.0%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.01%                |
| Partial Retention or Modification                                   | 20.2%                |
| Modification (Partial Retention where seen from BRP or AT)          | 18.2%                |
| No VQO Assigned   | 3.0%                 |
| <b>Assigned VQOs on Tusquitee Ranger District</b>                   | <b>% of District</b> |
| Preservation  | 4.0%                 |
| Retention   | 10.5%                |
| Retention or Partial Retention                                      | 30.9%                |
| Retention, Partial Retention, or Modification                       | 0.3%                 |
| Retention or Modification   | 0.0%                 |
| Retention, Partial Retention, Modification, or Maximum Modification | 0.3%                 |
| Partial Retention or Modification                                   | 14.2%                |
| Modification (Partial Retention where seen from BRP or AT)          | 39.8%                |
| No VQO Assigned   | 0.1%                 |

At the project level, visual resource management (scenery management) is used to determine potential scenery impacts by analyzing contrast of proposed actions and their degree of change within the surrounding landscape. The potential contrast is compared with elements of form, line, color, texture, and scale within the existing landscape. The proposed action is assessed to determine if it is a visually evident, subordinate, or dominate feature within the characteristic landscape (per VQO definitions above). If the assigned VQO cannot be achieved, design modifications or mitigation may be utilized to reduce potential scenery impacts. In addition to assigned VQOs, management area general direction and standards identify techniques which can be used to meet objectives. Assigned VQOs are the minimum requirement to meet LMP standards, and can be exceeded if determined necessary by the deciding official; though this is rare. Additional scenery mitigation techniques may also be incorporated into project design based on site specific analysis. Commonly used mitigation techniques are cited in the [USFS Region 8 Scenery Treatment Guide \(EC will send link or source\)](#).

Scenery management considers impacts from any activity that could potentially modify the landscape, including road or highway construction, utility or communication site installations, recreation or administrative developments, vegetation management projects, etc. Typical mitigation used in vegetation management include, use of group selection or two-age harvest methods, retaining screening vegetation below roads, moving harvest boundaries below a ridge, reshaping harvest units to eliminate geometric shapes, and many other techniques. Mitigation for highway construction may include reforestation of cut/fill slopes, naturalizing rock cuts, or use of colored concrete in retaining walls. Communication towers or buildings may be painted to blend with the surrounding landscape, or radio antennas and satellite dishes may be collocated at existing sites to minimize visual clutter. The range of potential mitigation or design features is virtually endless.

## 11. What are the identified distinctive landscapes and how are they managed?

The current LMP identifies distinctive (Variety Class A) landscapes as “Special Interest Areas” and allocates them to MA 13. This management area combines areas of geological, botanical, and zoological interest; as well as those with unique scenic attributes. MA 13 includes five administratively designated Scenic Areas:

- Looking Glass Rock
- Glen Falls
- John Rock
- Whitewater Falls
- Craggy Mountain

These scenic areas are managed to protect and emphasize their special characteristics, and all proposed management activities must meet Retention VQO. The areas are not managed for timber production, but activities such as wildlife improvements, prescribed fire, trail construction, and road construction are allowed if they enhance the area’s unique qualities, foster public enjoyment of the area, and are compatible with other management objectives.

## 12. What are the conditions affecting scenery?

### 9.4.1 Conditions Affecting the Quality of Scenery

Conditions affecting scenery on the Nantahala and Pisgah NFs vary greatly, from outdated management methodologies, to expanding private development, to climate change. The following list identifies the most prominent issues.

- *Outdated management methodology*  
The current scenery inventory was last updated in the early 1990’s, and uses a methodology developed in the 1970’s. The USDA handbook *National Forest Landscape Management, Volume 2: The Visual Management System* published in 1974 was superseded by *Landscape Aesthetics, A handbook for Scenery Management* in 1995. This new handbook describes an updated process for inventorying, classifying, and managing scenery with broadened consideration for constituent input, management of cultural landscapes, landscape restoration, and many other concepts which were absent or underrepresented in the “Visual Management System” used in the current LMP.
- *Increased development of adjacent private lands*  
As the population of western NC grows, the number of residences, vacation homes, businesses, and roads has increased. This residential and commercial expansion onto adjacent previously undeveloped lands creates new areas with potential views of the Nantahala and Pisgah NFs. Heightened viewer sensitivity can lead to conflicts in current management objectives and preferences of adjacent landowners. The issue is magnified by an outdated scenery inventory and management methodologies mentioned above.
- *Increased tourism and tourism-based commerce*  
The Nantahala and Pisgah NFs are among the most visited units in the national forest system, with over 4.6 million visitors per year. The forests also serve as a scenic

backdrop for national attractions such as the Blue Ridge Parkway and Appalachian National Scenic Trail. Economic benefits of a growing tourism industry in western NC are well documented, and along with that come a heightened sensitivity and desire for scenic quality. The Forest Service National Visitor Use Monitoring (NVUM) survey conducted in 2003 and 2008 concluded that 55% of national forest users have a concern for scenery. A similar survey of Blue Ridge Parkway visitors in 2000 indicated that 91% of its 11 million visitors that year were engaged in viewing scenery.

- *Recreation use and special use events*  
Higher numbers of recreation users causes greater impacts to trails and dispersed campsites, which become worn and eroded. The issues are exacerbated by a lack of adequate maintenance, but it is common to see deeply rutted or braided trails impacting scenic qualities of a natural appearing landscape. Dispersed camping has often resulted in large areas denuded of vegetation, with compacted soil, multiple fire rings, trash accumulation, and hacked-up trees. Special use recreation events can be especially damaging, when hundreds of users may run or ride the same trail routes over a one or two day period. If the event was preceded by heavy rains, combined erosive forces can cause extensive impacts.
- *Ongoing efforts to widen and straighten state and federal roads*  
The NCDOT and the FHA are mandated to improve the transportation system for commerce and safety. Highway and road improvement projects can create major changes in scenic qualities of national forest lands, yet there is little guidance in the current LMP on how to address these impacts.
- *Increased demand for timber resources and early successional habitat*  
Though the Nantahala and Pisgah NFs have a successful history of multiple resource management under the current LMP, there is public demand for more acres of early successional habitat and higher volume of timber supply.
- *Climate Change*  
Southern Appalachian climate change models predict an increase in rainfall in the coming years. With increased rainfall come a higher potential for damaging floods and landslides. These events can have a devastating and long-lasting effect on scenic qualities of national forest lands. Past flooding and landslides have marred the landscape in many watersheds and are still evident many years later.

## 9.5 Recreational Trends

### 13. What are the general trends in the forest?

13a. Are there any emerging new or unique recreational trends or interests that may affect future demand for recreation on the forests? (i.e., festivals, special use events).

An important step in outdoor recreation planning and management is to understand the short and long term recreation participation rates and demands to ascertain current trends and patterns in recreation participation and to describe respondents' recreation use and values relative to public lands, and their attitudes about natural resource policy issues, lifestyles, and demographic characteristics.

#### 9.5.1 Summary of Nature-Based Outdoor Recreation Demand and Trends

The following summarizes an analysis by the Forest Service of American's participation in nature-based outdoor recreation. The information documented here is from the *Demand for Nature-Based Outdoor Recreation Continues its Growth and Popularity* Recreation Research Report in the Internet Research Information Series (IRIS) (Cordell & Betz 2008). IRIS is an internet accessible science report series covering outdoor recreation statistics, wilderness research, and other human-dimension and demographics research related to natural resources. This research is a collaborative effort between the Forest Service's Southern Research Station and its Forestry Sciences Laboratory in Athens, Georgia; the University of Georgia in Athens; and the University of Tennessee in Knoxville, Tennessee.

1. Visitation to state parks, national parks, and other public lands is relatively stable after long-term growth in the 60s through the 80s:
  - Total visitation to state parks peaked around 2000 and then decreased somewhat through to 2006. In 2007, visitation was back up over the level reported in 2001 (a 0.7% increase).
  - The highest recorded national park visitation was over 287 million in 1987. Through the 1990s, visitation dropped somewhat, but rebounded in 1998 and 1999 to that previous 1987 high.
  - There were minor decreases in national park visitation during the 2000s, but for the most part visitation has been stable since 2001. In 2007, visitation rose by almost 3 million above the 2006 level.
  - The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reported increases in numbers of wildlife watching visitors to public parks and areas near home. In 1996 the number was 11.0 million; by 2006 this had increased to 13.3 million, a 21 percent increase. Of the 23 million people in 2006 who traveled away from home to watch wildlife, more than 80 percent visited a public area to do so.
2. Many types of hunting and fishing are down in numbers participating, but bird and other wildlife watching, study and photography are up.
  - Between 1996 and 2006 there was a drop of 5.2 million anglers and of 1.5 million hunters. This national trend was reported by the Fish and Wildlife Service.
  - During this same period, however, the number of people who watch or photograph wildlife increased by 8.2 million, showing a net gain in participants in wildlife-associated recreation of 1.5 million.
3. The Forest Service's National Survey on Recreation and the Environment (NSRE) is the United States' official survey of outdoor recreation, on-going since 1960. The NSRE reports growth in nature-based outdoor recreation since 2000.
  - The NSRE reports that both the total number of Americans and the total number of days annually in which they participate in nature-based recreation are up since 2000, continuing a long-term growth trend reported in the book entitled, "Outdoor Recreation for 21st Century America".
  - The nature-based outdoor activities Americans are choosing now are different than in the past. Some forms of hunting and fishing are declining, and camping and swimming are growing more slowly now. Some other activities have declined in popularity (e.g., mountain biking, rafting, and horseback riding on trails).

- Viewing, photographing, and studying nature, however, in all its forms, have grown strongly since 2000. These nature-interest activities include viewing flowers, trees, natural scenery, birds, other wildlife, fish, and visiting nature exhibits.
- Still popular and growing are visiting beaches, gathering mushrooms and berries, visiting natural areas, driving off-road vehicles, kayaking, and snowboarding.
- Total number of Americans participating in nature activities is up over three percent since 2000, number of activity days is up almost 32 percent since 2000.

In addition, according to Cordell and Betz (2008), many types of hunting and fishing are down in participation numbers for people in the U. S. for people ages 16 years and older, but bird and other wildlife watching, study, and photography are up. For example, between 1996 and 2006 there was a drop of 5.2 million anglers and of 1.5 million hunters. During this same period, however, the number of people who watch or photograph wildlife increased by 8.2 million, showing a net gain in participants in wildlife-associated recreation of 1.5 million (Cordell & Betz 2008).

However, hunting, fishing, and trapping continue to be an important outdoor recreation activity in NC. Since the 2006-07 fiscal year or license sales season, NC has seen a decrease in hunting and fishing participants overall, however, in recent years participant numbers are once again increasing. For example, hunting license sales trends show an overall decrease from 2006-07; however, license sales have been increasing since 2009-10 (See Table 9.3.15).

*Table 9.5.1 North Carolina Hunting Licenses Sales from 2006 through 2012.*

| <b>Fiscal Year</b> | <b>Total Licenses Sold</b> |
|--------------------|----------------------------|
| 2006-2007          | 270,091                    |
| 2007-2008          | 261,973                    |
| 2008-2009          | 257,708                    |
| 2009-2010          | 252,365                    |
| 2010-2011          | 253,712                    |
| 2011-2012          | 254,536                    |

Source: North Carolina Wildlife Resources Commission, [www.ncwildlife.org](http://www.ncwildlife.org).

### **9.5.2 Key Findings from the 2010 Resources Planning Act Outdoor Recreation Demand Assessment**

Outdoor recreation plays a large role in American lifestyles. The magnitude of this role is no more in evidence than when one examines recent outdoor recreation activity trends. Recent trends have been reported as part of the current Resources Planning Act (RPA) Assessment of Forest and Rangelands (USDA 2012). An overview of these trends is presented below. For other reports the Forest Service, U.S. Department of Agriculture, has published for the national 2010 Resource Planning Act (RPA) Assessment, visit the following site link <http://www.fs.fed.us/research/rpa>.

(1) Outdoor recreation choices by people today are noticeably different from those made by and available to previous generations of Americans.

- (2) There is an overall increase in outdoor recreation activity participation, even though some traditional activities have been in decline.
- (3) There is growth in one group of nature-based activities in particular, that of “viewing and photographing nature.”
- (4) Different segments of society choose different mixes of outdoor activities.
- (5) There is evidence that America’s youth spend time outdoors, and, among some young people, this time is substantial.
- (6) Public lands remain highly important for the recreation opportunities they offer.
- (7) Trends in visitation vary by Federal land management agency and between Federal and State jurisdictions.
- (8) A national study of motivations showed there are various reasons why people seek different forms of outdoor recreation.

### 9.5.3 Emerging Recreational Trends

Special use permits requests saw an increase in the 2011-2012 fiscal year and a slight increase in the 2012-2013 fiscal year with mountain biking events contributing the most to the increase. There are two emerging recreational interests that are of interest to users of the Nantahala and Pisgah NFs including:

Biking: **Enduro racing** is a form of multistage mountain biking racing that requires fitness, technical ability, and downhill skills. Timing is only conducted on the downhill sections.

Climbing: Italian for “iron way,” a **via ferrata** is a climbing route that features a permanent safety system—steel rungs, ladders, and bridges—embedded in the rock. While clipped into a cable system that follows the route, novice climbers can get a taste for exposed heights without the technical know-how of rope work. The Southeast’s only via ferratas are located in Kentucky’s Red River Gorge and West Virginia’s Nelson Rocks Preserve.

### 9.6 Sustainable Recreation

14. How recreational opportunities, settings and infrastructure are financially sustained?
15. What is the current availability of funding sources?
16. What is the value of volunteer contributions and what are their distributions across the forest?

Sustainable Recreation has been defined as the set of recreation settings and opportunities on the National Forest System that is ecologically, economically, and socially sustainable for present and future generations. As described in previous sections, recreation opportunities on National Forests provide many economic benefits to local communities and a variety of social benefits to the public. The Forest Service strives to manage these opportunities in a manner that protects the ecological sustainability of the area.

The socio-economic benefits derived from recreation are largely dependent on sustaining the infrastructure and services that support those recreational activities. However, there are several indicators that the NFs are not trending towards a sustainable recreation program. Some of these indicators include:

- Declining budgets will erode the agency's ability to maintain developed facilities. Less than half of the existing developed site infrastructure is currently predicted to be sustainable over the long-term.
- There is a substantial backlog of trail maintenance needs, as well as public demand for more trails. As budgets decline, the agency is increasingly challenged to provide the staffing needed to work with partners and volunteers to properly plan and maintain the trail system, even with non-appropriated funding sources.
- Trails not maintained to standard, proliferation of non-system trails, and unmanaged streamside camping may create environmental and cultural resource damage.
- There is increased crowding and user conflicts in many locations. Favorite locations and trails are exceeding their capacity at times, and conflicts can increase as visitation increases.
- Road access may decline as road maintenance funds decrease. This could affect various recreation uses.

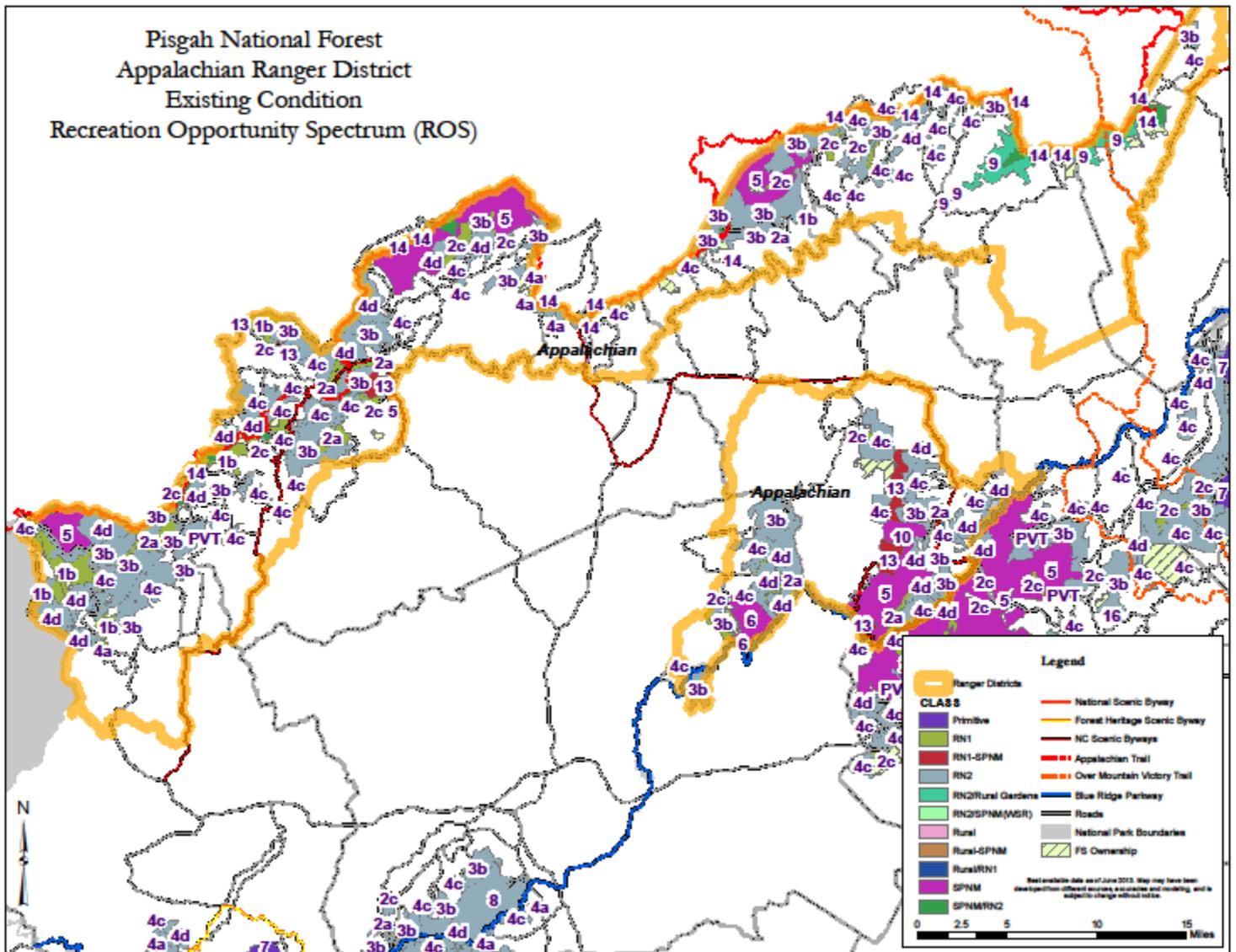
## References

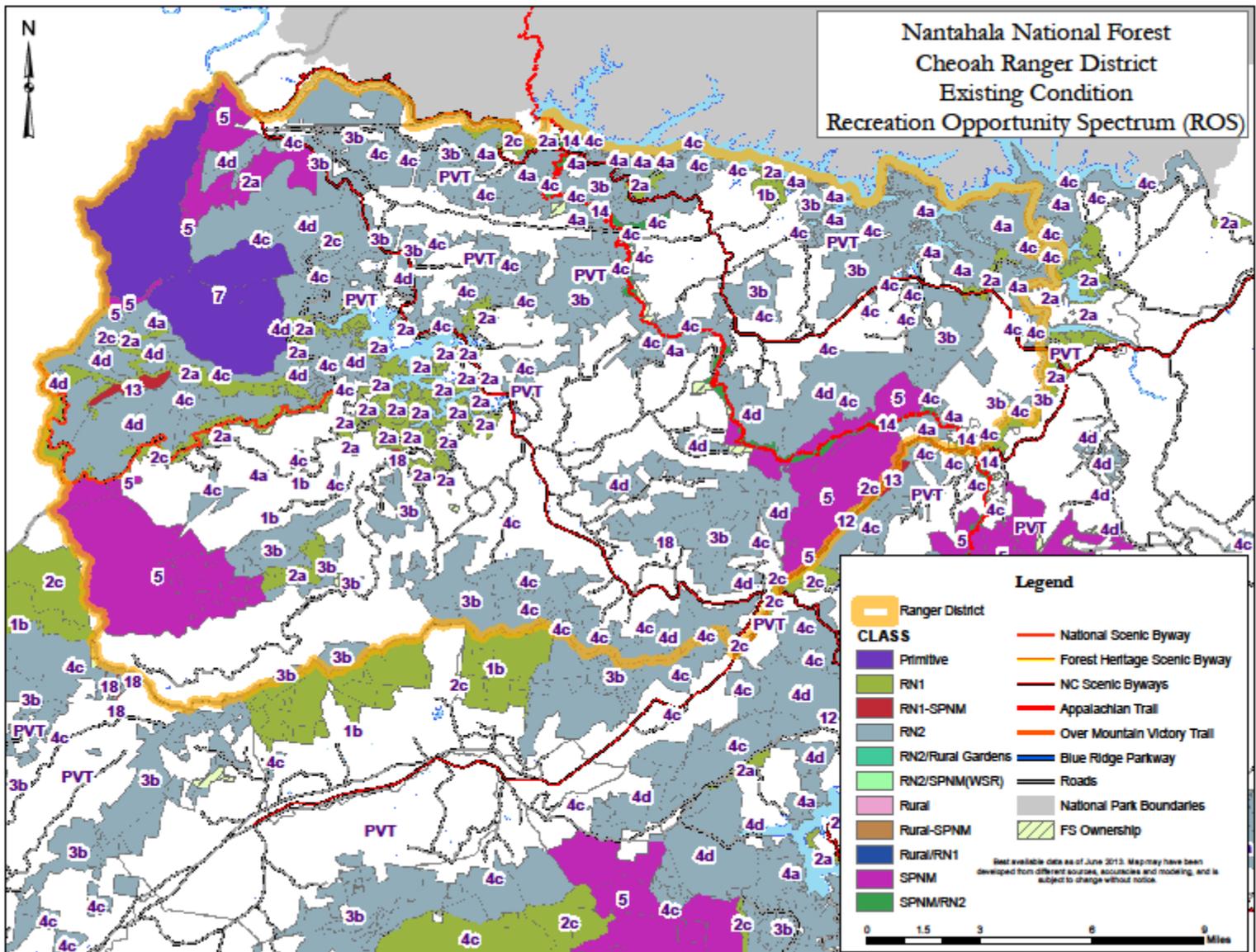
- Andereck, K. A. & Knopf, C. (2007). The Relationship Between Experiences Sought, Preferred Settings, Resource Conditions, and Management Preferences in an Urban-Proximate Recreation Area. *Journal of Park and Recreation Administration*, 25 (4), 39-61.
- Arndt, P., Redmond, C., Cordell, H. K., Betz, C., Green, G. T., Mou, S., Stephens, B. T., & Fly, M. (2002). *Public Survey Report, Southern Appalachian National Forests: Cherokee, Nantahala, and Pisgah National Forests*. Web Series: SRS-4901-2002-2. Retrieved June 1, 2013, from: <http://www.srs.fs.usda.gov/recreation/ncreport.pdf>.
- Asheville Citizen Times (2012). Campers Fight Ouster Attempt. Vanderhoff, M. March 15, 2013. Retrieved on August 22, 2013 from: [http://pqasb.pqarchiver.com/citizen\\_times/doc/928017340.html?FMT=ABS&FMTS=&type=current&date=Mar%202015,%202012&author=&pub=&edition=&startpage=&desc=](http://pqasb.pqarchiver.com/citizen_times/doc/928017340.html?FMT=ABS&FMTS=&type=current&date=Mar%202015,%202012&author=&pub=&edition=&startpage=&desc=) .
- Cordell, H. K. (2012). *Good Times Outdoors They Are A Changin*. A Research Brief in the Internet Research Information Series (IRIS). Retrieved on May 22, 2013 from; <http://warnell.forestry.uga.edu/nrrt/nsre/IrisReports.html>.
- Cordell, H. K. (2012). *Recent Outdoor Recreation Trends*. A Research Brief in the Internet Research Information Series (IRIS). Retrieved on May 22, 2013 from; <http://warnell.forestry.uga.edu/nrrt/nsre/IrisReports.html>.
- Cordell, H. K. & Betz, C. J. (2008). *Demand for Nature-based Outdoor Recreation Continues Its Growth and Popularity*. Internet Research Information Series (IRIS) Series. Retrieved on May 22, 2013 from: <http://warnell.forestry.uga.edu/nrrt/nsre/IrisReports.html>.
- Cordell, H. K. & Tarrant, M. A. (2002). *Chapter 11: Forest-Based Outdoor Recreation*. In Wear, D. & Greis, J. (eds.) Southern Forest Resource Assessment. Gen. Tech. Rep. SRS-53. Asheville, NC: United States Department of Agriculture Forest Service, Southern Research Station, 269-283.
- English, D. B. K., Marcouiller, D. W., & Cordell, H. K. (2000). Tourism Dependence in Rural America: Estimates and Effects. *Society & Natural Resources*, 13, 185-202.
- Graefe, D. A., Schuster, R. M., Green, G. T., & Cordell, H. K. (2009). *Management Implications of Changes in Recreation Activity Motivation Across Physical Settings*. Proceedings of the 2009 Northeastern Recreation Research Symposium (General Technical Report. NRS-P-66). Portland, OR: United States Department of Agriculture Forest Service. Retrieved May 22, 2013 from: <http://www.nrs.fs.fed.us/pubs/gtr/gtr-nrs-p-66papers/36-graefe-p-66.pdf>.

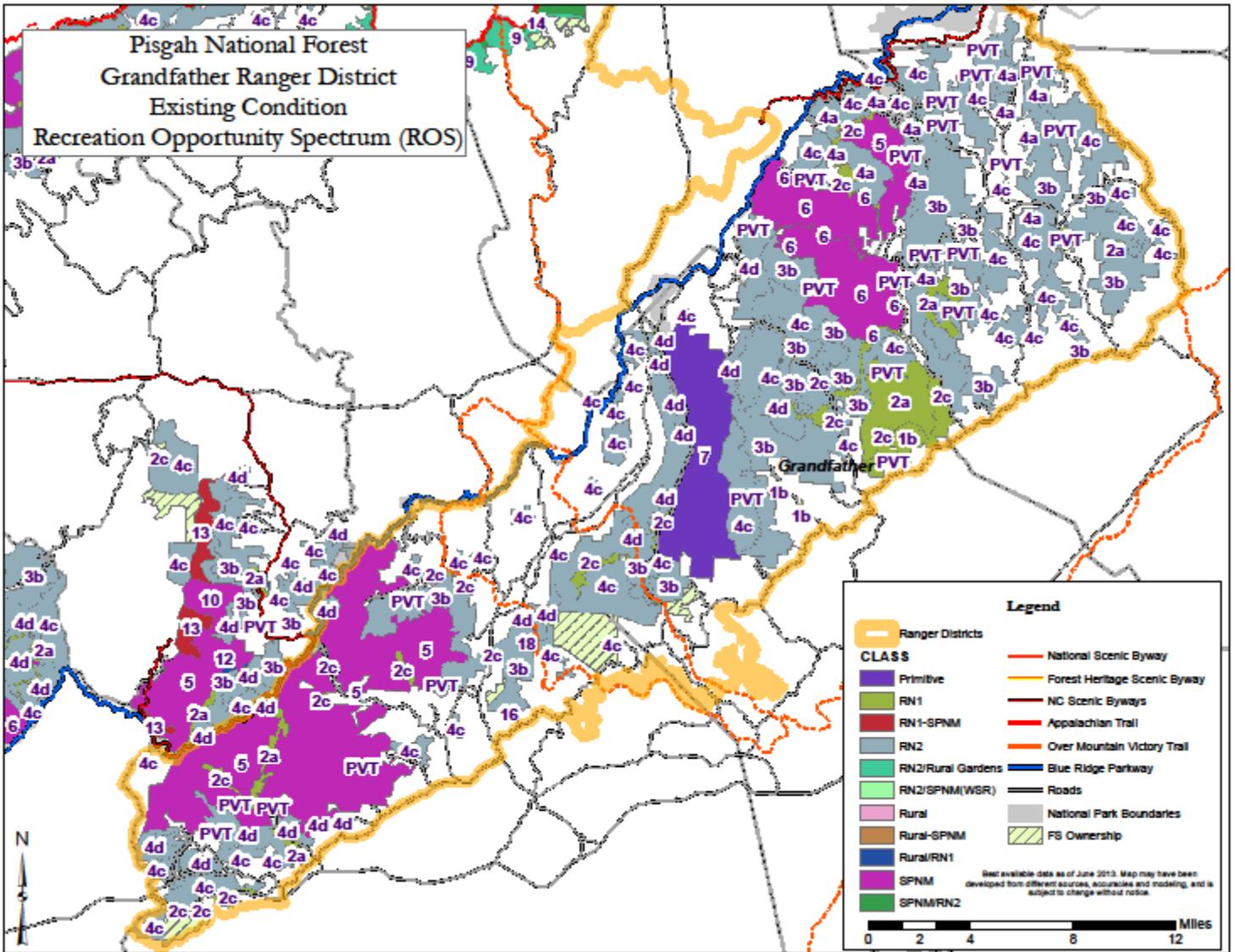
- Mountain Resources Commission (2013). *Western North Carolina Vitality Index*. Funded by Blue Ridge National Heritage Area and the United States Department of Agriculture Forest Service. Retrieved June 1, 2013  
from: <http://www.wncvitalityindex.org/employment-sectors/tourism>.
- North Carolina Department of Commerce. (2013). *North Carolina Tourism: Travel Economic Impact Model*. Retrieved July 2, 2013  
from: <http://www.nccommerce.com/tourism/research/economic-impact/teim>.
- North Carolina Wildlife Resources Commission. (2013). *North Carolina Inland Fishing, Hunting, and Trapping Regulations Digest: Effective Aug 1, 2012 to July 31, 2013*. Retrieved February 21, 2013 from: <http://www.ncwildlife.org>.
- Overdevest, C. & Cordell, H. K. (2001). *Cherokee, Nantahala, & Pisgah National Forests: Recreation Realignment Report*. Web Series: SRS-4901-2001-12. Retrieved June 1, 2013, from: <http://www.srs.fs.usda.gov/recreation/nanpischerfin.PDF>.
- Roe, C. E. (1992). *North Carolina Wildlife Viewing Guide (Wildlife Viewing Guides Series) Paperback*. Helena, MT: Falcon Press.
- The National Recreation Trails Program - American Trails. P.O. Box 491797, Redding, CA 96049. Retrieved, July 20, 2013 from: [www.AmericanTrails.org](http://www.AmericanTrails.org).
- United States Census Bureau. (2012). *Current Population Survey, 2010 Quick Facts*. Retrieved August 26, 2013, from: <http://quickfacts.census.gov/qfd/states/370001k.html>.
- United States Department of Agriculture Forest Service (2002). *National Survey on Recreation and the Environment (NSRE) 2000-2002*. The Interagency National Survey Consortium, Coordinated by the United States Department of Agriculture Forest Service, Recreation, Wilderness, and Demographics Trends Research Group, Athens, GA and the Human Dimensions Research Laboratory, University of Tennessee, Knoxville, TN. Retrieved June 1, 2013  
from: <http://www.srs.fs.usda.gov/trends/nsre-directory>.
- United States Department of Agriculture Forest Service (2010). *National Visitor Use Monitoring Survey*. Retrieved June 1, 2013  
from: <http://apps.fs.usda.gov/nrm/nvum/results/U0801101.aspx/Round2>.
- United States Department of Agriculture Forest Service (2011). *Western North Carolina Report Card on Forest Sustainability (General Technical Report. SRS-142)*. Asheville, NC: United States Department of Agriculture Forest Service, Southern Research Station.
- United States Department of Agriculture Forest Service (2012). *Future of America's Forests and Rangelands: Forest Service 2010 Resources Planning Act Assessment (General Technical Report. WO-87)*. Washington, DC: United States Department of Agriculture Forest Service. Retrieved May 22, 2013 from: <http://www.fs.fed.us/research/rpa>.

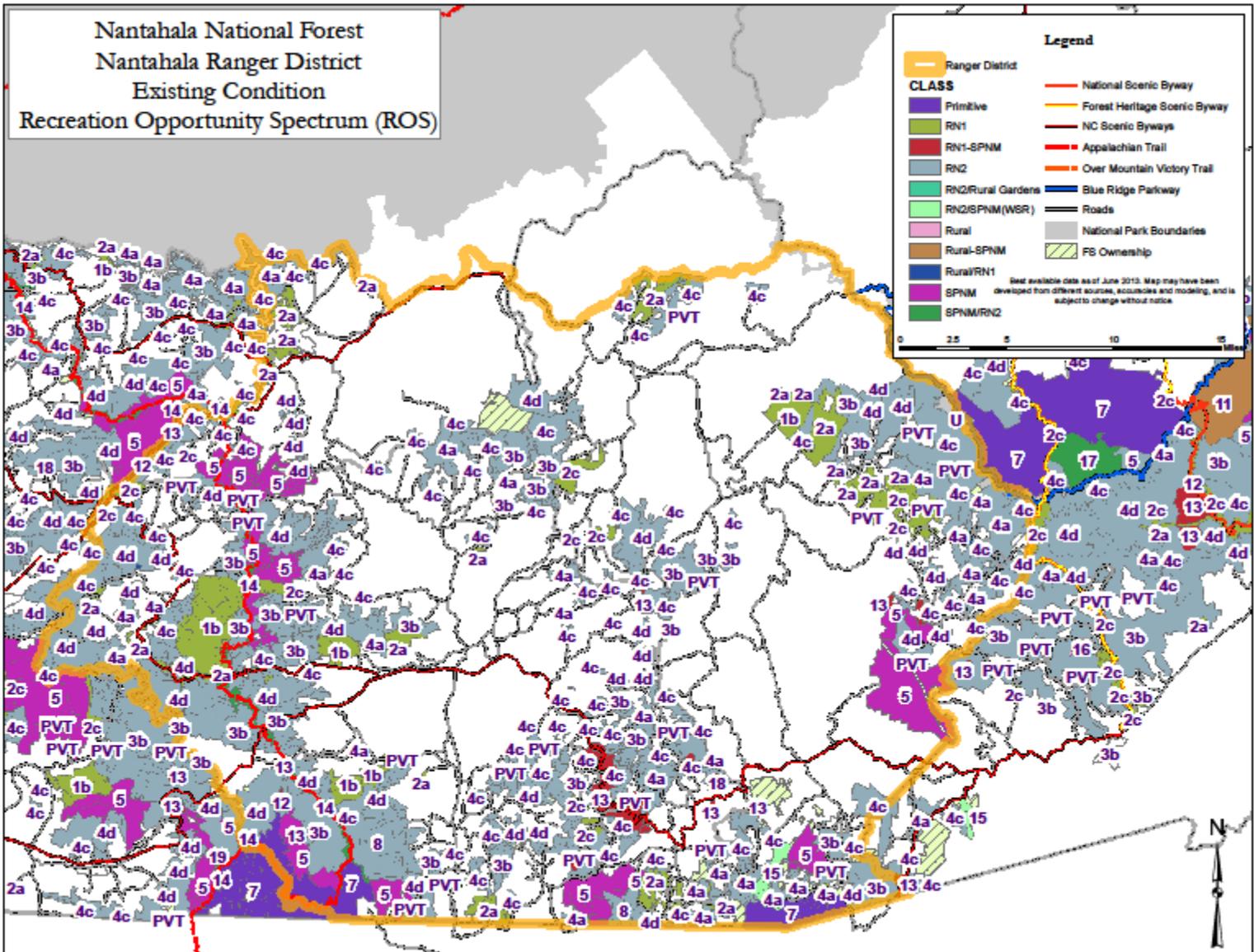
### Appendices

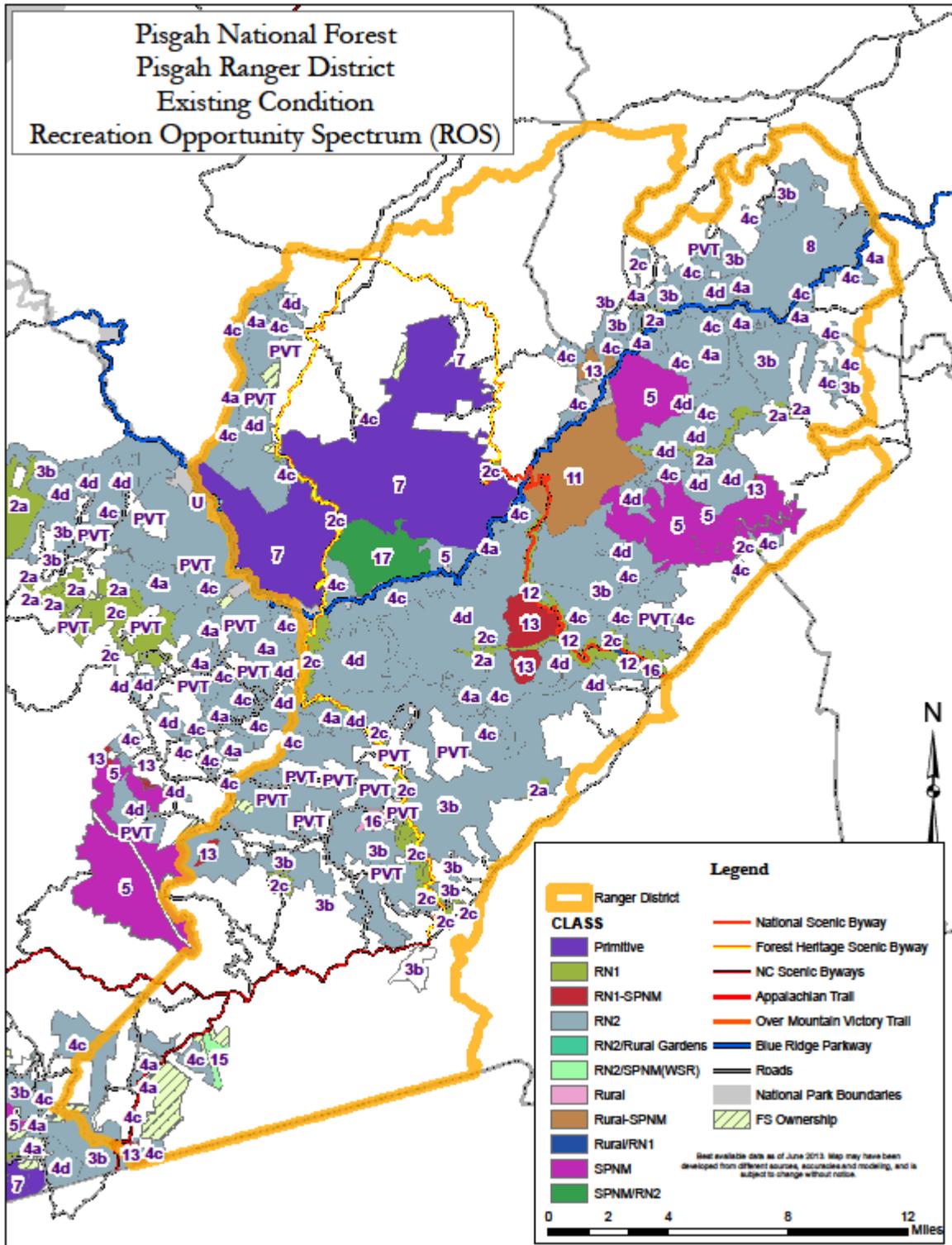
Appendix A – ROS maps for each Ranger District

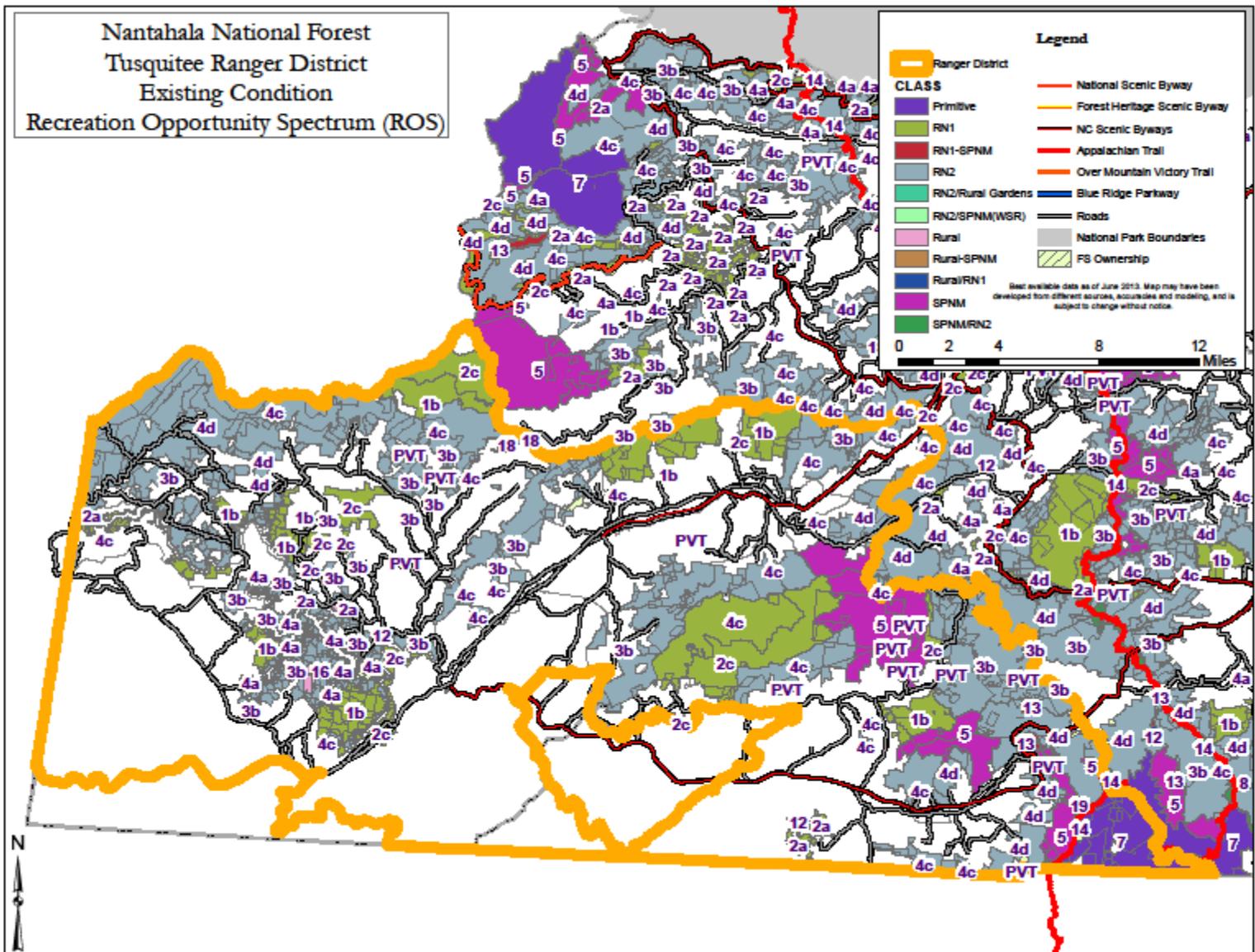












## Appendix B – List of 108 camps with special use permits on the Nantahala and Pisgah NFs

| <b>Camp Name</b>                    |
|-------------------------------------|
| Adventure Links                     |
| Adventure Treks                     |
| All American Cross Country Camp     |
| Appalachian State University        |
| Appalachian Whitewater              |
| Asbury Hills Camp                   |
| Asheville Drifters                  |
| Asheville Parks and Recreation      |
| Asheville School                    |
| Baylor University                   |
| Benchmark Ministries                |
| Blue Star Camp                      |
| Brevard College                     |
| Brevard Distance Runners Camp, Inc. |
| Brookside Guides                    |
| Buffalo Cove Outdoor Education      |
| Camp Arrowhead                      |
| Camp Carolina                       |
| Camp Celso                          |
| Camp Chosatonga                     |
| Camp Daniel Boone                   |
| Camp Falling Creek                  |
| Camp Glen Arden                     |
| Camp Grier                          |
| Camp Gwynn Valley                   |
| Camp High Rocks, Inc.               |
| Camp Highlander                     |
| Camp Hollymont                      |
| Camp Illahee                        |
| Camp Kahdalea                       |
| Camp Merri Mac & Timberlake         |
| Camp MerriWoode                     |
| Camp Pinewood                       |
| Camp Pinnacle                       |
| Camp Rockmont                       |
| Camp Tekoa                          |
| Camp Ton-A-Wanda                    |

|   |
|---|
| Camps Mondamin & Grove Cove               |
| Carmichael Training Systems               |
| Challenge Adventure                       |
| Charleston County Park & Recreation Comm. |
| Cheerio Adventures                        |
| Cherokee Adventures                       |
| Christ School                             |
| City of Morganton                         |
| Clear Creek Dude Ranch                    |
| ClimbMax, Inc                             |
| Cranbrook Schools                         |
| Davidson River Outfitters                 |
| Deep Woods Camp                           |
| Dirt Divas                                |
| Eagles Nest                               |
| Echo Expeditions, Inc.                    |
| Four Circles Recovery Center              |
| Geneva College                            |
| Granite Arches Climbing Services          |
| Great Outdoor Adventure Trips             |
| Green River Preserve                      |
| Greensboro Day School                     |
| Headwaters Outfitters, Inc.               |
| High Mountain Expeditions                 |
| Hunter Banks                              |
| Inner Peaks                               |
| Inside Out                                |
| Jackson County Parks & Recreation         |
| Johns River Valley Camp                   |
| Kanuga Conferences                        |
| Keystone Camp                             |
| Lees-McRae College                        |
| Lovett School                             |
| Luteridge Lutherrock Ministries           |
| Magic Light Photogarphy                   |
| Mars Hill College                         |
| Moondance Adventures                      |
| Mountain Alliance, Inc.                   |
| Mtn. Adventure Guides                     |

|  |
|--|
| Muddy Sneakers                           |
| Nantahala Outdoor Center                 |
| North Greenville College                 |
| Outward Bound                            |
| Overland Travel                          |
| Pisgah Forest Riding Stables             |
| Project Soar                             |
| Ridgecrest Summer Camps                  |
| Rock Dimensions                          |
| Rockbrook Camp                           |
| Smoky Mountain Llama Treks               |
| Smoky Mountain Running Camp              |
| Snowbird Wilderness Outfitters           |
| Southwestern Community College           |
| Stone Mountain School                    |
| SUWS of the Carolinas                    |
| Talisman Schools                         |
| The Mountain Retreat and Learning Center |
| UNC Outdoor Education                    |
| UNC Venture Program                      |
| VisionQuest National Ltd.                |
| Wahoo Adventures                         |
| Warren Wilson College                    |
| Western Carolina University              |
| Western Spirit Mountain Bike Adventures  |
| Wheaton College Honey Rock               |
| Wilderness Adventures                    |
| Woodward Academy                         |
| YMCA Camp Greenville                     |
| YMCA Chattanooga                         |
| YMCA Western North Carolina              |
| Young Harris College                     |

Appendix C – VQO maps for each Ranger District

